

EFFECT OF MACROECONOMIC FACTORS ON ISLAMIC BANKING PROFITABILITY: A CASE STUDY OF ISLAMIC DIVISION PEOPLE'S BANK OF ZANZIBAR

Hafidh Ali Hafidh

International School of Zanzibar. Email: hafidh.h9@gmail.com

Juma Burhan

Bank of Africa- Zanzibar Branch. Email: jbmohamed23@gmail.com

ABSTRACT

The aim of this study was to determine effect of macroeconomic factors on Islamic banking profitability. A case study of Islamic Division People's Bank of Zanzibar as measured by return on assets (ROA). The study used Secondary data collected quarterly from year 2011 to June 2018 whereby the unit root test, Co integration, vector error correlation model have been used for estimation in the linear equation econometric model in which eight variables were examined namely GDP growth rate, money supply and inflation rate. The estimation result showed that money supply and GDP growth rate had positive significant relationship with the Islamic banks profitability, whereas inflation has negative relationship with the Islamic banks profitability, which means those are the variables that affects profitability at PBZ in a long run.

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1. INTRODUCTION

Current global Islamic banking assets and assets under management have reached USD750 billion and is expected to hit USD1 trillion by 2010 (BNM, 2011). And is estimated to reach USD6 trillion in assets by the year 2020 (Malaysia World's Islamic FinanceMarketplace, 2015). In this respect, Islamic banks are rapidly gaining market shares in their respective domestic economies. The origin of Islamic finance in Africa can be traced back to the 1960s with Egypt being the first African country offering Islamic banking under a low profile for political reasons (Aburime and Alo, 2009, and Mouawad, 2009). Several African countries followed suit which helped give raise to an African market for Islamic finance estimated at USD 37.5 billion as of 2008 (The CityUK, 2011). While this figure looks high at first sight, it remains negligible compared to the potential for Islamic finance in Africa estimated at USD 235 billion (Moody's, 2008). What's more, the market for Islamic finance in Africa is not only small in absolute terms but also in relative terms with African Islamic financial institutions holding less than 3% of global Islamic financial assets.

Indeed, consolidation among banks, rising competition and continuous innovation to provide financial services, all contribute to a growing interest in a detailed critical evaluation of Islamic banks. In fact, evaluating the performance of Islamic banks is essential for managerial as well as regulatory purposes. While managers are keen to determine the outcomes of previous management decisions, bank regulators concerned about the safety and soundness of the banking system and with preserving public confidence, monitor banks' performance to identify banks that are experiencing severe problems. Without persistent monitoring of performance, existing problems can remain unnoticed and could lead to financial failure in the future. Islamic banking is based on profit and loss sharing (PLS) between the borrower and the bank (Khan and Mirakhor 1987). Islamic banks maintain profit by mixing investment and commercial banking operations to engage in acceptable rates of return for depositors but in accordance to Islamic rules and principles. Islamic banking rules are according to the Islamic shariah derived from the Quran. The three main practices clearly prohibited in the Quran and the prophet's sayings are: Riba (Interest), Gharar (Uncertainty), and Maysir (Betting).

Nowadays Muslims and non-Muslims as well get trouble on how Islamic bank operate as the interest is free and as we know that interest is key factor for the success of the business in the banks. Profitability is one of the reasons for the existence of any business enterprises, and business enterprises continue their operation by making profit. Banks are the business enterprises that aim to make profits similar to the others. In this regard, the profitability performance of the bank indicates the success of the banks management. Hence it is one of the most important indicators for the investors.

