TOO BIG TO FAIL THEORY AND BANKS MANAGEMENTS' PERSPECTIVE IN NIGERIA

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ABSTRACT

Too Big to Fail Theory (tbtft) is a term frequently used in banking to describe how bank regulators may deal with severe financially troubled large banks. This is with the hope of preserving public confidence in banking institutions and thereby avoids the systemic problems associated with large bank failures. The study evaluates the perception of banks' managements as to whether tbtft leads to the emergence of strong and reliable banking sector. Primary data were collected through questionnaire administration. The techniques employed for analysis were simple percentage and Chi square. Based on the data analysis and hypothesis testing, the results of the study provide evidence for the failure to reject the null hypothesis. The study therefore concludes that the perception of banks' managements on tbtft in relation to ensuring strong and reliable banking sector in Nigeria lacks basis, and hence recommends that the regulatory authority should concentrate on creating stable business environment instead of making provision for bailout. Finally, future researches in this area should be conducted that will utilize both primary and secondary data.

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Section 1: Background to the Study

Banks are established to discharge certain roles, notable among which are financial intermediation, provision of an efficient payment system, and also acting as quality controllers for capital seeking successful projects.

Banks comprise the oldest form of financial intermediaries in Nigeria. The Nigerian financial scene is dotted with a number of banking institutions. Nigeria's first bank, the African Banking Corporation, was established in 1892. While the earliest banks were essentially foreign owned, several wholly or partially indigenous banks were established in the 1930s, but the majority of these collapsed due to problems of inadequate capital, mismanagement, overtrading, lack of regulation and unfair competition from the foreign-owned banks. The consequence of the failure brought about lost of confidence in the ability of Nigerians to manage banking business and at the same time led to reduction in output growth (Congress Library, 2005).

In an effort to ensure a sound banking system, recently, Nigerian banks have been capitalized. One of the basic reasons for capitalizing the banks as advanced by the regulatory authorities is that the Nigerian banking sector remains very marginal relative to its potentials and as a result performs ineffectively. The fundamental rationale upon which the authorities based their decision is the positive potential outcomes of banks' capitalization that the bigger the size of banks in terms of capital base and total assets, the more productive the banks are to be due to economies of scale and scope, and in turn the less the tendency of the banks to become distressed.

In the literature, there are several theories that seek to address banking distress and failure problems, especially taking into regard the size of banks. One of these theories is too big to fail theory (tbtft). The theory is frequently used in banking to describe how bank regulators may deal with severe financially troubled large banks. The theory states that the Apex Bank shall not allow very big institutions to fail, precisely because they are big, out of fear of the consequences of their failure for the financial system. The objective of the theory according to Kaufman (2003) is to

preserve public confidence in banking institutions and thereby avoid the systemic problems associated with large bank failures.

There also exist two conflicting views in the literature on the tbtft. On the one hand, the critics of the theory argued that it undermines the financial integrity of banks by transforming the lender of last resort from providing cash to temporarily illiquid banks to one providing extended credit to permanently insolvent banks. They also accused regulatory authority for acting unwisely by extending deposit insurance coverage from insured depositors to uninsured depositors and creditors. They therefore, propose nothing in form of rescue to be offered to such banks, and at the same time stress the need to allow institutions that behaved irresponsibly to fail. On the other hand, the proponent of the theory argued that banks were so interconnected, and that the losses they were facing were so impossible to overcome and deal with successfully, and hence their failure would have triggered a worldwide depression, and on this basis, they should be bailed out and not be allowed to fail (Black *et al.* (1997), O'Hara and Shaw (1990), Avery *et al.* (1988), Boyd and Mark (1994), Kelvin (1999), and Feldman and Arthur (1998)

In series of studies conducted by Berger (1998), Boyd and Graham (1998), Berger *et al*. (1999), DeNicolò (2000), Gorton and Winton (2002), and Hughes *et al*. (2001), among others, it was argued that larger banks are more exposed to moral hazard as a result of being tbtf. As a consequence, they could misuse the diversification gains to engage into risky strategies without the market requiring additional capital or higher interest rates on uninsured debt.

