EFFECTS OF NON-OPERATING INCOME AND BANK SIZE ON PROFITABILITY AND LIQUIDITY; A STUDY ON SRI LANKAN COMMERCIAL BANKING SECTOR

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ABSTRACT

The study explores the complex interplay between bank size, profitability, liquidity, and non-operating income (NOIM) in the context of Sri Lanka's commercial banking industry. Prior research has frequently disregarded NOIM and bank size as direct predictors of profitability and liquidity, despite their importance in financial success. Through an examination of the banking environment in Sri Lanka, this study seeks to clarify how NOIM and bank size have a unique bearing on profitability (as determined by ROA) and liquidity (as determined by liquidity ratio). This research uses secondary data and a positivist quantitative analysis to reveal the distinct roles that bank size and NOIM play in affecting the financial health of Sri Lanka's commercial banks. The findings are significant because they will help shape regulatory frameworks and strategic decision-making in the industry. In order to examine the relationship between NOIM, bank size, profitability, and liquidity, this study uses a deductive research methodology and a quantitative approach based on positivism. The relationships between these variables are investigated through the use of panel data regression analysis, correlational analysis, and descriptive statistics, all of which are performed using the statistical program SPSS. The findings of this analysis show that bank size is a strong predictor of liquidity but not profitability and that NOIM has no discernible effect on either profitability or liquidity. The study shows that, although bank size and NOIM have no bearing on profitability, bank size and NOIM have a significant impact on liquidity. These revelations offer significant implications for regulatory concerns and strategic management by deepening the grasp of the variables influencing financial performance and liquidity in the banking industry. The discussion was used to compare the findings of the present study with the findings of the existing studies. The impact of NOIM has a mixture of results some scholars found that there is a significant impact while in some studies there was not a significant impact. However, as the present study also found, the band size significantly determines the profitability and liquidity of banks.

Keywords: ***Profitability, Liquidity, Bank Size, Non-operating Income***

1 INTRODUCTION

As a driver of stability and progress, the banking industry is essential to the economic advancement of any country. The commercial banking industry is particularly important in Sri Lanka because it plays a key role in enabling financial intermediation, generating savings, and effectively allocating capital (Anita et al., 2022). But in the face of changing regulatory frameworks and a dynamic global financial landscape, it is critical to comprehend what factors affect profitability and liquidity in this industry. Amidst this context, the objective of this research is to explore the intricate correlation among non-operating income, bank size, profitability, and liquidity within the commercial banking industry of Sri Lanka.

Banks can increase their revenue streams beyond lending and deposit-taking activities by utilizing non-operating income, which comes from a variety of sources including investment gains, foreign exchange transactions, and other auxiliary activities (Li et al., 2021). Since non-operating income is a reflection of the risk management and diversification techniques banks have implemented to improve their financial performance, it is critical to comprehend how these tactics affect profitability and liquidity (Bahadori et al., 2020). Furthermore, a bank's size frequently plays a crucial role in determining its operational capacity, market presence, and systemic significance. In comparison to their smaller counterparts, larger banks may benefit from economies of scale, access to a wider range of funding sources, and improved bargaining power, all of which can have an impact on their profitability and liquidity dynamics.

The banking industry in Sri Lanka functions in a dynamic economic and regulatory environment, thus it becomes even more important to look at how non-operating income, bank size, profitability, and liquidity interact. The financial performance and risk profiles of banks functioning in this environment can be affected in many ways by variables like technological improvements, regulatory reforms, and macroeconomic situations. By offering empirical insights into the factors influencing profitability and liquidity that are unique to the commercial banking industry in Sri Lanka, this study hopes to add to the body of information already in existence. Policymakers, regulators, and market participants can learn a great deal about how non-operating income and bank size affect these important performance metrics. This knowledge can then be used to improve risk management procedures, regulatory frameworks, and strategic decision-making to build a stable and resilient banking industry that supports long-term economic growth.

Improving profitability while preserving sufficient liquidity is one of the fundamental problems within the banking industry (Hosen, 2020). Banks need to be profitable to continue operating, draw in investors, and maintain their position as market leaders. A major difficulty, though, is maintaining profitability in the face of growing competition, changing regulations, and shifting consumer tastes. Furthermore, maintaining sufficient liquidity is necessary to cover depositor withdrawals, pay back loans, and handle market volatility. An especially difficult task is striking a balance between profitability and liquidity in the dynamic banking environment, which is defined by shifting interest rates, shifting market dynamics, and regulatory

limitations. Therefore, in order to effectively address these issues and improve overall financial performance, it is crucial to determine the factors that affect profitability and liquidity in the Sri Lankan commercial banking industry.

