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**THE IMPACT OF MONEY MARKET OPERATIONS ON COMMERCIAL BANKS  
PERFORMANCE IN SIERRA LEONE**

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**ABSTRACT**

The frail performance of commercial banks in the real sector of the economy is a major concern for policy makers and other key stakeholders. This study examined the operations in the money market and its role on the performance of commercial banks in Sierra Leone. To accomplish the objective of this research, 9 commercial banks from 2014 to 2020 in Freetown were interviewed. A descriptive statistical analysis of data with narration was done and results were presented in bar chart, figures and tables. The investigation empirically proved that there is a strong correlation between money market operations and the performance of commercial banks. Therefore, it was recommended that government should guarantee policies to reform the Central Bank discount window operations that would develop and strengthen the money market. As a way of improving corporate performance, banks should be encouraged to come up with a sound working capital policy. This will help in effective conduct of the monetary policy.

Key words: Money Market, Financial Instrument, Commercial Bank Performance, Liquidity, Profitability.

**INTRODUCTION**

The Covid-19 global pandemic and the resultant effect of a decreasing interest rate and revenue has reincarnated interest among policy makers on the importance of domestic debt and money market operations in revenue generation for government. In Sierra Leone, with a single digit inflation rate at 9.60 and a projected GDP growth rate at 4.5 the market's assessment of banks' ability to overcome profitability challenges is not optimistic. The Sierra Leone money market is an important source of short term finance for the government that is grossly underutilized.

According to Akhanolu et al. (2016) in their work titled 'Impact of Money Market on the Liquidity of Some Selected Quoted Banks in Nigeria' posited that money market is a collection of financial institutions set up for the granting of short-term loans and dealing in short-term instruments that are readily convertible into cash and whose maturity ranges between a few days to 1 year or more. The market is divided into two segments that is, the money market and the capital market. The market provides ample opportunities for investors and corporate financial managers with surplus funds to lend at short term, thereby meeting the demands of borrowers who are in need of temporary finance for liquidity and can offer an acceptable claim to money. There are fourteen commercial banks in Sierra Leone with different branches all over the country that are participants in the money market. However, it is worthy to note that there are other non-commercial banks such as First Discount House Limited, Capital Discount House, International Insurance Co. (SL) Limited and others that participate in the operational activities of the money market.

Ndugbu et al (2016) postulated that the money market is made up of different financial instruments, dealings in these financial instruments constitute the money market. The different markets in a money market are identified by the type of financial instrument each deals on. Treasury bills and treasury bonds are the most common financial instruments that the Sierra Leone money market trade with. The financial system of any financial company provide the catalyst through financial intermediation for productive activities to ensure economic growth and development Olowo (2008). The financial sector is unquestionably the most important in the political economic system because it provides the necessary lubricant that keeps the wheel of the economy turning and it is an engine for economic growth. The sector provides fund for investment and efficiently as possible to those project that offers best returns to fund owners. These funds for investment can be efficiently allocated using either the money market arm or the capital market arm of the financial sector.

Despite the crucial role the money market is playing in providing funds for government and control money supply in a certain way, money market has failed to execute its function of arbitrating funds between surplus and productive sector of the economy which has decelerated economic growth and sustainable development. This is indeed a problem that is worth studying because it has a huge effect on the performance (profitability/liquidity/continuing existence) of banks. A deflection in the money market performance of commercial banks will lead to little or no profit and likelihood of illiquidity which is not good as it has several adverse consequences such as low income/profit, liquidity risk and the risk that the business will not be able to continue its operation in the foreseeable future (Noko, 2011). It is evidence that a larger share of commercial banks profit comes from the buying and selling of financial instruments in the money market. The conditions that have led this research work are the amount of profit which commercial banks have been posting for the past five years has been a serious concern. Furthermore, the growth of public debt is a bottle neck to economic development, hence low standard of living, resulting

from low per capita income. There are few literature that discussed in detail about the money market operations and commercial bank profitability in Sierra Leone. Thus, this study seeks to replete the aforementioned gap by analyzing the impact of money market operations on commercial banks performance in Sierra Leone.

