Analysis of Performance Indicators among Selected Commercial Banks: Comparative Study Before and After Regulatory Requirements Reviews in Tanzania

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Abstract
This paper analysed empirically the relationship of performance indicators among selected24 commercial banks in Tanzania before and after regulatory requirements reviews (RRR) from 2008 to 2019. The performance indicators tested in the study included Return on Equity(ROE), Return on Assets (ROA), Saving Mobilization Ratio (SMR) and Non-Performing Loan (NPL).The study applies descriptive research design (Descriptive statistics and Student paired t-test) with null hypothesis stated that there is no mean difference in performance before and after RRR. The results show ROE and SMR increases positively after RRR and their difference are statistically significant at 1% significant level. However, ROA and NPL results show increases and decline respectively but their differences are not statistically significant. The study concludes that both banks have showed some improvements in terms of ROE, ROA, SMR and NPL after RRR. The study recommends that in order for banks to perform better, they should properly continue to comply with the regulatory requirements because the proper implementations on regulatory requirements helped banks to improve customers' deposits and earn more profit. Similarly, both banks should put more efforts on controlling NPLs to the required BoT 5% limits using the proposed credit risk management regulations and guidelines.

Keywords: Performance indicators, regulatory reviews, t-test, and commercial banks

1. INTRODUCTION

Commercial banks play a major role in economic development and growth of a nation or state(Drigă& Dura, 2014).Sound financial health of a bank is the guarantee not only to its depositors but is equally significant for the shareholders, employees and whole economy as well.As a sequel to this maxim, efforts have been made from time to time, to ensure good performance of banks (Hawaldar, Lokesha, Kumar, Parakesh& Sheila, 2017).According to Ally (2013) and Sufian& Chong (2008) commercial banks are regarded as crucial forces in capital formation, savings, investment and other economic resource allocation of various countries by making funds available for investors. Ongore&Kusa(2013) stated that banking sector plays a very critical role in sustaining financial intermediation, financial markets and has a substantial impact on the financial health of the entire economy.

Banks perform a very crucial role in financial intermediation as they offer several services including deposits, insurance, guarantee, safeguarding of valuable assets, and credit creation (Wood & Skinner, 2018). This raises a concern and the need to ensure financial sector stability in the economy (IMF, 2019). Various countries have reported changes in performance of their banks after doing some amendments in regulatory requirements.For instance; Southern bank in the USA failed and was shut down in the year 2010 because of the high rate of NPLs (Jiang*et al.,* 2018). In a similar case, after the implementation of the international banking association regulations (Basel II) in 2015 about 25 CBs in Nigeria were reported to have unsatisfactory performance as most of them reported high NPL and capital inadequateUgoani (2016). In Ghana, the implementation of international banking capital adequacy regulations on Tier I and II affected also performance of some banks in Ghana, where in 2018 five banking institutions reported high loss and insufficient capital hence were consolidated into a single bank by the Central Bank of Ghana (Asiama&Amoah, 2018).

In Kenya, after the review of bank regulations in the year 2013, Dubai bank was placed in liquidation and two large banks (Imperial and Chase bank) were placed under receivership by the Central Bank of Kenya because of capital deficiencies and high credit risk CBK (2018). The same situation occurred in Rwanda, where the new regulatory reviews shocked some banks. Fore stance, in July 2012 the former BCR bank was liquidated and sold its shareholding to other

companies. As result, in August 2013 BCR bank rebranded to I&M Bank (Rwanda) to reflect its current shareholding (National Bank of Rwanda Annual Report, 2015).