The contemplation of this study therefore to identify the Effects of Non-Operating Income and Bank Size on Profitability and Liquidity; A Study on Sri Lankan Commercial Banking Sector.

The best use of non-operating income and its effects on profitability and liquidity are two other major issues facing Sri Lanka's commercial banking industry (Bandara, Jameel and Athambawa, 2021). Banks can diversify their income streams and reduce the risks involved in typical banking operations by pursuing non-operating income sources such as fee-based services, trading gains, and investment income (Saeed et al., 2020). However, careful assessment of related risks, adherence to legal requirements, and connection with the bank's overarching strategic goals are necessary for the efficient management of non-operating revenue. Furthermore, the effect of non-operating revenue on liquidity and profitability can change based on a number of variables, including the size of the bank, the competitive environment, and market circumstances (Hasan et al., 2020). Thus, it is essential to comprehend how non-operating income, bank size, profitability, and liquidity relate to each other in order to maximize financial performance and guarantee the stability and adaptability of Sri Lanka's commercial banking industry in the face of shifting external conditions and internal obstacles.

The following objectives are set to achieve with the study.

i. To identify the impact of non-operating income on the bank’s profitability
ii. To identify the impact of bank size on bank’s profitability
iii. To identify the impact of non-operating income on bank’s liquidity
iv. To identify the impact of bank size on bank’s liquidity

Through the analysis of effects of non-operating income on liquidity and profitability, the study provides empirical insights by looking at these aspects so that policymakers, regulators, and market players may improve risk management practices, regulatory frameworks, and strategic decision-making. Furthermore, by addressing certain contextual aspects like market dynamics, regulatory reforms, and technological improvements peculiar to Sri Lanka, the study's focus on the banking sector provides value. But it's pressing to recognize the study's limitations, which include possible data restrictions, the study's generalizability to other banking markets, and the dynamic nature of financial variables that could change over time. These drawbacks emphasize the necessity for exercising caution when interpreting the results and call for more study to improve our comprehension of the variables influencing the stability and performance of commercial banks' finances.

2 LITERATURE REVIEW

2.1 Income for a Bank

A bank's revenue is mostly derived from its main business operations, which include interest income from investments and loans, fee-based income from different financial services, and revenue from other auxiliary sources. Most of the bank's income comes from interest income, which is obtained from interest gained on investments in securities or deposits made with other financial institutions, as well as interest levied on loans given to borrowers (Hosen, 2020). Fee-based revenue includes fees assessed for services like wealth management, transaction processing, account upkeep, and advisory services.

Furthermore, banks could make money from unconventional sources including trading, foreign exchange, and profits from stock or real estate market investments. Analyzing a bank's income composition is crucial for determining how different income streams affect profitability and liquidity as well as for evaluating the bank's overall financial performance.

2.2 Non-operating Income

A bank's revenue from activities outside of its main banking operations is referred to as non-operating income. Examples of these activities include trading gains, investment income, gains or losses from foreign currency transactions, and other incidental sources of income (Maina, 2021). Non-operating revenue is derived from supplementary or auxiliary activities that may augment or replace traditional banking operations, as opposed to interest and fee-based income, which is derived from the bank's main business activities.

Banks can diversify their revenue streams, manage risks, and take advantage of market opportunities beyond typical lending and deposit-taking activities by utilizing non-operating income sources. Non-operating income management, however, necessitates close attention to related risks, regulatory compliance, and consistency with the bank's overarching strategic goals. Examining the influence of non-operating income on profitability, liquidity, risk management, and overall business strategy is a necessary step in analyzing non-operating income's place in a bank's financial performance.