## **LITERATURE REVIEW**

### **Theoretical Review**

#### **Market Power Theory**

Olweny and Shipho (2011) examined that the market theory is the extent to which a firm can influence the price of an item by exercising control over its demand and supply. Perfect competition as an economic concept assumed that all firms in a market have zero market power. That is to say, each firm has to accept the current market price without being able to exercise any control over it. The money power theory denote that better financial operations and profitability can be achieved when there is an increase in external market forces. According to Eric et al. 2016, the hypothesis asserts that only organizations with large market share and well differentiated portfolio of products can win their competitors and earn monopolistic profit. The market power theory explain the relationship between the bank size and profitability that performance of banks is influenced by the market structure of the industry. Concluding on the market power theory, the theory assumes that the profitability of a bank is a function of external market factors.

#### **Signaling Theory**

Trujillo-Ponce (2012) stated that the relationship between capital and profitability is explained by signaling theory, expected bankruptcy cost hypothesis and risk return hypothesis (Athanasoglou, Brissimis & Delis, 2005; Olweny & Shipho, 2011). The signaling hypothesis suggests that a higher capital is a positive signal to the market of the value of a bank (see Ommeren, 2011). Trujillo-Ponce (2012) observed, under the signaling theory, bank management signals private information that the future prospects are good by increasing capital. As the literature review pointed out, the signaling hypothesis and bankruptcy cost hypothesis support a positive relationship between capital and profitability. Tomola M. O. (2013) ascertained that the risk-return hypothesis suggests that increasing risks, by increasing leverage of the firm, leads to higher expected returns. Therefore, if a bank expects increased returns (profitability) and takes up more risks, by increasing leverage, the equity to asset ratio (represented by

capital) will be reduced. Thus, risk-return hypothesis predicts a negative relationship between capital and profitability (Saona, 2011; Sharma and Gounder, 2012).

### **Determinants of Commercial Banks Financial Performance**

According to Bodie et al (2005), financial performance is the level of performance of a firm over a specific period of time and expressed in terms of the overall profits or losses incurred over the specific period under evaluation. The following are the frequently used bank profitability determinants which are driven from financial statement;

#### **Capital Adequacy**

Aburime (2008) ascertained that bank equity capital can be seen in two concepts. Those are the amount contributed by the owners of a bank (paid-up share capital) that gives them the right to enjoy all the future earnings and the amount of owners' funds available to support a bank's business which includes reserves, and it is also termed as total share holders' funds. It is measured by the ratio of equity capital to total assets. Bank's capital is widely used as one of the determinants of bank profitability since it indicates the financial strength of the bank (Athanasoglou et al., 2005). Aburime (2008) further suggested that the bank level of safety achieved through the high capital requirements which generated positive net benefits. The degree of security exceeded the level maximizing net benefits. Capital adequacy requirements generally aim to increase the stability of a national banking system by decreasing the likelihood of a bank failure and a number of negative externalities exist in banking that cause risk. Research conducted by Valentina et al. (2009) on the determinants of commercial banks profitability in Sub-Saharan Africa by taking 389 sample banks in 41 Sub-Saharan Africa countries, they measured profitability by return on asset indicators. They founded that capital adequacy has positive and significant effect on profitability of commercial banks.

#### **Loans and Advances**

Gordon and Natarajan (2002) examined that banking is essentially a business dealing with money and credit, banks are profit oriented and thus, commercial banks invest their funds in many ways to earn income. Banks make loans and advances to traders, businessmen, and industrialists against the security of some assets or on the basis of personal security of the borrower. One of the principal activities of commercial banks is to grant loans to borrowers. Because loans are among the highest yielding assets a bank can add to its balance sheet, and they provide the largest portion of operating revenue. The higher the volume of loans extended the higher the interest income and hence the profit potentials for the commercial banks. Furthermore, it must also be noted that higher interest income is not merely a function of higher volume of loans but are in fact also

dependent on the lending rates and the interest rate elasticity of loans as well. The interest rate elasticity of loans will depend on the national affluence or national income (Moin, 2008). The interest raised from the loans is the most important source of the banks' income. However, inherent with bank's loan is liquidity risk as well as credit risk.

