ISSN: 0975-833X

Available online at http://www.journalcra.com

International Journal of Current Research
Vol. 4, Issue, 12, pp. 560-565, December, 2012

INTERNATIONAL JOURNAL OF CURRENT RESEARCH

RESEARCH ARTICLE

THE CAUSAL EFFECT OF BANK MANAGEMENT RATIOS ON RURAL LENDING AND SMALL AND MEDIUM SCALE ENTERPRISES IN NIGERIA

Okwo, Ifeoma Mary[1], Ejeagbasi, Gloria Ebere[2] and *Ugwunta David Okelue[3]

[1,2]Department of Accountancy, Faculty of Management Sciences, Enugu State University of Sciences and Technology, Enugu State, Nigeria
[3]Department of Banking and Finance, Renaissance University Ugbawka, Enugu State, Nigeria

ARTICLE INFO

Article History:
Received 25th September, 2012
Received in revised form
20th October, 2012
Accepted 11th November, 2012
Published online 31th December, 2012

Key words:
Liquidity;
Cash reserve ratio;
Bank lending;
Small and medium
Scale enterprises.

ABSTRACT

This study examines the causal relationship of selected bank financial ratios on lending to small and medium Enterprise (SMEs) in Nigeria. The data used for this study were gathered from Central Bank of Nigeria (CBN) statistical Bulletin for a period of 27 years (1983 – 2010). Granger causality and OLS were applied to a set of differenced bank financial ratios and it was found that a critical gap in bank intermediation still exists in the lending to SME sector in Nigeria. A positive relationship exists between ratio of Rural Loan to Deposit (RRLD) and aggregate liquidity ratio (LR) while the causal relationship flows from cash reserve ratio to liquidity ratio. The result suggests that the excess liquidity in the banking system between 1983 – 2010 did not improve the flow of credit to SMEs in Nigeria. Consequently, the banks have failed in their social role of financing the SMEs by restricting the spread of fiat money contrary to the expectations of the Keynes – Schumpeter model. There is also no evidence to show that the banks are dealing significantly with the problem of information asymmetries through improved relationship lending to the SMEs in Nigeria. Monetary Policy should therefore target critically bank variables (LR, CRR and LDR) while ensuring compliance with prudential standards and balancing aggregate portfolios between large and small businesses. Restoring the mandatory credit allocation regime could also help in improving SMEs lending.

Copy Right, IJCR, 2012, Academic Journals. All rights reserved.

INTRODUCTION

The lending behaviour of deposit money banks is crucial for the transmission of monetary policy in Nigeria mainly because of the elevated function which banks play in conveying monetary policy impulses. Exchange rate is pivotal with respect to determining money supply in Nigeria for the fact that monthly monetization of the foreign exchange earnings is a major source of funding for government expenditure. Public sector deposits also form substantial clunk of banks' total deposits. It is therefore, arguable that fiscal actions of government, through exchange rate movements, might have definite bearing on loan behaviour of banks particularly for oil exporting economy like Nigeria. Currently, it is a burning issue, especially in Nigeria how the global economic melt down has impacted on the Nigeria economy. Deposit money banks are the most visible players in the Nigeria financial system. Their lending activities are a major influence on economic activities like rural lending to small business, that is small business financing. Based on Nigeria data, the works of Emeni and Okafor (2008) have shown that the larger the size of bank by way of mergers at acquisition (M & A), the more it tends to lend to small business. They also show that change in banking focus (example cutting down of branches in local areas), otherwise referred to as the restructuring effect, resulted in poor lending to small businesses, even with M & A. The works of Toby (2005) show that the liberalization of the Nigeria banking industry between 1986 – 1992 resulted in deteriorating corporate liquidity, declined bank credit to the factoring sector, outrageous increase in interest rates with the consequential decline in the contribution of the manufacturing sector to the (GDP) Gross Domestic Product. Toby (2007a) also shown that the current asset ratios of quoted small and medium enterprises (SMES) are significantly sensitive to commercial banks' liquidity ratio of Rural Loan-to-Deposit (RRLD) and Loan to Deposit Ratio (LDR), indicating a heavy reliance of the small and medium enterprises (SMES) sector on banks for financing. Again, Toby (2007b) shows that their risk class units the flow of funds to the small and medium enterprises (SMES) and the consequential financial stress in a risk-averse financial system. It is a thing of reasonable debate that small and medium enterprises (SMES) in Nigeria can contribute as much as 30% of the Gross Domestic Product (GDP) and employ up to 58 percent of its work force (Galadima, 2006). The CBN is further quoted as stating that the formal financial system provides services to about 35 percent of the economically active population in Nigeria, while the remaining 65 percent are excluded from access to formal financial services (Anaro, 2006). The gaps created in banking intermediation in the small and medium enterprises sectors has brought in alternative financing options which include the most recent initiatives