Given the fact that divergent views on tbtf exist in the literature and almost all the studies conducted using the theory are done in developed economy where the financial systems are matured, there is every need to conduct a study in developing economy in order to evaluate the perception of banks' managements on the theory. This is with a view to finding out whether the managements of banks in Nigeria really understood what the theory is all about, and also how relevant it could be in ensuring a diversified, strong and reliable banking sector.

The study is expected to be of significance to regulatory authorities and banks' customers as it shall serve as an avenue of detecting whether as a result of banks having substantial capital size, effective utilization of the funds shall prevail or the banks' managements shall take advantage of rescue measure in form of bail out and squander depositors' fund.

On the basis of the above background, the study formulated the following hypothesis for testing:

H_0: Banks' managements do not perceive too big to fail theory to have any significant relevance in ensuring strong and reliable banking sector.

The remaining part of this paper is divided into the following sections. Review of related literature is in section 2. The methodology adopted for the purpose of the study is dealt with in section 3. Section 4 addressed data presentation and analysis, and section 5 presented conclusion and recommendations.

Section 2: Review of Related Literature

As argued by the supporters of tbtft, the rationale behind adopting the theory is to safeguard financial system from disruption and distortion of its capability to facilitate orderly payments and settlement of transactions among various parties that have to do with the system. This argument triggers question as to the nature of institutions that should be considered as tbtf or systematically important financial institutions as they are sometimes called. Another vital question is whether sizes of financial institutions have systemic importance. In efforts to address such kind of questions couple with determining objectively the pros and cons of tbtft several studies were conducted.

Black *et al.* (1997) conducted a research entitled "changes in market perception of riskness: the case of tbtfF". The study addresses the question whether tbtf announcement of nine banks altered

market perception of the riskness of all banking organisations, not just those included in the Comptroller statement. They find that announcement is associated with increases in institutional ownership at a time when a comparable set of non-financial firms saw reductions in institutional holdings.

In another study after Comptroller announcement, O'Hara and Shaw (1990) find that stock prices of the eleven banks named as tbtf rose to 1.3 percent immediately after they were named.

Boyd and Mark (1994) studied the role of large banks in the United States (U.S) banking crisis. They argue that the poor performance of the U.S. banking industry in the 1980s was due mainly to the risk-taking of the largest banks, which was encouraged by the U.S. government's tbtf policy. A breakdown of the data by location and by asset size reveals that bank problems were concentrated in areas with troubled industries (oil, real estate, and agriculture) and among banks with the largest assets. In statistical study controlling for location, asset size remains a significant factor in poor performance of large banks.

Feldman and Arthur (1998) conducted a research entitled "a plan to address the too big to fail problem". The researchers put forth a proposal to curtail the tbtf issue. The proposal requires uninsured depositors of tbtf banks to bear some losses when their banks are rescued. To further address moral hazard, the researchers propose that the Federal Deposit Insurance Corporation (FDIC) incorporate the market's assessment of risk, including the rate paid to uninsured depositors and other creditors, into insurance assessments.

Golembe (1991) presents a report describing on tbtf and come up with a basic opinion that tbtf is simply a small part of a larger problem within the banking industry and that solving the tbtf portion will not repair the banking industry.

Given the fact that Nigeria is developing economy where the extent of banks' interconnectivity is not as complex as that found in developed economy, our position is similar to that of Golombe (1991) that tbtft may not play any significant relevance in overcoming banking industry problem.

Section 3: Methodology of the study

The study utilised primary data and the instrument used for the data collection is questionnaire. The type of questionnaire used is closed ended questionnaire; where respondent is offered a set of alternatives to choose the ones that closely represent his view. The questionnaire comprises two sections; with section "A" seeking demographic data such as level of education, among others. Section "B" consists of five points Likert scale statements which sought to collect data on the perception of banks' management on too big to fail theory in the Nigerian banking sector.

The population of this study constitutes of all the management staff of Deposit Money Banks of the Nigerian banking sector. As it is allowed to use a representative sample size instead of the entire population in data analysis, we have decided to estimate the sample size of the potential respondents that questionnaires are to be administered from the sample size of the total 25 banks operating in the Nigerian banking sector as at the year 2007.