2. STATEMENT OF THE PROBLEM

In Tanzania, performance of its banks is not stable. Forinstance, after the regulatory reviews of the year 2014 it was reported that performance of some banks was not good. This resulted to the closure of five banks in January 2018 which were reported to have high NPL, insufficient capital and more losses. For instance, Twiga Bancorp and Bank M experienced poor performance hence, were taken over by the BoT and then merged with Tanzania Postal Bank and Azania Bank (BoT, 2018). However, after regulatory reviews not all banks experienced unsatisfactory performance; fore stance, some banks in Tanzania reported high performance with greater improvements on capital, profit, deposits, savings and assets (BoT, 2018).Given the variations in performance of banks between the two periods; studying on how banks used to perform before and after regulatory reviews and see whether such differences in performance is significant is paramount. The Bank of Tanzania (BoT) has done a lot of efforts for the purpose of improving financial performance of banks in Tanzania. one of the most effort done was to review the various bank regulations in 2014,among of the reviews conducted include; improving the minimum core capital ratio and total capital ratio from 10% and 12% to 12.5% and 14.5% respectively, maintaining a liquidity ratio not less than 20% of its demand liabilities, and improving minimum capitalization amount from five (TZS 5/=) billion to fifteen (TZS 15/=) billion for commercial banks. Furthermore, the BoT under financial reporting and disclosure regulations 2014 improved quarterly and annualdisclosure of audited financial statements from using one to two newspapers for publications, the time of submitting a copy of quarterly financial statements to the BoT was reviewed from three (3) days to five (5) days after the newspaper publications. Besides, the time to publish quarterly financial statements was reviewed from first 45 days to 30 days of a financial quarter(BOT, 2014).

Despite having thereviews,still performance of commercial banks in Tanzania is not stable**.** Fore stance, Return on Assets (ROA) declined to 2.49% from 2014 to 2015 and to 2.09% from 2015 to 2016 while Return on Equity (ROE) declined to 12.16% from 2014 to 2015 and to 9.26% from 2015 to 2016 (BoT, 2016). Net profit declined from TZS 438/= billion in the year 2014 to

TZS 423/= billion in 2015 and TZS 286/= billion between 2016 and 2017. BoT (2018) reported the trend of NPLs as 6.6% in 2009, 7.8% in 2010, 5.4% in 2011, 6.4% in 2012, 5.1% in 2013, 6.6% in 2014, 8.6% in 2015, 9.6% in 2016, 11.5% in 2017 and 9.93% in 2018. From these figures, the trend has been piling up each year which is not a good indication for the bank stability (BoT, 2018).Therefore, all the above cited events or situations necessitated the researcher to carry out a financial performance analysis study to evaluate how banks in Tanzania used to perform before and after regulatory reviews.

3. OBJECTIVES OF THE STUDY

i. To analyse performance indicators of small and large banks across time period

ii. To Compare Performance indicators among selected commercial banks between before and after regulatory requirements reviews

4.0 LITERATURE REVIEW

4.1 Theoretical Review

The study was guided by the agency theory. Normally, managers are employed by the shareholders to work on behalf of them and ensure that everything in the institution goes well as expected. Managers do decisions on behalf of shareholders including complying with the regulatory requirements posed by the regulator. Some of the requirements are expensive to the institutions that some shareholders may not be ready to implement them. However, it is the role of the managers to educate the shareholders on the consequences of not complying with the requirements even if it lowers their return. Agency theory by Jensen &Meckling (1976), state that principals hire agents to run business on their behalf which results to conflict of interest between investors and managers and leads managers to increase perquisite consumptions (bonus, gratuity, and incentive).

Therefore, poor performance of firm may happen if managers hesitate to implement the regulatory requirements carefully because failure to comply with the requirements may cause unnecessary costs to the institution including penalties, closure and suspension on some activities. However, to the other side the performance of banks may increase if banks under supervision of managers comply fully with the regulatory requirements.The theory is appropriate to this study as it showsif

managers and their bank comply carefully with the regulatory requirements, banks performance is likely to be improved.

4.2 Empirical Reviews

Chiaku& Wetmore (2006) examined the comparative performance of small U.S. commercial banks, medium size commercial banks and large commercial banks for the period of 1997-2002 by employing profit efficiency (PROFEFF), return-on-assets (ROA), interest income, non-interest income and loan loss reserve as criteria for the comparison. The results showed that between 1997 and 1999, small banks were more profit efficient than large banks but less than medium- size banks but after 1999 large banks become more efficient.

Hawaldar*et al.,* (2017) analysed the financial performance of banks in Bahrain from 2009 to 2013 and found that operating efficiency of banks was better for the period of 2009-2013 which was evident from asset utilization ratio. Another study is by Osano&Gekara (2018) who examined the effect of government regulations on profitability of commercial banks in Kenya. . In one of the study objectives, the study found that after the amendments made on the Kenyan bank regulations most of the banks reported improvements in financial performance as measured by ROE, ROA and NIM. Thestudy recommended that government must continue to ensure that there is high compliance of stipulated guidelines in order to ensure the stability of the banking sector. The results of these studies were similar with the results by David &Muendo (2018) who conducted a study in Kenya and observed that performance of banks in terms of ROE and liquidity improved more after the reviews made on liquidity management, credit risk management and capital adequacy regulations.