***Corresponding author:** davidugwunta@gmail.com

like: Small and Medium Industries Equity Investment Scheme (SMIEIS), the Bank of Industry (BOI), the N200 bill SME Credit Guarantee Scheme (SMECGS) and the Micro Finance Regulatory Framework (MRF) (2005). This research becomes necessary because the volume of loans being made available to small and medium enterprises (SMEs) has not shown much change in the economy at the expected rate due to fluctuations. Fluctuation in the rate of interest payable on loans affect positively and negatively the volume of loanable funds provided by banks to the economy and inadvertently discourages investment and also affect demand for such loans which in turn affect growth and development of the economy. The empirical determinant of rural lending in the context of aggregate bank behaviour is what is not known. The nature and significance of the relationship between cash reserve requirement or cash reserve ratio variables and lending behaviour on deposit money bank on small and medium enterprises is not also known with certainty. To determine these critical relationships would be a far-reaching policy implication for the Nigerian banking industry and rural financial intermediation. The essence of this research therefore, is to investigate the nature and causal relationship between Ratio of Rural Loan to Deposit (RRLD), Liquidity Ratio (LR), Cash Reserve Ratio (CRR) and Loan to Deposit Ratio (LDR). The next section of this study provides a review of related literature followed by research methods and model specifications. Empirical results, policy implications and conclusion are presented in section four and five respectively.

Review of Related Literature

Background

The interest rate behaviour in the post liberalization era (1983–2005) was characterized by re-regulation and cumulative bank distress. The consolidation era (2005 – 2007) witnessed aggressive mergers and take-overs. Average savings rate was generally low but had slight increase from 7.50% in 1983 to 9.50% in 1986. The average savings rate increased slightly from 14.00% in 1987 to 16.66% in 1993 and henceforth declined drastically to 3.83% in 2005. The average savings rate continues to drop until it came to 2.21% in 2010. The prime lending rate offered to preferred borrowers witnessed an increase from 10.25% in 1983 to 17.59% in 2010. The maximum lending rate equally increased from 11.75% in 1982 to 22.51% in 2010. On the average, maximum lending rate remained at 22.51% between 1989 and 2010. The post liberalization era is summarized in Table 1 below.

Table 1: Weighted Average Deposit and Lending Ratio of Commercial Banks

PERIOD	SAVINGS	PRIME	MAXIMUM
1983	7.50	10.00	11.50
1984	9.50	12.50	13.00
1985	9.50	9.25	11.75
1986	9.50	10.50	12.00
1987	14.00	17.50	19.20
1988	14.50	16.50	17.60
1989	16.50	26.80	24.60
1990	18.80	25.50	27.70
1991	14.29	20.01	20.80
1992	16.10	39.90	37.30
1993	16.66	18.32	36.09
1994	13.50	21.00	21.00
1995	12.61	20.18	20.79
1996	11.69	19.74	20.86
1997	4.80	13.54	23.32
1998	5.49	18.29	21.34
1999	5.33	21.32	27.19
2000	5.29	17.98	21.55
2001	5.49	18.29	21.34
2002	4.15	24.85	30.19
2003	4.11	20.71	22.88
2004	4.19	19.18	20.82
2005	3.83	17.95	19.49
2006	3.14	17.26	18.70
2007	3.55	16.94	18.36
2008	2.84	15.14	18.70
2009	2.94	18.36	22.90
2010	2.21	17.59	22.51