The sample size is 10 banks derived from all the banks of the sector and it is arrived at by using Yamane (1975) adjusted sample size formula, which is represented thus:

$$n = n_0 \div 1 + (n_0 - 1) \div N$$

and

$$n_0 = N \div 1 + N(e)^2$$

Where:

n = *Adjusted Sample Size*

n_0 = *Sample Size prior to Adjustment*

e^2 = *Level of precision*

N = *Population Size*

A 90% Confidence level is used and P = 0.1 are assumed.

Simple random sampling is a basic sampling design adopted in selecting the sample; this is because it allows equal representation. The selected sample banks are: Afribank Plc; Diamond Bank; First Bank Plc; Guaranty Trust Bank; Oceanic Bank; Platinum-Habib Bank; Union Bank; United Bank of Africa; Wema Bank and Zenith Bank.

As regard the sample size of the potential respondents that questionnaires are to be administered to, the study adopted Bedward (1999) stratified random sampling formula, which is represented thus:

$$n = n_1 \div N_1 \times N$$

Where:

n = Number of Potential Respondents from each Bank

n_1 = Number in each Group

N_1= Population Size of the Potential Respondents

N = Total Sample Size of the Potential Respondents

The population size of the potential respondents is 2,734 in number, and it constitutes all management staff of the ten banks earlier selected and the total sample size of the potential respondents is 111 derived from all the management staff of the selected banks using Yamane (1967) sample size formula. On adopting the sample size formula, we have arrived at the sample size of 96 and then decided to add 15% of the arrived sample size to address questionnaire administration missing problem.

The following Table presents the selected banks, management staff, and the proportional distribution of the sample size.

Table 1: Proportional Distribution of Sample Size

S/N	*Names of Banks*	*Management Staff*	*Proportion*

1.	*Afribank*	*122*	*5*
2.	*Diamond Bank*	*300*	*12*
3.	*First Bank*	*270*	*11*
4.	*Guaranty Trust Bank*	*469*	*19*
5.	*Oceanic Bank*	*466*	*19*
6.	*Platinum-Habib Bank*	*50*	*2*
7.	*Union Bank*	*309*	*13*
8.	*United Bank of Africa*	*351*	*14*
9.	*Wema Bank*	*70*	*3*
10.	*Zenith Bank*	*327*	*13*
	Total	*2,734*	*111*

Source: Various Annual Reports and Author's computations

From the Table above, Guaranty Trust Bank has the highest number of management staff of 469, followed by Oceanic Bank with a staff number of 466, and then United Bank of Africa with a staff number of 351. The bank with the least number of management staff is Platinum-Habib with a staff number of 50.

The techniques used for the purpose of data analysis and hypothesis testing are simple percentage and Chi-Square Test. The formula that is used for computing the Chi-Square is given as follows:

$$\chi^2 = \sum (fo\text{-}fe)^2 \div fe$$

Where:

χ^2 = *Chi- Square*

fo = Observed Frequency (From Questionnaire administered)

fe = Expected Frequency (Computed from Formula)

The Expected Frequency is calculated thus:

fe = [row total × column total] ÷ grand total

Ninety-five percent (95%) confidence level is adopted for the study.

The decision rule for χ^2 test is that the computed value of χ^2 is compared with the critical value at 0.05 level of significance, if the computed value is greater than the critical value, the null hypothesis is rejected and the alternative hypothesis is accepted and vice-versa.

The Chi-square test is applied because it leads to an inference from a sample to the population sampled, and it also enables us to know the perceptions of managements of the selected banks about too big to fail theory.

Section 4: Data Presentation and Analysis

The following Table presents demographic data of respondents that were administered the questionnaires.

