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ANALYSIS OF REGIONAL FINANCIAL PERFORMANCE THROUGH THE INDEPENDENCE RATIO, EFFECTIVENESS RATIO, AND GROWTH RATIO IN THE DISTRICT SOUTH BANGKA

Abstract

One of the positive effects of the implementation of regional autonomy is the proliferation of provinces or regencies / cities that is most common throughout Indonesia. One area resulting from the expansion is South Bangka Regency. As a new Regency that grew up in the era of regional autonomy, South Bangka Regency has a license to own its own area. The purpose of this research is to find out the Regional Government Financial Performance of South Bangka Regency. The data collection method used is documentation. While the method of analysis uses descriptive quantitative methods using financial ratios. The Financial Performance of South Bangka Regency Government in 2014-2018 when seen from the ratio of Regional Financial Independence is 7.10%. Regional Financial Effectiveness Ratio of 111.12% which means very effective. Regional Financial Ratio 40.00% is at medium level.

Keywords: *performance analysis, independence ratio, effectiveness ratio, growth ratio, Southern Bangka government.*

1. Introduction

Regional financial performance or the ability of a region is one measure that can be used to see the ability of a region to carry out regional autonomy (Sudaryo, 2017: 9). Financial performance analysis is carried out to assess past performance by conducting various analyzes in order to obtain a financial position that represents the reality and potential performance that will continue. With regional autonomy, the government is given the flexibility to manage resources and is accountable to the community. In line with the implementation of regional autonomy, a decentralization system is needed that is transparent, effective and efficient and can be accounted for to the wider community. Performance measurement for the public interest can be used as an evaluation and restoring performance by comparing the work scheme and its implementation. In addition, it can also be used as a benchmark for improving local government performance in the next period. Performance measurement can use the analysis of regional financial ratios against the report on the calculation of the regional income and expenditure budget which consists of regional financial independence ratios, effectiveness and efficiency ratios of local revenue, activity ratios, and growth ratios (Halim, 2004: 150). The central government gives authority to a wide-ranging autonomous regional government as a form of accelerating the realization of community welfare through improved services, empowerment and community participation in improving regional welfare.

The APBD is an operational financial plan for a region that describes regional revenue and is an expense to finance routine expenses and development expenditures used to finance regional development activities and projects. Regional financial management can be compiled in the form of financial performance reports. The performance report is a summary that explains briefly and completely the performance achievements compiled based on the work

plan stipulated in the framework of implementing the Regional Budget (APBD). The performance report is a mandate of Government Regulation Number 8 of 2006 concerning Financial Reporting and Performance of Government Agencies and further Presidential Regulation Number 29 of 2014 concerning Government Agency Performance Accountability System (SAKIP) (LAKIP South Bangka Regency, 2016: 1). This research was conducted in the South Bangka Regency area due to the inadequate analysis of financial performance in that area. Regional Original Income (PAD) which continues to increase from 2014-2018 is expected to make the region more independent in terms of regional revenue, however, when viewed from the ratio of financial independence / total income, the level of independence of the South Bangka Regency Government is not yet known. Although it has not achieved regional financial independence, the Government of South Bangka Regency has shown good development with increasing and decreasing financial independence ratios from 2014 to 2018. South Bangka because it still shows problems in its financial statements.

Table 1. Realization of the 2014-2018 South Bangka Regency budget (in thousands of Rupiah)

NO	URAIAN	TAHUN				
		2014	2015	2016	2017	2018
A	PENDAPATAN	656.443.091.272,00	752.450.542.977,01	778.931.238.700,00	778.569.286.887,25	885.625.210.270,00
1	Pendapatan Asli Daerah	28.997.944.181,72	38.734.330.288,88	46.255.276.506,46	84.707.727.793,31	89.427.844.387,14
2	Pendapatan Transfer	584.048.132.087,00	646.774.188.878,00	651.897.357.701,00	595.046.309.147,00	730.846.711.280,84
3	Lain-lain Pendapatan yg sah	43.597.894.173,54	-	-	-	85.350.660.782,00
B	BELANJA	633.142.219.885,10	682.202.968.396,91	712.478.044.862,00	666.278.186.589,20	785.971.644.899,63
1	Belanja Operasi	437.219.280.491,10	456.486.984.937,51	509.896.445.902,00	515.181.371.109,00	566.825.128.476,63
2	Belanja Modal	196.129.864.484,00	215.755.981.650,40	202.136.889.980,00	174.751.790.989,20	229.146.318.423,00
3	Belanja Tak Terduga	11.095.000,00	-	241.768.000,00	345.246.290,00	-
4	Transfer	-	71.447.675.757,50	87.580.806.207,00	89.865.716.743,00	89.212.357.697,00
	Surplus/Defisit	23.210.871.406,90	90.237.583.580,12	62.053.194.807,99	88.691.098.518,05	49.653.773.380,38

Based on the table above, it is known that the 2014-2018 Budget Surplus / Deficit in Bangka Selatan Regency in general tends to fluctuate. Revenues for 2014-2015 increased by 80%, in 2015-2016 decreased by 30%, in 2016 - 2017 increased by another 20%, and in 2017- 2018 decreased by 35%. Therefore, a study entitled "Analysis of Regional Financial Performance through the Ratio of Independence, Effectiveness Ratio, and Growth Ratio in South Bangka Regency" was conducted.

2. Literature Review

2.1 Accounting

Accounting is an information system that can be accounted for in providing financial-related reports to parties in need and providing information about the company's economic condition. According to Kieso and Weygandt (2016) Accounting is an information system that starts from classifying, recording and communicating all economic events from organizations or companies to parties who have an interest in the information. Meanwhile, according to Bahri (2016), accounting is an art in a transaction that has occurred by recording, summarizing, categorizing and reporting. The purpose of this is to improve the quality of a financial report for the better so that it is useful for information users in making decisions. From the above understanding it can be concluded that accounting is the process or activity of creating financial reports and useful information for users who need both external and internal parties regarding the activities of a company and are able to reduce errors that have occurred (Mulyadi, 2013).

2.2 Regional Financial Performance

According to Bastian (2013: 274) performance is a description of the achievement of the implementation of an activity / program / policy in realizing the goals, objectives, mission and vision of the organization. According to Yani (2009: 347), regional finance is all rights and obligations in the framework of implementing regional government which can be valued in money, including all forms of wealth related to the rights and obligations of the region. The scope of regional finance according to Yani (2009: 357) includes: a. Regional rights to collect local taxes and levies and make loans; b. Regional obligations to carry out government affairs and pay third party bills; c. Regional revenue; d. Regional expenditure; e. Regional assets that are managed by themselves or by other parties in the form of money, securities, accounts receivable, goods, and other rights that can be valued in money, including assets separated from regional companies; f. The assets of other parties controlled by the regional government in the context of carrying out regional government tasks and / or public interests. Based on the two opinions above, it can be concluded that the financial performance of the regional government is the ability of a region to explore and manage regional financial sources in fulfilling its needs in order to support the running of the government system, services to the community and regional development without fully depending on the central government and having flexibility in using funds for the benefit of regional communities within the boundaries determined by statutory regulations (Syamsi, 1988: 199).

2.3 Agency Theory

The concept of agency theory according to Anthony and Govindarajan in Siagian (2011: 10) is a relationship or contract between the principal and agent. The principal employs an agent to perform tasks for the interests of the principal, including delegating authorization for decision making from the principal to the agent. Meanwhile, according to R.A Supriyono (2018: 63) agency theory is the contractual relationship between the principal and the agent. Where this relationship is carried out in the form of granting authority by the principal to the agent regarding the best decision-making for the principal by prioritizing the interest in optimizing corporate profits and minimizing the burden, including tax burdens, by avoiding tax. However, in practice the agency relationship sometimes creates problems between managers and shareholders, therefore there must be an appropriate contract to align the interests of principals and agents.

2.4 Stewardship Theory

Stewardship theory (Donaldson and Davis, 1991), which describes a situation where management is not motivated by individual goals but aimed at their main outcome goals for the benefit of the organization. This theory assumes that there is a strong relationship between satisfaction and organizational success. Where the maximization of the utility of this group will ultimately assume the interests of individuals in the group of organizations. Stewardship theory can be applied to the accounting research of public sector organizations such as government organizations and other non-profit organizations. Since its early development, accounting for public sector organizations has been prepared to meet the information needs for the relationship between stewards and principles.

2.5 Definition of Independence Ratio, Effectiveness Ratio, and Growth Ratio

2.5.1 Independence Ratio

According to Halim (2014: 25) the scope of regional finance consists of “regional finances that are managed directly and separated regional assets. Regional finances that are managed directly are the Regional Revenue and Expenditure Budget (APBD) and regional inventory items. Separated regional finances include Regional Owned Enterprises (BUMD) “. The independence of regional finances shows that local governments are able to self-finance government activities, development and services to people who have paid taxes and levies as a necessary source of income. An indicator of a region's financial independence is the ratio of Regional Original Income to Balancing Funds and loans, thus PAD and Balancing Funds are a source of regional expenditure that has a positive effect on regional government spending (Gusti and Gede, 2014).

2.5.2 Effectiveness Ratio

According to Ravianto (2014: 11), the definition of effectiveness is how well the work is done, the extent to which people produce outputs as expected. That is, if a job can be completed in accordance with the plan, both in time, cost, and quality, it can be said to be effective.

2.5.3 Growth Ratio

The growth ratio measures the company's ability to maintain its economic position in economic growth and in industry or products. According to Kasmir (2012: 107) the growth ratio is a ratio that describes the company's ability to maintain its economic position amidst economic growth and its business sector.

3. Research Method

3.1 Location

This research was conducted in South Bangka Regency. The place of this research is located in the Regional Government of South Bangka Regency. Because the data I get is that the budget realization in South Bangka Regional Government is still fluctuating.

3.2 Research Type

Descriptive method is a method of examining the status of a group of people, an object, a condition, a system of thought or a class of events at present. The purpose of this descriptive research is to systematically, factually and accurately describe, describe, or paint the facts. The facts, properties and relationships between the phenomena being investigated. Usually, descriptive research is not designed to test hypotheses, but rather to provide information about the physical, social, behavioral, economic, or psychological characteristics of an object. This research approach is quantitative where the quantitative approach is a test of data in the form of numbers in the form of financial reports and financial ratios to support the variables studied. So, this type of research is descriptive quantitative, that is, calculating the financial data obtained to solve existing problems in accordance with the research objectives then analyze and describe them so as to answer the problems of the research objectives.

3.3 Research Object

Population is a generalization area consisting of objects or subjects that have certain qualities and characteristics that are determined by the researcher for study and then draw conclusions. This research was conducted to determine and analyze the regional financial performance and the object of research is the report on the target and realization of regional revenues in 2014-2018 at the Regional Financial Agency (BAKEUDA) office of South Bangka Regency.

3.4 Data Collection Method

Documentation can be in the form of writings, drawings or monumental works of a person. The data used in this research is secondary data. This secondary data is obtained from the Financial Results Report of the Regional Government of South Bangka Regency for the 2014-2018 period. To obtain the necessary data and information, the collection of data and information uses documentary techniques by searching for documents related to research. Documents in this research can be in the form of pictures and other documents that can help speed up the research process.

3.5 Data Analysis

The technique of analyzing data is carried out by using local government financial reports based on financial performance indicators, namely the independence ratio, effectiveness ratio and regional financial growth ratio.

3.5.1 Regional Financial Performance

The financial ratio tool used is a ratio analysis developed based on financial data sourced from the Regional Budget. a. RKKD regional financial independence ratio shows the level of capability of a region in self-financing government activities, development and services to people who have paid taxes and levies as a source of revenue needed by the region. Regional Financial Independence Ratio that comes from other sources (Transfer Income), among others, tax sharing, non-tax revenue sharing for natural resources, general allocation funds and special loan allocations. The formula used to calculate the independence ratio is:

$$\text{RKKD} = \frac{\text{PAD}}{\text{Pendapatan Transfer}} \times 100\%$$

Source: Halim, 2014

b. The effectiveness ratio illustrates the ability of the local government to realize the planned local revenue compared to the target set based on the real potential of the region. Regional capability is categorized as effective if the ratio achieved reaches a minimum of 1 (one) or 100 percent.

$$\text{Rasio Efektivitas} = \frac{\text{Realisasi PAD}}{\text{Anggaran PAD}} \times 100\%$$

Source: Halim, 2014

c. The growth ratio measures how much the ability of local governments to maintain and increase the success achieved from period to period. The growth ratio is said to be good, if every year it has positive growth or has increased.

$$\text{Rasio Pertumbuhan} = \frac{RpXn - RpXn - 1}{RpXn - 1} \times 100\%$$

Source: Halim, 2014

4. Findings and Discussions

4.1 Findings

4.1.1 Independence Ratio

$$\text{a. Year 2014 RKKD} = \frac{PAD}{\text{Transfer Revenue}} \times 100\%$$

$$= \frac{\text{Rp. 28.907.044.191,71}}{\text{Rp. 584.048.152.907,00}} \times 100\%$$

The independency ratio for the Basel Regional Government Financial Performance in 2014 is 49.5%, which means it is at a moderate level.

$$\text{b. Year 2015 RKKD} = \frac{PAD}{\text{Transfer Revenue}} \times 100\%$$

$$= \frac{\text{Rp. 38.734.330.398,88}}{\text{Rp. 646.774.188.978,00}} \times 100\%$$

The independency ratio for the Basel Regional Government's Financial Performance in 2015 is 59.8%, which means it is at a moderate level.

$$\text{c. Year 2016 RKKD} = \frac{PAD}{\text{Transfer Revenue}} \times 100\%$$

$$= \frac{\text{Rp. 46.255.276.506,46}}{\text{Rp. 651.697.357.701,00}} \times 100\%$$

The independency ratio for the 2016 Regional Government of Basel Government Financial Performance is 71.0%, which means it is at a moderate level.

$$\begin{aligned}
 \text{d. Year 2017 RKKD} &= \frac{PAD}{Transfer\ Revenue} \times 100\% \\
 &= \frac{Rp. 84.707.727.750,31}{Rp. 595.946.369.147,00} \times 100\%
 \end{aligned}$$

The independence ratio for the Basel Regional Government's Financial Performance in 2017 is 14.21%, which means it is at a high level.

$$\begin{aligned}
 \text{e. Year 2018 RKKD} &= \frac{PAD}{Transfer\ Revenue} \times 100\% \\
 &= \frac{Rp. 49.427.844.307,14}{Rp. 730.846.713.269,84} \times 100\%
 \end{aligned}$$

The independence ratio for the Basel Regional Government's Financial Performance in 2018 is 67.6%, which means it is at a moderate level.

4.1.2 Effectiveness Ratio

$$\begin{aligned}
 \text{a. Year 2014 Effectiveness Ratio} &= \frac{PAD\ Realization}{PAD\ Budget} \times 100\% \\
 &= \frac{Rp. 30.357.519.634,00}{Rp. 28.907.044.191,72} \times 100\%
 \end{aligned}$$

The Effectiveness Ratio for the 2014 Regional Government of Basel Government Financial Performance was 95.22%, which means that it is quite effective.

$$\text{b. Year 2015 Effectiveness Ratio} = \frac{PAD\ Realization}{PAD\ Budget} \times 100\%$$

$$= \frac{\text{Rp. 39.397.867.381,00}}{\text{Rp. 38.734.330.398,88}} \times 100\%$$

The Baseline Effectiveness Ratio for Regional Government Financial Performance in 2015 is 98.31%, which means that it is quite effective.

c. Year 2016 Effectiveness Ratio = $\frac{PAD\ Realization}{PAD\ Budget} \times 100\%$

$$= \frac{\text{Rp. 58.344.896.378,00}}{\text{Rp. 46.255.276.506,46}} \times 100\%$$

The Baseline Effectiveness Ratio for Regional Government Financial Performance in 2016 was 79.27%, which means that it is less effective.

d. Year 2017 Effectiveness Ratio = $\frac{PAD\ Realization}{PAD\ Budget} \times 100\%$

$$= \frac{\text{Rp. 76.226.319.322,00}}{\text{Rp. 84.707.727.750,31}} \times 100\%$$

The Effectiveness Ratio for the Financial Performance of the Basel Regional Government in 2017 was 111.12%, which means that it is very effective.

e. Year 2018 Effectiveness Ratio = $\frac{PAD\ Realization}{PAD\ Budget} \times 100\%$

$$= \frac{\text{Rp. 46.214.022.196,61}}{\text{Rp. 49.427.844.307,14}} \times 100\%$$

The Effectiveness Ratio for the Financial Performance of the Basel Regional Government in 2018 is 106.95% which means that it is very effective.

4.1.3 Growth Ratio

$$\text{a. Year 2014 Growth Ratio} = \frac{RpX_n - RpX_{n-1}}{RpX_{n-1}} \times 100\%$$

$$= \frac{Rp. 23.210.871.416,96}{Rp. 88.529.278.251} \times 100\%$$

The Growth Ratio for the Regional Government of Basel Financial Performance in 2014 was 40.00% which means that it is very effective.

$$\text{b. Year 2015 Growth Ratio} = \frac{RpX_n - RpX_{n-1}}{RpX_{n-1}} \times 100\%$$

$$= \frac{Rp. 90.237.583.940,12}{Rp. 23.210.871.416,96} \times 100\%$$

The Growth Ratio for the Basel Regional Government's Financial Performance in 2015 was 25.00% which means it is very moderate.

$$\text{c. Year 2016 Growth Ratio} = \frac{RpX_n - RpX_{n-1}}{RpX_{n-1}} \times 100\%$$

$$= \frac{Rp. 62.053.194.907,99}{Rp. 90.237.583.940,12} \times 100\%$$

The 2016 Growth Ratio for Local Government Financial Performance was 20.00%, which means it is very low.

$$\text{d. Year 2016 Growth Ratio} = \frac{RpX_n - RpX_{n-1}}{RpX_{n-1}} \times 100\%$$

$$= \frac{Rp. 88.091.098.518,03}{Rp. 62.053.194.907,99} \times 100\%$$

The Growth Ratio for the Financial Performance of the Regional Government of Basel in 2017 is 80.00% which means it is very high.

$$\begin{aligned}
 \text{e. Year 2016 Growth Ratio} &= \frac{RpX_n - RpX_{n-1}}{RpX_{n-1}} \times 100\% \\
 &= \frac{Rp. 69.653.773.380,35}{Rp. 88.091.098.518,03} \times 100\%
 \end{aligned}$$

The Growth Ratio for the Financial Performance of the Basel Regional Government in 2018 is -40.00% which means that it is very low.

4.2 Discussion

Analysis of the Financial Performance of the Regional Government of South Bangka Regency in this study is an assessment process regarding the level of progress in the achievement of the implementation of work / activities of the South Bangka Regency Government in the financial sector for the period 2014-2018. The ratios used by researchers in analyzing the financial performance of the Regional Government of South Bangka Regency in this study are, the Independence Ratio, the Effectiveness Ratio, and the Growth Ratio.

4.2.1 Regional Financial Independence Ratio

Regional Financial Independence Ratio shows the level of ability of a region to self-finance government activities, development and services to people who have paid taxes and levies as a source of revenue needed by the region. The results of the calculation of the regional financial independence ratio of the Provincial Government show an unstable percentage because the existing data shows that it is still experiencing ups and downs. This is due to the various factors of regional revenue revenue each year. Regional Financial Independence Ratio of the Regional Government of South Bangka Regency for the 2014- 2018 is shown in table 4.1.

Table 4.1 Regional financial independence ratio of regional government of South Bangka Regency for the period of 2014-2018

Tahun Anggaran	Pendapatan Asli Daerah (Rp)	Pendapatan Transfer (Rp)	RKRD (%)	Keterangan
2014	28.907.044.191,72	584.048.152.907,00	4,95	Sedang
2015	38.734.330.398,88	646.774.188.978,00	5,98	Sedang

2016	46.255.276.506,46	651.697.357.701,00	7,10	Sedang
2017	84.707.727.750,31	595.946.369.147,00	14,21	Tinggi
2018	49.427.844.307,14	730.846.713.269,84	6,76	Sedang

Source: BPKPD West Sulawesi Province, 2017

According to the description above, it can be concluded that the Regional Financial Independence Ratio for five years in the South Bangka Regency Government has an average independence that is still classified as moderate and in the category of less financial capacity with an Instructive relationship pattern, namely the role of the central government is still very dominant compared to local governments, this can be seen of the Regional Financial Independence Ratio it is still classified in the 50% - 75% interval. The Ratio of Independence which is still causing the regional financial capacity of South Bangka Regency to finance government implementation and regional development is still very dependent on assistance from the central government. So the overall independence of the South Bangka Government's Government can be said to be moderate, this illustrates that the level of regional dependence on external funding sources is still very high.