Source: Central Bank of Nigeria

Notes: Formerly referred to as First Class Advances: Universal Banking was adopted in 2001, hence commercial and Merchant Banks became Deposit Money Banks (DMB)

Table 2: Ratio of Rural Loans to Deposit

YEARS	DEPOSITS (N Millions)	LOANS (N Millions)	RRLD
1983	111.7	35.9	32.14
1984	131.2	44.2	33.69
1985	276.6	58.2	21.04
1986	311.4	114.9	36.9
1987	873.5	373.6	42.77
1988	1,229.2	492.8	40.09
1989	1,378.4	659.9	47.87
1990	5,722.0	3,721.1	65.03
1991	8,360.1	4,730.0	56.58
1992	10,580.7	5,962.1	56.35
1993	4,612.2	1,895.3	41.09
1994	18,542.3	10,910.4	58.84
1995	4,855.2	1,602.2	33
1996	8,807.1	8,659.3	98.32
1997	12,442.0	4,411.2	35.45
1998	19,017.6	11,158.6	58.58
1999	18,513.8	11,852.7	64.02
2000	15,800.5	7,498.1	47.45
2001	20,610.9	11,150.3	54.02
2002	16,875.0	12,311.0	73.13
2003	14,861	8,942.2	60.17
2004	20,551.8	11,251.9	54.75
2005	64,490.0	34.118.5	52.91
2006	18,461.9	16,105.5	87.24
2007	3,118.6	24,274.6	778.4
2008	13,411.80	27,263.50	203.3
2009	13,261.70	29,387.90	221.6
2010	3,879.00	14,742.00	380

Sources: CBN 2010 Statistical Bulletin

The deposits and loans of rural branches of deposit Money Banks in Nigeria are summarized in Table 2 above. The total deposit as at 1983 was N111.7 million increasing to N311.4 million in 1986. From 1987 it was N873.5 million and increased without dropping so much and in 2005 it was N6.4490.0 billion, the highest increase during the period. In 2010, it was N3,879.00 billion showing a drastic drop when compared to the two preceding years following it, that is 2008 at N13,411.80 billion and 2009 at N13,261.70. billion. In 1983, loans stood at N35.9 million, in 1985, N58.2 million and increased from 1986 henceforth to close at N14,742.00 billion in 2010 though a decline from N29,387.90 billion in 2009. The ratio of rural loan to deposit showed a maximum decline of 0.33% in 1995, the increase in other years continued until 2007 that recorded 778.4%, the highest ratio for the period under review and during the consolidation era. From the ratio of 778.4% in 2007, it started dropping and closed the period 2010 at 380.0%. Apart from exceeding the regulatory maximum of 75% for ratio of rural loan to deposit, the rural bank branches increased their illiquidity and consequently constrained further lending to rural dwellers and businesses. The Rural Banking Programme which started in 1977 sought to moderate the problem of poor access to credit by the rural sector operators. The scheme was discontinued after 1989 due to wide spread criticism of the programme and the emergence of community banks transformed micro finance institutions.