The process of determining and measuring revenue streams derived from non-lending and non-deposit activities is known as non-operating income measurement. A financial indicator known as a non-operating income margin evaluates the percentage of a bank's total income that comes from non-operating operations in relation to its overall revenue. This margin, which shows how much a bank depends on non-core operations for earnings, is computed by dividing non-operating income by total revenue (Tolangga and Ulpah, 2021). More diversity of income sources is indicated by a bigger non-operating income margin, and this can help the bank become less reliant on traditional interest income, especially in low-interest rate settings. It also suggests that a sizable amount of the bank's revenue is based on non-core activities that are volatile due to changes in the market, such as trading and investment gains.

In order to successfully manage risk and optimize profitability, banks in Sri Lanka must closely monitor the non-operating income margin to grasp the balance between more volatile non-operating income and more stable interest-based revenue.

Enhancing financial performance and stability is mostly dependent on non-operating income, which is made up of revenues from activities other than a bank's core business. In order to reduce reliance on traditional interest revenue, non-operating income sources such as fees, commissions, trading gains, and investment income work together to give diversification benefits. Particularly in competitive and low-interest-rate settings, this diversification helps even out revenue streams and improve profitability. However, because of its volatility and sensitivity to changes in the market, non-operating income frequently involves a higher risk. Effectively exploiting non-operating income for banks in Sri Lanka necessitates a balanced strategy that builds on various revenue streams while putting strong risk management techniques in place to minimize any drawbacks. In general, non-operating income plays a crucial role in a bank's revenue structure, supporting resilience and long-term profitability in the ever-changing financial environment.

2.3 Bank Size

The banking literature has conducted a thorough investigation of the relationship between bank size and financial performance. Larger banks frequently benefit from economies of scale, which enable them to operate more effectively by spreading fixed expenses over a larger asset base. Evidence for a positive correlation between bank size and profitability has been established in studies by Hasan et al. (2020). These studies imply that larger banks often produce better returns on equity (ROE) and returns on assets (ROA) than smaller banks. The aforementioned phenomena can be ascribed to the capacity of larger banks to broaden their funding sources, diversify their revenue streams, and wield greater negotiating leverage when interacting with counterparties and clients.

Furthermore, larger banks' performance and risk-taking tendencies may be influenced by their systemic significance in the financial system. Larger banks may be more willing to take on risk because of their perceived implicit government guarantees or "too big to fail" status, according to research by Anggari and Dana (2020). In prosperous economic times, this can result in more profitability, but it also exposes these banks to increased systemic risk and possible weaknesses in recessionary times. In order to evaluate the stability and resilience of the banking industry, regulators, legislators, and market players must comprehend the complex relationship between bank size, risk-taking behavior, and financial performance.

The natural logarithm of total assets is one often used metric that estimates the size of a bank's asset base while taking scale variations between institutions into consideration. The size metric is made more comprehensible and avoids the skewness that comes with absolute asset values by using the natural logarithm. This metric makes it easier to compare banks of different sizes and to analyze the ways in which size affects market dynamics, risk-taking tendencies, and financial performance. The asset growth rate, which evaluates the rate at which a bank's total assets are increasing

over time, is another metric that supports this strategy. This measure offers information on the growth trajectory, competitiveness in the market, and ability of a bank to draw deposits and investments. When combined, these measurements provide a thorough understanding of the dynamics of bank size and how they affect the stability and adaptability of the banking sector.

It is important to note, though, that not all banking markets and situations will experience the same correlation between bank size and financial success. The effect of bank size on profitability may differ depending on variables like market structure, the regulatory environment, and economic conditions, according to research by Gupta and Mahakud (2020). For example, in fiercely competitive marketplaces, greater pricing pressure and increased operating costs may make it difficult for larger banks to remain profitable. For the banking industry to develop successful policies and strategies, a comprehensive grasp of the complexities and variables surrounding the relationship between bank size and financial performance is essential.

2.4 Profitability in Banks

Because it plays a crucial role in maintaining the stability and effectiveness of the banking industry, bank profitability has been a focus of financial research. Theoretical frameworks claim that a plethora of internal and external factors impact bank profitability. Internal variables usually include the assets and liabilities makeup, operational costs, and management effectiveness. Conversely, external influences encompass macroeconomic circumstances, regulatory structures, and financial market competition. Le and Ngo (2020) studies show that factors unique to banks, like size, capital sufficiency, and expense management, have a major impact on profitability. These results suggest that banks with adequate capital and effective expense management are typically more profitable.