1.1 Overview of the Zanzibar Islamic Banking System

The people's bank of Zanzibar limited (PBZ) was established on 30th June 1966 in accordance with the Zanzibar companies Decree (Cap 153). PBZ is owned 100 per cent by the government of Zanzibar. The Bank was established with an authorized share capital of TZS 2.5 billion and paid up share of TZS 16 million. The Bank's core stood at TZS 16,789.60 million as at December 31st, 2011 while shareholders equity amounted to TZS 20,402.01 million. PBZ's branch network covers the islands of Zanzibar and Dar es Salaam while its services are available countrywide through Umoja Switch Network. In addition, introduction of the bank's internet and mobile banking has extended the bank's service availability beyond the borders. The bank provides services to both corporate and retail customers. The bank is growing at a very fast pace with a significant rate of 40% for the past three years. This growth is expected to continue due to various reasons including extension of branch network, introduction of new products and new delivery channels, and enhanced strength of the bank. Growth is also supported by country's economic growth and prospects of newly discovered natural resources.

The Bank's vision is to be a leading provider of high quality and innovative products and services in Tanzania and beyond and to this has developed a strategy to leverage technology, product innovation, business process re-engineering, and superior customer services and people development to stay ahead of an increasing competitive business environment. Currently, Zanzibar has a few Islamic financial system that operates parallel to the conventional financial system. PBZ offers conventional and Islamic Banking services in its banking proposition. Under Islamic banking, PBZ established Islamic Banking since 2011 that operate in only on branch at Mwanakwerekwe Zanzibar but now operate on six branches at Unguja, Pemba, Dar es salaam and Mtwara. PBZ Islamic Banking offers an array of products ranging from deposits to financing, and services ranging from money transfers and all kinds of Trade financing. In brief, Islamic Banking products are mainly divided into deposit mobilization contracts and fund utilization (financing) products. Under deposit mobilization, our current offering is Al Wadia (Saving and Current), Al Mudharaba (Saving and Current) and General Investment Account which is traditionally known as Fixed Deposits in the conventional banking. With respect to products and services, there are different Islamic financial products and services that may be offered by the PBZ Islamic bank Division based on various Islamic concepts such as Mudharabah, Musharakah, Murabahah, Ijarah, Istisna, Salaam.

2. LITERATURE REVIEW

2.1 Basis and principles of Islamic Banking System

The origin of Islamic banking dates back to the beginning of Islam in the seventh century. The Prophet Muhammad's (PBUH) first wife, Khadija, was a merchant. He acted as an agent for her business, using many of the same principles used in contemporary Islamic banking. In the middle Ages, trade and business activity in the Muslim world relied on Islamic banking principles. These banking principles spread throughout Spain, the Mediterranean, and the Baltic States, arguably providing some of the basis for western banking principles. From the 1960s to the 1970s, Islamic banking resurfaced in the modern world. The principles of Islamic Banking follow Sharia law, which is based on the holy Quran (the Muslims holy book from Allah) and the Hadith (the statements said by prophet Mohammed), the recorded sayings, and actions of the Prophet Muhammad (PBUH). When more information or guidance is necessary, Islamic bankers turn to learned scholars or use independent reasoning based on scholarship and customs. The bankers also ensure their ideas do not deviate from the fundamental principles of the holy Quran. One of the important aspects of Islamic banking is the interest free equity based systems adoption. According to (Khan and Bhatti) "Islamic Banking replaces the interest based intermediation with an interest free and profit and loss sharing (PLS) intermediation. As there is no interest in Islamic banking as it's prohibited by Sharia laws, Qur'an 2:185 explicitly prohibits *riba*' and permits trade, also By banning interest, Islam seeks to establish a just and fair society (Qur'an 2:239). (Qur'an 2:219) In Qur'an 5:90, games of chance and gambling are prohibited because they cause enmity and hatred and also involve consuming property (*bay' albatil*), which is a kind of oppression. The question is whether *gharar*, which involves uncertainty or speculation, is *halal* (permitted) in business. According to Ibn Taymiyyah, if the sale contains *gharar* and devours the property of others, it is equivalent to gambling and, as such, *haram* (forbidden).