Table 3: Selected Financial Ratio of Commercial Banks in Nigeria

YEARS	Liquidity Ratio (LR)	Cash Reserve Ratio (CRR)	Loan to Deposit Ratio (LDR)
1983	54.7	7.1	83.8
1984	65.1	4.7	84.0
1985	65.0	1.8	66.9
1986	36.4	1.7	83.2
1987	40.5	1.4	72.9
1988	45.0	2.1	66.9
1989	40.3	2.9	80.4
1990	44.3	2.9	66.5
1991	38.6	2.9	59.8
1992	29.1	4.4	55.2
1993	42.2	6.0	42.9
1994	48.5	5.7	60.9
1995	33.1	5.8	73.3
1996	43.1	7.5	72.9
1997	40.2	7.8	76.6
1998	46.8	8.3	74.4
1999	61.0	11.7	54.0
2000	61.1	9.8	51.0
2001	52.9	10.8	65.6
2002	52.5	10.6	62.8
2003	50.9	10.0	61.9
2004	50.5	8.6	68.6
2005	50.2	9.7	70.8
2006	55.7	2.6	63.6
2007	48.8		70.8
2008	44.3	3.0	80.9
2009	30.7	1.3	85.7
2010	30.6	1.0	79.7

Sources: CBN 2010 Statistical Bulletin

The selected financial ratio of commercial banks in Nigeria is presented in table 3 above. The ratios represent monetary policy outcomes and critical bank management variables for the period 1983 – 2010. The liquidity ratio of commercial banks decreased markedly from 54.7% in 1983 to 30.6% in 2010. Within the period under investigation, target monetary policy fixed minimum liquidity ratio (MLR) is between 33 – 45%. Hence, most banks exhibited excess liquidity within the period 1983 to 2010. With sharp declining savings rate, this liquidity profile of banks could have been determined by a high incidence of purchased money at rates much higher than 6.5%. In the post-liberalization period, we notice a drastic decline of cash reserve rate (CRR) from 7.1% in 1983 to 1.4% in 1987. The radical drop of the ratio could have been defined by excess liquidity in the banking system in the 1985 to 1992 period. The further drop in CRR to 1.0% has aggravated the excess liquidity problem in the Nigerian banking system. The loan to deposit ratio increased marginally from 83.8% in 1983 to 85.7% in 2009 but dropped a little in 2010 to 79.4%. Apparently, monetary policy failed to curb excess liquidity and hence lending growth in the Nigerian banking system. The asymmetric information (AI) approach abandons the hypothesis of perfect markets on which the neoclassical theorems on the irrelevance of money and the financial variables were founded. The conclusions of this approach apply in particular to small and medium firms, as there is less information about them (See Meyers, 1984, Carpenter and Peterson, 2002). The first conclusion under AI approach is that the presence of asymmetric information renders the Modigliani-Miller theorem inapplicable. If the potential creditors have less information than the entrepreneur who plans to carry out a new investment project, then, it is not indifferent for the firm to choose among self-financing, debt or a new share issue. The second result under the AI approach is that it provides a convincing theory of financial intermediaries (banks) according to which their function is to reduce the costs associated with asymmetric information. The works of Bertocco (2003) have outlined the theoretical models defining the role of banks in financing small and medium firms. The study provides a shift from the asymmetric information approach to a meaningful theory elaborated on the basis of the works of Keynes and Schumpeter.

The Keynes – Schumpeter (K-S) approach leads us to analyze in a more complicated way the role of the financial structure (see Keynes, 1933a, 1933b, 1937a, 1937b, 1937c, 1939, Schumpeter, 1912, 1917, 1939 and 1954). This approach underlines that bank money, banks, credit markets are elements that mark an economy that is completely different from the pure exchange economy to which the principle of the neutrality of the monetary variables is applied. It is an economy in which the object of the credit market is not the resources saved but the means of payment created by the banks, the credit market is based on the relation between savers and firms. There are no automatic mechanisms that guarantee the full employment of resources. The evolution of the economic system is determined by the innovation that is made through investment decision that is taken in conditions uncertainty. The Keynes – Schumpeter has important implications. This approach leads us to minimize the importance of asymmetric information in explaining the characteristics of the financial structure. According to Keynes and Schumpeter, the existence of banks is not explained by the presence of asymmetric information, but it is explained by the spread of fiat money. The Keynes – Schumpeter approach emphasizes the monetary role played by the banks, that is, their ability to create new money through credit. Moreover, in the presence of uncertainty, the difference between the financial structures of small and medium firms with respect to the big firms can be explained on the basis of the selection criteria applied by the banks rather than on the basis of the presence of asymmetric information.