4.2.2 Regional Original Income Effectiveness Ratio

The effectiveness ratio describes the ability of the regional government to realize the planned PAD compared to the target set based on the real potential of the region. The higher the effectiveness ratio, the better the local government performance. The Regional Original Revenue Effectiveness Ratio of the South Bangka Regency Government for the 2014-2018 Period is shown in Table 3.

Table 4.2 Regional Original Revenue Effectiveness Ratio of Regional Government of South Bangka Regency for the 2014-2018 Period

Tahun Anggaran	Anggaran PAD (Rp)	Realisasi PAD (Rp)	RE (%)	Keterangan
2014	30.357.519.634,00	28.907.044.191,72	95,22	Cukup efektif
2015	39.397.867.381,00	38.734.330.398,88	98,31	Cukup efektif
2016	58.344.896.378,00	46.255.276.506,46	79,27	Kurang efektif
2017	76.226.319.322,00	84.707.727.750,31	111,12	Sangat efektif
2018	46.214.022.196,61	49.427.844.307,14	106,95	Sangat efektif

Source: Kepmendagri No. 690.900.327 in 1996

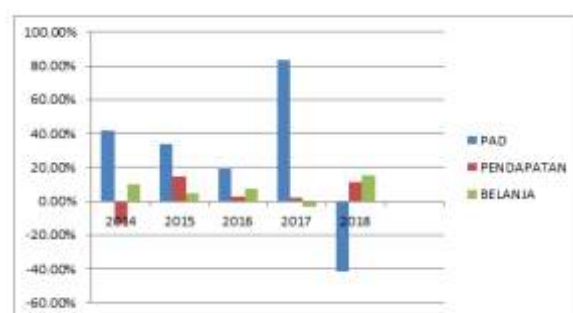
Based on the calculations in table 4.2, it can be seen that the effectiveness of the Regional Government of South Bangka Regency Financial PAD in 2014 was 95.22%, 2015 was

98.31%, 2016 was 79.27%, 2017 was 111.12%, and in 2018 amounted to 106.95%. The effectiveness of the financial performance of South Bangka Regency for 2014 and 2015 was quite effective because its effectiveness was 90% -100%. For 2016 the effectiveness was less effective because the value obtained was still below 100% and for 2017 & 2018 it was effective because the value obtained was more than 100%. According to the description and calculation results in table 4.2, the Effectiveness of Financial Performance in South Bangka Regency has been very effective because the average effectiveness is > 100%. This is due to the fact that revenues from the local tax and retribution sector exceed what has been previously budgeted.

4.2.3 Growth Ratio

According to Sofyan (2013: 309), the growth ratio (growth ratio) is a growth ratio that describes the percentage of growth of company posts from year to year. The Regional Government Growth Ratio of Bangka Selatan Regency for the 2014-2018 Period is shown in Graph Figure 2.

Figure 2. Growth of the South Bangka Regency in the 2014-2018 period



Source: Doc. BPKAD, 2013 (data processed)

From the calculation of the growth ratio measures how much the ability of local governments to maintain and increase the success that has been achieved from period to period. Figure 2 shows that experienced low growth in 2014, 2017, and 2018. Figure 2 shows that the growth of Regional Original Income (PAD) in 2018 reached -41.64% with a low growth category. In 2014 the income reached -13.48% in the low category, lower than the high regional original income. In 2017, the growth in spending was low, reaching -31.1% compared to the growth in Regional Own-Owned Revenue and Revenue. However, if you look at the growth in Regional Original Revenue (PAD) from 2014 to 2018, it can be seen that there has been a fluctuation.

5. Conclusion

5.1 Conclusion

Based on the results of the data analysis conducted, the South Bangka Regency government:

1. The Financial Performance of the Regional Government of South Bangka Regency in 2014-2018 when viewed from the Level of Regional Financial Independence Ratio is classified as Medium. This indicates that the level of dependence of regions on external funding sources is still very high.
2. Regional Government Financial Performance of South Bangka Regency in 2014-2018 when viewed from the Level of Regional Revenue

Effectiveness Ratio. This indicates that the local government of South Bangka Regency is able to realize its regional revenue beyond the targeted budget. 3. Financial Performance of the Regional Government of South Bangka Regency in 2014-2018 when viewed from the growth ratio, it can be seen that there is fluctuation. This means that the ability of local governments to maintain and increase their success achieved from period to period is still unstable because there have been increases and decreases every year and there has been a significant decline in 2018. 4. It is known the reasons why the South Bangka Regional Government has not received the WTP title (unqualified), from the Regional Government financial reports (LKPD), namely: a) There are problems with asset management in 2015-2016 that have been investigated. b) There is a problem of mutation plus less asset tracking and management tracking and (BOS) where the capital expenditures that should be reported by the principal by the assets of the local government.

5.2 Research Limitation

Although researchers have tried to design and develop research in such a way, there are still some limitations in this study that still need further revision, including: 1. This research was conducted only on the government of South Bangka Regency, so it has not been seen as a whole the financial performance of the regional government at large. 2. This research is still limited to measurement tools / ratios, for further research it can be done to expand other measurement/ratio tools as a means of analyzing local government financial performance.

5.3 Suggestion

Based on the conclusions previously described, as a consideration for improving the financial performance of the South Bangka Regency Government in regional financial management, the researchers provide the following suggestions: 1. For the regional government, it is better if in preparing and realizing the APBD it is necessary to pay attention to financial ratios for the next period so that it can increase regional income, one of which is through optimizing the intensification and extensification of local tax and levies. 2. For further researchers, it is hoped that they can add other measurement / ratio tools as a means of analyzing local government financial performance and expanding the object of their research.

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Capital Market and Economic Growth in Nigeria: An Autoregressive Distributed Lag (ARDL) Bounds Testing Approach

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Abstract

The role of capital market in growth and development of any economy need not to be over emphasized. The capital market is a complex institution and mechanisms through which economic units desirous to invest their surplus fund, interact directly or through financial intermediaries with those who wish to procure funds for their businesses. The Nigerian capital market which started operations in mid-1961 with eight stocks and equities; with about seven United Kingdom (UK) firms quoted on the Nigerian Stock Exchange (NSE) which had, at the same time, dual quotations on the London Stock Exchange. This study examined the impact of capital market on economic growth in Nigeria from 1981 to 2018. The expo facto research design was adopted for this study. The time series data for the study were sourced from CBN statistical bulletin. Autoregressive Distributed Lag (ARDL) was used with the aid of e-view 10 software. The ARDL Bounds test revealed the existence of long run relationship among the variables. The result revealed that market capitalization has positive and insignificant effects on economic growth both in the short and long run. There is unidirectional causality among the variables. The study recommended that, regulatory authorities should restore confidence to the market by ensuring transparency and fair trading dealings and transactions in the market to enhance economic growth. There should be improvement in the moribund market capitalization, by encouraging more foreign investors to participate in the market, maintain state of the art technology like automated trading and settlement practices, electronic fund clearance and eliminate physical transfer of shares.

Keywords: Capital market, ARDL, economic growth, bounds test, causality

1. Introduction

The role of capital market in growth and development of any economy need not to be over emphasized. The capital market is a complex institution and mechanisms through which economic units desirous to invest their surplus fund, interact directly or through financial intermediaries with those who wish to procure funds for their businesses. Okereke (2000) describes the capital market as constituting of market and institutions that facilitates the issuance and secondary trading of long-term financial instruments. Unlike the money market that represents the short-end of financial system that provides facilities for claims and obligations with maturity vary from one day to a year, the capital market provides government at all levels an effective way of financing public projects; thus playing a vital role in stimulating industrial as well as economic growth and development.

The theoretical framework on the effects of capital market on economic growth dates back to the work of Schumpeter, (1911) which explained that a well- developed financial system can facilitate technological innovation and economic growth through the provision of financial services and resources to investors. The above argument of Schumpeter, (1911) was later

advanced as the McKinnon, (1973) hypothesis, which is a policy analysis tool for developing countries with strong recommendation and high priority on the efficiency of financial systems in facilitating capital accumulation and financial intermediation. The above hypothesis became formalized and popularized through the endogenous growth models of Fry (1988), Greenwood and Jovanovic (1990) and Pagano (1993) which specify explicitly the modeling of the link between financial intermediation role of capital markets and growth indicators. These models have identified the capital market as an institution that contributes to the economic growth of emerging economies, they are also considered as a variable in explaining the economic growth in the most-developed ones.

The Nigerian capital market which started operations in mid-1961 with eight stocks and equities; with about seven United Kingdom (UK) firms quoted on the Nigerian Stock Exchange (NSE) which had, at the same time, dual quotations on the London Stock Exchange. At the commencement of operations, the market started with 0.3 million shares worth N1.5 m in 334 deals and the value continued to grow steadily to N16.6m in 634 deals by 1970 (CBN 2004). According to Nigerian Stock Exchange report (NSE, 2009), in 1995 the Federal Government liberalized the capital market with the abrogation of Laws that prevent foreign investors from participating in the domestic capital market. This includes: The Foreign Exchange; Monitoring and Miscellaneous Provision Decree No: 17, 1995; Nigerian Investment Promotion Commission Decree No: 16, 1995; Companies and Allied Matters Decree of 1990 and Securities and Investment Act (ISA) 45 of 1999. These legislations have accorded Nigerians and foreign investors the same right, privileges and opportunities for investment in securities in the Nigerian capital markets. Other key measures included The Central Security Clearing System (CSCS) which commenced operations in April 1997. It is a central depository for all the share certificates of quoted securities including new issues.

The Nigeria capital market is regulated by the Securities and Exchange Commission and central bank of Nigeria (CBN). The size of capital market of the country should be relative to the size of the economy if real economic progress is to be achieved by the operations of the market, since this market moves resources from people who have it to organizations that need it for productive purposes which critically smooth the growth of the economy. Other financial institutions involved in the capital market include central bank, commercial banks, insurance companies, pension funds, unit trust, issuing houses, merchant banks, etc. The traditional roles of the market are to mobilize funds from the surplus spending units to the deficit spending units for long term investments. It is also the responsibility of the capital market to create liquidity, ensure diversification of risk among others. Recently, the achievement of these goals has constituted a problem for the performance of the capital market in Nigeria. This may probably be attributed to a little amount of the total earnings of the public that actually make savings are quite small. The public companies in Nigeria are not many and in most cases, large numbers of shares issued by them are held by non-Nigerians. Also, Gbosi and Omoke (2002); and Ajie et al (2008) identified the problems faced by capital market in Nigeria to include aversion to dilution of ownership, high level of ignorance, inefficient infrastructure facilities, lack of professionals in capital market activities, paucity of monetary tools, outdated regulatory frameworks, lack of timely and easy access to information, poor investment climate, predominance of low income investors in the capital market, absence of a comprehensive mass media that deals with financial information and a relatively unsteady macroeconomic environment have adversely affected the enlargement of Nigeria's capital market.

However, to proffer solution to the above mentioned problems in the capital market,

successive governments in Nigeria have adopted different policy measures to enhance capital market performance. Supporting the above view, Abdul (2014) submitted that the capital market in Nigeria has undergone series of reforms or transformation in an effort to achieve adequate economic growth at the rate needed to have feasible impact in reducing unemployment and poverty. The reasons for the reforms included to provide greater opportunities for funds to be mobilized, improved efficiency in the allotment of funds and make available information that are relevant for appraisal of the capital market. Consequently, the capital marketplace will make available variety of monetary instruments skilled enough to facilitating economic agents to pool, price and swap risk which will stimulate economic growth.

In spite of the reforms, the influence of capital market on the growth of the Nigerian economy is still unimpressive and disappointing when viewed from the nature of all the activities happening in the market. Furthermore, a number of studies have been carried out on the association between capital market and economic growth. But the outcomes are conflicting as shown in the empirical review. Therefore, difference in opinions and empirical findings on how capital market has impacted on economic growth is of serious concern, especially in Nigeria and that is what necessitated this research. Therefore, the broad objective of this study was to examine the impact of capital market on economic growth in Nigeria. Specifically, this study examined how variables of capital market such as market capitalization, number of deals, volume of transactions and interest rate have impacted on economic growth and the causal link between capital market and economic growth in Nigeria from 1981 to 2018. The paper has five-sections, namely introduction, literature review, methodology, results and discussion; and conclusion and recommendations.

2. Literature Review

2.1 Theoretical review

Attempts to investigate the association between capital market and economic growth have resulted in a number of theories and general statements which some are reviewed hereunder.

Efficient Market Hypothesis (EMH)

EMH was developed by Fama (1965) in an attempt to provide a framework for examining the efficiency of the capital market. Now, it remains one of the theoretical exploits of capital market economic growth association. The EMH was founded on the supposition that prices of securities in financial or monetary markets completely mirror all available information, because in a well-organized market, prospects or opportunities for all unexploited profit are eradicated or eliminated. An essential factor in this way of thinking is that not everybody in a financial or monetary market must be properly informed about a security or have rational or sensible expectations for its price to be driven to the position at which the well-organized markets state or condition holds. Financial markets are structured so that numerous participants can play. As long as a small number of participants keep opening their eyes for unexploited profit prospects, they will eliminate the profit opportunities that appear, because they make profits in so doing.

The EMH makes sense, because it does not require all and sundry in a market to be cognizant of what is happening to every security. In a well-organized market, all prices are always correct or accurate and reproduce market fundamentals (items that have a direct impact on future income streams of the securities). The evidence on the EMH is fairly mixed. Early

evidence on the analysis of investment performance and mutual funds, whether stock prices reflect publicly available information, the random-walk behaviour of stock prices, and the success of so-called technical analysis was quite favourable to the EMH. However, in recent years, evidence or proof on the small-firm effect, market overreaction, excessive volatility, means reversion, and new information is not always incorporated into stock prices, suggesting that the hypothesis may not always be entirely correct. The proof seems to suggest that the efficient markets hypothesis may be a sensible point to start evaluating behaviour in monetary or financial markets but may not be generalized to all behaviour in financial market. The EMH indicates that hot tips, investment advisors' published recommendations, and technical analysis cannot help an advisor out-perform the market. The explanation for investors is to pursue to buy-and-hold strategy-purchase stocks and hold them for long periods of time. Empirical evidence generally supports these implications of the efficient markets hypothesis in the stock market.

According to Okpoto (2015) previous test of the EMH have relied on long range dependence of equity returns. It revealed that previous information has been found to be in improving predictive correctness. This report seems not to support the EMH in majority of the developing nations. Given the fact that the regulatory and institutional arrangements in the market are immature, the equity price definitely would tend to exhibit long range dependence. In a state of affairs where the market is highly and unreasonably speculative, investors will be disheartened. This has a negative effect on economic growth of any country, meaning that investors will refuse to invest in financial assets.

Modern Portfolio Theory

Portfolio theory is about finding the balance between maximizing your return and minimizing your risk. The objective is to select your investments in such a way as to diversify your risks while not reducing your expected return. While it does not replace the role of an informed investor, it can provide a powerful tool to complement an actively managed portfolio. A portfolio probably consists of a number of stocks, bonds and mutual funds. The mix of these assets constitutes portfolio allocation. How a portfolio is allocated determines its performance. During the first quarter of every year, investors typically spend a few hours reallocating their retirement accounts. Most allocation decisions are based on past performance, feelings, or some arbitrary selection process.

Endogenous Growth Theory

A number of theories and empirical papers such as have recommended that stock market development affect economic growth in developing countries. It has been a challenge in discussing the channels through which stock markets stimulates economic growth. In traditional growth theory, the growth rate is a positive function of exogenous technical progress. However, financial development is not related to economic growth, but to physical capital per worker (Pagano 1996). On the other hand, endogenous growth models show that economic growth performance is related to financial development, technology and income distribution. Greenwood and Jovanovic (1990) argued that income per capita helps determine membership in an information processing intermediacy that in turn improves investment decisions and economic growth. They incorporated the role of financial factors in models of endogenous growth to formalize the interactions between financial markets and economic growth. Due to the advances in the endogenous growth literature, recent models have been trying to identify the mechanism through which financial markets influence economic growth.

Various channels have been suggested, firstly, financial markets can affect economic growth through efficient resource allocation. King and Levine(1996) proposed a model in which innovation activities serve as the engine of growth. A higher rate of successful innovations results in a higher growth rate of productivity. In the absence of financial markets, one might invest in projects that can be promptly liquidated, instead of investing in assets that are more productive but financially illiquid. Markets can provide individuals with less risky and liquid productive investments. Secondly, financial markets can influence economic growth through the information channel

Financial Liberalization Theory

The Financial Liberalization hypothesis as developed by McKinnon (1973) sees the role of government intervention in the financial markets as a major constraint to savings mobilization, investment, and growth. Government's role in controlling interest rates and directing credit to priority sectors of the economy in developing countries. inhibits savings mobilization and impedes the holding of financial assets, capital formation, and economic growth. Indirectly, ceiling on deposit interest rates discourages financial savings, which leads to excess liquidity outside the banking system. According to McKinnon (1973), pervasive government intervention and involvement in the financial system through the regulatory and supervisory network, particularly in controlling interest rates and the allocation of credit, tends to distort financial markets. Government intervention, thus adversely affect savings and investment decision of market participants and lead to fragmentation of financial mediation. The ultimate result is a financial repressed economy. The central idea of McKinnon (1973) is that financial markets should be liberalized and allocation of credit determinant by the free market. In this case, the real interest rate will adjust to its equilibrium levels and low yielding projects will be eliminated. This will lead to increase in overall efficiency of investment, savings and total real supply of credit would increase. This in turn induces a higher volume of investment which will then lead to economic growth.

The main critique of the financial liberalization theory emanates from the imperfect information Paradigm. This school of thought disagrees with the proposition of these scholars and examines the problem of financial development in the context of information asymmetry and costly information that results in credit rationing. As observed by Joseph Stiglitz (1981), asymmetric information leads to two serious problems, first, adverse selection and second, moral hazard. The implication is that the information asymmetries of higher interest rates which actually follow financial reforms and financial liberalization policies in particular exacerbate risk taking throughout the economy and hence threatens the stability of the financial system, which can easily lead to financial crises while the Feedback theory suggests a two-way causality between economic growth and financial development. The analysis is as follows: A country with well – developed financial markets could stimulate and promote high economic growth through technology changes, and product and services innovation (Schumpeter,1911)]; this in turn will create high demand in financial arrangements and services. As the financial institutions effectively respond to this demand, higher economic performance is ensured. In this regard, both financial development and economic growth are positively interdependent and their relationship could lead to feed- back causality (Khan, 1991).

2.2 Empirical Review

A number of literatures exist on capital market and economic growth. Some of this studies

were review below.

Afolabi (2015) empirically examined the impact of the Nigerian Capital Market on the Nigerian economy looking at a 20 years period from 1992 to 2011. The Nigerian Capital Market was proxy as Market Capitalization against some variables of the economy such as Gross Domestic Product (GDP), Foreign Direct Investment, Inflation Rates, Total New Issues, Value of Transaction and Total Listing. Using the multiple regression analysis, the study finds that Capital Market has an insignificant impact on the Economy within the period under review. The study therefore advised that policies and measures that would boost investors' confidence should be enshrined in the running of Nigerian Capital Market so that it could contribute significantly to the growth of Nigerian economy noting that all elements of the market are essential ingredients to the development of a nation.

Atoyebi, Ishola, Kadiri, Adekunjo and Ogundeji, (2013) seek to determine the impact of capital market on economic growth in Nigeria using annual data from 1981 to 2010. In their empirical analysis, ordinary least square test was used to verify the statistical significance of the variables used and vector auto regression technique to determine the long run relationship within the variables in their study. Their empirical investigations revealed that two variables are statistically significant at 10% and these variables are market index and market capitalization. Also the coefficient value of these two variables suggest that a percentage increase in market index and market capitalization will bring about on the average 33.7 and 44.8 percentage increase in reel GDP. Their findings based on Johanson co-integration technique and vector auto regression suggested three co-integrating equation at 5% level of significant while the vector auto regression suggested the existence of long run relationship between stock market and reel GDP. The stability in the system was also determined through the vector autoregressive technique. Their study recommended that there is need to address the reported case of abuse and sharp practices by some companies in the market. There is also the need to boost the value of transactions in the Nigerian capital market; there is need for availability of more investment instruments such as derivatives, convertibles, future, and swaps options in the market.

Okoye, Modebe, Taiwo and Okorie (2016) investigated the relationship between capital market development and economic growth using data on GDP (proxy for economic growth), market capitalization ratio; value traded ratio and stock market turnover ratio (proxies for capital market development) over the period 1981-2014. Employing the econometric methodology of the vector error correction model, their study showed that in the short-run, market capitalization ratio and turnover ratio have significant negative effect on aggregate national output (GDP). Their study also showed positive effect of value traded ratio as well as negative effect of inflation rate on GDP though not significant. Their long-run estimate showed that all the exogenous variables have significant negative impact on GDP and that changes in market capitalization ratio, value traded ratio and turnover ratio produce more than proportionate changes in GDP. With an adjustment speed of about 91.12 percent, their model presents an inherent capacity to overcome short-run disequilibrium. Their Granger causality test result shows evidence of causal impact of market capitalization ratio, value traded ratio and turnover ratio on aggregate national output. Their study further shows uni-directional causality from GDP to inflation. Their study established that stock market development constitutes a significant determinant of economic growth in Nigeria.