Moreover, empirical data indicates a robust correlation between bank performance and income source diversity. When it comes to profitability, banks that primarily depend on traditional interest-based revenue may be less profitable than those that diversify into non-interest revenue sources including fees, commissions, and trading income. The idea behind this diversification is to improve overall profitability and lessen profit volatility. Non-interest revenue, particularly from fee-based services, has a favorable effect on bank profitability, according to Asteriou et al. (2021) research, despite the possibility of increased risk. The desire to increase returns on equity and assets, particularly in competitive markets with narrow interest margins, is what is driving the move in banking operations away from traditional practices.

For evaluating the profitability of banks, Return on Assets (ROA) is a commonly used financial statistic. It assesses how well a bank makes use of its resources in order to produce revenue. To calculate ROA, which is usually represented as a percentage, divide a bank's net income by its total assets. How well the bank's management uses its assets to generate earnings is shown by this ratio. Strong operational efficiency and good management techniques are indicated by a greater ROA, which shows that the bank is more effective at turning its asset base into net income. Because banks are highly leveraged organizations, operating with a large ratio of debt to equity, ROA is

especially crucial in the banking industry. Because of this leverage, profitable asset management is essential.

The profitability drivers of Sri Lankan commercial banks are influenced by both specific local factors like market structure, economic conditions, and regulatory regulations, as well as by worldwide trends. Research on banks in Sri Lanka, Abdelaziz et al. (2022) emphasizes the role that adequate capital, operational effectiveness, and asset quality play in determining profitability. The profitability landscape is also greatly influenced by the economic climate, which is marked by inflation and fluctuating interest rates. Significantly important regulatory changes have also been made to encourage competition and improve financial stability. These changes have forced banks to look for new ways to generate money and implement stronger risk management procedures.

2.5 Liquidity in Banks

A crucial component of bank management is liquidity, which reflects an organization's capacity to fulfill short-term commitments without suffering large losses. It is impossible to exaggerate how crucial liquidity is to banks since it keeps customers confident, guarantees the seamless operation of payment systems, and promotes general financial stability. Liquidity risk management is crucial for protecting banks from future liquidity crises, according to the study by Davydov et al. (2021). In order to ensure fast fulfillment of withdrawal requests and other financial obligations, banks must maintain a balance between their assets and liabilities to practice effective liquidity management.

Bank liquidity is influenced by a number of variables, such as their asset-liability structure, the state of the market, and regulatory constraints. In general, banks that possess a greater percentage of liquid assets, such as cash and government securities, are more adept at handling liquidity risk. On the other hand, as liquid assets usually offer lower returns than loans and other investments, keeping a high amount of liquid assets can potentially lower profitability. Because they have broader access to interbank markets and other liquidity sources, larger banks with more diverse activities typically have stronger liquidity management policies, according to studies by D'avino et al. (2022). Conversely, because they have less access to these markets, smaller banks could encounter more difficulties in controlling liquidity.

A crucial financial indicator that assesses a bank's capacity to pay short-term obligations without having to sell off long-term assets or get new funding is the liquidity ratio. Liquidity ratios have a big impact on profitability even if its main purpose is to evaluate a bank's solvency and financial health. The fast and current ratios, which contrast a bank's short-term liabilities with liquid assets, are common liquidity ratios. A bank with a high liquidity ratio has enough liquid assets, including cash and securities that are easily convertible, to cover its immediate liabilities. To preserve depositor confidence and avoid costly liquidity crises that could jeopardize profitability, this financial stability is essential. Better liquidity situations protect banks from forced asset sales at low prices and high-interest emergency borrowing, both of which can reduce profit margins.

Certain local elements, such as market dynamics, regulatory frameworks, and economic situations, have an impact on bank liquidity in Sri Lanka. According to research by Yeddou and Pourroy (2020), the country's unstable economy and regulatory environment present particular liquidity issues for Sri Lankan banks. To make sure that banks keep sufficient liquidity buffers, the Central Bank of Sri Lanka enforces a number of liquidity regulations. To encourage stability in the financial system, these laws include statutory reserve requirements and liquidity coverage ratios. Furthermore, market factors like changes in interest rates and loan demand have an effect on banks' liquidity positions. Therefore, to reduce liquidity risk and maintain profitability, effective liquidity management in Sri Lankan banks requires a careful balance between asset allocation, regulatory compliance, and strategic planning.