These elements make it possible to highlight the social role of the banks, which do not act on behalf of a particular group of economic subjects, but they act on behalf of the entire society. By creating money to finance the entrepreneur – innovator, they express the consensus of society towards the investment project which is funded (Bertocco, 2001, De Meza and Southey 1996, De Meza, 2002). The social responsibility of the bank becomes evident when following Schumpeter. We observe that it is the investment decisions financed by the bank that influence the choice of the goods to produce and not the preference of consumers and it is society in its entirety through the bank that assumes the risk of the investment. From 1970 to 1985 which marked the period of strict administrative control, the prime lending rate was 1.8 and rose to 6.8 in the period between 1986 and 1992. During this period, the economy had become liberalized to a large extent, but interest rate liberalization only came in 1993. However, the extent of dispersion of interest rate slowed to 5.3% in the years since 1993. The wide dispersion in the years after controls is indicative of the effect of market interactions and administrative frictions in the policy break point, while the relative convergence after 1993 could be explained by the numerous entries in the baking industry and improved efficiency of the intermediation process. Relationship banking

can be understood as a bank intermediation model based on the development of a privileged, collaborative and repeated lending relationship with the firm, in respect of which the bank invests in the collection of private information thus qualifying as a financial partner of reference with the objective of maximizing the profitability of the overall relationship in the medium and long-term (Sharpe, 1990; Scott, 2004; Berger, et al., 2010). A number of studies have shown that firms with a bank commitment relationship are less financial constrained (Brick and Palia, 2007; Elsas, 2005; Bongini, et al., 2007; Alexandrini, et al., 2009). Nnanna and Dogo (1998) have shown that financial liberalization has led to increased credit to the private sector of the economy. However, evaluating the sectoral distribution of loans by the deposit money banks in Nigeria, it could be observed that the real sectors of the economy have not benefited proportionately. This situation could be attributed to the relative high risk and long period of pay back associated with the sector.

Some empirical research suggests that as the relationship matures, banks typically reduce interest charged and often drop the collateral requirements on small business loans. The bank – borrower relationship appears to be efficient in overcoming information and cost problems in small firm finance and for allowing fundamentally credit worthy small firms to finance sound projects that might otherwise go unfunded. The implication of the importance of the bank – small business relationship is that it may impose limits on the migration of small business finance out of the banking sector. Petersen and Rejan (1995) have identified a countervailing aspect of small business lending competition. They model a "relationship effect" in which an increase in banks' market power that is, less competition, also increase their ability to form lending relationship with young firms, which typically have relative uncertain prospectus. Specially, banks with more market power can afford to offer low interest rates to young firms because the banks can raise the rates when those firms are old without losing their business. Low interest rates are important because they are compatible with prudent behaviour. The centre of debate is whether or not gaps exist in rural financial markets. The financial performance of credit markets and small business in rural areas has been a topic of active professional discourse. Edelman (1997) notes among others that:

a. Rapid concentration of bank assets due to merger activity may limit lending to rural business.
b. Financial market regulations impose greater costs to smaller lenders that are characteristic rural communities
c. Rural borrowers with unique credit needs large amount; start-up, unfamiliar venture face greater difficulty obtaining credit and
d. Rural equity markets are unorganized and virtually non-existent.

Other studies have not found significant shortfalls in rural small business financial markets. Surveys of small businesses in Arkansas and Illinois found adequate availability of debt and equity capital see Gruidi, (1991); Lamberson and Johnson (1992). Shaffer and Pulver (1990) found that non-availability of capital in early stage of business had difficulty acquiring capital. Gustafson (2003) has also shown that small businesses possess higher credit worthiness, but nearly one-fourth still report being delinquent on business obligations. Jones (2008) has shown that formal sector financial institutions can learn much about rural financial service needs from the financial products and processes of their informal counterparts.