Yadirichukwu, and Chigbu, (2014) examined the impact of capital market on economic

growth in Nigeria. In their study, a time-series research design relying extensively on secondary data covering 1985 -2012 was adopted. Their study utilized regression analysis as data analysis method incorporating multivariate co-integration and error correction to examine characteristics of time series data adopting disaggregate the capital market indices approach. Their finding suggested that two exhibited positive while two exhibited inverse and statistically significant relationship with economic growth. Their study recommended that relevant regulatory agencies should focus on enhancing efficiency and transparency of market to improve investor's confidence. Therefore the need for effective and favourable macroeconomic environment to facilitate economic growth and ensure that channels of capital market induced growth are built around effective systems; and that policy institutions are active in making systemic checks and appropriate policy innovations to ensure capital market led economic growth.

Taiwo, Adedayo and Evawere (2016) evaluated the contribution of capital market to the growth of Nigeria's economy. Their study estimated error correction model for economic growth in Nigeria, using Vector Error Correction techniques on an annual time series data spanning from 1981 to 2014. The data used in their study were subjected to Phillip Perron Unit Root Test at level and first difference. Their result showed that, at one percent significance level, all the variables were stationary at first differencing. Their result of the normalized co integrated series revealed that market capitalization rate, total value of listed securities, labor force participation rate, accumulated savings and capital formation are significant macroeconomic determinant factors of economic growth in Nigeria. The study recommended that, for the capital market to realize its full potentials, its environment must be enabled to promote and encourage investment opportunities for both local and international investors, since the stock market operates in a macroeconomic environment. Consequently, an improvement in the Nigerian trading system with the aim of increasing the ease with which investors can purchase and sell shares, could guarantee the stock market liquidity.

Odo, Anoke, Onyeisi and Chukwu (2017) investigated the impact of capital market on economic growth in Nigeria from 1986 to 2016. They employed Auto Regressive Distributed Lag bound testing and VAR Granger causality econometric tools of estimation to test the variables in the model. The result of the estimation revealed a stable long run association between the explained and explanatory variables as supported by the greater bound value of 10.58. The finding of the ARDL revealed that market capitalization has positive significant association with economic growth; also, stock traded total value indicated a negative insignificant link with economic growth, all in the short run. The findings further showed that market capitalization and stock traded total value percent of GDP exhibited a negative insignificant link with economic growth in the long run within the period of the study. Findings of VAR Granger test revealed that, causality was seen from MCAPGDP to GGDP.

Muritala and Ogunji (2017) critically studied the association between the capital market and economic growth in Nigeria (1980-2015). Unit root, Co-integration and ECM methods of econometrics were employed. The finding showed that total new issue, market capitalization, and total listing positively impact on the economy. Meanwhile, the value of the transaction has impacted on real gross domestic product negatively.

3. Research Method

3.1 Data

The expo facto research design was adopted for this study. Ex post facto research design is a non- experimental research technique in which preexisting groups are compared on some dependent variable. Ex-post facto research involves past events where data already exist. This research technique will be used due to its suitability in research survey of this nature.

Secondary data was collected on each of the above stated variables, covering the period of 1981 to 2018. The choice of this period is to make room for a broad coverage of the capital market indicators, as well as the investigation of both the short run and long run relationship between capital market development and economic growth in Nigeria. These annual data series were collected majorly from CBN Statistical Bulletin of 2014, CBN Annual Report and Statement of Accounts (various issues), NSE books, and SEC Market Bulletins.

The estimation procedure for this study is the multivariant regression approach starting from unit root test for stationarity, ARDL for the determination of the long run relationship among correlated variables of order I(0) and I(1) and the short and long run dynamic nature.

3.2 Model specifications

The notion of growth as increased stocks of capital goods (means of production) involved a series of equations which showed the relationship between labour-time, capital goods, output, and investment. Therefore, economic growth (measured by real gross domestic product) is estimated as a function of savings by deposit mobilization, capital accumulation, labour supply, total listed stock market securities and the contribution of the stock market. These were measured respectively by deposit money banks, gross fixed capital formation, active labor force participation, total listed assets and stock market capitalization.

$$RGDP = f(MCAP, SAV, GFCF, LABF, TLA) \dots\dots\dots (1)$$

$$RGDP = \alpha_0 + \alpha_1 MCAP + \alpha_2 SAV + \alpha_3 GFCF + \alpha_4 LABF + \alpha_5 TLA + \mu_i \dots\dots\dots (2)$$

Where:

RGDP = Real Gross Domestic Product at constant factor cost

MCAP = Stock Market Capitalization

SAV = Savings Accumulation

GFCF = Gross Fixed Capital Formation

LABF = Labour Force

TLA = Total Listed Securities

μ^t = Error Term

α_0 = The constant parameter;

$\alpha_1, \alpha_2, \alpha_3, \alpha_4$, and α_5 = The slope parameters

Apriori expectation: On the apriori: $\alpha_1, \alpha_2, \alpha_3, \alpha_4, \alpha_5 > 0$.

The techniques that were employed to analyze our data are: unit root test via Augmented

Dickey Fuller test (ADF) and Autoregressive Distributed Lag (ARDL). The ADF unit root test helps to ascertain stationarity of the variables, and the general form of the ADF is presented thus:

$$\Delta y_t = \alpha_0 + \alpha_1 y_{t-1} + \sum_{i=1}^n \alpha_i \Delta y_{t-i} + \delta t + U_t \quad (3)$$

Where: y is a time series, t is a linear time trend, Δ is the first difference operator, α_0 is a constant, n is the optimum number of lags in the independent variables and U is random error term. In order to examine the short-and long-term relations between the economic growth and capital market variables in the model, Autoregressive Distributed Lag (ARDL) was used. The reason is that estimates provided by ARDL method avoid problems such as autocorrelation and endogeneity, they are unbiased and efficient. Moreover, Autoregressive Distributed Lag (ARDL) is a long-established method of estimating cointegrating relationships, such as Engle-Granger (1987) or Johansen's (1991, 1995) method, or single equation methods such as Fully Modified OLS, or Dynamic OLS either require all variables to be $I(1)$, or require prior knowledge and specification of which variables are $I(0)$ and which are $I(1)$. To alleviate this problem, Pesaran and Shin (1999) and Smith (2001) showed that co-integrating systems can be estimated as ARDL models, with the advantage that the variables in the cointegrating relationship can be either $I(0)$ or $I(1)$, without needing to pre-specify which are $I(0)$ or $I(1)$. Pesaran and Shin also noted that unlike other methods of estimating cointegrating relationships, the ARDL representation does not require symmetry of lag lengths; each variable can have a different number of lag terms. Therefore, the ARDL model for this study is presented thus:

$$\Delta RGDP_t = C_0 + C_1 RGDP_{t-1} + C_2 MCAP_{t-1} + C_3 SAV_{t-1} + C_4 GFCF_{t-1} + C_5 LABF_{t-1} + C_6 TLA_{t-1} + \dots$$

$$\begin{aligned} & + \sum_{i=1}^{n1} \alpha_{1ij} \Delta RGDP_{t-1j} + \sum_{i=0}^{n2} \alpha_{2ij} \Delta MCAP_{t-1j} + \sum_{i=0}^{n3} \alpha_{3ij} \Delta SAV_{t-1j} \\ & + \sum_{i=0}^{n4} \alpha_{4ij} \Delta GFCF_{t-1j} + \sum_{i=0}^{n5} \alpha_{5ij} \Delta LABF_{t-1j} \\ & + \sum_{i=0}^{n6} \alpha_{6ij} \Delta TLA_{t-1j} + \mu t \end{aligned} \quad \text{--- (4)}$$

4. Findings and Discussions

The empirical analysis focused mainly on descriptive statistics, estimation of the regression model and post estimate tests.

4.1 Descriptive Statistics

The essence of the descriptive statistics is to ascertain stability of the time series.

Table 1. Descriptive Statistics

Descriptive Statistics	RGDP	MCAP	SAV	GFCF	TLA
Mean	348497.7	3767.466	2077.531	60.92857	2116452.
Median	281407.4	285.8000	200.0700	40.90000	322764.9
Maximum	986202.0	19077.40	12813.42	142.3000	9122200.
Minimum	94.33000	5.000000	6.560000	6.300000	8582.900
Std. Dev.	248953.2	5926.319	3481.212	39.98805	3224455.
Skewness	0.691993	1.377490	1.721678	0.698553	1.291975
Kurtosis	2.957677	3.417763	4.822128	2.076829	2.912855
Jarque-Bera	2.795926	11.32313	22.13290	4.089382	9.748066
Probability	0.007100	0.003477	0.000016	0.009420	0.007642
Sum	12197420	131861.3	72713.58	2132.500	74075810
Sum Sq. Dev.	2.11E+12	1.19E+09	4.12E+08	54367.49	3.54E+14
Observations	35	35	35	35	35

Source: Authors Computation, 2019 (Eview-10)

The descriptive statistics reported in Table 1, indicates that the variables are leptokurtic in nature since their values for kurtosis are more than three. This indicates a flatter than normal distribution. Specifically, the Kurtosis test reveals that the variables have large tails. The Skewness test result showed positive values for all the series, meaning that they have high tails. The probability of Jarque-Bera statistics suggests that the variables have normal distribution.

4.2 Unit Root Test Result

The test for the stationarity status of all variables in the model to establish their order of integration proceeds the ARDL bounds test, the reason for this is to be sure that the variables are stationary at level $I(0)$ and first difference $I(1)$ only but not second difference $I(2)$ so as to avoid spurious regression results. Inferences in the bounds testing procedure through the computed F-statistics for bounds testing are based on the assumption that the variables are level $I(0)$ or first-difference $I(1)$ stationary. Therefore, the ADF method was used to test for the stationarity of the variables in the model. See Table 4.2 below.

Table 2. Summary of Unit Root Test Results

Variables	ADF Test Statistic(at first difference)	Order of Integration	p-value
RGDP	-4.785579 (-2.951125)**	$I(1)$	0.0005
MCAP	-5.726940 (-2.951125)**	$I(0)$	0.0000
SAV	5.571282 (-2.986225)**	$I(1)$	0.0000
GFCF	-4.680745 (-2.951125)**	$I(1)$	0.0006
TLA	-5.569444(-2.981038)	$I(0)$	0.0001

Source: Authors Computation, 2019 (Eview-10)

From table 2 Since the variables were integrated of order $I(0)$ and $I(1)$ that mixed order of integration. It is suitable for the application of ARDL approach.

Table 3. ARDL Bounds Test for Co-integration

Test Statistic	Value	Signif.	I(0)	I(1)
Asymptotic: n=35				
F-statistic	8.845192	10%	2.2	3.09
K	4	5%	2.56	3.49
		2.5%	2.88	3.87
		1%	3.29	4.37

Source: Authors Computation, 2019 (Eview-10)

From the ARDL bounds test result, it is clear that there is a long run relationship amongst the variables (RGDP, MCAP, SAV, GFCF, LABF and TLA). This is because the computed F-statistic of about 8.8 is higher than the upper critical bounds at 1%, 2.5%, 5% and 10% critical values. This provided evidence to reject the null hypothesis of no cointegration at 5% and 10% significance level for the growth model. It can therefore be concluded from the ARDL bounds test that there is a long-run relationship among the variables. Therefore, this study illustrate that capital market variables have a long run relationship with the Nigerian economic growth.

Table 4. Estimated ARDL Long Run Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
MCAP	3.447010	9.251361	0.372595	0.7130
SAV	77.65499	14.26769	5.442718	0.0000
GFCF	-2780.599	784.9647	-3.542324	0.0018
TLA	0.004530	0.007829	0.578527	0.5688
C	356253.0	29270.29	12.17115	0.0000

Source: Authors Computation, 2019 (Eview-10)

The estimated ARDL long run coefficients in Table 4 revealed that market capitalization and total listed securities have positive but insignificant relationship with economic growth. This does not conform to the a priori expectations. Gross Fixed Capital Formation has a negative but significant relationship with economic growth. The result also revealed that Savings accumulation has a positive and significant relationship with economic growth. In addition, it can be deduced that market capitalization, number of deals and total listed securities will enhance economic growth in the long-run.

Table 5. Error Correction model test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(MCAP)	5.440808	3.292391	1.652540	0.1109
D(SAV)	37.29050	11.76733	3.168984	0.0040
D(GFCF)	-45.36066	483.2147	-0.093873	0.9260
D(TLA)	-0.002609	0.010105	-0.258166	0.7984
ECM(-1)	-0.668179	0.285995	-2.336335	0.0278
R-squared	0.504957	Mean dependent var		27801.52
Adjusted R-squared	0.5038250	S.D. dependent var		36579.42
S.E. of regression	37272.43	Akaike info criterion		24.04091
Sum squared resid	3.47E+10	Schwarz criterion		24.27444
Log likelihood	-355.6136	Hannan-Quinn criter.		24.11562
Durbin-Watson stat	2.315275			

Source: Authors Computation, 2019 (Eview-10)

Table 5 showed the result of the short-run dynamic coefficients associated with the long-run relationships obtained from the ECM equation. The Error Correction Term in the model has the right sign (i.e., negative) and statistically significant this satisfied the conventional level. This indicates adjustment to long-term equilibrium in the dynamic model. Put differently, it indicates it adjustment from short run equilibrium to long-run equilibrium in the dynamic model. This implies that deviations from the short-term growth rate in economic growth adjust quickly to long run equilibrium at 66.8%. The Durbin Watson (DW) value of 2.3 which is approximately 2.0, suggests that the model is free from autocorrelation. Moreover, as expected, market capitalization in the short- run has positive and insignificant effect at 5% level of significance on economic growth. This means that market capitalization enhanced economic growth in the short-run. The results showed that a unit increase in market capitalization will increase economic growth. Furthermore, total listed securities in the short-run has negative and insignificant effect on economic growth. The results showed that a unit increase in total listed securities will decrease economic growth. In addition, Gross Fixed Capital Formation and Savings accumulation in the short run have negative and positive effect respectively on economic growth but both variables have significant effect on economic growth. This depicts that the variables have the potentials to adjust to stable long run relationship or equilibrium with economic growth.

Table 6. Pairwise Granger Causality Tests

Null Hypothesis:	Obs	F-Statistic	Prob.
MCAP does not Granger Cause RGDP	34	1.83098	0.1783
RGDP does not Granger Cause MCAP		2.67565	0.0058
SAV does not Granger Cause RGDP	32	1.47596	0.2464
RGDP does not Granger Cause SAV		2.71754	0.0085
GFCF does not Granger Cause RGDP	34	0.80079	0.4587
RGDP does not Granger Cause GFCF		4.83832	0.0154
TLA does not Granger Cause RGDP	34	1.13601	0.3350
RGDP does not Granger Cause TLA		2.06566	0.0266

Source: Authors Computation, 2019 (Eview-10)

The causality results in table 6 indicated a unidirectional relationship between the variables. RGDP causes changes in MCAP but MCAP does not cause changes in RGDP. RGDP causes changes in SAV but SAV does not cause changes in RGDP. RGDP causes changes in GFCF but GFCF does not cause changes in RGDP. RGDP causes changes in TLA but TLA does not cause changes in RGDP.

Post Estimate Tests

Post estimate tests were employed to examine the reliability of the estimated model for prediction or policy purposes. Specifically, Ramsey Reset Test, Breusch-Godfrey Serial Correlation LM Test, Heteroskedasticity Test: BreuschPagan-Godfrey and normality tests were applied. The post estimate tests revealed that the ARDL model passed all the diagnostic tests considered.

Normal Distribution Test

It is a test for normality distribution assumption of the error term. The result shows the properties of the residuals. Importantly, the Jarque-Bera statistics is a test which shows whether the residual from our equation violates the normality assumption of the OLS technique.

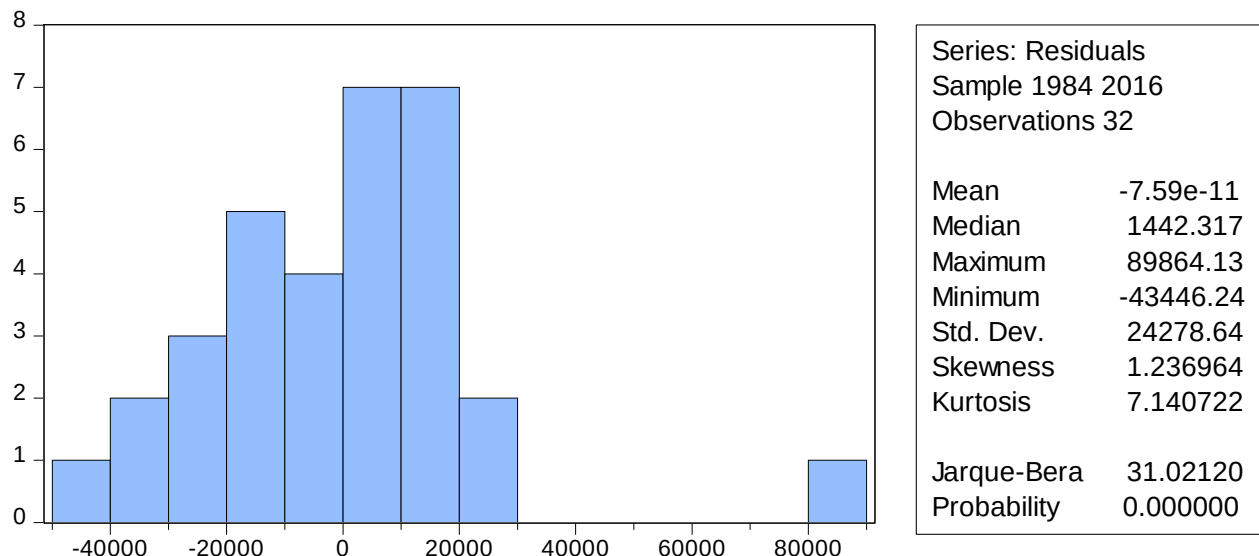


Figure 1. Testing the normality assumption

Source: Authors Computation, 2019 (Eview-10)

Ho: The sample data are not significantly different than a normal population

H1: The sample data are significantly different than a normal population.

Probabilities > 0.05 accept the null hypothesis Probabilities < 0.05 reject the null hypothesis
From the result, the probability is 0.0000 and this is greater than 0.05 at 5% significant level and therefore, the null hypothesis is accepted. This means that the residuals are normally distributed.

Serial correlation

The regression model is free of serial correlation going by the result of the serial LM test.

Table 7. Breusch-Godfrey Serial Correlation LM Test

F-statistic	0.866593	Prob. F(2,20)	0.4356
Obs*R-squared	2.551947	Prob. Chi-Square(2)	0.2792

Source: Authors Computation, 2019 (Eview-10)

From table 7 the Prob. Chi-square gave 0.2792, and it's greater than 0.05; thus we accept the null hypothesis that there is no serial correlation among the variables used in the model.

Table 8. Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	3.666015	Prob. F(9,22)	0.0062
Obs*R-squared	19.19863	Prob. Chi-Square(9)	0.0236
Scaled explained SS	27.86154	Prob. Chi-Square(9)	0.0010

Source: Authors Computation, 2019 (Eview-10)

From table 8, the Prob. F-value gave 0.5199, and it's greater than 0.05; thus we accept the null hypothesis that there is no heteroscedsticity among the variables used in the model

Parameter Instability Test- Ramsey RESET Test

The Ramsey's Regression Specification Error (RESET) test is necessary for parameter stability. This is a general test for specification errors that may arise from omitted variables, incorrect functional forms and correlation between explanatory variables and error term.

Table 9. Ramsey RESET Test

	Value	df	Probability
t-statistic	1.532238	24	0.1385
F-statistic	2.347754	(1, 24)	0.1385
Likelihood ratio	2.799877	1	0.0943
F-test summary:			
	Sum of Sq.	df	Mean Squares
Test SSR	3.09E+09	1	3.09E+09
Restricted SSR	3.47E+10	25	1.39E+09
Unrestricted SSR	3.16E+10	24	1.32E+09
LR test summary:			
	Value		
Restricted LogL	-355.6136		
Unrestricted LogL	-354.2137		

Source: Authors Computation, 2019 (Eview-10)

Output from the test reports the test regression and the F-ratio and log-likelihood ratio for testing the hypothesis that the probabilities of the powers of fitted values are all less than 0.05. The results in table 9 show that there is no presence of specification error as the test statistics are significant at all level of significance.

Parameter Instability Test- CUSUM test & CUSUM SQUARE TEST

CUSUM test and CUSUM squares test does not require specifying a particular date and it plots the cumulative sum of the recursive residuals together with the 5% critical lines. The CUSUM test and CUSUM squares test indicates parameter instability if the cumulative sum goes outside the area between the two critical lines.