2.6 Role of Non-Operating Income on Profitability and Liquidity

Because non-operating income diversifies revenue streams outside core banking activities, it is crucial to determine the profitability and liquidity profiles of banks. Non-operating income can have a significant effect on profitability, particularly in times of economic turbulence or interest rate swings. For example, revenue from trading activities can make a big difference to a bank's earnings, but it also puts the organization at risk in the market (Maina, 2021). Similar to how investment income can increase profitability, the overall financial health of the bank may be impacted by changes in the valuation of investment portfolios.

Another important factor that is impacted by non-operating income is liquidity. While some non-operating activities, like fee-based services or investment management, can improve liquidity by producing steady cash flows, other non-operating activities, like proprietary trading or speculative investments, can make liquidity more difficult, especially if they require capital tying up or short-term funding sources (Saarijärvi and Nguyen, 2017). Thus, a thorough examination of the many non-operating activities that banks engage in, the risks that accompany them, and the effects they have on stability and financial performance is necessary to comprehend the complex relationship between non-operating revenue, profitability, and liquidity.

A bank's entire revenue mix must include non-operating income in order for it to be financially stable and maintain its competitive edge. Banks can take advantage of chances to increase revenue and reduce risks related to typical banking operations by entering non-traditional activities including trading, investing, and foreign exchange transactions.

Furthermore, banks can improve their agility and reactivity by adjusting to shifting market dynamics, regulatory requirements, and client preferences through non-operating income sources. But managing non-operating revenue has its own set of challenges. These include the need to strike a balance between taking on risk and using sensible risk management techniques, maintaining regulatory compliance, and matching income-generating endeavors with the bank's long-term strategic objectives. Therefore, a complete strategy that takes into account the consequences for profitability, liquidity, risk management, and strategic positioning within the

larger financial landscape is necessary to fully comprehend the role that non-operating revenue plays in a bank's financial performance.

2.7 Role of Bank Size on Profitability and Liquidity

The profitability and liquidity of commercial banks are significantly influenced by bank size, which has an effect on many different aspects of banking operations. First off, larger banks can spread fixed expenses across a broader asset base thanks to economies of scale. Due to their potential to generate better returns on equity and assets, larger institutions can transfer this operational efficiency into higher profit margins. Furthermore, larger banks usually have a stronger presence in the market, which helps them draw in a wider range of clients and increase their market share. Due to chances for cross-selling goods and services, this market domination can further increase profitability by generating new income streams.

Moreover, a bank's capacity to manage its liquidity is directly correlated with its size. Larger banks usually have access to a wider range of funding sources, such as interbank lending facilities and wholesale funding markets. Their capacity to successfully manage liquidity risks is improved by this larger funding base, which guarantees there are sufficient resources to cover loan disbursements and depositor withdrawals (Bhatia and Mahendru, 2019). Additionally, larger banks could have a wider network of ATMs and branches, which makes it easier for consumers to obtain cash conveniently and improves overall liquidity management.

The bank size does, however, also provide additional difficulties that may affect liquidity and profitability. Because of their systemic significance, larger banks may face more stringent regulations and higher compliance expenses. Regulations that put restrictions on the use of money, including capital adequacy and liquidity coverage ratios, can have an impact on liquidity and profitability. Furthermore, the intricacy of the organizational framework and functions within larger banks may impede their flexibility and reactivity, posing difficulties in promptly adjusting to evolving market circumstances.

Conversely, because they can concentrate on specialized services or niche markets, smaller banks might have better profit margins. However, because of their smaller size, they might have less market reach and access to funding sources, which could limit their ability to manage liquidity. Moreover, smaller banks might not have the economies of scale that larger ones do, which makes it harder for them to run efficiently and effectively compete in the market. Overall, a thorough grasp of the trade-offs between scale economies, regulatory restrictions, market dynamics, and risk management techniques within the banking industry is necessary to analyze the impact of bank size on profitability and liquidity.