Data Sources and Model

The data for this study were gathered from the Central Bank of Nigeria statistical Bulletin for the period 1983 – 2010. The variables include aggregate ratio of rural loan to deposit (RRLD), Liquidity Ratio (LR), Cash Reserve Ration (CRR) and Loan to Deposit Ratio (LDR). The following regression equations were formulated

$$RRLD = \quad *LR + *CRR + *LDR \qquad \ldots\ldots\ldots\ldots(1)$$

The correlation and Granger Causality between the variables were relied upon in discussing our findings. To guard against spurious result, this study took caution by checking the properties of the variables via the ADF unit root test to ascertain their stationarity. A time series is considered to be stationary if its mean and variance are independent of time. If the time series is non-stationary, that is, having a mean and or variance changing over time, it is said to have a unit root (Johannes et al., 2011). Stationarity is important in econometrics as most times series data exhibit unit root problem. If a time series is non-stationary, the regression analysis carried out in a conventional way will produce spurious results. A spurious regression occurs when after regressing a time series variable on others, the tests statistics show a positive relationship between these variables even though no such relationship exist. This paper moved beyond normal correlation and regression to ascertain the causal relationship among the variables using the Granger causality test. The Granger causality test is a statistical hypothesis test for determining whether one time series is useful in forecasting another (Wikipaedia, 2012 citing Granger, 1969). Ordinarily, regressions reflect "mere" correlations, but Granger argued that there is an interpretation of a set of tests as revealing something about causality. A time series *X* is said to Granger-cause *Y* if it can be shown, usually through a series of t-tests and F-tests on lagged values of *X* (and with lagged values of *Y* also included), that those *X* values provide statistically significant information about future values of *Y*.

Discussion of Findings

A check of the properties of the time series data showed unit root problem and the process of differencing was applied to achieve stationarity and the findings are presented in the table below. The above table shows that the variables ADF statistics > critical values at level indicating non-stationary at level. However, a non-stationary time series can be converted into a stationary time series by differencing (Johannes et al, 2011). The augmented dickey fuller (ADF) stationary test for the time series as presented in the table above are found to be stationary at 1st difference for RRLD, LR and LDR, while being stationary at 2nd difference for CRR as their ADF statistics < critical values. Observing the critical values and the observed t* at 1%, we conclude that there is no unit root for the differenced time series. Therefore, the differenced time series are stationary. The empirical results suggest that monetary policy has failed to curb excess liquidity or improve

Table 4: Augmented Dickey Fuller

Variables	Critical value* at 1%.	ADF statistic @ level	Status	Critical value* at 1%.	ADF Test Statistic (t*)
RRLD	-3.140417	-4.3552	1st difference	-4.3738	-6.372909
LR	-4.3552	-2.737686	1st difference	-4.3738	-5.053761
CRR	-3.8067	-1.092437	2nd difference	-4.5000	-6.091328
LDR	-4.3552	-2.683095	1st difference	-4.3738	-4.963490

Source: Author's Eview output.

Table 5: OLS Result

Dependent Variable: DRRLD
Method: Least Squares
Sample(adjusted): 1984 2010
Included observations: 25
Excluded observations: 2 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DLR	0.379682	1.059984	0.358196	0.7238
DLDR	-0.082155	0.988149	-0.083140	0.9345
DCRR	-0.998747	4.237156	-0.235712	0.8159
C	9.136423	8.405854	1.086912	0.2894
R-squared	0.014355	Mean dependent var		9.274529
Adjusted R-squared	-0.126452	S.D. dependent var		38.85535
S.E. of regression	41.23890	Akaike info criterion		10.42229
Sum squared resid	35713.59	Schwarz criterion		10.61731
Log likelihood	-126.2786	F-statistic		0.101947
Durbin-Watson stat	1.685619	Prob(F-statistic)		0.958001