### **Efficiency and Productivity**

In the literature of bank performance, efficiency and productivity is the single ratio such as net interest income over total assets, operating expense to operating income, operating expense to total assets and gross income to the number of employees had been used to assess manager's and employee's efficiency in banks. Empirical evidence from Athanasoglou et al. (2005) shows that labor productivity growth has a positive and significant effect on bank profitability. This suggests that higher productivity growth generates income that partly channeled to bank profits. The commercial banks can target high levels of efficiency and productivity growth both by keeping the labor force steady and by increasing overall output. Ramlall (2009) said the higher the efficiency level of a bank, the higher the profits level.

### **Credit Risk**

Credit risk is one of the key drivers of banks' profitability because of this; the research examines credit risk as the main determinants of profitability. It is measured by the ratio of loan loss provisions over total loans and advances. The loan loss provisions are reported on a bank's profit and loss account and it is a measure of capital risk, as well as credit quality of the bank. Bobakova (2003) asserted that the profitability of a bank depends on its ability to foresee, avoid and monitor risks, possibly to cover losses brought about by risks arisen. Hence, in making decisions on the allocation of resources to asset deals, a bank must take into account the level of risk to the assets. Most literatures suggest that increased exposure to credit risk is obviously associated with decreased firm profitability (Ommeren, 2011).

### **Liquidity Risk**

Another type of risk for banks is the liquidity risk, when banks hold a lower amount of liquid assets they are more vulnerable to large deposit withdrawals. However, liquidity risk arising from the possible inability of a bank to decrease accommodate liabilities or to fund increases on the assets side of the balance sheet. Therefore, Ommeren (2011) stated that liquidity risk is estimated by the ratio of liquid assets to total asset. Insufficient liquidity is one of the major reasons of bank failures. The quality of an asset is said to be liquid when it is easily convertible into cash with minimal or no risk of loss. A bank considered liquid when it has sufficient cash and other liquid

assets together with the ability to raise funds quickly from other sources, to enable it to meet its payment obligation and financial commitments in a timely manner.

Following prior research of Rasiah (2010), a negative relationship between profitability and large liquid assets to customer deposits and short term funding ratio is hypothesized. On the other hand researchers expected a positive relationship between liquidity risk and profitability and concluded that the fewer the funds tied up in liquid assets the higher the expected profitability to be (Eichengreen and Gibson, 2001).

### **Empirical Review**

Teng et al (2019) postulated that to explore the role of non-interest income and retail-oriented business models they had to first develop a theoretical model of the relationship between bank profitability and financial stability. Then they conducted panel regression analysis to examine the empirical determinants of bank risks and profitability, and how the level and the source of bank profitability affect risks for 431 publicly traded banks (U.S., advanced Europe, and GSIBs) from 2004 to 2017. Results revealed that profitability is negatively associated with both a bank's contribution to systemic risk and its idiosyncratic risk, and an over-reliance on non-interest income, wholesale funding and leverage is associated with higher risks. Low competition is associated with low idiosyncratic risk but a high contribution to systemic risk. Adekunle Ajasin (2020) in his work titled "Money Market Instruments and Commercial Banks' Deposits in Nigeria" ascertained that the money market plays an important role in the economy through the creation of short term investible securities and intermediation of funds to promote growth and investment. However, there is much expectation that money market would provide expected liquidity cushions needed by banks through the opportunities to mobilize adequate funds which has eluded empirical investigation in Nigeria. Thus, the study explored the linkage between money market deposits mobilization capacity of commercial banks in Nigeria. Furthermore, it was found that money market to some extent regulates the deposit of commercial banks. In evaluating the link between economic development and money market it was indicated that for sustainable economic growth to be attained, financial stability is crucial and that money market plays an important role in the India economy (Raja and Mahalakshmi, 2015).