Islamic banking has adopted new techniques of financing which is based on partnership, sharing and trade which cover most requirements of retail and corporate customers in Islamic ways, protecting people from interest harmful complexity and encouraging economic growth. Islamic banking and finance is an emerging global industry founded on Islamic ethical precepts (guidelines). Just as in the case of conventional banks, Islamic banks are expected to offer products that consider the needs of their customers. (Amin, Rahman, Sondoh Jr, & Hwa, 2011). According to Novethic (2009), the principles of Islamic finance and motivations behind Islamic finance as laid down by the Shariah, or Islamic law that is based on the writings of the holy Qur'an and sayings of the Prophet and which also acts as a framework for different aspects of day-to-day life for Muslims prohibits a variety of activities for dealing with money. Money on the most common type of Islamic financing debt-based contracts must be made from a tangible asset that one owns and thus has the right to sell and in financial transactions it demands that risk be shared.

2.2 Signaling theory

The relationship between capital and profitability is explained by signaling theory (Berger, 1995; Trujillo-Ponce, 2012), the signaling hypothesis suggests that a higher capital is a positive signal to the market of the value of a bank (see Ommeren, 2011). As Berger (1995) and Trujillo- Ponce (2012) observe, under the signaling theory, bank management signals private information that the future prospects are good by increasing capital. Thus, a lower leverage indicates that banks perform better than their competitors who cannot raise their equity without further deteriorating the profitability (Ommeren, 2011).

2.3 Bankruptcy theory

Bankruptcy hypothesis argues that in a case where bankruptcy costs are unexpectedly high, a bank holds more equity to avoid period of distress (Berger, 1995). As the literature review pointed out, the signaling hypothesis and bankruptcy cost hypothesis support a positive relationship between capital and profitability (Athanasoglou, Brissimis& Delis, 2005; Olweny&Shipho, 2011).

2.4 Risk-return theory

The risk-return hypothesis suggests that increasing risks, by increasing leverage of the firm, leads to higher expected returns. therefore, if a bank expects increased returns (profitability) and takes up more risks, by increasing leverage, the equity to asset ratio (represented by capital) will be reduced. Risk-return hypothesis predicts a negative relationship between capital and profitability (Dietrich and Wanzenrid, 2009; Ommeren, 2011; Saona, 2011; Sharma and Gounder, 2012).

2.5 Empirical Literature Review

Alharbi (2017) on his study determinants of Islamic banks' profitability using longitudinal data from 1992 to 2008 of almost all Islamic banks in the world found out that capital ratio, other operating income, GDP per capita, bank size, concentration and oil prices affected Islamic banks positively. Insurance schemes, foreign ownership and real GDP growth affected Islamic banks negatively. The study used an unbalanced panel data fixed-effects regression model. Ramlan and Adnan (2016) analyzed the profitability in Islamic Banks and Conventional Banks in Malaysia. The study uses the period of the year 2006 to until the year 2011. They used T-Test Model, Regression and Correlation. Theyfound out that Islamic Banks are more profitable than Conventional Banks whereas Total Loan to Total Asset for Islamic bank is higher than Conventional bank. Based on Regression test, for Conventional Banks, ROE is an influence profitability of Conventional Bank. And for Islamic Banks, ROA and ROE were significant factor that influence profitability. Based on Correlation test, ROE is influence profitability of Conventional Bank and for Islamic Banks, ROA and ROE had significant relationship with independent variable which is Total Equity to Total Asset.

Aslam, Inamullah and Ismail (2016) when examining the main factors/determinants that affect the profitability of Islamic bank in Pakistan for the period of 2007 to 2014. Those factors were broadly classified into three big groups. That is, internal factors, industry specific and external factors. Internal factors are Bank specific, market share is industry specific whereas external factors are Macroeconomics. Return on equity (ROE) and Return on assets (ROA) were used to measure the profitability of Islamic banks. Internal variables: Bank size, deposits and financing/investment industry specific variable: Market Share and External Factor: Inflation and GDP are the measures that are used to check either these variables have any impact over the ROA and ROE as well as the profitability of Islamic Bank of Pakistan. Linear Regression test is used to check the level of significance and relationship of variables with ROA and ROE as well as profitability. They found out that size, deposits, financing, share, GDP and Inflation are the factors that are insignificantly affect over ROA and ROE. Size, financing and market share positively impact over ROA and ROE whereas Deposits, GDP and Inflation negatively impact over ROA and ROE.