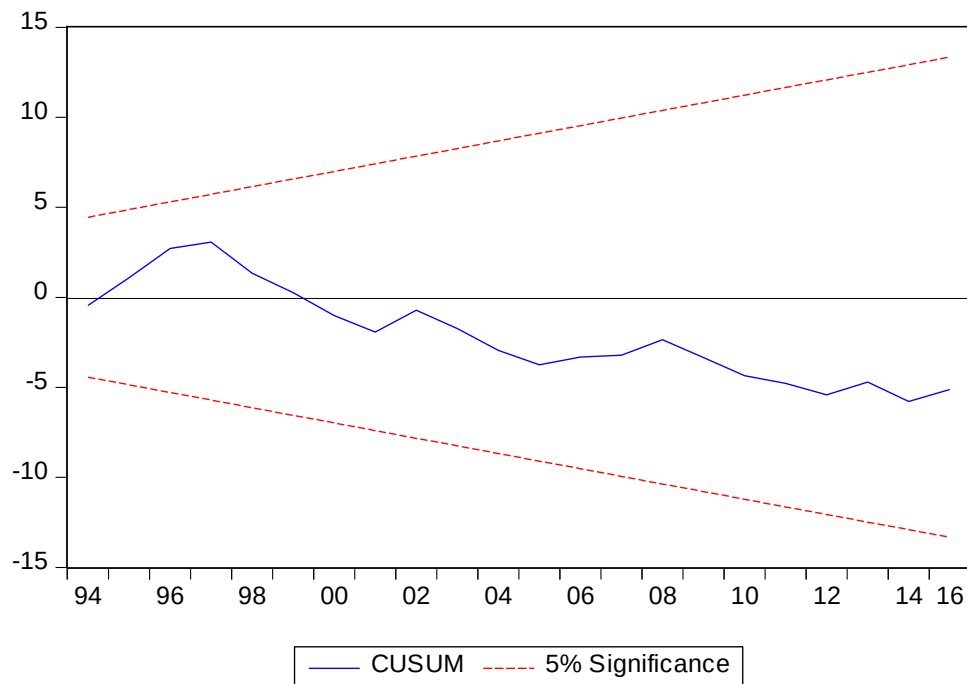


Figure 2. CUSUM test

Source: Authors Computation, 2019 (Eview-10)

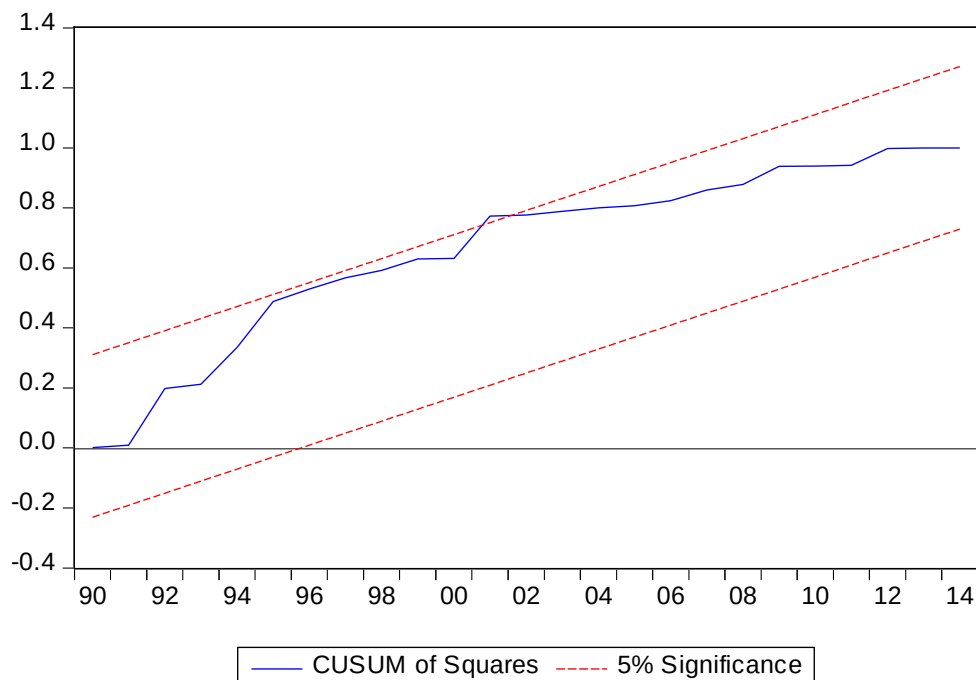


Figure 3. CUSUM SQUARE TEST

Source: Authors Computation, 2019 (Eview-10)

The CUSUM test and CUSUM squares test results in figure 2 indicated that the parameter were stable since they are within the two critical lines.

5. Conclusions

The study on capital market and economic growth in Nigeria from 1981-2018 is of great important to the Nigerian economy. This is because capital market plays an important role in the growth process of the economy. With the utilization of data on gross domestic product, interest rate, value of transaction, market capitalization and number of deals from CBN Statistical Bulletin and the use of ARDL to capture the short and long-run relationship between endogenous and exogenous variables. The result revealed that market capitalization has positive and insignificant effects on economic growth both in the short and long run. Gross Fixed Capital Formation has a negative but significant relationship with economic growth. The result also revealed that Savings accumulation has a positive and significant relationship with economic growth in the long run but negative and insignificant effect on economic growth in the short run. However, the total listed securities has a negative and insignificant effect on economic growth in the short run but it has positive and significant effect on economic growth in the long run. The result also revealed a unidirectional causality between the variables. The study therefore concluded that capital market has positively and insignificantly impacted on economic growth in Nigeria between the period of study.

The study recommended that there should be improvement in the moribund market capitalization, by encouraging more foreign investors to participate in the market, maintain state of the art technology like automated trading and settlement practices, electronic fund clearance and eliminate physical transfer of shares. There is also need to restore confidence to the market by regulatory authorities through ensuring transparency and fair trading transactions and dealings in the stock exchange. The Nigeria stock exchange will have to reduce the hurdle or soften the requirements for corporation or business to be able to access such cheap funds. There should be a strong need to put in place policy measures that would guarantee competitive participation and cause investors to stop the attitude of "buy and hold" of securities which will delay rapid development of Nigerian economy. The government should also make use of the capital market in sourcing for cheap funds instead of relying entirely on the optimum benefits of the activities of the Nigeria stock exchange to accrue to the Nigerian economy. There is need for the government through the central bank to implement policy that will increase the level and size of market capitalization in the capital market. Such increase in capital market will provide the needed funds for investors for further investments and hence increased productivity in Nigeria.

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Financial Difficulty of Banking Management During COVID 19 in Bangladesh

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Abstract

Findings point out that the savings rating operations and performances of private business Banks have outperformed these of state-owned industrial banks. The mortgage disbursement techniques of state-owned industrial banks have been now no longer efficient ample to reap required recuperation target. Furthermore, it has additionally been found that the state-owned business banks are increased in all likelihood to be affected via using each and every of the contributory factors a long way larger adversely than non-public business banks. Effective use of company governance, maintaining transparency and accountability in all respect, environment friendly financial savings risk management, bettering managerial efficiency, profitable privatization, lessening political interference and adapting contemporary technological changes, would possibly also enhance the well-known personal loan trouble scenario of state-owned industrial banking region of Bangladesh. Countries throughout the worldwide are going through a risk of an outright disintegration as international supply chain is almost dismantled. Labor mobility too is impeded as human beings are locked down at their homes. Business enterprises, small and large, are each shutdown or closed for an indefinite period. Uncertainties are mounting as households and businesses are dealing with liquidity crisis. The key elements that have been enduring the credit score hassle (i.e. non-performing loans) had been reviewed rigorously. Contributory factors such as: corporate governance, savings management, financial savings regulations, and the degree of political interference had been identified. The first-rate direction of action is that Bangladesh Bank orchestrates a good-sized economic growth focused on repo price of four percentages and lending charge in the range of 5-8 percent.

Key words COVID19, Private bank, Retained on investment, Knowledge Management, Bangladesh Bank, Money and Liquidity.

1. Introduction

Ethiopia has recorded strong economic performance over the previous years, as reflected by way of the average actual GDP increase rate of about 10% per annum. The boom was expected to sustain at least for the brief term, provided that the favorable conditions continue to aid it. Over reliance on banks to enforce the stimulus package may show inappropriate – Government has sought help of the banking channel to implement the stimulus package. The money from the stimulus package will be dispensed through the banking channel; whilst each credit score and series danger lie with the banks. Our banks are already overburdened with non-performing loans and poor collections. Banks need mitigate savings chance earlier than disbursing any sparkling aids which would help them to address the escalating NPL. Interest subsidy to help borrowers, situation stays over recurring non-payment - The government has determined to grant the activity amounting to BDT 2,000 crores to the banks as a subsidy and it is estimated to benefit nearly 13.8 million loan recipients. But it is also in all likelihood that the recurring nonpayer would in all likelihood fetch benefit from this stimulus package deal which would make the present-day package inexpedient.

COVID-19 influence on Insurance Sector Insurance which plays a fundamental position in

managing risks each in micro and macro level has considered lowest penetrations in Bangladesh in contrast to its regional peers. Surprisingly, Insurance penetration has been declining for the previous various years even although the country's Per-capita GDP has been showing a stable growth over a decade now. Insurance penetration in Bangladesh stood at 0.57% in 2018, down from 1.13% in 2010. COVID-19 is impacting the insurance plan enterprise in multiple ways—from employee and business continuity issues to customer carrier concerns and outlook. Major segments of premium profits are anticipated to face a downward plunge. Fire Insurance- The largest source of top class for non-life insurance plan employer is fireplace insurance, which accounts for 43.1% of total top rate income for non-life insurance companies. Factories for the RMG sector are the most important driver of furnace insurance premium. A complete of RMG factories—348 registered with BGMEA and seventy-one with BKMEA. According to BGMEA, some 268 factories out of 348 were closed temporarily, and the rest eighty have been closed permanently. A current learn about via Human Rights Watch indicates that when orders have been cancelled, 72.1% of consumers refused to pay for raw substances already purchased through the supplier, and 91.3% of customers refused to pay for the "cut-make-trim" fee - or manufacturing price - of the supplier. As a result, 58% of factories surveyed reported having to shut down most or all their operations. This shut down of factories can also strangle the fire top class increase rate. Due to COVID-19, furnace and marine insurance are expected to take the largest hit. These two components consist of round 77% of non-life insurance businesses whole top rate income. Marine Insurance- Marine insurance plan that depends on import cargo accounts for 34.3% of the general insurance's whole top class a year. In the monetary of 2018 marine insurance plan fetched BDT 6,937.30 MN premium income. Insurance companies' top rate income from marine insurance plan is anticipated to go down to a new low if this global pandemic countries and world alternate continues to sluggish down. Bangladesh import plummeted to deepen financial disaster amid COVID-19 pandemics. Businesses did not open LCs for products, inclusive of uncooked materials of Bangladesh's greatest exporting area readymade garments, capital machinery, and intermediate goods. Plummeting import potential decrease marine insurance top rate for non-life insurance companies.

2. Literature Review

This ought to have negative affect for life insurance companies. Investment Income: Most of the time insurance company's top-class income is eaten away by way of claim and administration expenses. History suggests most of the insurance corporations have a combine ratio (Direct Management expenses + Claims and Commission to internet premium) above 80%. As a result, they depend on investment profits for different expenses like provision, tax, and oblique management expenses. FDR consist 33.6% of total funding and capital market funding consist 28.6% of total investment. Current 5-6% FDR rate and bearish capital market is anticipated to lower investment income in 2020. (BDT ban) Impact on Cost Centers: In 2019, non-life insurers in Bangladesh agreed no longer to provide greater than 15% commission to agents. Since these field sellers are poorly paid, they now have much less motivation to go out in the field and convey new business amid COVID-19 outbreak. So, it's anticipated that agent commission expenses can also go down. Some insurance organizations might also go for income cut throughout this COVID-19 pandemic which may want to result in lower indirect management expenses. Face-to-face sales are considered the distinctiveness of insurance plan retailers in view that coverage terms and stipulations are more difficult to be explained over the smartphone or even online. Due to halted monetary activities it will be

tough for the field agents to convey new business. Forced repatriation of migrant workers- Mandatory Insurance for migrants used to be supposed to be a catalyst which will increase the top rate profits for life-insurance companies. Bangladesh confronted a double problem due to shrinking world labor market amid the COVID-19 pandemic, posing a threat to foreign remittances and at the identical time overcrowding the nearby labor market. Low margin of solvency- The insurance plan region of Bangladesh is no longer geared up to pay compensation for the medical costs and demise of the patient contaminated with corona virus due to lack of assets and funded assets. It is realized that there are no hints in the conventional insurance policies as the corona virus is new. Government Stimulus for the Textile Industry- A host of economic stimulus committed to the export-oriented industries which generally consists of the fabric industry.

A stimulus package deal of BDT 50bn for the motive of charge of salaries of employees engaged in export-oriented industries. This stimulus will be accessible in the form of mortgage at 0% interest and 2.0% one-time carrier cost for a 2-year length with 6 months' grace period.

Bangladesh Bank's EDF has been increased by UDS 1.5bn (BDT 127.5bn) to facilitate import of raw materials below back to back LC. Under the revised rated, exporters can avail funds from EDF at 2.0% hobby rather of six-month LIBOR plus 1.5%, which equates to almost 3.0% interest rate. BB has additionally more advantageous the mortgage ceiling for exporters from USD 25mn to USD 30mn.

A new credit score facility of BDT 50bn as 'Pre-shipment Credit Refinance Scheme' has been brought by BB the place exporters can avail cash at 6% interest for a 3-year duration on a revolving basis. The above insurance policies are supposed to supply a transient alleviation to the enterprise in the structure of providing cheap financing to ride out the pandemic disruptions. However, if the disaster on the demand aspect and international exchange disruption to persist past 2020, the stimulus packages would now not be sufficient to support the industry. Way Forward into the Post COVID-19 World Bangladesh textile industry is in all likelihood to go thru a wide variety of sport changing dynamics in its major export destinations, competitive strengths and furnish chain model; which can also end result in new opportunities or everlasting loss of aggressive gain of the industry if now not addressed prudently. Deteriorating change relation between the U.S. and China has created new opportunities- Since 2018, president Donald Trump has been putting tariffs and different alternate barriers towards China with the intention of forcing it to make favorable change agreements. As a result, market share of Chinese apparel exports to the U.S. declined from 33.0% in 2018 to 18.3% in March 2020 (YTD). It need to be mentioned that lengthy before COVID-19, U.S. trend brands and retailers have begun to reduce their exposure to sourcing from China, especially for the reason that October 2019 due to worries about the US China tariff war. China's misplaced market shares have been picked up usually through different Asian suppliers, particularly Vietnam (18.9% YTD in 2020 vs. 16.2% in 2019) and Bangladesh (9.4% YTD in 2020 vs. 7.1% in 2019). Going ahead Bangladesh has the possibility to aggressively fill the vacuum left with the aid of China. Source: WTO Source: Eurostat Demand hunch is probable to be lower for Bangladesh relative to peers- As Bangladesh is predominantly a producer of simple low-cost apparel products, in medium time period the demand hunch for Made in Bangladesh appeals is likely to be lower. Of the complete USD 34.1bn apparel exports in 2019, 73.0% of it came from primary products such as shirts, trousers, t-shirts, jackets and sweaters. In the post COVID-19

world the demand for these products are expected to be inelastic which will deal far much less of a blow to Bangladesh relative to friends producing high cost clothing products.

It is difficult to think of a country with a worse case of financial whiplash than Bangladesh, as Covid-19 wrecks 2020. The pandemic fallout is now colliding with a weak financial system that may also be heading for even larger turbulence. Before Covid-19 arrived, Dhaka already faced problems with awful loans and a banking zone that was no longer suit for purpose. These troubles have been exacerbated via a recent cross through the central bank to cap lending costs at 9%. The policy, which took impact on April 1, risks slamming a monetary zone that is already reeling from rising non-performing loans. Not being in a position to rate loans effectively will if truth be told pressure industrial banks to turn the tap off to the segments of financial system most affected by way of the crisis, exactly when liquidity is plenty wished - Beidi Gu, Rohatyn Group “The Covid-19 crisis delivered salt to the wound for the banking sector,” says Beidi Gu, managing director at the Rohatyn Group. “Not being in a position to price loans effectively will in actuality pressure commercial banks to turn the faucet off to the segments of financial system – small and medium-sized agencies – most affected by using the crisis, precisely when liquidity is tons needed. “With the skinny capitalization level, the banking machine has to revert to protections towards insolvency.” The pandemic, in other words, hit Bangladesh when the economy and the banking device were vulnerable. The fear is that policymakers and bankers now have scant ability to respond to the damage wrought via the Covid-19 coronavirus. “The high degree of non-performing loans in the banking quarter in Bangladesh has been an area of difficulty even earlier than the pandemic,” says Naser Ezaz Bijoy, united states of America chief government of Standard Chartered Bank. The problem, he adds, is that latest coverage strikes “take away the capacity to cover the risk to the full extent. With the pandemic, the hazard profile has deteriorated across the world – and Bangladesh is no exception. The influence of the hobby charge cap is even more pronounced.” Naser Ezaz Bijoy, Standard Chartered Bank That created an ill-timed double whammy. The NPL problem leaves Bangladesh poorly organized to stand up to the coronavirus fallout, while the pandemic’s implications will amplify the number of bad loans. In 2019, long earlier than Covid-19 hit, NPLs surged by way of greater than 117%. So-called soured loans topped \$12 billion. That is no longer a huge tally relative to developed nations, but it is undeniably harmful to a poverty-stricken, \$300 billion economic system the place banks contain extra than 80% of all financing activity. Chronic graft doesn’t help. Beneath a constructive macro surface is an opaque gadget that Transparency International ranks the 14th most corrupt out of 180 nations. A new record is still to be established through September 2020. “Reforming the banking quarter is one of the pinnacle priorities for the authorities to decorate the resilience of the economy,” says Anne-Marie Gulde-Wolf, the IMF’s Asia-Pacific deputy director. The IMF, she says, recommends “resolute steps” to beef up banking regulation and supervision, modernize state-controlled lenders, improve corporate governance, tighten standards for restructuring or rescheduling loans and internationalize legal-system provisions for loan recovery. “Efficient economic aid allocation with a high-quality banking region would assist accelerate the recovery from the Covid-19 shock,” Gulde-Wolf says, calling it an indispensable way to “restore the robust boom momentum.” This new situation will require prudent administration of deposit risks and considerable improvement of commercial enterprise operation efficiencies if the financial institutions are to maximize get right of entry to finance for already harassed corporations - Rahel Ahmed, Prime Bank Yet through warping the genuine degree of chance in Bangladesh’s monetary system, the charge

cap runs afoul of all these goals. Zahid Hussain, former World Bank economist, now concerns about a spike in poverty as garment factories go idle. Before Covid-19 hit, forcing lockdowns and cancelling orders, solely about 50 million people of the nation's a hundred and seventy million lived above the poverty line, incomes greater than \$2 a day.

3. Research Method

The study uses descriptive method to describe the financial difficulty of banking management during Covid 19. The data acquired from related sources and an analysis is conducted during first few months of Covid 19.

4. Findings and Discussions

Concentration of Economic Activities in Two Major Cities Puts Bangladesh at Higher Risk- Economic activities in Bangladesh in very centered in Two essential cities i.e. Dhaka & Chattogram. Currently, 31.9% of the country's total city populace lives in Dhaka, the biggest city China in difference to only 3.1% of the entire town populace lives in the country's biggest town Shanghai and totally 6.0% of urban population lives in India's pleasant city. In phrases of manufacturing, 87% of the country's complete output is generated from these two cities; at the identical time as in phrases of export, the share of Dhaka and Chattogram is even higher. Such large interest in Dhaka & Chattogram in monetary things to do specifically manufacturing and service quarter locations Bangladesh at very excessive chance if contagion can't be contained. The guardian below is showing each day distribution of cautioned validated COVID-19 cases (N=32,120) per division, 14 April–01 June 2020, Bangladesh. Like most of the one of a nation the outbreak of the COVID-19 pandemic is a fantastic shock to the Bangladesh economy. The state of affairs for Bangladesh is higher as the financial computer was once already in a parlous state beforehand than COVID-19 struck. With the prolonged country-wide lockdown, international financial stoop and associated disruption of demand and furnish chains, Bangladesh financial machine is maybe to face a protracted period of slowdown in activity. The magnitude of the monetary have an have an impact on will remember upon the duration and severity of the fitness catastrophe and the manner in which the situation unfolds on withdrawal of the lockdown. On April 9, the chief of International Monetary Fund, Kristalina Georgieva stated that the 12 months 2020 could see the worst global monetary fallout seeing that the Great Depression in the 1930s, with over a hundred and seventy countries likely to trip horrible per capita GDP boom due to the raging coronavirus pandemic. Source: WHO

Bangladesh is no exception and projections from IMF, World Bank and ADP have been reduced drastically after pandemic. The decline in us of an extensive and international demand for manufactured goods, in specific in the garments sector will hazard growing unemployment and deepen poverty. Bangladesh scored 38.3 out of 100 and ranked one hundred and thirtieth out 141 international locations in soundness of banks. Deposits amplify in modern years declined gradually and personal quarter credit score make bigger fell to 9.2% in January 2020. Massive personal loan rescheduling of BDT 50,000 crore underneath a controversial rescheduling grant helped banks to reduce default loan of BDT 22,000 crore in the closing three months of 2019. Net undertaking margin (NIM) diminished spherical forty groundwork factors in final three years. Profitability of the quarter declined drastically. Capping hobby charge is in all possibility to aggravate Net Interest Margin – Banks in Bangladesh are implementing a hobby rate cap, a lending cost of 9.0% for all sectors without financial savings card. Capping activity value by Bangladesh financial group put banking

sector in any different regime of difficulty, particularly in lending SMEs/MSMEs in pre-COVID 19 period. The pastime cost capping would weaken the banks thru restraining their ability to repair adequate pricing of risks amid bad lending practices and a prone lousy personal mortgage recovery framework in the country.