Source: Eview 3.1 Result

Granger Causality

Pairwise Granger Causality Tests
Sample: 1983 2010
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Probability
DLR does not Granger Cause DRRLD	25	0.27209	0.76456
DRRLD does not Granger Cause DLR		0.60893	0.55371
DLDR does not Granger Cause DRRLD	25	0.27398	0.76315
DRRLD does not Granger Cause DLDR		0.67674	0.51953
DCRR does not Granger Cause DRRLD	21	1.62560	0.22767
DRRLD does not Granger Cause DCRR		0.74204	0.49183
DLDR does not Granger Cause DLR	25	0.14731	0.86395
DLR does not Granger Cause DLDR		1.86989	0.18011
DCRR does not Granger Cause DLR	21	8.79370	0.00265
DLR does not Granger Cause DCRR		0.59213	0.56482
DCRR does not Granger Cause DLDR	21	1.64911	0.22327
DLDR does not Granger Cause DCRR		0.04397	0.95710

Source: Authors Eview calculations.

lending growth, particularly to the rural and small medium enterprises (SMEs) sectors. The LR (liquidity ratio) coefficient of 0.379 indicates a positive relationship with RRLD (ratio of rural loan to deposit) whiles the coefficient of -0.998 for CRR (cash reserve ratio) indicates a negative relationship. These results imply that as banks' liquidity increases, ratio of rural loan to deposit increases suggesting that higher bank liquidity will translate into more loans to the small and medium scale enterprises while an increase in cash reserve ratio brings about a reduction in loans to small and medium scale enterprises. Since the t-Statistics are < 2, none of the independent variables have statistical impact on the dependent variable. This result is further strengthened with their probability been > 0.05. The result translates to the equation below: DRRLD = 0.3796819717*DLR - 0.08215461011*DLDR - 0.9987466097*DCRR + 9.136422642. The t-statistics are < 2, none of the dependent variables LR statistically impacts on the dependent variable RRLD except LDR. This result is further strengthened with their probability been > 0.05. The Granger causality test consists of rejecting the Ho hypothesis of no causality when the probability of the F-Statistics is less than 5%. The results indicate that there exist no causal relationship between RRLD, LDR, LR and CRR as the probability of the F-statistics are > 5% and hence we accept the Ho. However, at P-value 0.00265 < 0.05, we reject the null hypothesis that CRR does not Granger Cause LR while accepting that CRR does Granger Cause LR. The result implies that there is a unidirectional causal relationship from CRR and LR indicating that cash reserve ratio causes liquidity ratio. The insignificant correlation coefficients between lending behaviour of deposit money banks ie (Requirement or Cash Reserve Ratio CRR and LR Liquidity Ratio) on the RRLD ie (credit to the small and medium enterprises) show that Banks in Nigeria have failed in boosting SME finance. Banks have restricted the spread of fiat money as posited on the Keynes – Schumpeter model. The aggregate behaviour of bank management failed to deal with the problem of information asymmetries through improved relationship lending to SMEs in Nigeria. This may be the reason why banks have failed to access the small and medium enterprises credit Guarantee Scheme (SMEGS) launched in 2010 with the CBN guaranteeing 80% of bank loans to SMEs. The liberalization of the Nigerian banking industry in the 1986 – 1992 periods could have propelled the clamor for increased market orientation in the allocation of credit. In fact, the bank distress era (1997 – 2003) recorded more significant dropping in lending. The consolidation of the Nigerian banking industry in 2006 seems to have worsened the financial constraints of

SMEs contrary to the findings in Person and Ragaran (2002) and Emeni (2008). The implications remain that banking policy in Nigeria is still urban – based with a significant increase in exclusion of the rural and SME sectors from financial services. Hence the pursuit of prudent liquidity management in the bank under a loose monetary policy could facilitate and improve the ratio of total bank loans to rural loan to small and medium enterprises (RLSMEs).