Pavtar (2016) found that treasury bills, treasury certificates, commercial papers had no effect on gross domestic product while investigating the linkage between money market and economic growth in Nigeria through the adoption of multiple regression technique. Athanasoglou et al. (2005) studied the effect of bank-specific, industry-specific and macroeconomic determinants of bank profitability, using an empirical framework that incorporates the traditional Structure-Conduct-Performance (SCP) hypothesis. The results indicated that all bank-specific determinants, with the exception of size, affect bank profitability significantly in the anticipated way.

## **METHODOLOGY**

### **The Data**

The objective of the research is to investigate the role of money market on the profitability of commercial banks. In doing so, it asked for the views of commercial bank managers and the Central Bank of Sierra Leone on specific issues. Specifically, 32 questionnaires were administered to 9 commercial banks namely: Rokel Commercial Bank, Sierra Leone Commercial Bank, Skye Bank (SL) Ltd, United Bank for Africa (SL) Ltd, Guarantee Trust Bank (SL) Ltd, Eco Bank (SL) Ltd, Commercial Mortgage Bank, Keystone Bank (SL) Ltd and Standard Chartered Bank SL Ltd.

### **Data Collection Methods**

Primary Data Collection: The primary data collection for this study involved the use of questionnaires and interviews. The questionnaires were distributed to the 9 commercial banks in general and were given to management and staff. The questionnaire consisted of questions about investment procedures, practices and strategies of commercial banks when engaging in money market operations/activities. The bio data of participants helped us in identifying the type of commercial bank we were dealing with.

Secondary Data Collection: The secondary data were obtained from reviewing journals and literature relevant to this research. Newspaper source and official policy documents of government of Sierra Leone with relevance to the subject were also reviewed.