COVID-19 impact on Digital/Mobile monetary Service providers- In 2019 the digital/mobile financial services landscape of the People's Republic of Bangladesh evolved multifold. At the top of Gregorian calendar month 2019, the country had 971,000 MFS agents and a complete of eleven,320 agent banking retailers that serve eighty-one million registered wallets. Due to service purpose shutdowns, the group action of the business has declined by around 35%. A significant range of MFS agents remained enclosed internment, whereas the remaining agents open their shops for restricted hours during a day. As a result, the whole business group action and volume have reduced significantly. The contactless mobile/online payment strategies were gaining acceptance already, however, this COVID-19 pandemic has been a boon for this business the countrywide internment has slashed the revenue but it expanded the MFS market nightlong. The financial organization enclosed MFS into emergency services throughout the internment to facilitate the payments.

Moreover, government-directed involved authorities to pay some BDT four,000 large integers among four.1 million readymade garments (RMG) employees across the country. Consequently, 1.92 million MFS accounts were opened in the mere 1st period of Apr. Alternative delivery channels saw a spike in retail demand in COVID-19 The business is expecting to launch MFS ability before long which will have a positive impact on more than eighty-one million registered wallets across sixty-four districts in the People's Republic of Bangladesh. it'll ease creating and receiving payments for merchandise and services, particularly for MSMEs and increase total transactions. Impact on e-commerce & e-services- Amid the COVID-19 closedown, range of on-line purchases mistreatment the B2C e-commerce platforms i.e., daraz.com, Shwapno.com, chaldal.com, etc. increased. Chaldal.com, shwapno.com, and alternative e-grocery sites have a wide increase in on-line orders once internment. Online grocery stores like Chaldea, shrapnel, etc. are experiencing growths within the number of deliveries with Chaldea's average 5000 orders-per-day jumping's to 10,000 to 15,000 orders-per-day on AN average. 'Daraz', specializing in physics, home appliances, article of clothing, etc. in the People's Republic of Bangladesh recently proclaimed in BDT 500-crore investment set up by 2021. beneath the setup, the entity would develop its own 2,00,000- square feet warehouse and 1,50,000-square feet totally automatic sorting center.

Daraz conjointly aims to reach all sixty-four districts within the country with quite a hundred and fifty hubs by the top of this year. 'Othoba' by RFL group is another e-commerce seeing a booming increase of orders because of its Ramadan central offers and supply of PPEs and alternative hygiene merchandise, necessary merchandise throughout the COVID-19 crisis. Online purchase of medication, safety, and sanitizing kits, has inflated a great deal during this pandemic and panic buying adscititious more thereto. Pharmacy.com is that the leading online pharmacy store that has been seeing a substantial rise in sales as they're one among the few e-commerce businesses that have brought the pharmacy to a digital shopfront. Food delivery services are struggling- Food delivery services (HungryNaki, Pathao Food, Foodpanda, ShohozFood, UBEREats, etc.) have a visage severe challenges in lockdowns in Apr and will (2020) as virtually all the restaurants were closed and 30% restaurants left the business following a loss. on-line food delivery orders fell down by seventy-five to 80%. On might nineteenth the world ride-sharing platform Uber's food delivery service Uber grub set to shut

down its operation in the People's Republic of Bangladesh from Gregorian calendar month 2020. Ridesharing still not permissible to hit the road- BRTA has prohibited the ridesharing services (UBER, Pathao, Shohoz, etc.) throughout the 2 months-long internments to limit the unfold of COVID-19. From June 2020 RMG factories, looking malls, firms have started operation at the restricted scope. Public transportation resumed on the first Gregorian calendar month however BRTA is nonetheless to allow the ridesharing services to begin operation.

Uber and Pathao, 2 high ride-sharing platforms within the country, have together requested the People's Republic of Bangladesh Road Transport Authority (BRTA) to permit ride-sharing services through apps. BRTA call during this regard might confirm the long run of those ventures in the People's Republic of Bangladesh. Logistics Startups are rolling on- Around three hundred little and medium-size provision firms are operational in Dhaka to support the booming e-commerce and commerce. Some provision services have seen a spike in demand. Pathao, e-Courier, Biddyut, Paperfly, Sturmarbeitelung Paribahan these provision firms' visages AN unlikely surge in orders. Health/Telemedicine is a successive promising sector- throughout the pandemic, the net tending service suppliers have visaged an unforeseen spike in commission requests, principally for doctor consultation and medicines. Praava Health has introduced a video consultation service already. Doctoral, Digital Health (formerly Telenor Health), Olwel are receiving thousands of calls a day. The unforeseen surge of demand during this sector has attracted other startups nightlong. The ride-hailing startup Pathao has launched a replacement service known as Pathao Health in collaboration with a variety of tending startups in Dhaka together with Digital tending Solutions (formerly Telenor Health), Praava Health, and Maya. Pathao and Shohoz are returning forward to produce telemedicine solutions and on-demand medication delivery. The post-COVID-19 world won't be an equivalent once more. The new tradition might come back up with a modified Lifestyle, getting behavior, means of doing business, and interfaces.

Post-pandemic solutions of distinctive problems we have a tendency to face in the COVID-19 pandemic may lay the foundation for several business ideas and may shape the way forward for our e-commerce business within the returning years. Certain banking services like repayments are considered as critical offerings in this lockdown environment, and as such bankers, at least a phase of them, are usually there in their places of work to help their clients. Thus, a right fluctuate of economic institution executives are going via higher Covid-19 illness danger like some of the frontline troopers in the corona war--- medical physicians and fitness workers, public servants, and one-of-a-kind useful resource provider carriers who are working outdoor their homes. Despite being in this integral and extraordinary environment, the banking enterprise cannot come up with the money for to break out action and education for figuring out the existing and future risks associated with the banking businesses. Otherwise, efforts of the united states of the united states would be wasted and the economic restoration will be delayed.

The banking risks can also moreover stem from one of a variety sources, and at present we have a congenial environment, even though there are all the factors that would possibly also quit result in huge risks of one of a kind sorts in banking operation. Economic and company matters to do have come to an unparalleled halt and there are massive financial and business organization uncertainties all over the globe. Domestic and global trade, transportation and communications are severely disrupted, and entrepreneurs are confronted with clear future cash-flow uncertainties and lack of confidence. All related things to do and consumers of banks are moreover now no longer superb about their future crook liabilities in the post-

Covid-19 environment.

5. Conclusion

Production may get relocated to developed international locations in the long term- The world has been sourcing majority of its clothing from South Asia till now due to the region's low value of manufacturing (mainly derived from low labor cost). However, with the advent of automation and higher technological innovation, superior nations are probable to overcome the advantage of inexpensive labor of South Asian countries. With the need for boosting economic activities to come out of the COVID-19 induced recession we may additionally witness relocation of apparel services from South Asia to superior economies. Bangladesh might also lose world market share- pushed by means of faster post pandemic rebound of rival countries, particularly China and Vietnam. China being the united states of America of origin of COVID19 has the most journey in dealing with the pandemic. It has successfully applied massive scale trying out and tracing and is probably to be amongst the first nations to come out of the pandemic and open its economy in full swing. Next, Vietnam is considered to be a success story in warfare the COVID-19 pandemic with no deaths and only round 329 cases in a united state of America of ninety-seven million. It managed to do so with the aid of being among the earliest to recognize the severity of the pandemic and enforce rapid strategic testing, aggressive contact tracing and wonderful public awareness as early as January 2020. In addition, Vietnam's Free Trade Agreement with the EU is probable to come into effect in 2020 paving the way for Vietnam to penetrate EU apparel market. The industry will have to initiate big technological upgradation and discover out approaches to shorten its supply chain and that too in a span of one to two years to stay competitive in the global market. The already struggling Bangladesh Power Development Board (BPDB) will be the affected – Bangladesh already has excess capacity that consequences in developing potential repayments by BPDB to plant life mendacity idle. This payment is funded via an ever-increasing subsidy from the government as the operating profits of BPDB cannot cover the cost. Overall power ability utilization in Bangladesh for 2018-19 used to be simply 43%, while capacity payments to idle flowers reached ~BDT 89.3bn in 2018-19. This scenario will get worse driven by lower electricity demand and increasing capacity expansion in the upcoming years.

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The Effect of Return on Assets, Return on Equity, Net Profit Margin, Earning per Share, and Operating Profit Margin on Stock Prices of Banking Companies In Indonesia Stock Exchange

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Abstract:

This study aims to determine the effect of return on assets (ROA), return on equity (ROE), net profit margin (NPM), earning per share (EPS) and operating profit margin (OPM) on the stock prices of banking companies on the Indonesia Stock Exchange. This type of research is associative research. Secondary data in this study is in the form of banking financial statements. The total population used in this study were 32 banking companies, and the samples that met the research criteria were eight banking companies listed on IDX. The analytical model used in this study is multiple linear regression analysis. The analysis results show that ROA, ROE, NPM, EPS, and OPM together have a significant effect on the stock prices of banking companies on the Indonesia Stock Exchange (IDX). On the other hand, coefficients of ROA, NPM and OPM have no significant effect on the stock price of banking companies on the Indonesia Stock Exchange (IDX). In contrast, ROE and EPS significantly affect the stock price of banking companies on the Indonesia Stock Exchange (IDX).

Keywords: Return on assets; Return On Equity; Net Profit Margin; Earning Per Share; Operating Profit Margin; Stock Price.

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1. Introduction

The financial performance becomes a separate tool for companies to obtain an assessment from the public, including potential investors who want to invest their capital in companies whose financial performance is considered healthy by investors. Before the company's financial statements are distributed to the public, the company has analyzed its financial statements using financial ratio analysis to determine whether its financial performance is good or bad.

The stock price on the exchange is not always fixed, sometimes it increases, and it can also decrease, depending on the strength of demand and supply. In the capital market, fluctuations in stock prices make the stock market attractive to some investors. On the other hand, increases and decreases in stock prices can occur due to fundamental, psychological, or external factors. Several macro factors affect stock investment activities on the IDX, including inflation rates, interest rates, foreign exchange rates, and others. The high rate of inflation can result in the movement of the stock price index on the IDX. The stock price is a significant factor from the capital market activity and must be considered by investors in investing because the stock price shows the issuer's performance. The movement of stock prices is in line with the company's performance; if the company has better performance, the profits will be greater, and vice versa; therefore, every company issuing shares is very concerned about its share price. Prices that are too low often mean that the company's performance is not good.

Harahap (2015: 297) states that financial ratios are numbers obtained from comparing one financial statement account with other accounts with a relevant and significant relationship. Therefore, after using financial ratio analysis, financial managers in the company can predict the reactions of potential investors when they see the company's financial performance and can immediately take appropriate action when needed.

An analytical tool commonly known as financial ratio analysis can be used to measure the company's financial health. Financial ratios, in the relative and absolute sense, are tools that explain certain relationships between one number and another in financial statements. There are many ratios in the financial statements, but there are five ratios relatively often used by market participants: ROA, ROE, EPS, NPM, and OPM. ROA (return on assets) and ROE (return on equity), and EPS (earnings per share) and NPM (net profit margin) and OPM (operating profit margin) are ratios that investors often use to measure the performance of a company.

Return on assets (ROA) is a ratio that measures how efficient a company is in managing its assets to generate profits over a period. Operating Profit Margin (OPM) measures the percentage of each sale proceeds remaining after all expenses such as interest, taxes, preferred stock dividends are paid. Net profit margin (NPM) measures the percentage of each sale remaining after all costs and expenses, including interest, taxes, and preferred stock dividends, have been deducted. Operating profit margin (OPM) is obtained purely from the company's operating results. Therefore, operating profit also reflects how much efficiency and effectiveness of the company's operations to earn a profit.

Febriani's (2016) research produces a combined effect of ROA, ROE, EPS, and CR on stock returns, partially ROA has no significant effect on stock returns. ROE (return on equity) is a ratio to measure how much profit belongs to the owners of their capital. Hutami (2012) research the effect of DPS, ROE, and NPM on the stock price of manufacturing industry

companies, Return on equity has a positive and significant effect on stock prices. EPS (earnings per share) or income per share is a form of giving benefits given to shareholders from each share owned (Fahmi, 2012: 85). Egam et al. (2017) the effect of ROA, ROE, NPM, and EPS on companies' stock prices that join the LQ45 Index, EPS has a positive effect on stock price listed on the LQ45 Index. Kamruzzaman Md, (2019) found that most factors have a positive relationship with ROA, and some factors have a weird relationship with ROA. There are several anomalies with few factors that affect ROA. The findings of this study have both theoretical and managerial significance—an initial investigation of factors or indicators that affect ROA. To find out the influence of these factors, this research studies ACME, a pharmaceutical company.

The return on assets (ROA) of several banks in 2018 fell drastically, but in 2019 it increased. Such as BNI, BRI and Mega Bank. Return on assets (ROA) of banking is very influential on financial performance. Return on investment, total asset turnover increases, which affects the profit margin, which is a profit for the company. The return on equity (ROE) of several banks in 2018 decreased, but in 2019 it increased. Such as BNI, BRI, Mandiri and Mega banks. Return on equity (ROE) Banking is very influential on financial performance. The higher the use of the company's capital, the higher the net profit. This will cause more and more investors to invest in their shares. In 2018, the NPM decreased. Nevertheless, in 2019, it increased. Net profit margin (NPM) of banking is very influential on financial performance. The higher the net profit margin (NPM), the higher the confidence of investors to invest in the company. In 2018 the EPS increased, but in 2019 it decreased. The better the performance of the issuer, the greater the influence on the increase in stock prices. In 2018 the operating profit margin (OPM) decreased. However, in 2019, it increased.

Based on this explanation, the researcher is interested in taking the title return on assets, return on equity, net profit margin, earning per share, and operating profit margin on the stock Price of banking companies in Indonesia Stock Exchange.

2. Literature Review

2.1. Stock price

Market power can be the spearhead in determining the value of the company. If the market judges that the issuing company is in good condition, the stock price will rise. According to Munawir (2012), "share prices that occur on the stock market at a certain time determined by market participants and capital." The stock price is formed in the capital market. It is determined by several factors such as earnings per share, the ratio of earnings to the price per share, the risk-free interest rate as measured by the government deposit interest rate and the level of certainty of its operations. Simatupang (2010:21), the market price of the shares of a publicly-traded company is the value traded on the Indonesia Stock Exchange.

There is not only one type of stock; several types of shares are most commonly used in the capital market and are most commonly known by the public. According to Fahmi and Hadi

(2012: 86), "In the capital market, there are two types of shares that are most commonly known to the public: common stock and preferred stock, where the two types of shares have their respective meanings and rules.

1) Common Stock

Common stock is securities sold by a company that explains the nominal value (rupiah, dollar, yen and so on) where the holder is given the right to attend the general meeting of shareholders (GMS) and extraordinary general meeting of shareholders (EGMS).) and has the right to decide whether to buy a rights issue or not. These shareholders, at the end of the year, will receive profits in the form of dividends.

2) Special Share

Preferred stock is securities sold by a company that explains the nominal value (Rupiah, dollar, yen, etc.) where the holder will receive fixed income in the form of dividends to be received quarterly (three months)

Munawir (2012) shares can be divided into 3, namely:

a) Preferred stock

Shares are shares that have the characteristics of a combination of bonds and ordinary shares. Compared to common stock, preferred stock has several rights, namely the right to a fixed dividend and the right to prepayment in the event of liquidation. Like bonds that pay interest on loans, the preferred stock also provides a fixed return in the form of preferred dividends. Therefore, preferred stock is considered to have characteristics midway between bonds and common stock.

b) Common Stock

If the company only issues one class of shares, these shares are usually in common stock. As owners of the company, common stockholders have several rights, including:

- (1) Control rights are the rights of ordinary shareholders to choose the company's leadership.
- (2) The right to receive profit sharing is the right of ordinary shareholders to share the company's profits.
- (3) Preemptive rights, namely the right of shareholders to get the same percentage of ownership if the company issues additional shares to protect the control rights of the old shareholders and protect the price of the old shares from a decline in value.
- (4) Treasury Stocks. Represents shares belonging to the company that has been issued and circulated, which are then repurchased by the company to be stored as treasury which can later be resold.

Darmadji & Fakhrudin (2012:122), shares are divided into the transfer of rights (1). Bearer stock, meaning that the owner's name is not written on the stock to be easily transferred from one investor to another. (2). Shares on behalf of (restored stock) are written shares in the owner's name; the transfer method must be through specific procedures. From several definitions of the experts above, it can be concluded that the types of shares are divided into three, namely preferred shares, namely a combination of bonds and shares. Common stock, common stock, and treasury stock shares that have been previously issued and then repurchased.

Fahmi & Hadi (2012: 89) there are several conditions and situations that determine a stock will fluctuate:

- 1) The influence of micro-economic factors and macro-economic factors
- 2) The company's decision to expand its business, such as opening new branch offices and sub-branches, both domestically and abroad.
- 3) There is a sudden reshuffle of directors
- 4) There are directors or commissioners involved in criminal acts
- 5) The company's performance has decreased at the end of the year
- 6) There are risks that occur as a whole in the company.
- 7) Market securities which were able to suppress the conditions of buying and selling shares.

The factors that influence the movement of stock prices are: (Munawir, 2012)

- 1) Internal factors include:
 - a) Announcements about marketing, production, sales such as advertising, contract details, price changes, new product recalls, production reports, product safety reports, and sales reports.
 - b) Announcements of funding (financing announcements), such as announcements related to equity and debt.
 - c) Management board of director announcements, such as changes and changes to directors, management, and organizational structure.
 - d) Announcements of diversified takeovers, such as reports on mergers, equity investments, reports on takeovers by acquirers and acquirers.
 - e) Investment announcements, such as adding business units, conducting research and development and closing businesses that are not profitable
 - f) Labor announcements, such as new negotiations, new contracts, strikes and others.

- g) Announcement of company financial statements, such as profit planning before and after the end of the year, EPS (earnings per share), DPS (dividends per share), PER (price earning ratio), NPM (net profit margin), ROA (return on assets), and others.

2) External Factors, namely:

- a)) Announcement of changes in interest rates for savings and time deposits, foreign exchange rates, inflation, as well as various economic regulations and deregulations issued by the government
- b) Announcement of legal rules such as employee claims against the company or against its manager and the company's lawsuit against its manager.
- c) Securities industry announcements, such as annual meeting reports, insider trading, trading volume or share prices, trading restrictions/suspensions.

2.2. Profitability Ratio

Profitability is a ratio to measure the company's ability shown to earn profits, in other words the use of profitability ratios will show the company's efficiency. According to Harahap (2015: 304) defines that the ratio describes the company's ability to earn profits through all existing sources such as sales activities, cash, capital, number of employees, number of branches and so on. Hanafi & Halim (2016:81), the profitability ratio is "a ratio that measures the company's ability to generate profits (profitability) at a certain level of sales, assets, and share capital." Meanwhile, Fahmi (2012:212), states "profitability is the ratio of how the company is able to manage its foreign capital in order to earn profits and repay its debts". Sutrisno (2012: 217), "profitability will show how much profit the company can get".

The main goal to be achieved by the company is to obtain maximum profit. By obtaining the maximum profit that has been targeted, the company can improve the welfare of owners, employees, as well as improve product quality and make new investments. Management is required to meet the targets that have been set. Profitability ratios have goals and benefits for the company and investors, especially those who have an interest in the company.

Kasmir (2012: 196), the purpose of using profitability ratios for companies and parties outside the company are:

- 1) To measure or calculate the profit earned by the company in a certain period
- 2) To assess the company's profit position in the previous year with the current year
- 3) To assess profit development over time
- 4) To assess the amount of net profit after tax with own capital. Benefits of profitability ratios
- 5) To find out the amount of profit earned by the company in one period.
- 6) To compare the company's profit in the previous year with the current year.
- 7) To know the progress of profit from time to time.