Furthermore, a study by Vianney (2013) in Rwanda observed that commercial banks experienced low performance after the amendments made on minimum capital adequacy and liquidity requirements. The argument was that the reviews made on minimum capital adequacy requirements were not easily affordable and thus increased more operating costs to the banks which in turn lowered the financial performance of most commercial banks in Rwanda. The findings were similar with the findings by Onaolapo&Olufemi (2012) who also noted decline in profitability of most banks in Nigeria when bank regulations on interest rate, capital adequacy, and reporting and disclosure regulations were reviewed.

In Tanzania, a study by Lotto (2018) on the impact of capital adequacy regulations on bank operating efficiency observed that reviews made on capital adequacy requirements improved bank efficiency in terms of ROA. The study noted that large capital buffer does not only strengthen financial stability but also improves bank operating efficiency. The results implied that the increase in regulations on capital requirements influences the banks decisions to revisit their internal operations including having strong corporate governance, strong risk management practices and hiring qualified staffs. However, the study observed inverse relationship between reviews made on credit risk management regulations and bank operating efficiency.

The present study is different from earlier studies in different ways: most of the previous studies have focused more on profitability measures using ROE, ROA, NIM, Non-Interest Income (NII) and Loan Loss Reserve (LLR). The current study apart from ROE and ROA has added other performance indicators saving mobilization ratio (SMR) and Non-Performing Loan (NPL) as measures of bank stability and growth which have not frequently used by the previous studies. Secondly, previous studies have focused more on analyzing bank performance indicators in one period of time after the regulatory reviews without giving the analysis of bank performance before the reviews. Thus, the current study has considered analysis of bank performance indicators in both periods, that is; six years before regulatory requirements reviews (2008-2013) and six years after regulatory reviews (2014-2019). Besides, majority of the previous studies have also based more on descriptive statistics without showing whether the difference in performance between different periods of time is significant or not. Therefore, the current study had adopted both descriptive statistics analysis and t-test which fits better for comparing performance indicators of banks between the two periods. Not only that but also, previous reviewed literatures have mostly focused on secondary data. The current study has used both secondary and primary data as to enrich the discussions. Lastly, previous reviewed studies have generalized the analysis of performance indicators by combining both small and large banks in the same analysis pool. The current study has improved the analysis by analyzing the performance of small and large banks separately across time periods. This analysis style has helped the study to make unbiasedspecific comments based on bank category. It is against this backdrop that the present study has been undertaken to fill up this gap.

5.0 METHODOLOGY

5.1 Data Collection

This study was conducted in Dar-es-Salaam Region. The regionwas selected purposely because it has registered large number of commercial banks (36 banks) and it is the head quarter of most banks as compared to other regions in Tanzania (BoT, 2018). The study relied on both primary and secondary sources in analyzing performance indicators of commercial banks in Tanzania. The secondary data are from two sources which were; Bank of Tanzania website (BoT) and individual banks headquarter or on their websites. BoT is a regulator of all banks in Tanzania with responsibility of ordering banks todisseminate both quarterly and annual financial reports for government and public consumption.The target population of this study comprised of thirty six (36) banks. Only 24 commercial bankswith at least twelve years of operation were sampled and selected for the study as they met the criteria while commercial banks with missing required criteria have been excluded from the study.The study applied descriptive research design where by measures of central tendency and dispersion were used to describe and test hypothesis of the study. This research design was selected because it helps in describing the performance of the banks before and after regulatory requirements reviews.