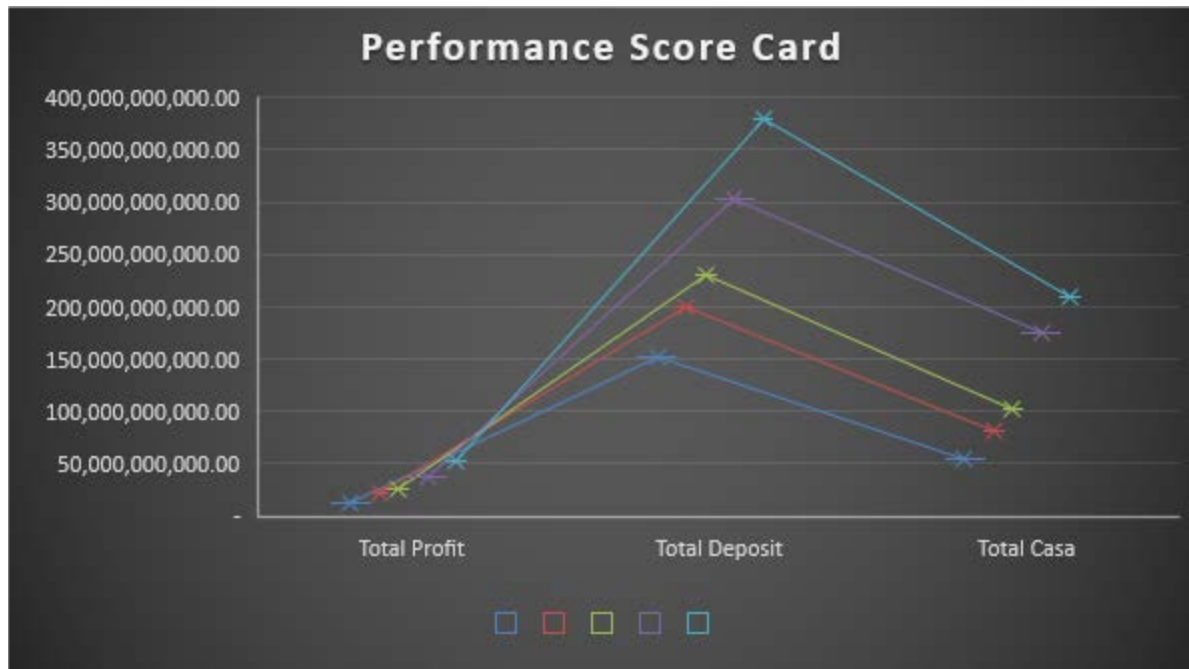
### **Data Analysis**

The Microsoft Excel software was used for this analysis. Data was presented in tabular form, graphical and narrative forms. In analyzing the data, descriptive statistical tools such as bar graph complemented with tables and figures were used.

## **RESULT**

### **Performance of Commercial Banks for the Six Years Period**

Answers from participants revealed that the banks experienced significant increase in the various performance lines in the period (2014-2020) under review .It revealed the various lines which shows that the performance of banks were monitored and evaluated using the following line: Demand Deposits, Savings Deposits, Domiciliary Accounts, Time Deposits, Total Deposits, Loans, Trade Volumes, COT Income & Other Fees, Contribution, PBT, Accounts Opened, Accounts Reactivated, Cards Sold, POS Transaction Volume, Prepaid Cards Sold. This is shown in the figure below.



Source: Research Survey 2021.

**Share of Commercial Bank Interest received from T-bills**

| S/N | BANKS        | LE'B        | SHARE        |
|-----|--------------|-------------|--------------|
| 1   | GTB          | 201         | 7.2          |
| 2   | UTB          | 69          | 2.5          |
| 3   | SLCB         | 621         | 22.3         |
| 4   | ECO          | 175         | 6.3          |
| 5   | VISTA        | 62          | 2.2          |
| 6   | RCB          | 588         | 21.1         |
| 7   | SCB          | 176         | 6.3          |
| 8   | UBA          | 300         | 10.8         |
| 9   | KEYSTONE     | 39          | 1.4          |
| 10  | SKYE         | 45          | 1.6          |
| 11  | FBN          | 97          | 3.5          |
| 12  | ACCESS       | 93          | 3.3          |
| 13  | ZENITH       | 318         | 11.4         |
|     | <b>TOTAL</b> | <b>2785</b> | <b>100.0</b> |

Source: Research survey (2021).

The above table demonstrated the share of commercial banks interest of total profit received from T-bills. There has been substantial evidence that the banks are actively involved in money market operations in their quest for profit. In fact, interest received from investing in T-bill by commercial banks profit account for an average of 55-60% of total profit. To some extent, this further supports the claim that commercial



banks seem to have more experience in dealing with investments in T-bills. In another aspect, all the banks have witnessed increase in share of investment in treasury bill/bonds over the period 2014-2020 but within the band average (6-15%) for local banks and 20-30% for international banks, the latter specifically for Rokel Commercial Bank. The correlation between the proportion of Treasury bill portfolio and the share of profit, despite the irrelevance of its magnitude, is positive. Perhaps, as commercial banks are always successful when they bid to acquire Treasury bill, they gradually establish confidence of the bank. This enables them to obtain higher deposit on a longer-term basis for onward investment in the Treasury bill market. The table above analyzed the Treasury bill ranking among the different commercial banks. The Sierra Leone Commercial Bank has the highest share of interest received on T-bills at 22.3% (Le621billion) followed by Rokel Commercial Bank at 21.1% (Le588billion). However, Keystone Bank has the lowest share at 1.4% (Le39billion) followed by Skye Bank at ((Le45billion)) 1.6%.