- 8) To compare net profit after tax with own capital.
- 9) To determine the effectiveness of the funds used, both foreign capital and own capital.

There are several types of profitability ratios that can be used to measure the company's ability. The types of liquidity ratios that companies can use to measure ability (Kasmir, 2012: 197) are:

- a) NPM (Net Profit Margin)
- b) ROI (Return on investment)
- c) ROE (Return on equity)
- d) EPS (Earning Per Share)

2.3. Return On Assets.

Return on Assets (ROA) is used to evaluate whether management has received a reasonable return from the assets under its control. This ratio is a useful measure if one wants to evaluate how well the company has used its funds. Kasmir (2012: 201), ROA (return on assets) is the ability of banking companies to generate profits with all assets owned by the company. Fahmi (2012: 98), Return on assets to see the amount of investment that has been invested in order to obtain the expected profit and the investment is a company asset. Tandelilin (2010: 372), Return On Assets is the company's ability to earn profits from the assets owned by the company.

According to Hanafi & Halim (2016: 81), ROA is the company's ability to generate net income based on the number of assets. ROA is also often referred to as ROI (return on investment). ROI is also a measure of effectiveness in managing investments. Rosalina & Masditok (2018), the greater the ROA or ROI, the better the performance because the higher the rate of return. So that it can attract investors to place their investment in the company, stock prices and company values summarize investors' collective assessments of how well a company is doing, both in terms of current performance and prospects. This shows that the return on assets affects the stock price of a company. Therefore, an increase in stock prices sends a positive signal from investors to managers. The company's value depends on the opportunity to grow, where this opportunity depends on its ability to attract capital.

2.4. Return On Equity.

Kasmir (2012:115), return on equity (ROE) or profitability of own capital, is a ratio to measure net profit after tax with own capital and generate net profit available to owners or investors. ROE shows the success or failure of the management in maximizing the return on investment of shareholders and emphasizes the return on income about the amount invested. ROE measures the return on investment of shareholders, using the formula for net income available to common shareholders divided by the number of common equity shares. Another name for ROE is own capital rentability (RMS), rate of return on stockholders investment and rate of return on net worth. Kasmi (2012:118) says that the higher the profitability ratio of

own capital, the better because this shows the amount of own capital in generating several profits, primarily net profit after tax. On the contrary, the smaller the profitability ratio of own capital means that the capital invested as operating cost only produces a small or low net profit after tax.

Return on equity (ROE) is a profitability ratio from the investor's point of view, not from the company's point of view. Return on equity (ROE) is a ratio to measure net profit after tax with own capital and generate net income available to owners or investors (Kasim, 2012: 115). The calculation of ROE is obtained by dividing net profit after tax by own capital. Using return on equity (ROE) in this study is because ROE is an important measurement to determine how efficiently a company will use the money they invest in generating net income.

Return on equity (ROE) measures the rate of return on investment from shareholders (Brigham & Houston, 2016: 78). ROE is the company's ability to generate profits by using its capital. ROE is also called the rate of return on the company's owner's equity; owner's equity is the company's total net assets. Thus, ROE measures the company's ability to earn profits available to shareholders of the company. This ratio is highly considered by shareholders because shareholders prefer high ROE.

In other words, the higher the ROE, the higher the use of own capital owned by the company can generate net income, the more investors will invest their funds (Wardjono, 2010: 58). Harahap (2015: 68) ROE shows the net profit percentage when measured by the owner's capital. Another definition of ROE is to measure the company's ability to obtain profits available to the company's shareholders. This ratio is also influenced by the size of the company's debt, and if the proportion of debt is more significant, then this ratio will also be even greater. In other words, ROE shows the success of management in maximizing the rate of return to shareholders. The higher this ratio, the better because it provides a greater rate of return to shareholders.

2.5. Net Profit Margin

Net profit margin (NPM) is a ratio that measures the percentage of sales after interest and taxes (Gitman, 2012:79-82). This ratio is significant for operations managers because it reflects its sales pricing strategy and ability to control operating expenses. Using net profit margin (NPM) in this study is because the more significant the NPM, the more productive the company's performance will be. This will increase investor confidence to invest in the company.

Net profit margin (NPM) measures its net profit compared to its sales (Brigham & Houston, 2016: 48). Another case is the net income obtained from each sale. The bigger this ratio, the better because it is considered that its ability to earn profits is relatively high. NPM does not describe the percentage of net profit earned by the company for each sale due to the elements of income and non-operating costs. According to (Gitman, 2012), understanding net profit

margin is a ratio that shows the achievement of profit on sales per Rupiah, which is calculated by comparing the profits earned with the sales generated.

The weakness of this ratio is to include items or items that are not directly related to sales activities, such as interest costs for financing and income tax costs. If the NPM is still below the industry average of 5%, it indicates high costs. High costs usually occur due to inefficient operations (Brigham & Houston, 2016: 48).

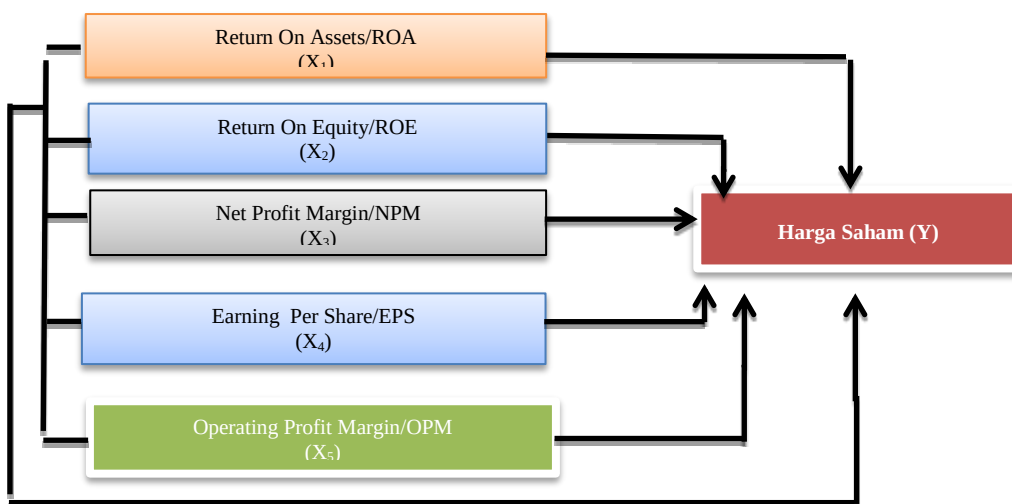
2.6. Earnings Per Share.

Earnings per share, also called book value, is a ratio to measure the success of management in achieving profits for shareholders (Kasmir, 2012: 113). Using earning per share (EPS) shows the amount of the company's net profit distributed to all company shareholders. Furthermore, it will provide information to outside parties (external) on how far the company can generate profits for each outstanding share.

2.7. Operating Profit Margin.

Operating profit margin (OPM) shows the company's ability to generate profits that will cover fixed costs or other operating costs (Harahap, 2015: 58). OPM is strongly influenced by the cost of goods sold. If the cost of goods sold increases, the OPM would decrease, and vice versa. The OPM ratio is found by net sales minus the cost of goods sold divided by net sales. This ratio helps know the company's gross profit from each item sold. The weakness of this ratio is that it only provides gross profit from sales made without including the existing cost structure of the company (Darsono & Ashari, 2015: 68).

The ratio of operating profit margin (OPM) is found by net sales minus cost of goods sold divided by net sales, which is formulated as follows:



Picture 1. Research method

3. Research Methods

Research design is a working guideline so that research can run effectively and efficiently. Design is beneficial for research implementers and is helpful for all those involved in the research activity. The research design can be prepared based on the formulation of the problem and the hypothesis.

In this study, the type of data used is secondary data in the form of a quantitative time series for the 2015 – 2019, namely data in numbers. The total population used in this study were 32 banking companies, and the samples that met the research criteria were eight banking companies

3.1 Definition of Variable Operationalization

The research variable is something that is studied, which can distinguish or change the value. Therefore, all variables in this study are described in the description, and each variable is developed into the following indicators:

Variable (Y): Share price is the price formed according to supply and demand in the stock trading market and is generally the closing price of banking companies on the IDX. The indicator is the closing stock price (closing price)

Variable (X1): Return on assets (ROA) is the ability of a banking company to maintain and improve its financial condition so that it does not lead the company to greater financial risk. As for the formula:

$$ROA = \frac{\text{Earning After Tax (EAT)}}{\text{Total Assets}}$$

Variable (X2): ROE (Return on equity) is the success/failure of the management in maximizing the return on investment of shareholders and emphasizing the return on income with the amount invested. As for the formula:

$$ROE = \frac{\text{Earning After Tax (EAT)}}{\text{Total Equity}}$$

Variable (X3): Net profit margin (NPM) reflects the sales pricing strategy applied by the banking company and its ability to control operating expenses. As for the formula:

$$NPM = \frac{\text{Earning After Tax (EAT)}}{\text{Sales}}$$

Variable (X4): Earning per share (EPS) is the success of management in achieving profits for shareholders of banking companies. As for the formula:

$$EPS = \frac{\text{Earning After Tax (EAT)}}{\text{Total Shares Outstanding}}$$

Variable (X5): Operating profit margin (OPM) is the ability of banking companies to generate profits that will cover fixed costs or operating costs. As for the formula:

$$OPM = \frac{(\text{Net Sales} - \text{Cost of Goods Sold})}{\text{Net Sales}}$$

The data analysis technique in this study uses multiple regression analysis techniques (multiple regression analysis) with the help of the SPSS 20 program. The stages of implementing the analysis include:

3.2 Classical Assumption Model Test:

- 1) Normality Test,
- 2) Multicollinearity Test,
- 3) Autocorrelation Test.

3.3. Analysis Techniques

3.3.1. Multiple regression analysis

Used to determine how much influence the variables X1 is return on assets (ROA), variable X2 is return on equity (ROE), variable X3 is net profit margin (NPM), variable X4 is earning per share (EPS) and variable X5 is operating profit margin (OPM) to share price (Y).

Multiple linear regression is used because the influence variable (X) is more than one, with the formula:

$$Y = a + b_1.X_1 + b_2.X_2 + b_3.X_3 + b_4.X_4 + b_5.X_5 + \epsilon$$

Keterangan :

Y	= Stock price
a	= Constant
b ₁ -b ₅	= Coefficient Regression
X ₁	= Return On Assets (ROA)
X ₂	= Return On Equity (ROE)
X ₃	= Net Profit Margin (NPM)
X ₄	= Earning Per Share (EPS)
X ₅	= Operating Profit Margin (OPM)

ε = Error of Term

3.3.2. Simultaneous testing (F test)

Simultaneous test regression analysis (F-test) was carried out to prove the research hypothesis of the significant effect of the independent variables together on the dependent variable.

The test criteria are as follows:

Ho is rejected: $\text{sig } F < \alpha (0.05)$ or $F\text{-count} > F_{\text{-table}}$.

Ho is accepted: $\text{sig } F \geq \alpha (0.05)$ or $F\text{-count} \leq F_{\text{-table}}$.

Ho: there is no effect of return on assets, return on equity, net profit margin, earning per share, and operating profit margin, together on the stock price of banking companies on the Indonesia Stock Exchange.

Ha: there is an effect of return on assets, return on equity, net profit margin, earning per share, and operating profit margin, together on the stock price of banking companies on the Indonesia Stock Exchange.

3.3.3 Partial test (t-test)

Regression analysis of the partial test of each independent variable on the dependent variable can be explained by using the t-test. According to Fauzi et al. (2019), the test criteria are: Test the hypothesis with the t-test, namely testing the hypothesis of variable X on variable Y partially or one by one.

The test criteria are as follows:

Ho is rejected: $\text{sig } t < \alpha (0.05)$ and $t_{\text{-count}} > t_{\text{-table}}$.

Ho is accepted: $\text{sig } t \geq \alpha (0.05)$ and $t_{\text{-count}} \leq t_{\text{-table}}$.

Ho: there is no effect of return on assets, return on equity, net profit margin, earning per share, and operating profit margin, partially on the stock price of banking companies on the Indonesia Stock Exchange.

Ha: there is an effect of return on assets, return on equity, net profit margin, earning per share, and operating profit margin, partially on the stock price of banking companies on the Indonesia Stock Exchange.

4. Results and Discussion

Data analysis carried out is classical assumption testing, multiple regression and hypothesis testing, as follows:

4.1. Classic Assumption Model Test

4.1.1. Normality Test

A normality test is used to determine whether the data used in the study is normally distributed or not. Normality test was carried out using Kolmogorof-Smirnov. The results of the analysis can be seen in the following Table 1

Table 1. Normality Test

		ROA	ROE	NPM	EPS	OPEN
N		40	40	40	40	40
Normal Parameters ^b	Mean	0E-7	0E-7	0E-7	0E-7	0E-7
	Std. Deviation	.230254	.269016	.208617	.126968	.271708
Most Extreme Differences	Absolute	.119	.178	.126	.063	.173
	Positive	.114	.093	.063	.056	.089
	Negative	-.119	-.178	-.126	-.063	-.173
Kolmogorov-Smirnov Z		.752	1.124	.796	.396	1.095
Asymp. Sig. (2-tailed)		.624	.160	.550	.998	.181

Source: secondary data processing.2020

Based on the table above, the significance value of each variable is obtained, namely ROA, a significance value of 0.624; ROE significance value of 0.160; NPM significance value is 0.550; EPS significance value is 0.998, and OPM a significance value of 0.181. All of the above significance values are greater than the alpha value of 0.05. So it can be concluded that the data used are all normally distributed.

4.1.2. Multicollinearity test

To detect whether the data has multicollinearity or not, one of the methods used is Tolerance and VIF analysis. With the provisions, if the TOL value is above 0.1 and the VIF is below 10, it is said that there is no multicollinearity and vice versa. The results of the analysis can be seen in the following Table 2.

Table 2. Multikolinearity Test

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	ROA	.109	9.142
	ROE	.184	5.431
	NPM	.284	3.522
	EPS	.236	4.240
	OPEN	.575	1.738

Source: secondary data processing.2020

From the Table 2 below, the tolerance value is above 0.1, and VIF is below 10. So it can be said that there is no multicollinearity in the data.

4.1.3. Autocorrelation Test

The requirement that must be met is the absence of autocorrelation in the regression model. The test method that will be used is the Durbin-Watson test (DW test). This test is carried out to determine whether or not there is a deviation from the classical assumption of autocorrelation, namely the correlation between the residuals in one observation with other observations in the regression model.

Table 3. Uji Autokorelasi

Model	Durbin-Watson
1	1.477

Source: secondary data processing.2020

From the analysis results, the value of DW = 1.477 while the value of dL = 1.23 and dU = 1.79. So that $1.79 > 1.477 < 2.21$, then this value cannot be concluded that there is an autocorrelation.

4.1.4. Analysis Techniques

1) Multiple Linear Regression Analysis

The results of multiple linear regression analysis can be seen in the following Table 4

Based on the results of multiple linear regression analysis, the multiple linear regression equation models can be described as follows:

$$Y = 2,303 + 0,159X_1 - 0,473X_2 - 0,033X_3 + 0,689X_4 - 0,031X_5$$

Tabel 4. Analisis Regresi Linier Berganda

Model	Unstandardized Coefficients		Standardized Coefficients
	B	Std. Error	Beta
1	(Constant)	2.303	.249
	ROA	.159	.167
	ROE	-.473	.161
	NPM	-.033	.111
	EPS	.689	.081
	OPEN	-.031	.057

Source: secondary data processing.2020

The equation model can be explained as follows:

- a) The constant value is 2.303 and has a positive slope indicating that if the independent variable in the study is considered constant, the stock price will only increase by 2.303.
- b) The ROA parameter value is 0.159 and has a positive slope indicating that if the ROA is increased, for example, 1 per cent, the stock price will increase by 0.159 per cent.
- c) The value of the ROE parameter is 0.473 and has a negative slope indicating that if the ROE is increased, for example, by 1 per cent, the stock price will decrease by 0.473 per cent.
- d) The NPM parameter value is 0.033 and has a negative slope indicating that if the NPM is increased, for example, 1 per cent, the stock price will decrease by 0.033 per cent.
- e) The EPS parameter value is 0.689 and has a positive slope indicating that if EPS is increased, for example, 1 per cent, the stock price will increase by 0.689 per cent.
- f) The OPM parameter value is 0.031 and has a negative slope indicating that if the OPM is increased by 1 per cent, the stock price will decrease by 0.031 per cent.

4.1.5. Simultaneous Testing (F Test)

Table 5. ANOVA

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2.936	5	.587	46.659	.000 ^b
	Residual	.428	34	.013		
	Total	3.364	39			

Source: secondary data processing, 2020

The analysis results The Table 5 above shows that F_{count} is 46.659 > F_{table} is 2.53, so it can be concluded that H_0 is rejected. H_a is accepted, which means that the ROA, ROE, NPM, EPS, and OPM variables together have a significant effect on the stock price variable.

4.1.6 Partial Test (T-Test)

The partial test of the effect of the independent variable on the dependent variable can be seen in the following Table 6.

Table 6. Coefficient

Model	t	Sig.
(Constant)	9.260	.000
ROA	.952	.348
ROE	-2.933	.006
NPM	-.299	.767
EPS	8.560	.000
OPEN	-.550	.586

Source: secondary data processing.2020

In this test, the partial effect of each independent variable on the dependent variable can be explained using the t-test with the following tests:

- The significance value of the ROA variable on the stock price is 0.348. Therefore, the value of sig t is $0.348 > (0.05)$; this means that ROA does not affect stock prices.
- The significance value of the ROE variable on the stock price is 0.006. The value of sig t is $0.006 < (0.05)$. This means that there is an effect of ROE on stock prices.
- The significance value of the NPM variable on the stock price is 0.767. The value of sig t is $0.767 > (0.05)$. This means that there is no effect of NPM on stock prices.
- The significance value of the EPS variable on the stock price is 0.000. The value of sig t is $0.000 < (0.05)$. This means that there is an effect of EPS on stock prices.
- The significance value of the OPM variable on the stock price is 0.586. The value of sig t is $0.586 > (0.05)$. This means that there is no effect of OPM on stock prices.

4.2. Discussion

4.2.1. Effect of ROA, ROE, NPM, EPS, OPM on the stock price of banking companies on the Indonesia Stock Exchange (IDX)

The F test hypothesis analysis (together) show that F-count is $46,659 > F$ -table is 2,53, so it can be concluded that H_0 is rejected. H_a is accepted, which means that the ROA, ROE, NPM, EPS, and OPM variables together affect the stock price variable.

According to Keown et al. (2012:86), stock prices are influenced by return on assets, return on equity, net profit margin, earning per share, and operating profit margin. These ratios calculate net income after tax with sales, which measure each Rupiah of sales. In addition, the profit margin is used to calculate the extent to which the company can generate net profit at a certain level of sales.

In line with research conducted by Sitorus and Elinarty (2017), and Febriani (2016), his research concludes that there is an effect of return on assets, return on equity, net profit margin, earning per share, and operating profit margin together. -identical to the share price.

4.2.2. The effect of ROA on the stock price of banking companies on the Indonesia Stock Exchange (IDX)

The results of the partial hypothesis analysis show that the t-count value is 0.952 and has a positive slope which is smaller than the t-table value of 2.021. In addition, the significance value of 0.348 is greater than the alpha value of 0.05, so it can be concluded that H_0 is accepted, meaning that there is no significant effect of ROA on stock prices.

ROA is also often referred to as ROI (return on investment). ROI is also a measure of the effectiveness of management in managing its investments. The greater the ROA or ROI, the better the performance because the higher the rate of return. So that it can attract investors to place their investment in the company, stock prices and company values summarize investors' collective assessments of how well a company is doing, both in terms of current performance and prospects. Therefore, an increase in stock prices sends a positive signal from investors to managers. The company's value depends on the opportunity to grow, where this opportunity depends on its ability to attract capital. This shows that the return on assets affects the stock price of a company.

This research is in line with Atidhira (2017) research that, first, return on assets (ROA) does not affect stock prices. Second, return on assets (ROA) and firm size have a negative and insignificant effect on stock returns.

4.2.3. The effect of ROE on the stock price of banking companies on the Indonesia Stock Exchange (IDX)

The results of the partial hypothesis analysis show that the t-count value is 2.933 and has a negative slope which is smaller than the t-table value of -2.021. In addition, the significance value of 0.006 is smaller than the alpha value of 0.05, so it can be concluded that H_0 is rejected, meaning that there is a significant effect of ROE on stock prices.

The higher the ROE indicates the use of own capital owned by the company, the higher it can generate net profit, the more investors will invest their funds. ROE shows what percentage of net profit is obtained when measured from the owner's capital. Thus, ROE is a measure of the company's ability to earn profits available to the company's shareholders.