3 METHODOLOGY

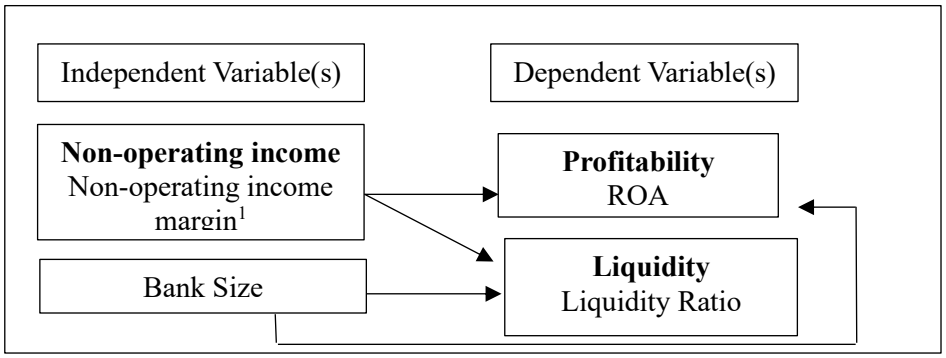
The study takes place as quantitative research which the author follows the positivist research philosophy. Positivism derives knowledge from quantifiable or measurable things otherwise it states that the things are not known certain. All the variables included in the study are measurable. Moreover, the quantitative study design is implemented with inductive research where the author of the study uses the data and thereby generates knowledge and theories by identifying and analyzing the patterns of those data.

Within Sri Lanka, there are 24 commercial banks which is the population for this study yet because of the availability and the richness of the available data, the author has selected 20 banks using convenience sampling. Through the annual reports of data, the author is collecting the non-operating income, net profit, total assets, and current assets for 5 years. Through these data, the author is compiling the variables using the following equations.

The author measures the profitability of the bank with return on assets while the liquidity ratio is used to measure the liquidity of the bank. The bank size is taken to be the natural logarithm of the total assets of the bank.

Table 1: Measurements of the Variables

Bank Size	Natural logarithm of the bank's total assets
Non-operating income	Non-operating income margin[1]
Profitability	$\frac{Net\ Profit}{Total\ Assets}$
Liquidity	$\frac{Current\ Assets}{Total\ Assets}$



[1] The non-operating margin is taken as the measurement despite the availability of non-operating income as a figure, as all the other variables are in the form of ratio.

Figure 1: Conceptual Framework

The collected data will be analyzed through SPSS statistical software where the author uses descriptive statistics, correlational analysis, and panel data regression analysis to evaluate the effects of bank size of non-operating income on the bank's profitability and liquidity. The author uses two regression models as there are two dependent variables.

$$Profitability = \beta 0 + \beta 1NOI + \beta 2BS + \varepsilon \quad \text{----------} \quad (01)$$

$$Liquidity = \beta 0 + \beta 1NOI + \beta 2BS + \varepsilon \quad \text{----------} \quad (02)$$

The following hypotheses are set to be tested with the results obtained through the above analysis.

Table 2: Hypothesis Development

H_1	There is a significant impact from non-operating income and bank size on the ROA of a commercial bank in Sri Lanka
H_2	There is a significant impact from non-operating income and bank size on the liquidity ratio of a commercial bank in Sri Lanka

4 FINDINGS

4.1 Descriptive Statistics

Descriptive statistics are which illustrate the distribution of data. As descriptive statistics, there are central tendencies, measures of dispersion, skewness, and kurtosis. The author of the present study uses one or two measurements of each of these categories to interpret the descriptives of the data.

Table 3: Descriptive Statistics

	Minimum	Maximum	Mean	Std. Deviation
LR	.0016	.1784	.0432	.0356
ROA	-.0170	.0451	.0086	.0067
BS	16.872	28.724	21.737	3.072
NOIM	-1.660	5.836	.2798	.7696

Table 3 shows the minimum, maximum, mean and standard deviation as the descriptive statistics. It is noticeable that the bank size does not vary significantly but rather lies in a range between 16.87 and 28.72. The average value of the bank size is 21.73 which indicates that almost all commercial banks within Sri Lanka tend to have closer capitalization. The liquidity ratio has a minimum of 0.0016 while the maximum is 0.1784. Therefore, there is a significant range between the liquidity ratio which indicates that each of the banks has different methods and procedures for managing their liquidity. However, the mean value of the liquidity ratio which is 0.0432

indicates that most of the banks have fewer liquid assets compared to their total assets. The mean value of ROA is 0.8%, which indicates that most of the banks are having a lower turnover in terms of its assets. Similarly, the non-operating income margin has a mean of 27.98% while its maximum is about 583% and there are negative return generators as well. Therefore, it is obvious that there is a significant deviation among the non-operating income, and it also confirmed with the high standard deviation of 76.96%.