The study relied on both qualitative and quantitative data, whereby qualitative data supplemented findings obtained through quantitative data. Quantitative data were collected using secondary sources (financial statements)while qualitative data were collected through bank general managers (key informants) who responded to the interview guide questions as to allow bank employees to come up with their own suggestions or opinions regarding bank performance between the two periods. In this case, 24 general managers (one from each bank) were targeted and they were purposively sampled as the key informants based on their positions and status. However, only 9 key informants were approached successfully. Their responses were categorized and analysed into themes based on research objectives

Based on matched paired approach which compares the change in performance of the firms between two periods before and after (Alanazi & Liu, 2013), these data were divided into two parties for each firm targeted. First part is before regulatory requirements reviews (2008-2013) labelled as -years which correspond to -1 -2 -3 -4 -5 and -6 while the second part is the years

after regulatory requirements reviews (2014-2019) labelled as +years which correspond to +1 +2 +3 +4 +5 and +6. The reason for choosing 2008 as a base year is to get views of the banks which witnessed major bank regulatory reviews of the year 2008 before other major reviews conducted on 2014 in their studies. This approach was also used by (Alanazi, Ahmed, Liu& John, 2011) andChangyun (2005).Descriptive statisticsanalysis techniques were used to describe findings of the objective onefocused on analysis of bank performance indicators before and after regulatory requirements reviews across bank categories (small and large banks) while t-test was used to analyse objective two focused on comparing performance indicators of commercial banks before and after regulatory requirements reviews.STATAstatistical software was used to carry out all statistical tests and data analysis in general.

5.2 Variable measurement and definition

This study use Profitability ratio (ROE and ROA), Stability ratio (NPL) and Growth ratio (SMR) as accounting performance measuresin which some of the variables arealso used by other researchers Kinyua, Nyanumba, Gathaiya&Kithitu (2013) and Alanazi*et al.*,(2011).

Table 1. Operational definition of the research variables.

Variable name	Measurement method
Return on Asset(ROA)	The ratio illustrates firm's ability inusing its assets to generate profit. It is computed by taking net income divide by total asset *100.
Saving Mobilization Ratio (SMR)	The ratio indicates firm's ability to mobilize more deposits from customers. It is obtained by dividing customers deposits to total liabilities* 100.
Return on Equity (ROE)	The ratio indicates firm management success or failure at maximizing the return to shareholders based on their investment in the firm. It is calculated by taking net income divide by shareholder's fund* 100.
Non-Performing Loans (NPL)	The ratio indicates effectiveness of a bank in receiving repayments on its loans. It is obtained by dividing NPL to gross loans * 100.

Note* represents multiplication.

6.0 Empirical Results

6.1 Descriptive Statistics

Based on the methodology presented in section three, descriptive statistics results are presented in Table 2. A t-test was used to examine relationship of performance indicators before and after regulatory requirements reviews.

6.1.1 Performance indicators between small and large banks across time period

The study intended to analyse performance indicators (ROE, ROA, NPL and SMR) of small and large banks beforeand after reviewing bank regulations in 2014 so as to determine which bank category performed better than the other and in which time period. Table 2 illustrates the findings of the study.

Table 2: Performance indicators of small and large banks across time period.

Small Banks									**Large Banks**							
Before regulatory reviews					**After regulatory reviews**				**Before regulatory reviews**				**After regulatory reviews**			
Var	Obs	Mean	Min	Max	Obs	Mean	Min	Max	Obs	Mean	Min	Max	Obs	Mean	Min	Mx
ROE	96	5.76	-38	24.12	96	6.72	-52	30.89	48	12.30	-17	29	48	15.57	-6.3	40
ROA	96	1.29	-5.39	3.91	96	2.95	-4.0	3.95	48	2.05	-1.2	4	48	4.39	0.53	7
NPL	96	8.98	0.2	30.6	96	8.19	0.01	37.0	48	8.15	0.72	16.58	48	7.40	0.62	17
SMR	96	73.8	65.1	93.7	96	81.6	67.4	94.1	48	85.8	79.9	97.5	48	94.6	81.3	98

Source: Survey data (2020)

The result in Table 2 shows that Return on Equity (ROE) of small banks increased by 0.96% after regulatory requirements reviews from 5.76% to 6.72% while ROE of large banks increased more by 3.27% after regulatory requirements reviews from 12.30% to 15.57%. This implies that after regulatory requirements reviews there is an increase of profit by 0.96% and 3.27% out of equity shares invested by both small and large banks respectively. However, the profit return for equity invested in large banks is higher than the profit returns for equity invested in small banks by 3.27% after the reviews. The results are contrary to Chukwuogar& Wetmore (2006) who observed that small banks perform better than large and medium size banks but similar to the study by Nyawira, Ambrose &Ndede(2017) which indicates that large banks have high ROA and ROE with less NIM at different periods of time.