Srairi (2009) examined the impact of bank characteristics, macroeconomic indicators and financial structure on the profitability of conventional and Islamic commercial banks operating in the Gulf Cooperation Council (GCC) countries for the period 1999–2006. He concluded that money supply growth has a significant positive relationship with profitability of Islamic bank as well as conventional commercial banks. Alper and Anbar (2011) conducted a study to find out what are the factors that affect the profitability of banks in Turkey during the period 2002 to 2010. Usingthe panel data analysis, they found that ROA is positively affected by Asset size, Non-interest income/assets and Real interest rate, with a negativereponse to loan/assets. Other factors such as capital ratio, deposits/assets, net interest margin, GDP and inflation did not have any effects to the banks profit.

Moreover, Boyd and Runkle (1993) who has been supported by Idris et al (2001) and Bashir (2003) too found that a larger bank with the cost advantages could earn more than a smaller bank because a larger bank can produce at a lower average cost per unit. In the long run, the larger a bank expanded itself, the lower cost of production they could enjoy. They also found a positive relationship associated with the theory of economies of scales. However, Sufian and Habibullah (2010), Kosmidou, Tanna and Pasiours (2005) and Ramadan, Kilani and Kaddumi (2011) proposed that an efficient bank could operate at lower operating cost, and the relationship is negatively related.

Rasti and Talebbeydokhti, (2015) studied domestic factors affecting profitability in Melit Bank Branch. They used correlation and regression on analyzing subdirectories. The authors concentrated on deposit, composition of asset, liquidity, cost of management, size of branch and the number of employee. The results showed that in correlation there is significant relationship between the amount and types of deposit, composition of asset, liquidity, number of employee, cost of management and size of branch to the branch profit and there were no significant relation on the receipt of credit granted. In addition to that the regression result showed that there is significant relation between capital management and the profit of branches. Ali, Zakaria, and Husni (2011) conducted their study to evaluate the factors affecting the Jordan Islamic banks over the period 2005-2009. Multiple Linear regression model was applied in this study and concluded that ROE has significant relationship with total equity/total asset and total income/total asset while has unfavorable connection with bank size, total liability/total assets, GDP, inflation and exchange rate. Meanwhile, Bashir (2000) who examined the determinants of Islamic bank's performance across eight Middle Eastern countries for 1993-1998 periods found that higher leverage and large loans to asset ratios, lead to higher profitability. Bashir (2000) further argued that foreign-owned banks are more profitable than the domestic one. There was also evidence that taxation impacts negatively bank profitability.

3. METHODOLOGY

3.1 Research Design

The study was carried out by using a time series approach (research design). This has been considered appropriate, because if someone can carry out a study of this period, it provides a researcher with more observations and opportunity to see the effects of policy changes.

3.2 Model Specification

This study had the interest of examining the determinants of Islamic bank profitability at PBZ Islamic banking. To determine the impact of those factors to the profitability of Islamic bank at PBZ the basic model of this study was designed as follows:-

$$y_t = \beta_0 + \beta_1 T_1 + \varepsilon_t \dots \dots \dots 1$$

Where y represents the profitability in which ROA (Return on Assets) used as a proxy for profitability and T macroeconomic factors. Hence, the linear regression model is represented as follows:

$$\log ROA_t = \beta_0 + \beta_1 \log GDPgr_t + \beta_2 \log MS_t + \beta_3 \log INF_t + \varepsilon_t \dots \dots \dots 2$$

Where; ROA Represent Return on assets, GDPgr Represent Real Gross Domestic Product growth rate, INF Represent Inflation rate, and MS Represent Money supply, β_0 is the constant term, β_1 to β_5 , are the parameters estimated, $t = 1, 2, \dots$ is the time index for the time from 2011 to June 2018 in quarterly basis and ε is the stochastic error term.