4.2 Correlational Analysis

The collinearity between two variables is measured with the correlation. The Pearson's correlation coefficient is the measurement applied to analyze the correlation. The correlation matrix with the Pearson's correlation coefficients is presented in table 4.

Table 4: Correlation Matrix

		LR	ROA	BS	NOIM
LR	Pearson Correlation	1	.093	.454**	-.096
	Sig. (2-tailed)		.360	.000	.344
ROA	Pearson Correlation	.093	1	.073	-.152
	Sig. (2-tailed)	.360		.471	.130
BS	Pearson Correlation	.454**	.073	1	-.149
	Sig. (2-tailed)	.000	.471		.138
NOIM	Pearson Correlation	-.096	-.152	-.149	1
	Sig. (2-tailed)	.344	.130	.138	

The correlation analysis results show that there are neither perfect positive nor strong positive relationships. However, there are some moderate relationships. The relationship between liquidity ratio and the bank size is 0.454 which is moderate but having a significance of 0.000 which is less than 5% of alpha value, thus it could conclude that the moderate relationship between these two variables is significant. Other than that, there are no significant relationships between other variables. The relationship between bank size and the non-operating income margin is negative but weak, which is not significant.

Having less impacted relationships does not mean that the observations of the study are not accurate, but it ensures that the study is free from multicollinearity. The multicollinearity in the sense is about the relationship between the independent variables.

4.3 Panel Data Regression Analysis

4.3.1 Random Effect Regress between non-operating income and bank size on profitability

Table 5: Regression Model 01 Summary

R	R Square
.161[a]	.0232

The R squared value for the model is 0.0232 which indicates that only 2.32% of the changes in profitability is explained by non-operating income and bank size. Therefore, the explanatory power of the model is very low. Therefore, it can be concluded that as a model, the explanatory power is insignificant.

Table 6: Regression Model 01 Chi Square

Wald Chi Square	1.33
Probability Chi Square	0.1271

The conclusion made earlier was further certified with this table as the P value of the Chi Square statistic of the model is 0.1271 which is higher than 5% of significance level. Therefore, it could be concluded that bank size and non-operating income margin do not explain the changes in profitability. Even though the collective impact is not significant, it is required to assess the individual impact.

Table 7: Regression Model 01 Coefficients

Model	z	Sig.
(Constant)	1.341	.576
BS	.55	.583
NOIM	-1.43	.671

The constant or the independent value of the profitability of the bank is only 1.341, which is significantly less amount. As variables, neither bank size nor non-operating income margin is having significant impact on profitability. As the P value of the t statistic of bank size is 0.583, it is not significant either 5% or 10% significance level. Alike, the P value of the t statistic of NOIM is 0.671 which is again insignificant. Therefore, it can be concluded that neither bank size nor non-operating income are significant determinants of a bank's profitability.

4.3.2 Fixed Effect Regress between non-operating income and bank size on profitability

Table 8: Regression Model 02 Summary

R	R Square
.266[a]	.0102

The R squared value for the model is 0.266 which indicates that only 26.6% of the changes in profitability is explained by non-operating income and bank size. Therefore, the explanatory power of the model is very low. Therefore, it can be concluded that as a model, the explanatory power is insignificant.

Table 9: Regression Model 2 Chi Square Table

Wald Chi Square	2.01
Probability Chi Square	0.4424

P value of the Chi Square statistic of the model is 0.4424 which is higher than 5% of significance level. Therefore, it could be concluded that bank size and non-operating income margin do not explain the changes in profitability.

4.3.3 Random Effect Regress between non-operating income and bank size on liquidity

Table 10: Regression Model 03 Summary

R	R Square
.307[a]	.0102

The R squared value for the model is 0.307 which indicates that the bank size and the NOIM is explaining 30.7% of changes in liquidity. Compared to profitability, bank size and NOIM have a significant impact on liquidity.

Table 11: Regression Model 03 Chi Square Table

Wald Chi Square	1.002
Probability Chi Square	0.0023

The chi square table presents the significance of the model, and the P value of the F statistic is 0.0023 which is less than 5% of significance level. Therefore, at 5% of alpha, it could be concluded that the model is significant. It means, the bank size and NOIM are significantly impacting on the liquidity.