Conclusion

The gap in bank intermediation in the rural and SME sectors is further explained by our model results. Guaranteeing increases in the aggregate Loan to Deposit Ratio (LDR) would likely improve the ratio of rural loan to deposit (RRLD). The liquidity and hence lending growth of rural branches would further enhance, provided the aggregate loan to Deposit Ratio (LDR) is prudently and significantly improved. The results also indicated that the liquidity profiles of rural bank branches could have been constrained by a build-up in non-performing loans and excessive cost of funds especially after the consolidation of the banking industry in 2006. The radical increase in the loan portfolio shows a high incidence of purchased funds and possibilities of outrageous cost of funds to rural dwellers and small and medium scale businesses.

It shows that banks have not favoured least-cost rural lending, particularly after banking consolidation. In the case of Cash Reserve Ratio (CRR) downwards revision can improve the liquidity of rural banks and their lending growth, provided prudential limits are observed. Targeting aggregate liquidity in the banking system through the liquidity ratio (LR) and loan to deposit ratio (LDR) could complement the cash reserve ratio in facilitating increased fund flow into rural financial markets. The result also shows that the excess liquidity in the banking system has not improved the flow of funds into the small and medium enterprises (SMES) Sector. The regulatory stance which moderates the cash reserve ratio (CRR) downwards and upwards have not actually favoured small and medium Enterprises SMEs. Monetary Policy should therefore target critical bank variables (LR, CRR, LDR) ensuring compliance with prudential standards and balancing aggregates portfolios between large and small business. Restoring the mandatory credit allocation regime could also help in improving bank lending to SME.

REFERENCES

Alexandrini, P., Presbitero, A. and Zaaaro, A. (2009),"Banks, Distances and Firm's Financing Constraints", *Review of Finance 13:261-307.*

Angelini, P., Slavo, D. R. and Ferri, G., (1998): "Availability and Cost of Credit for Small Businesses: Customer Relationships and Credit Cooperatives", *Journal of Banking and Finance, 22:925-954.*

Berger, A. and Udeli, G. (1995), "Relationship Lending and Lines of Credit in Small Firm Finance", *Journal of Business, 68 (3): 351:382.*

Berger, A. and Udeli, G. (1998), "The Economics of Small Business Finance: the Roles of Private Equity and Debt Markets in the Financial Growth Cycle". *Journal of Banking and Finance, 22: 613-673.*

Berger, A. and Udeli, G. (2002), "Small Business Credit Availability and Relationship Lending: The Importance of Banking Organizational Structure", *Economic Journal, 112:F32-F53.*

Berger, A. Cowan, A. and Frame, W. (2010), "The Surprising Use of Credit Scoring in Small Business Lending Community Banks and the Attendant Effects of Credit Availability and Risk". *Journal of Financial Services Research, August.*

Bertocco, G. (2003), "The Role of Banks in Financing Small and Medium Firms". Available at http://www.ebigov.eg / downloads.SMEs%20into%20Eng.pdf.

Bertoccorsi di P. and Gobbi, G. (2007): "Winners or Losers? The Effects of Banking Consolidation on Corporate Borrowers". *The Journal of Finance 62(3): 669-695.*

Bongini, P., Di Battista, M and Zavarrone (2007): "The Value of Relationship Lending: Small Banks in an Era of Consolidation". *Economic Notes 36 (3): 209-230.*

Brick, I. and Palm, D. (2007): "Evidence Jointness in Terms of Relationship Lending". *Journal of Financial Intermediation 16: 452-476.*

Carpenter, R. and Petersen, B. (2002), "Capital Markets Imperfections, high-tech Investment and New Equity Financing". *The Economic Journal, 112:54-72.*

Nnanna, O.J., Dogo, M. (1998). Structural Reform, Monetary Policy and Financial Deepening. Nig. Experience, *Econ. Fin. Rev., 36:2*

Nnanna, O.J. (2001). Bank Lending and Economic Growth: An Empirical Analysis with Implications for Monetary Formulation in Nigeria Central Bank of Nigeria. Econ. Fin. Rev., 40:3.

Stiglitz, JE. (2004). Capital Market Liberalization, *Globalization and the IMF Oxford Rev. Econ. Policy, 20(1): 57-71.*

****