3.3 Estimation Techniques

To investigate macroeconomic factors of profitability of Islamic banking at PBZ Islamic division, Vector Error Correction Model (VECM) was used, which consist the following step:-

3.4 Unit Root Test

The variables used in the specified model required the test for the existence of unit root. The unit root test was used for individual variables of time series data with the purpose of ensuring that variables are stationary. In fact, non-stationary series could result in spurious regression. Following Engle and Granger (1987), this research tested stationarity by using the augmented Dickey-Fuller (ADF). ADF test always assumes of rejecting the null hypothesis of a unit root.

3.5 Co-integration analysis

After having completed examination of the stationarity of each time series, and find that the data were stationary at first difference, then the next step was to figure out the level of co integration between the examined variables. For simplicity, this step investigates whether the stochastic trends in the examined variable, which is supposed to contain unit roots, have a long term relationship. Two maximum likelihood tests, the trace (JT) and maximum eigenvalue (JME) tests, advocated by Johanson (1988, 1991) and Johansen and Juselius (1990) have been used to test for co integration. According to Granger (1988), standard tests for causality are valid only if there is co integration between the variables. Therefore, in the presence of integrated variables, a necessary pre-condition to test for causality is to check whether the variables are co integrated.

3.6 Vector error Correction Model

The vector error correction model (VECM) was estimated to find out long-run causality and short-term dynamics if there is an evidence of cointegration relationship among the variables. This allows causality to be determined in two ways, the first one is short run causality, which will be determined by the lagged differences of the variables and the second is Long-run causality, which will be determined by the significance of the coefficient of the error-correction term. If the coefficient of the error-correction term is negative and statistically significant in terms of the associated t-value, this show

that there is unidirectional or bidirectional causality among variables Engle & Granger (1987).The VECM is estimated as shown below:-

$$\Delta ROA_t = T_1 \sum_{i=1}^{k-1} u_{1i} \Delta ROA_{t-i} + \sum_{i=1}^{k-1} v_{1i} \Delta GDPgr_{t-i} + \sum_{i=1}^{k-1} w_{1i} \Delta MS_{t-i} + \sum_{i=1}^{k-1} X_{1i} \Delta INF_{t-i} + Z_1 ECT_{t-i} + e_t \dots (3)$$

$$\Delta GDPgr_t = T_2 \sum_{i=1}^{k-1} u_{2i} \Delta ROA_{t-i} + \sum_{i=1}^{k-1} v_{2i} \Delta GDPgr_{t-i} + \sum_{i=1}^{k-1} w_{2i} \Delta MS_{t-i} + \sum_{i=1}^{k-1} X_{2i} \Delta INF_{t-i} + Z_2 ECT_{t-i} + e_t \dots (4)$$

$$\Delta MS_t = T_3 \sum_{i=1}^{k-1} u_{3i} \Delta ROA_{t-i} + \sum_{i=1}^{k-1} v_{3i} \Delta GDPgr_{t-i} + \sum_{i=1}^{k-1} w_{3i} \Delta MS_{t-i} + \sum_{i=1}^{k-1} X_{3i} \Delta INF_{t-i} + Z_3 ECT_{t-i} + e_t \dots (5)$$

$$\Delta INF_t = T_4 \sum_{i=1}^{k-1} u_{4i} \Delta ROA_{t-i} + \sum_{i=1}^{k-1} v_{4i} \Delta GDPgr_{t-i} + \sum_{i=1}^{k-1} w_{4i} \Delta MS_{t-i} + \sum_{i=1}^{k-1} X_{4i} \Delta INF_{t-i} + Z_4 ECT_{t-i} + e_t \dots (6)$$

ECT is the error term which explains the long run causality between variables, where e_t is the Error Correction Term which reflects the deviation from the long-run equilibrium path.