Table 12: Regression Model 03 Coefficients

Model	z	Sig.
(Constant)	-0.0633	.077
BS	.025	.003
NOIM	1.221	.412

The constant value for liquidity with no impact from either bank size or NOIM is -0.0633 which indicates that independently, the liquidity is having a negative value. The P value of the t statistic of bank size is 0.003 which indicates that as a variable bank size is significantly determining the liquidity. However, the P value of the t statistic of the NOIM is 0.412 which is higher than 5% level, hence it cannot be concluded as a significant determinant of liquidity.

4.4 Hypothesis testing

H_1 – There is a significant impact from non-operating income and bank size on the profitability of a commercial bank in Sri Lanka

According to the summary of the findings, there is not enough evidence to conclude that NOIM and bank size significantly impact on profitability with 5% of significance level. The P of the regression model was higher than 0.05, therefore, the hypothesis is rejected.

H_2 – There is a significant impact from non-operating income and bank size on the liquidity of a commercial bank in Sri Lanka

As the P value of the model 0.000 is less than 5% of significance level, it could be concluded that the model is significant, thus the hypothesis is not being rejected. However, individually, only the bank size was having a significant impact on liquidity while NOIM was not.

5 DISCUSSION AND CONCLUSION

5.1 Discussion

The relationship between non-operating income to the profitability is not widely discussed through scholarly research but it could be shown that the authors have identified that this relationship is having mixture of results where some of them are illustrating a significant relationship while others are not. The present study also revealed that the relationship between NOIM and profitability is not significant. As noted in Maina (2021), banks are more likely to earn profits with their operating income which is the interest income as their main focus is such. However, they are having non-operating income which is not severe in determining the level of profitability. Moreover, the liquidity of the banks is depending upon the assets they maintain and as illustrates by Bahadori et al. (2020), the non-operating income is having merely no impact on liquidity as well.

Bank size widely has been employed as a moderating, mediating or control variable rather than having it as a determinant of the dependent variable. However, the author of the present study has used bank size as an independent variable. As notes in Bhatia and Mahendru (2019), the bank size is a significant factor in determining the profitability and those findings shows that higher the bank size, they are more exposure towards profitability unless there are no shocks to the economy. However, at the same time, some of the scholars emphasized that there is no significant impact from bank size on the profitability and they demonstrate that having a high bank size increases the vulnerability towards the market conditions, hence the profitability is varying (Hasan et al., 2020). The author of the present study has also concluded that there is an insignificant relationship between bank size and profitability. The impact of bank size on liquidity was significant as found in the present study. Scholars have found that the bank size highly matters in determining the amount they keep as assets and therefore, obviously it determines the liquidity of the bank. The same conclusion could be drawn from the findings of the present study as well.

5.2 Conclusion

Non-operating income and bank size were not studied widely as factors determining profitability and liquidity. Rather, those variables can be shown as control variables or moderating variables. Thus, the author of the present study fills the gap by employing the non-operating income and bank size as independent determinants of profitability and liquidity. In order to analyze the impact, the author used ROA to measure the profitability while the liquidity ratio is used to measure the liquidity. The bank size was taken as the natural logarithm of total assets and non-operating income margin was used to measure the non-operating income.

The data were collected using secondary resources and the study took place as a quantitative analysis following positivism and deductive research method. The SPSS statistical software is used for the analysis and descriptive statistics, correlational analysis and multiple regression analysis used to analyze the data.

As the independent variables there were NOIM and bank size and as dependent variables there were ROA measuring the profitability and liquidity ratio measuring the liquidity of the bank. Hence, the author ran a multiple regression for two regression models representing the two dependent variables. According to the results of the study, the NOIM is not a significant variable in determining neither profitability nor liquidity. However, the bank size was significantly determining the liquidity but not the profitability. Hence, the author concluded that the profitability of the company is not subjected to the NOIM, and bank size and the liquidity is subjected to the bank size but not to the NOIM. The present study's results were compared with those of previous research through debate. The influence of NOIM has produced a mixed bag of findings; although some researchers have identified a considerable impact, other investigations have not found any. But as this study also discovered, the band size has a big impact on banks' liquidity and profitability.

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