This research is in line with research conducted by), Amriyani & Choiriyah (2018); Cahyani & Winarto (2017); Diaz and Jufrizen (2014), their research concludes, firstly, return on equity (ROE) affects stock prices. This shows that investors view Return on equity as a company fundamental that has little influence in making investment decisions.

4.2.4. The influence of NPM on stock prices of banking companies on the Indonesia Stock Exchange (IDX)

The results of the partial hypothesis analysis show that the t-count value is 0.299 and has a negative slope more significant than the t-table value of -2.021. In addition, the significance value of 0.767 is greater than the alpha value of 0.05, so it can be concluded that H_0 is accepted, meaning that there is no significant effect of NPM on stock prices.

Net profit margin (NPM) in this study because the more significant the NPM, the more productive the company's performance will be. This will increase investor confidence to invest in the company. Net profit margin (NPM) measures the company's net profit compared to its sales. Net profit margin is a ratio that shows the achievement of profit on sales per Rupiah which is calculated by comparing the profit earned with the sales generated. This ratio is significant for operations managers because it reflects its sales pricing strategy and ability to control operating expenses.

This research is in line with research conducted by Diaz & Jufrizen (2014), Cahyani & Winarto (2017) that, first, net profit margin (NPM) does not affect stock prices. Second, NPM has no significant effect on the closing price of shares.

4.2.5. Effect of EPS on share prices of banking companies on the Indonesia Stock Exchange (IDX)

The results of the partial hypothesis analysis show that the t-count value is 8.560 and has a positive slope which is greater than the t-table value of 2.021. In addition, the significance value of 0.000 is smaller than the alpha value of 0.05, so it can be concluded that H_0 is rejected, meaning that there is a significant effect of EPS on stock prices.

Securities analysts and shareholders are generally very concerned about the EPS ratio. The higher the return generated by a company, the higher the stock price will be. Furthermore, it will provide information to outside parties (external) on how far the company can generate profits for each outstanding share.

The results of this study are in line with Kamruzzaman Md (2019) research. The results of his research that there is an effect of the independent variables EPS (X1), ROE (X2), and NPM (X3) on the variable Stock Price. The EPS variable has the strongest influence compared to other variables, so the EPS variable is the variable that has the most dominant influence on the closing price of shares. Rosalina & Masditok (2018) the EPS variable has the strongest influence compared to other variables; the EPS variable is the variable that has the most dominant influence on the closing price of shares

Cahyani & Winarto (2017), the results of research partially earning per share (X2) has a significant positive effect on the stock price of PT Medco Energi Internasional Tbk. This shows that investors view earning Per-share as a company fundamental that has little influence in making investment decisions. Atidhira (2017) Earnings per Share (EPS)

positively and significantly affects stock returns. Meanwhile, Return on assets (ROA) and company size have a negative and insignificant effect on stock returns.

4.2.6 Influence of OPM on share prices of banking companies on the Indonesia Stock Exchange (IDX)

The results of the partial hypothesis analysis show that the t-count value is 0.550 and has a negative slope greater than the t-table value of -2.021. In addition, the significance value of 0.586 is greater than the alpha value of 0.05, so it can be concluded that H_0 is accepted, meaning that there is no significant effect of OPM on stock prices.

Operating Profit Margin (OPM) shows the company's ability to generate profits that will cover fixed costs or other operating costs. The cost of goods sold shares strongly influences OPM. If the cost of goods sold increases, the OPM would decrease, and vice versa. Net sales find the OPM ratio minus the cost of goods sold divided by net sales. This ratio helps know the company's gross profit from each share sold.

In line with Alfianti A. and Andarini (2017) research, the results of his research show that the operating profit margin (OPM) variable has no significant effect on stock prices.

5. Conclusions

Based on the discussion that has been described, it can be concluded, among others:

- a. ROA, ROE, NPM, EPS, and OPM together have a significant effect on the stock price of banking companies on the Indonesia Stock Exchange (IDX).
- b. ROA, NPM and OPM have no significant effect on the stock price of banking companies on the Indonesia Stock Exchange (IDX). At the same time, ROE and EPS significantly affect the stock price of banking Companies on the Indonesia Stock Exchange (IDX).

The research gives an Implication such as:

- a. Banking companies listed on the Indonesia Stock Exchange must maintain stability if necessary to increase ROA, ROE, NPM, EPS, and OPM to maintain and increase the stock price of banking companies.
- b. Shareholders of banking companies listed on the Indonesia Stock Exchange do not immediately withdraw their shares when there is a decline in share prices because it is hoped that there will be stability and an increase in ROA, ROE, NPM, EPS and OPM so that they can maintain to increase the profitability of banking companies and return stock prices.

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Moderating Effect of Inflation on the Influence of Financial Performance on the Growth of Islamic Banking in Indonesia

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Abstract

Islamic banking is one of the financial institutions whose activities are financial intermediation between the owners of capital and those who need capital. This study was conducted to know and analyze the impact of inflation as a moderating influence of financial performance on the growth of Islamic banking in Indonesia. The financial performance used consists of return on assets (ROA), non-performing financing (NPF), net operating margin (NOM), capital adequacy ratio (CAR), financing to Deposit Ratio (FDR), and operating expenses for operating income (BOPO). The data used is secondary data, obtained from the results of financial reports published on the official website of the Otoritas Jasa Keuangan (OJK) from January 2015 to December 2019. The analysis results show that, in general, inflation cannot moderate the influence of financial performance on banking growth—Sharia in Indonesia. Inflation can only be a predictor of the effect of return On Assets and net operating margin on the growth of Islamic banking in Indonesia. Meanwhile, the variables of non-performing financing (NPF), capital adequacy ratio (CAR), financing to deposit ratio (FDR), and operating expenses for operating income (BOPO) are not able to be a moderator or as a predictor.

Keywords: Financial Performance; Inflation; Islamic Banking Growth.

How to Cite

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1. Introduction

The new era 4.0 lately we hear more and more often. This shows that technological changes are increasingly rapid; as a result, companies in facing their competitors must be able to adapt. An increasingly open economic system opens the door wide for foreign competitors to enter and exit. This challenge requires anyone who will do business to innovate on things that attract customers.

This development is not only in companies that produce products but also in banking companies. Currently, banking companies must be able to provide non-physical money services. The payment system that used to be done in cash has begun to shift to non-cash.

Banking customers are very interested in banks that provide many application-based non-cash services such as M-Banking or the like. M-Banking services can make it easier for customers to transact; through this service, customers can make payments, purchases, top-ups, etc. This can attract prospective customers to determine what bank to choose as a place to invest, and this is also suspected to be one of the low public interests in investing in Islamic banking. In Islamic banking, m-banking services are still not fully able to compete with conventional bank services. In addition, the number of sharia banking ATM services is also still lacking.

Islamic banking has not been able to thrive in Indonesian society, in which most of the population is Muslim. The following is data on the growth of Islamic banking in Indonesia.

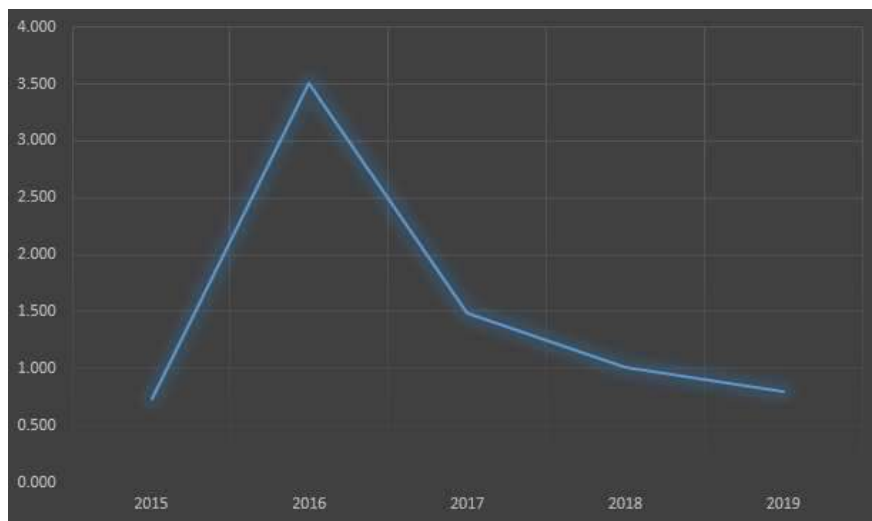


Figure 1. Growth of Islamic banking

The picture 1 above shows the growth of Islamic banking from 2015 to 2019. The highest growth occurred in 2016, while in the following years, the growth of Islamic banking experienced a significant decline. It can be seen from the figure that the growth of Islamic banking tends to decline. It is very interesting to conduct further studies, especially regarding what factors affect the growth of Islamic banking and how macroeconomic conditions (inflation) affect this growth.

Several factors can affect the growth of Islamic banking, one of which is financial performance. In theory, financial performance, according to Fahmi (2017), is an analysis carried out to assess the extent to which a company implements by using financial implementation rules correctly and adequately. Meanwhile, Sutrisno (2013) states that financial performance is an achievement achieved by a company in a certain period that reflects the level of health of the company. Financial performance can be seen from financial ratios such as liquidity ratios, solvency ratios, and profitability ratios (Kasmir, 2014).

Several previous researchers found that the factors that influence the company's growth are return on assets; net operating margins; non-performing financing (Candera, Amir, & Artis, 2015, Supriyanto & Sari, 2019, Setyawati & Suroso, 2016); capital adequacy ratio (Setyawati & Suroso, 2016 and Ihsan, 2019); financing to deposit ratio (Candera, Amir, & Artis, 2015,

Supriyanto & Sari, 2019, and Safrida & Abror, 2011); and Operating Expenses Operating Income (Ihsan, 2019). In contrast to the results of the study, return on assets (Supriyanto & Sari, 2019); Non Performing Financing (Dhiba & Esya, 2019, Setiawan & Hanryono, 2016, Aisy & Mawardi, 2016 and Syafrida & Abror, 2011); net operating margin (Ihsan, 2019); capital adequacy ratio (Setiawan & Hanryono, 2016, Ichsan, Amri, & Rahmatia, 2014); financing to deposit ratio (Setyawati & Suroso, 2016, Aisy & Mawardi, 2016 and Setiawan & Hanryono, 2016); and Operating Expenses Operating Income (Dhiba and Esya, 2019, Ichsan, Amri, & Rahmatia, 2014, and Setiawan & Hanryono, 2016) also found that these variables had no effect on company growth.

This research is different from previous studies by using inflation as a moderating variable. This is presumably because inflation is a macro condition that is closely related to national economic conditions. High inflation describes economic conditions that are not good. Therefore the government is trying in such a way so that the inflation rate is stable and in line with the government's target. Aisy & Mawardi's (2016) research found that external factors (inflation) significantly affected asset growth. In contrast to the results of this study, Setiawan & Hanryono (2016) found that inflation was not significant in influencing company growth.

2. Literature Review

2.1 Financial Performance

According to Fahmi (2011), financial performance describes a company's financial condition, which is analyzed with financial analysis tools to be known about a company's good and bad financial conditions that reflect work performance in a certain period. In this study, the financial performance used consists of return on assets (ROA), non-performing financing (NPF), net operating margin (NOM), capital adequacy ratio (CAR), financing to deposit ratio (FDR), and Operating Expenses/Revenues. In more detail, it can be explained as follows.

1. Return on assets (ROA) is a ratio used to show how much the contribution of assets creates net income. This ratio is used to measure how much net income is generated from each rupiah embedded in total assets (Hery, 2017).
2. Non-performing financing (NPF) is a ratio that shows the ability of bank management to manage non-performing financing provided by banks.
3. Net operating margin (NOM) is a ratio used to measure the ability of bank management to manage their productive assets to generate revenue sharing.
4. Capital adequacy ratio (CAR), in the regulation of Bank Indonesia, is a ratio that shows how much total bank assets that contain risks are also financed from their capital and obtaining funds from sources outside the bank.
5. Financing to deposit ratio (FDR) is one of the liquidity ratios that compare the composition of funds channelled to financing with third party funds that have been collected.
6. Operational expenses/operational income (BOPO) is one of the efficiency ratios used to measure a bank's ability to run its business operations.

2.2 Inflation

According to Sukirno (2012), inflation increases prices generally prevailing in an economy

from one period to another. In connection with this research, the inflation rate used is the Consumer Price Index. In general, the formula used to determine the inflation rate is:

$$INF_t = \frac{CPI_n - CPI_{n-1}}{CPI_{n-1}} \times 100\%$$

2.3 Islamic Banking Growth

According to Priyo (2013), growth is a company asset where assets are assets used for operational activities company. The faster the company's growth in generating profits, the greater the expenditure needed to finance the company's growth, so it must limit dividends to save funds in the company for growth investment.

In general, the growth formula can be calculated using the following formula.

$$Assets_t = \frac{Assets_n - Assets_{n-1}}{Assets_{n-1}}$$

3. Research Method

This research is associative research. According to Sugiyono (2014), associative research aims to determine the relationship between two or more variables. The data used is secondary data from financial reports published on the Otoritas Jasa Keuangan (OJK).

The variables used in this study consisted of the dependent variable, the independent variable, and the moderating variable. The dependent variable referred to in this study is the Islamic banking growth variable; The independent variables consist of return on assets (ROA), non-performing financing (NPF), net operating margin (NOM), capital adequacy ratio (CAR), financing to deposit ratio (FDR), and operating expenses/revenues. Meanwhile, the moderating variable is inflation.

Analysis of the data used is the Moderated Regression Analysis (MRA). Ghazali (2013) states that Moderated Regression Analysis (MRA) is an analytical approach that maintains sample integrity and provides a basis for controlling the influence of moderator variables. However, before the MRA analysis, the data were tested for classical assumptions using the normality test.

The MRA analysis model can be reflected as follows.

$$Y = \alpha + \beta_1 ROA + \beta_4 Inf + \beta_5 ROA * Inf$$

$$Y = \alpha + \beta_2 NPF + \beta_4 Inf + \beta_6 NPF * Inf$$

$$Y = \alpha + \beta_3 NOM + \beta_4 Inf + \beta_7 NOM * Inf$$

$$Y = \alpha + \beta_1 CAR + \beta_4 Inf + \beta_5 CAR * Inf$$

$$Y = \alpha + \beta_2 FDR + \beta_4 Inf + \beta_6 FDR * Inf$$

$$Y = \alpha + \beta_3 BOPO + \beta_4 Inf + \beta_7 BOPO * Inf$$

According to Ghazali (2013), the classification of moderating variables is as follows:

Pure moderator. This can be identified through the coefficients β_2 and β_3 , that is, if the coefficient β_2 is declared insignificant, but the coefficient β_3 is significant.

1. Quasi moderator, identified through the coefficients β_2 and β_3 that is, if the coefficient β_2 is significant and the coefficient β_3 is also significant.
2. Homologies, identified through the coefficients β_2 and β_3 are if the coefficient β_2 is declared insignificant and the coefficient β_3 is also not significant.
3. Moderation Predictor, identified through the coefficients β_2 and β_3 that is if the coefficient β_2 is significant and the coefficient β_3 is not significant.

4. Findings and Discussions

4.1. Descriptive Statistic

descriptive analysis of research variables can be seen in the following Tables 1.

Table 1. Descriptive Statistics ROA Variable

Descriptive Statistics		ROA
N	Valid	60
	Missing	0
Mean		17.3256
Median		16.8940
Std. Deviation		2.38456
Skewness		.287
Std. Error of Skewness		.309
Kurtosis		-1.466
Std. Error of Kurtosis		.608

The Table 1 above shows that the average return on asset variable is 17.32; the median of 16.89; and the standard deviation of 2.38. The description of the non-performance financing variable can be seen in the following Table 2.

Table 2. Descriptive Statistics NPF Variable

Descriptive Statistics		NPF
N	Valid	60
	Missing	0
Mean		.9932
Median		.9980
Std. Deviation		.41309
Skewness		.148
Std. Error of Skewness		.309
Kurtosis		-1.151
Std. Error of Kurtosis		.608

The Table 2 above shows that the average non-performance financing variable is 0.99; the median of 0.99; and the standard deviation of 0.413. Description of the net operational margin variable can be seen in the following Table 3.

Table 3. Descriptive Statistics NOM Variable

<i>Descriptive Statistics</i>		<i>NOM</i>
<i>N</i>	<i>Valid</i>	60
	<i>Missing</i>	0
<i>Mean</i>		4.5919
<i>Median</i>		4.7550
<i>Std. Deviation</i>		.80156
<i>Skewness</i>		-.281
<i>Std. Error of Skewness</i>		.309
<i>Kurtosis</i>		-1.097
<i>Std. Error of Kurtosis</i>		.608

The Table 3 above shows that the average net operational margin variable is 4.59; the median is 4.76; and the standard deviation of 0.80. Description of the variable capital adequacy ratio can be seen in the following Table 4.

Table 4. Descriptive Statistics CAR Variable

<i>Descriptive Statistics</i>		<i>CAR</i>
<i>N</i>	<i>Valid</i>	60
	<i>Missing</i>	0
<i>Mean</i>		83.5406
<i>Median</i>		81.8670
<i>Std. Deviation</i>		4.64122
<i>Skewness</i>		.331
<i>Std. Error of Skewness</i>		.309
<i>Kurtosis</i>		-1.462
<i>Std. Error of Kurtosis</i>		.608

The table 4 above shows that the average capital adequacy ratio variable is 83.54; the median is 81,879; and the standard deviation of 4.64. Description of the variable financing to deposit ratio can be seen in the following Table 5.

Table 5. Descriptive Statistics FDR Variable

<i>Descriptive Statistics</i>		<i>FDR</i>
<i>N</i>	<i>Valid</i>	60
	<i>Missing</i>	0
<i>Mean</i>		92.3389
<i>Median</i>		93.5800
<i>Std. Deviation</i>		4.14408
<i>Skewness</i>		-.374
<i>Std. Error of Skewness</i>		.309

<i>Kurtosis</i>	-1.213
<i>Std. Error of Kurtosis</i>	.608

The table 5 above shows that the average financing to deposit ratio variable is 92.34; the median is 93.58; and the standard deviation of 4.14. Variable description of operationalization expenses to operationalization income can be seen in the following Table 6.

Table 6. Descriptive Statistics BOPO Variable

<i>Descriptive Statistics</i>		<i>BOPO</i>
<i>N</i>	<i>Valid</i>	60
	<i>Missing</i>	0
<i>Mean</i>		1.1122
<i>Median</i>		1.1055
<i>Std. Deviation</i>		.47365
<i>Skewness</i>		.111
<i>Std. Error of Skewness</i>		.309
<i>Kurtosis</i>		-1.223
<i>Std. Error of Kurtosis</i>		.608

The table 6 above shows that the average operating expense variable operating income is 1.11; the median is 1.10; and the standard deviation of 0.47. The description of the inflation variable can be seen in the following Table 7.

Table 7. Descriptive Statistics Inflation Variable

<i>Descriptive Statistics</i>		<i>INFLASI</i>
<i>N</i>	<i>Valid</i>	60
	<i>Missing</i>	0
<i>Mean</i>		3.9898
<i>Median</i>		3.4050
<i>Std. Deviation</i>		1.37212
<i>Skewness</i>		1.472
<i>Std. Error of Skewness</i>		.309
<i>Kurtosis</i>		.825
<i>Std. Error of Kurtosis</i>		.608

The Table 7 above shows that the average inflation variable is 3.99; the median is 3.41; and the standard deviation of 1.37. Description of Islamic banking growth variables can be seen in the following Table 8.

Table 8. Descriptive Statistics Growth Variable

<i>Descriptive Statistics</i>		<i>GROWTH</i>
<i>N</i>	<i>Valid</i>	60
	<i>Missing</i>	0
<i>Mean</i>		1.1256
<i>Median</i>		.8360
<i>Std. Deviation</i>		2.37199
<i>Skewness</i>		.730
<i>Std. Error of Skewness</i>		.309
<i>Kurtosis</i>		1.093
<i>Std. Error of Kurtosis</i>		.608

The Table 8 above shows that the average Islamic Banking Growth variable is 1.12; the median is 0.84; and the standard deviation of 2.37.

3.2.Normality Test Normality

The test is used to determine whether the variables used are normally distributed or not. If the significance value of Kolmogorov-Smirnov is greater than the alpha value of 0.05, it can be concluded that the data is normally distributed. Conversely, if the significance value is smaller than the alpha value of 0.05, it can be concluded that the data is not normally distributed. The results of the normality analysis can be seen in the following Table 9.

Table 9. Normality test results for

<i>variables</i>	<i>Sig</i>
<i>ROA value</i>	0.200
<i>NPM</i>	0.095
<i>DER</i>	0.187
<i>Growth</i>	0.200
<i>Inflation</i>	0.200

The results of the normality analysis using the Kolmogorov-Smirnov above show that the significance value of each variable is greater than the alpha value of 0.05. So it can be concluded that all research variables are normally distributed.