4. RESULTS AND ANALYSIS

4.1 Test for Stationarity

The existence of unit root is checked by using Augmented Dickey Fuller test (ADF) at both levels and first differences. The results from the unit root test are presented in Tables 1 and 2, respectively. Both tests (Level and First difference) were done by comparing the t- statistics calculated and Mackinnon critical values 5% level of significance. The results of the estimated ADF test with its accompanying p-values showed that the null hypothesis of unit root test was rejected in first differences for all the series at the 5% level of significance. However, for the series levels, the researcher failed to reject the null hypothesis of unit root for all of the variables at the 5% level of significance. This implies that the researcher's series are well characterized as I(1) as all variables of the study namely ROA, INF, GDPgr and MS achieved stationarity after first differencing. Generally, the results show most series were stationary at first difference. As a result, the Johansen- Juselius co-integration test was done to test the long run equilibrium relationship between the variables.

Table 1. Results for ADF Unit Root Tests at Level

Variable	T-Statistics	P-Value	Result
LROA	-2.537898	0.1177	Non stationary
LINF	-1.235878	0.6437	Non stationary
LGDPgr	-2.557721	0.1159	Non stationary
LMS	-2.227799	0.2013	Non stationary

Source: Author computation from collected Data (2021)

Note: significant at 5% significance level.

Note: Null Hypothesis (H_0 : variables are not stationery (NS) i.e. unit root) was not rejected at level

Table 2. Results for ADF Unit Root Tests at First Difference

Variable	T-Statistics	P-Value	Result
LROA	-6.130048	0.0000	Stationary
LINF	-4.551586	0.0013	Stationary
LGDPgr	-3.115401	0.0400	Stationary
LMS	-4.163112	0.0032	Stationary

Source: Author computation from collected Data (2021)

Note: significant at 5% significance level.

Note: All variables became stationary at 5% level of significant after the first difference. The results are obtained from MacKinnon's table by using Eviews 10 packet program.

4.2 Johansen- Juselius Co integration test

After tested and proved that all variables are integrated at the same order I (I), Johansen-Juselius procedure was implemented to detect the cointegration relationship between the variables. The choice was tested using (AIC) and Schwartz Information Criterion (SIC). Tables 3 signify that both trace and Max- Eigen test show that more than one co-integrated vector(r) among the variables. The result also indicate that the Null hypothesis (series are non-cointegrated) can be rejected at 5% significance level. The study used Johansen test and it usually involves two test namely "Trace statistics" and "Maximum Eigen value". From the results of co integration both Max Eigen and Trace test indicate that there is long run relationship between variables includes the macroeconomic factors and profitability in Islamic banking at both models. It

reject null hypothesis at none and at most 2 for first model and at none and most 1 for second model see Table 3 in both Max Eigen and Trace test.

Table 3. Co integration rank test(Trace and maximum Eigen-value)

Hypothesized Number of CE (s)	Trace			Max-Eigen		
	Statistics	Critical value	P (0.05)	Statistic	Critical value	P (0.05)
$r = 0^*$	67.30020*	47.85613	0.0003	44.84513	27.58434	0.0001
$r \leq 1^*$	22.45507*	29.79707	0.0273	15.52326	21.13162	0.0253
$r \leq 2$	6.931808	15.49471	0.5856	4.867416	14.26460	0.7585
$r \leq 3$	2.064392	3.841466	0.1508	2.064392	3.841466	0.1508

Source: Researcher's Computation, 2021

Note:*, Trace statistics and Max-eigen indicate one co-integrating equation at 5% level of significance.

Therefore, it is concluded that the series are co-integrated and a long run equilibrium relationship exists among the variables for that reason vector error correction mechanism was applied to test dynamic effects (short run relationship between the series).