**Share of Commercial Bank Profit from Loans and Advances**

| TOTAL LOANS -DEC 2017 |              |              |              | TOTAL LOANS -DEC 2018 |              |              | 2017/2018 GROWTH |             |
|-----------------------|--------------|--------------|--------------|-----------------------|--------------|--------------|------------------|-------------|
| S/N                   | BANKS        | LE'B         | SHARE        | BANKS                 | LE'B         | SHARE        | LE'B             | %           |
| 1                     | GTB          | 316          | 25.4         | GTB                   | 396          | 27.6         | 80               | 25.3        |
| 2                     | UTB          | 204          | 16.4         | UTB                   | 262          | 18.3         | 59               | 28.9        |
| 3                     | SLCB         | 176          | 14.2         | SLCB                  | 179          | 12.5         | 3                | 1.6         |
| 4                     | ECO          | 172          | 13.8         | ECO                   | 187          | 13.0         | 15               | 8.3         |
| 5                     | VISTA        | 110          | 8.9          | VISTA                 | 113          | 7.9          | 3                | 2.6         |
| 6                     | RCB          | 75           | 6.0          | RCB                   | 79           | 5.5          | 4                | 5.4         |
| 7                     | SCB          | 70           | 5.6          | SCB                   | 70           | 4.9          | 0                | -0.1        |
| 8                     | UBA          | 45           | 3.6          | UBA                   | 69           | 4.8          | 24               | 54.1        |
| 9                     | KEYSTONE     | 20           | 1.6          | KEYSTONE              | 14           | 1.0          | (5)              | -27.7       |
| 10                    | SKYE         | 17           | 1.4          | SKYE                  | 14           | 1.0          | (3)              | -16.4       |
| 11                    | FBN          | 16           | 1.3          | FBN                   | 12           | 0.9          | (4)              | -23.8       |
| 12                    | ACCESS       | 15           | 1.2          | ACCESS                | 21           | 1.5          | 6                | 30.8        |
| 13                    | ZENITH       | 8            | 0.6          | ZENITH                | 15           | 1.0          | 7                | 84.2        |
|                       | <b>TOTAL</b> | <b>1,243</b> | <b>100.0</b> | <b>TOTAL</b>          | <b>1,432</b> | <b>100.0</b> | <b>188</b>       | <b>15.1</b> |

Source: Research survey (2021).

The banks have witnessed percentage point increase in share of loans to businesses and individuals over the period 2014-2020 but within the band average (10-20%) for SMEs and 20-30% for large enterprises. For instance, GTB significantly increased in the year under review.

The correlation between the interest received from loans and the portfolio of loans, despite the non-performing loan rate, is positive. This is so because banks make profit from either a game of volume or a

game of margin. When volumes are high the banks will reduce the spread on it lending and when the volumes are low banks want to make income from wide margin, they gradually establish the profit base of the banks as seen in the table above. A significant amount of Sierra Leone Commercial Bank's profit from 2017-2018 is as result of bad loans recoveries made.

## **CONCLUSION AND POLICY RECOMMENDATIONS**

### **CONCLUSION**

The purpose of this study is to investigate the relationship between money market operations and profitability growth and a range of other performance indicators in Sierra Leone banking industry. To capture this, the banking supervision data culled from 2014-2020 was used. The basic analysis of these data revealed that a long run relationship exists between the performance of commercial banks and money market operations in Sierra Leone. Base on the result, both the government T-bill and Loans/Advances in the industry have shown significant growth. This result is suitable for our banking thought and expectations. Thus, the growth of profit amongst competitors in Sierra Leone in recent six years is so fast that the current banking system cannot adapt to the old brick and mortar banking but rather to financial service and technology link up.

### **POLICY RECOMMENDATIONS**

Based on the findings and being mindful of the problems militating against the growth of the money market in Sierra Leone, the following recommendations have been favored for implementation:

1. Government should guarantee policies to reform the Central Bank discount window operations that would develop and strengthen the money market. This should not only be written on papers but implemented.
2. As a way of improving corporate profitability, banks should be encouraged through moral suasion to come up with a sound working capital policy. This will help in effective conduct of the monetary policy.
3. Banks should also improve upon their working capital which is the life blood of any organization
4. There should be the introduction of new, flexible and versatile money market instruments such as commercial paper, call money, trade credit and others suited to the prevailing conditions in the country but which can adapt to changing circumstances.

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