Moderated Regression Analysis (MRA)

3.2.1. the moderating effect of the inflation variable on the influence of the financial performance of the roa indicator on the growth of islamic banking in indonesia

The results of the moderated regression analysis (MRA) analysis can be seen in the following table.

Table 10. The results of the MRA analysis of inflation on the effect of ROA on the growth of Islamic banking

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.038 ^a	.001	-.016	2.39070	.001	.085	1	58	.771
2	.241 ^b	.058	.025	2.34194	.057	3.440	1	57	.069
3	.262 ^c	.069	.019	2.34993	.010	.613	1	56	.437

Table 10 above can be explained as follows:

- Model 1, when entering the ROA variable, the contribution is predictor 1.6 per cent. The significance value of F is 0.771, which is greater than the alpha value of 0.1 ($0.771 > 0.1$), meaning that ROA cannot predict the growth of Islamic banking significantly.
- Model 2, inflation is able to predict the growth of Islamic banking, this can be seen from the F change value of 3,440 ($p = 0,69$; $p < 0,1$). This means that significant inflation predicts the growth of Islamic banking.
- Model 3, Moderation 1 (inflation * ROA), can predict the growth variable of Islamic banking by 1.9 per cent. Reducing the growth of Islamic banking by 6 per cent. The value of F change is 0.613 ($p = 0.437$; $p > 0.1$). This means that moderation 1 is not able to predict the growth variable of Islamic banking significantly.

Based on the above model, it can be concluded that both individual ROA cannot predict the growth of Islamic banking significantly. Inflation cannot moderate the influence of ROA on the growth of Islamic banking. Inflation can be a predictor of moderation or an independent variable.

Table 11. First MRA Coefficient

Model	Unstandardized Coefficients	
	B	Std. Error
(Constant)	2,366	2,664
ROA	1,592	3,414
Inflation	.694	.031
Interaction ROA & Inflation	-.799	1,020

Based on the table above, it can be arranged first MRA equation model as follows.

$$Y = \alpha + \beta_1 ROA + \beta_4 Inf + \beta_5 ROA * Inf$$

$$Y = 2,366 + 1,592ROA + 0,694Inf - 0,799ROA * Inf$$

From the model, it can be concluded that inflation is a moderating variable that can weaken the influence of ROA on the growth of Islamic banking.

3.2.2. The moderating effect of the inflation variable on the influence of indicators non-performing financing on the growth of Islamic banking in Indonesia

The results of the moderated regression analysis (MRA) analysis can be seen in the following Table 12.

Table 12. The results of the MRA analysis of inflation on the effect of NPF on the growth of Islamic banking

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.160 ^a	.026	.009	2.36165	.026	1.523	1	58	.222
2	.201 ^b	.040	.007	2.36426	.015	.872	1	57	.354
3	.213 ^c	.045	-.006	2.37910	.005	.291	1	56	.592

Table 12 above can be explained as follows:

- Model 1, when entering the NPF variable, the predictor contribution is 0.9 per cent. The F value of 1.523 ($p = 0.222$; $p > 0.1$) means that the NPF cannot predict significantly.
- Model 2, when entering the variable inflation predictor contribution, decreased to 0.7 per cent. The value of F change is 0.872 ($p = 0.354$; $p > 0.1$). This means that inflation does not significantly predict the growth of Islamic banking independently.
- Model 3, Moderation 2 (inflation * NPF), can predict the growth variable of Islamic banking by 0.6 per cent. The value of F change is 0.291 ($p = 0.592$; $p > 0.1$). This means that moderation 2 is not able to predict the growth variable of Islamic banking significantly.

Based on the above model, it can be concluded that both individual NPF and inflation cannot significantly predict the growth of Islamic banking and inflation and cannot moderate the influence between NPF and growth of Islamic banking.

Table 13. The second MRA Coefficient

Model	Unstandardized Coefficients	
	B	Std. Error
(Constant)	-2,376	10,550
NPF	.821	2,024
Inflation	1,524	3,296
Interaction of NPF & Inflation	-.336	.622

Based on the table above, the second MRA equation model can be arranged as follows.

$$Y = \alpha + \beta_1 \text{npf} + \beta_4 \text{Inf} + \beta_5 \text{npf} * \text{Inf}$$

$$Y = -2,376 + 0,821 \text{npf} + 1,524 \text{Inf} - 0.336 \text{npf} * \text{Inf}.$$

From this model, it can be concluded that inflation is a moderating variable that can weaken the influence of NPF on Islamic banking growth.

3.2.3. The moderating effect of the inflation variable on the influence of the financial performance of the indicator net operating margin (NOM) on the growth of Islamic banking in Indonesia

The results of the Moderated Regression Analysis (MRA) analysis can be seen in the following Table 14.

Table 14. MRA analysis results of inflation on the effect of NOM on the growth of Islamic banking

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.053 ^a	.003	-.014	2.38904	.003	.166	1	58	.685
2	.253 ^b	.064	.031	2.33456	.061	3.738	1	57	.058
3	.275 ^c	.075	.026	2.34111	.011	.682	1	56	.413

Table 14 above can be explained as follows:

- Model 1, when entering the NOM variable, the predictor contribution is 1.4 percent. The F value of 0.166 ($p = 0.685$; $p > 0.1$) means that NOM cannot predict significantly.
- Model 2, when entering the variable inflation predictor, contribution increased to 3.1 per cent. The value of F change is 3.738 ($p = 0.058$; $p < 0.1$). This means that independently significant inflation predicts the growth of Islamic banking.
- Model 3, Moderation 3 (inflation * NOM), can predict the growth variable of Islamic banking by 2.6 per cent. The value of F change is 0.682 ($p = 0.413$; $p > 0.1$). This means that moderation 3 is not able to predict the growth variable of Islamic banking significantly.

Based on the model above, it can be concluded that both individual NOM cannot significantly predict the growth of Islamic banking. Inflation as an independent variable can predict the growth of Islamic banking significantly. However, inflation is not able to moderate the influence between NOM and the growth of Islamic banking.

Table 15. The third MRA Coefficient

Model	Unstandardized Coefficients	
	B	Std. Error
(Constant)	2,538	2,572
NOM	1,385	2,956
Inflation	.664	.012
Interaction NOM & Inflation	-.728	.882

Based on the above Table 15, it can be arranged third MRA equation model as follows.

$$Y = \alpha + \beta_1 \text{nom} + \beta_4 \text{Inf} + \beta_5 \text{nom} * \text{Inf}$$

$$Y = 2,538 + 1,385\text{nom} + 0,664\text{Inf} - 0,728\text{nom} * \text{Inf}.$$

From the model, it can be concluded that inflation is a moderating variable that can weaken the influence of NOM on Islamic banking growth.

3.2.4. The moderating effect of the inflation variable on the financial performance of the indicator capital adequacy ratio (CAR) on the growth of Islamic banking in Indonesia

The results of the moderated regression analysis (MRA) analysis can be seen in the following table.

Table 16. MRA analysis results of inflation on the effect of CAR on Islamic banking growth

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.040 ^a	.002	-.016	2.39040	.002	.095	1	58	.759
2	.217 ^b	.047	.013	2.35593	.045	2.710	1	57	.105
3	.217 ^c	.047	-.004	2.37683	.000	.002	1	56	.965

Table 16 above can be explained as follows:

- Model 1, when entering the CAR variable, the predictor contribution is 1.6 per cent. The F value of 0.095 means that CAR cannot predict significantly.
- Model 2, inflation cannot predict the growth of Islamic banking. This can be seen from the F change value of 2.710 ($p = 0.105$; $p > 0.1$). This means that inflation does not significantly predict the growth of Islamic banking.
- Model 3, Moderation 4 (inflation * CAR), can predict the Islamic banking growth variable of 0.4 per cent. The value of F change is 0.002 ($p = 0.965$; $p > 0.1$). This means that moderation 4 is not able to predict the growth variable of Islamic banking significantly.

Based on the model above, it can be concluded that both individual CAR and inflation cannot significantly predict the growth of Islamic banking and inflation and cannot moderate the effect of CAR on the growth of Islamic banking.

Table 17. The fourth MRA Coefficient

Model	Unstandardized Coefficients	
	B	Std. Error
(Constant)	5,923	11 267
CAR	-.171	.756
Inflation	-.638	3539
Interaction and InflationCAR	.242	.011

The above table 17 can be arranged fourth MRA equation model as follows.

$$Y = \alpha + \beta_1 \text{CAR} + \beta_4 \text{Inf} + \beta_5 \text{CAR} * \text{Inf}$$

$$Y = 5,923 - 0,171\text{CAR} - 0,638\text{Inf} + 0,011\text{CAR} * \text{Inf}$$

If viewed from the model, it can be concluded that inflation is a moderating variable that can increase the effect of CAR on sharia banking growth.

3.2.5. The moderating effect of the inflation variable on the influence of the financial performance of the indicator financing deposit ratio (FDR) on the growth of Islamic banking in Indonesia

The results of the moderated regression analysis (MRA) analysis can be seen in the following Table 18.

Table 18. The results of the MRA analysis of inflation on the effect of FDR on the growth of Islamic banking

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.070 ^a	.005	-.012	2.38653	.005	.283	1	58	.597
2	.212 ^b	.045	.011	2.35835	.040	2.395	1	57	.127
3	.212 ^c	.045	-.006	2.37928	.000	.002	1	56	.968

Table 18 above can be explained as follows:

- Model 1, when entering the FDR variable, the predictor contribution is 1.2 per cent. The F value is 0.283 ($p = 0.597$; $p > 0.1$). This means that FDR cannot predict the growth of Islamic banking significantly.
- Model 2, inflation is not able to predict the growth of Islamic banking. This can be seen from the F change value of 2.395 ($p = 0.127$; $p > 0.1$). This means that inflation does not significantly predict the growth of Islamic banking.
- Model 3, Moderation 5 (inflation * FDR), can predict the Islamic banking growth variable of 0.6 per cent. The value of F change is 0.002 ($p = 0.968$; $p > 0.1$). This means that moderation 5 is not able to predict the growth variable of Islamic banking significantly.

Based on the model above, it can be concluded that both individual FDR and inflation cannot significantly predict the growth of Islamic banking and inflation and cannot moderate the effect of FDR on the growth of Islamic banking.

Table 19. The fifth MRA Coefficient

Model	Unstandardized Coefficients	
	B	Std. Error
(Constant)	-3.899	26,057
FDR	.083	.296
Inflation	-.193	7,612
Interaction of FDR & Inflation	-.003	.085

Based on the Table 19 above, the fifth MRA equation model can be arranged as follows.

$$Y = \alpha + \beta_1 \text{fdr} + \beta_4 \text{Inf} + \beta_5 \text{fdr} * \text{Inf}$$

$$Y = -3,899 + 0,083\text{fdr} - 0,193\text{Inf} - 0,003\text{fdr} * \text{Inf}$$

If viewed from the model, it can be concluded that inflation is a moderating variable that can weaken FDR's influence on Islamic banking growth.

3.2.6. The moderating effect of the inflation variable on the financial performance of the operating expenses income (BOPO) indicator on the growth of Islamic banking in Indonesia

The results of the moderated regression analysis (MRA) analysis can be seen in the following Table 20.

Table 20. The results of the MRA analysis of inflation on the effect of BOPO on the growth of Islamic banking

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	0.014 ^a	.000	-.017	2.39212	.000	.011	1	58	.916
2	.213 ^b	.045	.012	2.35784	.045	2.699	1	57	.106
3	.219 ^c	.048	-.003	2.37553	.003	.154	1	56	.696

Table 20 above can be explained as follows:

- Model 1, when entering the BOPO variable, the predictor contribution is 0.000 per cent. The F value is 0.011 ($p = 0.916$; $p > 0.1$). This means that BOPO cannot predict the growth of Islamic banking significantly.
- Model 2, inflation cannot predict the growth of Islamic banking. This can be seen from the F change value of 2.699 ($p = 0.106$; $p > 0.1$). This means that inflation does not significantly predict the growth of Islamic banking.

- c) Model 3, Moderation 6 (inflation * BOPO), can predict the growth variable of Islamic banking by 4.8 per cent. The value of F change is 0.154 ($p = 0.696$; $p > 0.1$). This means that moderation 6 is not able to predict the growth variable of Islamic banking significantly.

Based on the above model, it can be concluded that both individual BOPO and inflation cannot significantly predict the growth of Islamic banking and inflation and cannot moderate the effect of BOPO on the growth of Islamic banking.

Table 21. Sixth MRA Coefficient

<i>Model</i>	<i>Unstandardized Coefficients</i>	
	<i>B</i>	<i>Std. Error</i>
<i>(Constant)</i>	11 406	38 200
<i>BOPO</i>	-.086	.399
<i>Inflation</i>	-5061	11 792
<i>Interaction BOPO & Inflation</i>	.048	.123

Based on the above Table 21, it can be arranged MRA sixth equation model as follows.

$$Y = \alpha + \beta_1 \text{Bopo} + \beta_4 \text{Inf} + \beta_5 \text{Bopo} * \text{Inf}$$

$$Y = 11,406 - 0,086\text{bopo} - 5,061\text{Inf} + 0,048\text{bopo} * \text{Inf}.$$

From this model, it can be concluded that inflation is a moderating variable that can strengthen the influence of BOPO on Islamic banking growth.

3.3.Discussion

This study aims to determine and analyze the impact of inflation as a moderating variable of financial performance on the growth of Islamic banking in Indonesia. This is important to study so that Islamic banking gets an overview of the impact of inflation so that decision making can be carried out appropriately and correctly. The financial performance used in this study consists of return on assets (ROA), non-performing financing (NPF), net operating margin (NOM), capital adequacy ratio (CAR), financing to deposit ratio (FDR), and operating expenses revenue expense. (BOPO).

In the first analysis, it is found that inflation can strengthen the influence of return on assets on Islamic Banking Growth. Inflation is not a moderating variable, but significant inflation (with a negative slot) affects the growth of Islamic banking as an independent variable. These results provide an understanding that if inflation increases, the growth of Islamic banking will decrease. Vice versa, if inflation decreases, the growth of Islamic banking will increase. Meanwhile, as an independent variable, the return on assets variable is not significant in influencing the growth of Islamic banking.

Return on assets is a financial ratio that aims to determine how much the contribution of assets generates net income. The increased return on assets is the hope of business actors; Return on assets can determine the investor's decision whether to invest or not. High return on

assets is considered to be able to generate high profits as well. In connection with the findings of this study, it means that during the research period, the contribution of return on assets to the growth of Islamic banking did not have a significant impact. In contrast to return on assets, Inflation has a negative slope contribution to the growth of Islamic banking. This illustrates that to increase the growth of Islamic banking, inflation must be controlled.

These findings are consistent with the results of research conducted by Supriyanto & Sari (2019), which states that return on assets does not affect the growth of Islamic banking. In addition, the research results of Setiawan & Hanryono (2016) also found that inflation affects profit growth.

In the second analysis, it was found that inflation could weaken the influence of non-performing financing (NPF) on the growth of Islamic banking. NPF is not significant in influencing the growth of Islamic banking. Inflation is not significant as a moderating variable and also not significant as an independent variable. This gives an understanding that even if the NPF value increases or decreases, it will not significantly affect the growth of Islamic banking. Inflation will also not have a significant effect, although this effect can weaken the influence of NPF on the growth of Islamic banking.

Non-performing financing is a ratio used to determine how capable banking management is in managing non-performing financing. Financing disbursed by banks has uncertainties that can become a problem at any time due to default. This is a business risk that must be borne by banks. A high NPF illustrates the increasing number of non-performing financing, which means the more low financing disbursed. In Bank Indonesia regulations, the NPF has a maximum threshold of 5 per cent. Similar to the NPF, inflation is a macroeconomic condition that cannot be determined with certainty. When inflation increases, which means an increase in prices over a certain period, people who have a fixed income and have loans from banks will find it difficult to make payments. So this could be the cause of the increase in problematic financing.

These findings are consistent with the research results conducted by Dhiba & Esya (2019) and Safrida & Abror (2011), which state that the NPF is not significant in influencing the growth of Islamic banking assets in Indonesia. In addition, the research results of Setiawan & Hanryono (2016) also found that inflation affects profit growth.

In the third analysis, it was found that inflation weakened and was not significant as a moderator of the influence of net operating margin (NOM) on the growth of Islamic banking. However, the inflation variable is significant (positive slot) as an independent variable affecting the growth of Islamic banking. This means that if inflation increases, NOM will decrease. Conversely, if inflation decreases, NOM will increase.

Net operating margin is the ratio used to measure bank management's ability to manage its productive assets to generate revenue sharing. These findings are consistent with research conducted by Ihsan (2019) which states that the Net operating margin (NOM) is not significant in influencing the growth of Islamic banking. In addition, the research results of Setiawan & Hanryono (2016) also found that inflation affects profit growth.

In the fourth analysis, it is found that inflation can strengthen the effect of the capital

adequacy ratio (CAR) on the growth of Islamic banking. CAR individually is not able to influence the growth of Islamic banking. Inflation is not significant as a moderating variable and also not significant as an independent variable. This gives an understanding that the capital adequacy ratio does not significantly affect changes in the growth of Islamic banking. The increase or decrease in the growth of Islamic banking is not caused by changes in the capital adequacy ratio. Inflation was not able to moderate this influence.

Capital adequacy ratio is one of the ratios used to determine the bank's ability to maintain capital and identify measures and control risks that may arise to the amount of bank capital (Prasanjaya & Ramantha, 2013).

These findings are consistent with the research results conducted by those who found that the capital adequacy ratio (CAR) did not significantly affect profit growth. In addition, the research results of Setiawan & Hanryono (2016) also found that inflation affects profit growth.

In the fifth analysis, it was found that inflation could weaken the influence of the financing to deposit ratio (FDR) on the growth of Islamic banking. Financing to deposit ratio individually is not significant in influencing the growth of Islamic banking. Inflation is not significant as a moderating variable and also not significant as an independent variable. This provides an understanding that an increase or decrease in the financing to deposit ratio will not change the growth of Islamic banking.

Financing to deposit ratio is one of the ratios used to determine the number of funds disbursed to the number of third party funds collected. Based on the provisions of Bank Indonesia, a good FDR value is between 80 per cent and 110 per cent, so Islamic banking is not effective in channelling its funds. Because in Islamic banking, there is a hoarding of funds that do not produce. Meanwhile, suppose the amount of funds disbursed is higher than the number of third party funds collected. In that case, it means that Islamic banking is also ineffective because the high financing disbursed is vulnerable to non-performing financing (Candera, 2018).

These findings are consistent with the research results conducted by Setyawati & Suroso (2016), which states that FDR has a negative and insignificant effect on the growth of total Islamic banking assets in Indonesia. In addition, the research results of Setiawan & Hanryono (2016) also found that inflation affects profit growth.

In the last analysis, it was found that inflation could weaken the effect of operating expenses on revenue (BOPO) on the growth of Islamic banking. As an independent variable, Operating Expenses Revenue Expenses are not significant in influencing the growth of Islamic banking. Inflation is not significant as a moderating variable and also not significant as an independent variable. This gives an understanding that BOPO does not significantly affect increasing or decreasing the growth of Islamic banking.

Operating Expenses Revenue Expense is a ratio used to determine the efficiency and ability of banks to carry out their operations. BOPO can reduce total assets, and this is because the main activity of banking is as a financial intermediary. These activities consist of activities to collect funds from customers through savings, and then the next activity is to distribute funds

through financing. From these two activities, the bank will get interest costs and interest yields. A faithful increase in operating costs will result in reduced profit before tax. This will reduce profits or profitability, which will also reduce total assets.

These findings are consistent with the results of research conducted by Dhiba and Esya (2019), which states that BOPO has a positive and insignificant relationship to the growth of Islamic banking assets in Indonesia in the short and long term. In addition, the research results of Setiawan & Hanryono (2016) also found that inflation affects profit growth.

4. Conclusion

Based on the results of the analysis above, it can be concluded that:

1. Inflation cannot moderate the effect of return on assets on the growth of Islamic banking in Indonesia. Inflation can only be a predictor of Islamic banking growth.
2. Inflation cannot moderate the influence of non-performing financing on the growth of Islamic banking in Indonesia. Inflation is also not able to be a predictor of Islamic banking growth.
3. Inflation cannot moderate the influence of net operating margin on the growth of Islamic banking in Indonesia. Inflation can only be a predictor of Islamic banking growth.
4. Inflation cannot moderate the effect of the capital adequacy ratio on the growth of Islamic banking in Indonesia. Inflation can only be a predictor of Islamic banking growth.
5. Inflation cannot moderate the influence of the financing to deposit ratio on the growth of Islamic banking in Indonesia. Inflation is also not able to be a predictor of Islamic banking growth.
6. Inflation cannot moderate the effect of Operating Expenses on Operating income on the growth of Islamic banking in Indonesia. Inflation is also not able to be a predictor of Islamic banking growth.

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