Moreover, considering small banks there is minimal increase of Return on Asset (ROA) by 1.66% from 1.29% to 2.95% after regulatory requirements reviews as compared to large banks

which have shown high increase of ROA by 2.34% from 2.05% to 4.39% after reviews. This implies that all bank categories have shown some improvements on ROA after regulatory reviews indicating that after regulatory reviews both small and largebanks utilization of assets to generate profit increases by 1.66% and 2.34% respectively. This result is similar with Lotto (2018) who conducted a study in Tanzania, where his results show an increase in ROA after amendments made on capital adequacy requirements. However, such an increase was very minimal.

On the other hand, the result of Non-Performing Loans (NPL) show that after regulatory reviews small banks hadan average NPL of 8.19% whilelarge banks had an average NPL of 7.40% lower than the small banks. Moreover, findings show that some small banks reported higher NPL (30.6%) which is not tolerable compared to large banks. This implies that although large banks had low NPL as compared to small banks, both small and large banks failed to meet the BOT Non-Performing Loans standards of 5% despite the reviews made on credit risk management regulations. This indicates that an extra effort is needed for both large and small banks to reduce NPL to the required standards. These results are similar to Bonaccorsi di patti& Hardy (2005) who observed low risk exposures among large banks in Pakistan. Similarly, the results are supported byKarim (2016) and Atoi (2018) who found a decline in NPL among banks after the implementation of new risk management practices.

Coming to the Saving Mobilization Ratio (SMR), the results in Table 2 shows that after regulatory reviews, SMR of small banks increased by 7.8% from73.8% to 81.6% while SMR of large banks increased more by 8.8% from 85.8% to 94.6%. The findings imply that the amendments made on capital adequacy requirements, liquidity requirements and information reporting and disclosure requirements in 2014 probably helped banks to increase more customers' deposits, establishing more branches and creating more awareness to customers hence, the number of customers' deposits increases more out of total liabilities.

6.1.2 Comparison of Performance indicators among selected commercial banks between before and after regulatory requirements reviews

For normality test, according to Fuad, Lye, Ibrahim, Ismail & Zurfi(2015), portray that if the observation is greater than 30 based on central limit theorem then data must follow normal distribution curve. This study has 288 observations which is greater than 30 minimum required

for normal distribution condition. Then this study data is normally distributed. Therefore, Student paired t-test is appropriate statistical test for mean difference comparison between before and after regulatory requirements reviews. On top of that,Kolmogorov-Smirnov test for normality was conducted at a level of 1%. Kolmogorov-Smirnov test is the most appropriate test for normality when the sample size is larger than 50 or when the number of observation is greater than 100 for panel data (Shmuel, 2010). This study has a total of 288 observations for 12 years, thus Kolmogorov-Smirnov test was suitable. The criteria stipulated that data is normally distributed if the level of significance is above 0.01 (1%). The results are shown on Table 3.

Table 3: Kolmogorov-Smirnov test of Normality

	Kolmogorov-	**Smirnova**		**Shapiro-**	**Wilk**	
	Statistic	observation	Sig.	Statistic	Observation	Sig.
ROE	0.119	288	0.136	0.851	288	0.104
ROA	0.173	288	0.218	0.867	288	0.211
NPL	0.143	288	0.162	0.845	288	0.207
SMR	0.408	288	0.385	0.952	288	0.273

SOURCE: Survey Data (2020)

As shown in Table 3, the study found that all variables were normally distributed because theirexact p-values weregreater than 0.01 (1%) significance level which confirmed adherence with the normality assumption.

Table 4 Mean difference comparison between before and after regulatory requirements reviews

variable	**Mean before**	**Mean after**	**Mean difference**	**t-start**	**DF**	**P-value**	**Conf-interval (CI)**	
ROE	9.03	11.15	2.12	1.67	143	0.0011***	1.40162	4.40715
						0.0011**	1.03280	6.80828
						0.0011*	0.164356	7.64473
ROA	1.67	3.67	2.0	0.58	143	0.1428	1.622091	5.713096
						0.1428	1.362284	6.253304
						0.1428	0.338314	7.125174
NPL	8.57	7.80	-0.8	-0.21	143	0.1765	-3.174605	4.855318