4.3 Vector Error Correction Model (VECM) Results

Given the results of the co integration test which revealed the existence of cointegration among the variables in the profit determinant models, vector error correction model (VECM) was considered appropriate for the analysis.

4.4 Results for the investigation of external determinants of Islamic bank

From the equation below the VECM result presented showed that, the coefficient of the constant term is 25.37774 implying that at zero performance of the various explanatory variables used, Return on Assets (ROA) stands at 25.37774 units.

$$\log ROA_t = -25.37774 + 1.661735 \log MS_t - 0.234040 \log INF_t + 2.816806 \log GDP_{gr_t} \dots \dots \dots (7)$$

Table 4. VECM Coefficients standard errors and t statistics

	$\log MS_t$	$\log INF_t$	$\log GDP_{gr_t}$
Std. Error	(1.86832)	(0.97645)	(0.63225)
T-statistics	(-0.88943)	(0.23968)	(-4.45523)

Furthermore, the result from the model which describes the macroeconomic factors that affect the profitability of the PBZ Islamic Banking Division shows that money supply and GDP growth rate have positive relationship with profitability of PBZ Islamic banking and are statistically significant. However, inflation rate has negative relationship with profitability of PBZ Islamic banking division. See the detail of each determinant of Islamic bank profitability below:

4.5 Inflation rate

The coefficient indicate that one unit increase in inflation rate leads decrease in ROA by 0.234040, So the result of this work shows that consumer price index (proxy for inflation) has negative relationship with Pbz Islamic bank profitability and this is because inflation rate cause the increase price of product as a result reduce consumption. Boyd, Levine and Smith (2000) found similar results. According to the theory of Perry (1992), it can be assumed that Islamic banks could not anticipate the inflation and thus the inflation cost negatively affected the banks' profitability. Izhar and Asutay (2007) argued that the effect of inflation on bank profitability was first discussed by Revell (1980), who held that inflation could be a factor in the causation of variations in a bank's profitability. However this results go against the with the studies done by Wasiuzzaman and Tarmizi (2010); Bashir (2003); Athanasoglou et al (2005); Izhar and Asutay (2007); Vong and Chang (2006); Kunt and Huizinga (2000); and Haron (2004) who found a positive significant relationship between inflation and profitability of Islamic bank. However, Sriari (2009) and Naceur (2003) found that profitability of banks does not have any significant relationship with inflation.

4.6 GDP growth rate

From the estimated regression equation above indicate that when everything else is kept constant one unit increasing in GDP growth rate rises the ROA by 2.816806. The GDP growth rate is one of the main macroeconomic indicators that affect the profitability of Islamic banks, under this work the result shows a positive relationship with the Pbz Islamic banks' profitability, and this is because economic of the country increase causes a rise indifferent sector for example production of

goods and services and employment opportunities that effect bank profitability. This results supported by Bashir (2003). This was followed by Srairi (2009) and Wasiuzzaman and Ahmed Tarmizi (2010) in their studies on determinants of Islamic profitability in GCC countries and in Malaysia respectively. Both studies also found that GDP growth has significant positive relationship with Islamic banks profitability.

4.7 Money Supply

Similarly increasing in Money Supply by one unit leads ROA to increase by 1.661735, therefore, for money supply, resulted in a positive relationship with bank's profitability. The results confirmed the expected sign that money supply is positively related to banks' profitability. Moreover, the result supports the findings of Bourke (1989) and Molyneux and Thornton (1992) in which money supply was considered to be positively related to banks' profitability. These results also are consistent with the findings of Haron and Azmi (2004) who found that there is significant long-run relationship between the banks' profitability and money supply.