						0.1765	-4.387215	5.691128
						0.1765	-6.022246	7.333158
SMR	79.8	88.1	8.3	2.71	143	0.0023***	5.476273	11.43136
						0.0023**	3.654216	13.802698
						0.0023*	3.164356	15.69423

*Note:*significant at 1% level, **significant at 5% level, ***significant at 10% level*

The Table 3 shows Student paired t-test results for mean difference performance indicators before and after regulatory requirements reviews at 10%, 5% and 1% significant level. The P-value of ROE (P-value=0.0011) is less than 0.01(1% significant level), this means there is sufficient evidence to reject null hypothesis (H0: there is no mean difference in performance between ROE before and after regulatory requirements reviews).Hence we accept alternative hypothesis, there is a significant mean difference in performance on ROE between before and after regulatory requirements reviews at 99% confidence interval. This result could be true due to the facts that after the regulatory reviews banks were instructed to raise their capital adequacy and increase the number of newspapers used for publication of financial reports. Therefore, the higher capital adequacy could help banks to invest more, open more branches and reach many customers. Fore stance, during the discussion held with key informants when were asked to analyse the performance of their banks before and after regulatory requirements reviews in terms of ROE, one of the general manager at one of the bank in Dar es Salaam headquarter said

> *"The regulatory review made on capital adequacy requirements has helped more our bank to have sufficient funds. For example, our bank has managed to open more branches, reach more customers and invest in other profitable projects"* (11 February, 2020)

In fact their responses could be possible because the BoT report of 2018 has shown the increase in number of branches and customers among banks in Tanzania since 2014 (BoT, 2018). The findings contrary to the results by Chukwuogor& Wetmore (2006) who observed that profit of banks was high in the time before 1999 but after the reviews in bank regulations there was a decline in profit for some banks due to vulnerable increased competition offered by deregulations.

Although, the mean difference in performance of ROA increase (positively) after regulatory requirements reviews, the P-value of ROA (P-value=0.1428) is greater than 0.1(10% significant level).Therefore, no sufficient evidence to reject null hypothesis (H0: there is no mean difference in performance between ROA before and after regulatory requirements reviews). This implies that despite the increase in profit after regulatory reviews, the increase was not so much big indicating that some assets were not properly utilized by banks. The findings are similar with the findings by Onaolapo&Olufemi (2012) who also noted decline in ROA and ROE of most banks in Nigeria when bank regulations on interest rate, capital adequacy, and reporting and disclosure regulations were reviewed.

Furthermore, results on Non-Performing Loans (NPL) indicates that;the mean difference between before and after regulatory requirement reviews is -0.8 with P-value of 0.1765 which is greater than 0.01(1% significant level) indicating that there is a sufficient evidence not to reject the null hypothesis that; there is no significant mean difference of NPL between before and after regulatory reviews across bank categories. This implies that although NPL decreases after regulatory reviews across bank categories such decrease was not so much big. This is possibly explained by the facts that despite amendments made on risk management regulations and guidelines, some banks particularly small banks continued to report high NPL especially in the first three years since reviews. It seems that the first six years duration of implementing risk management regulations since its review is probably too short. The trend shows that if more time is given and banks effectively implement the new risk management regulation, there is a high possibility of lowering the NPL rate to the acceptable standards in long run. This is evidenced with the responses obtained during the discussion held with key informants about performance of banks in terms of NPL before and after regulatory requirements reviews, one of the bank general manager in Dar es salaam headquarter said;

> *"The trend of NPL seems to increase between 2014 and 2016 because most of our customers experienced business failures and decrease in sales in the first three years after reviews which increased the rate of loan defaults".*(14 February, 2020)

The responses from the key informants could be possible because between 2014 and 2016 some business people closed their businesses claiming that there was low purchasing power from customers which in turn affected loan repayments. This argument is also supported with the

trend of annual GDP rate (6.7%, 6.2% and 6.5%) from 2014 to 2016 respectively which was low in those years as compared to 6.8% and 7.0% in 2017 and 2018 respectively. This result contradicts the findings by Aruwa&Naburgi (2014); Nawaz &Munir (2012) who found a significant mean difference of credit risk before and after reviewing financial regulations across bank categories. The theoretical contribution of this study is that small banks need to manage properly their resources both physical, human and financial resources as large banks use to do as Resources Based View theory proposes.