5. RECOMMENDATIONS

The study reported a positive relationship between Gross Domestic Product (GDP) and profitability of PBZ Islamic banking in the measure of return on asset (ROA). The results show that in order to increase the profit of Islamic banks, policy makers should first increase the GDP. By reducing the tax rate can help to increase the GDP, and it leads the profitability of Islamic banks to increase. Government can also increase the GDP by improving the productivity by producing more goods and services with the existing resources. As GDP increased, the profitability will also increase. Also, the findings showed that there is negative relationship between inflation rate and profitability of PBZ Islamic banks. Due to that it is important to take actions in PBZ order to reduce the inflation, especially considering the high inflation rate in Tanzania. To control inflation, government or policy makers should tighten the monetary policy by keeping low lending rate in central bank. Besides, fix the country exchange rate can help to reduce inflation and help to reduce the losses of Islamic banks. Also the government can increase the restrictions on the transfer of foreign currency reserves, by doing so, the foreign currency reserve can be reduced, and inflation can be lessened.

Management of PBZ Islamic Banking should concentrate on increase deposit of the bank so as to increase profit by encourage most of the citizens of Tanzania to save their money to the branches of Islamic as the result showed the deposit was significant to the profitability (ROA) of bank and especially those living in rural areas and those who are not employed by the Government of Zanzibar and this can be done if they increase the quality of their services to customers, accessibility, awareness of Islamic products and closeness to customers for better serving and also to increase advertisement for market department. Management of PBZ Islamic Banking are required to check whether Islamic banking comply with Shariah rules as defined by their Shariah Board, and act in accordance with Shariah standards set by the Accounting and Auditing Organization for the Islamic Financial Institution. Management of PBZ Islamic Banking should follow the principles and Islamic sharia on its transactions and financing products for example on murabaha, musharaka, istisnaa, salaam, mudharaba and also on its wadia accounts so as to maintain sharia compliance and the result will lead to profitability.

Each Islamic financial institution must have an independent advisory council known as a Shariah Board. Bankers, lawyers or religious scholars can be members of a Shariah Board provided they are trained in the Islamic law (Shariah). Since there are only few Islamic banks in Tanzania, the study can be extended to include more Islamic banks of other countries. Such a study would create new and more insights on the influence of economy, prudence and soundness of Islamic banks in the world since all Islamic banks abide by a set of principles established by the Quran irrespective of country of operation. This study concentrated on the few years period (2011-2018). Further research covering a longer time period with a wider range of economic conditions could reveal some new insights. In such a case, the variables drawn from Islamic banks performance literature will enable the researcher to determine the magnitude of the effect of internal and external variables on Islamic banks profitability.

5.1 Limitations and future directions for research

One of the major weaknesses of this study is data constraints. It focuses only on the macroeconomic environment. Other variables that may determine the profitability of banks such as financial structure, as well as taxation variables were not investigated. The study is also limited to a narrow sample of Islamic banks operating in Tanzania. There are only one Islamic bank that have been captured in the study that is PBZ Islamic banking division. The time period captured in the study is short. Only data for seven years (2011-2018) were utilized since the targeted banks have operated for less than 7 years. While there were no cases of missing data from the sample, and that all data collected was used in the analysis, the limited period of time, especially considering that only one banks satisfied the sampling requirements, potentially might affected the interpretation of the findings.

Since there are only few Islamic banks in Tanzania, the study can be extended to include more Islamic banks of other countries. Such a study would create new and more insights on the influence of economy, prudence and soundness of Islamic banks in the world since all Islamic banks abide by a set of principles established by the Quran irrespective of

country of operation. This study concentrated on the few years period (2011-2018). Further research covering a longer time period with a wider range of economic conditions could reveal some new insights. In such a case, the variables drawn from Islamic banks performance literature will enable the researcher to determine the magnitude of the effect of internal and external variables on Islamic banks profitability. Since this study examined the internal and external determinants of Islamic bank profitability therefore the future studies may also shift attention to channels of Islamic bank through which may impact the growth of Tanzania. Other than that, because of there are now only few Islamic banks in Tanzania, and it is believed that in future there will be more Islamic banks set up in Tanzania, therefore the researcher suggests that future researchers can collect more data and have bigger sample size for analysis which would predict the impact of those variables on the profitability of the banks as determined over a bigger sample size.

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