Considering saving mobilization ratio (SMR) findings show thatThe P-value of SMR (P-value=0.0023) is less than 0.01(1% significant level), this means there is sufficient evidence to reject null hypothesis (H0: there is no mean difference in performance between SMR before and after regulatory requirements reviews).Hence we accept alternative hypothesis, there is mean difference in performance on SMR before and after regulatory requirements reviews at 99% confidence interval. This result could be true due to the facts that the amendments made on capital adequacy requirements and number of newspaper for publications probably influenced banks to add more customers through opening more branches. Similarly, publication of financial reports into more newspaper help banks to create awareness on its services and reach more customers thus; there is a high possibility of the increase of customers' deposits in relation to total liabilities. Fore stance, during the discussion held with key informants when were asked to analyse the performance of their banks before and after regulatory requirements reviews in terms of SMR, one of the general manager at one of the bank in Dar es Salaam headquarter said

> "*The regulatory review made on capital adequacy requirements and publication requirements has helped more our bank to reach more customers. For example, our bank has managed to open more branches and mobilize more customers deposits"*(11 February, 2020)

In fact their responses could be possible because the BoT report of 2018 has shown the increase in number of branches and customers deposits in Tanzania since 2014 (BoT, 2018). The findings are similar to the findings by Aruwa&Naburgi (2014)who observed that customers' deposits increased after the regulatory reviews made in Nigeria.

6.2 Implications of the Results on the Theory

Considering the agency theory, banks initially may underperform due to agency cost as resulted from conflict between shareholders and managers which lead to unnecessary costs which are not beneficial to shareholders. However, banks may have superior performance if there is a good relationship between bank owners and managers in such a way that managers ensure that their banks comply clearly with the regulatory requirements. The findingsare in line to the theory as it shows that if managers implement properly the proposed regulatory reviews by the regulator on capital adequacy, liquidity and publication requirements, banks may be in a good position to open more branches, reach more customers and create more awareness to customers resulted to high incomewhich later on lead to high SMR, ROA and ROE. Therefore, the current study found the applied theory being relevant and statistically justified, hence had positive implication on their applicability**.**

7. CONCLUSION AND RECOMMENDATIONS

Assessment of banks performance after regulatory requirements reviews depend much on selected performance indicators. This is due to the fact that there are some performance indicators affected by the regulatory requirements reviews while others are not affected.In this study ROE, ROA, NPL and SMR are used as performance indicators. Findings show that after reviewing bank regulations mean ROE, ROA and SMR of most banks were better and at the same time NPL was also declining. However, comparison of performance indicators based on bank categories shows that large banks were more profit efficient in terms of ROE, ROA and SMR than the small banks in both periods that is before and after regulatory reviews. With respect to NPL, most banks failed to meet the BoT standards for NPL which was set at 5%, small banks reported higher NPL than that of large banks in both periods.However, it was found that only ROE and SMR means differences in performance are statistically significant after regulatory requirements reviews. That means after regulatory requirements reviews most banks reported higher customers' deposits and profit.

There is also aninsignificant mean difference of ROA and NPLbetween before and after regulatory reviews. This implies that although ROA increases after regulatory reviews across bank categories such difference has no greater magnitude effect. This happened probably due to

the facts that after regulatory requirements reviews some assets were not well utilized hence lowered the profit of the banks. The insignificant results of NPL implies that although there was a decreasein NPL after regulations reviews across bank categories,majority ofcommercial banks in the country failed to meet the BoT standards for NPL which was set at 5%, especially the small banks which reported high NPL in some years. The higher NPL indicates that probably most banks are not properly implementingthe new risk management regulations and guidelines issued by BOT.

These study findings have implication to policy makers, investors and researchers. Based on these findings, the study recommends that in order for firm to perform better, it should properly continue to comply with the regulatory requirements because this may lead to increase in its customer's deposits and profit. Fore stance, the study noted that after the regulatory reviews banks were instructed to raise their capital adequacy and increase the number of newspapers used for publication of financial reports. Therefore, the higher capital adequacy and more number of publications could probably helped banks to invest more in profitable projects, open more branches, create more awareness to customers on bank services and eventually reach many customers. Another recommendation is that both large and small banks should put more efforts on controlling NPLs to the required BoT 5% limits using the proposed credit risk management regulations and guidelines together with clear designed internal control strategies.

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