Table 2: Personal Data of Respondents

Names of Banks	*Number of Questionnaire Administered*	*Number of Questionnaire Returned*	*Qualifications* *BSc.* *MSc.* *PhD*	*Years of Experience* *3-5* *6-8* *9-12* *13 & above*
Afribank	*5*	*5*	*2* *3* *0*	*2* *0* *2* *1*
Diamond	*12*	*9*	*5* *4* *0*	*3* *3* *1* *2*
First Bank	*11*	*11*	*3* *8* *0*	*7* *4* *0* *0*

Guaranty	***19***	***13***	***4***	***9***	***3***	***5***	***5***	***0***
Oceanic	***19***	***16***	***8***	***8***	***4***	***7***	***3***	***2***
Platinum	***2***	***2***	***1***	***1***	***0***	***0***	***2***	***0***
Union	***13***	***11***	***6***	***5***	***3***	***0***	***3***	***5***
United	***14***	***14***	***10***	***4***	***4***	***2***	***5***	***3***
Wema	***3***	***3***	***0***	***3***	***0***	***1***	***2***	***0***
Zenith	***13***	***11***	***5***	***6***	***3***	***6***	***2***	***0***
Total	***111***	***95***	***49***	***46***	***29***	***28***	***25***	***13***

Source: Questionnaire Administered 2009

From Table 2 above, Guaranty Trust Bank and Oceanic Bank have the highest staff figure of 19 each. They are then followed by United Bank of Africa with a figure of 14. The bank with the least number of staff is Platinum-Habib with a figure of 2, which is then followed by Wema and Afribank with respective figures of 3 and 5.

On the overall 111 questionnaires were administered to the management of the selected banks based on the proportion of their staff, out of which 95 representing 86 percent were successfully completed and returned, and hence the analysis is based on the returned figure.

In terms of qualifications and years of experience in the banking industry, the response indicates that 49 respondents or 52 percent have first degree qualifications, while 46 respondents constituting 48 percent indicate that they have second degree as their qualifications. As for the terminal degree, the number of respondents is nil, constituting 0 percent. 29 of the respondents or 31 percent have working experience ranging between 3 to 5 years. The age range of 6 to 8 and 9 to 12 are respectively having figures of 28 and 25 representing 29 and 26 percent. Those workers with experience of 13 years and above are 13 in number and they represent 14 percent. The qualifications and working experiences of the respondents serve to provide credibility to the quality of the data that are to be analyzed.

The following Table presents Banks managements' response as regard the irrelevancy of too big to fail theory in ensuring strong and reliable banking sector.

Table 3: Banks managements' response on too big to fail irrelevancy in ensuring strong and reliable banking sector

Possible Options	*Scores from Respondents*	*Percentage of Scores to Total Respondents*	*Ranking*
Strongly Agree	***23***	***24.21***	***2nd***
Agree	***47***	***49.47***	***1st***
Un-decided	***7***	***7.37***	***4th***
Disagree	***14***	***14.74***	***3rd***
Strongly Disagree	***4***	***4.21***	***5th***
Total	***95***	***100***	

Source: Questionnaire Administered 2009

From Table 3 above, 47 respondents representing 49.47 percent are of the view that tbtft has no significant relevancy on ensuring strong and reliable banking sector. This is in line with Boyd and

Mark (1994) study in which they argue that the poor performance of the U.S. banking industry in the 1980s was due mainly to the risk-taking of the largest banks, which was encouraged by the U.S. government's tbtf policy.

The second option in terms of ranking has to do with those respondents that strongly agree that tbtft has no significant relevancy on ensuring strong and reliable banking sector. In all 23 respondents, representing 24.21 percent are of that opinion. This is in conformity with the studies conducted by Berger *et al*. (1999) and DeNicolò (2000) in which they argued that larger banks are more exposed to moral hazard as a result of being tbtf.

The third, fourth and fifth options in terms of ranking are disagree, un-decided and strongly disagree and they are having percentages of 14.74, 7.37, and 4.21 respectively. The options disagree and strongly disagree have to do with the response of the respondents that support implementation of tbtft. They based their argument on interconnectivity relationships of banking activities which failure to rescue when in trouble create systemic situation in the sector (Black *et al*. (1997), and O'Hara and Shaw (1990).

In an effort to ascertain the perception of banks' managements on the relevance or irrelevancy of tbtft in ensuring strong and reliable banking sector, the respondents' opinions in Table 3 are broken down into various components that made up the Table and then subjected to chi-square test.

Table 4: Banks managements' response on too big to fail irrelevancy in ensuring strong and reliable banking sector

Banks	Afrib	Diamd.	First	Guar.	Ocea.	Plat.	Union	United	Wema	Zenith	Total
Str. Ag	2	1	2	3	4	1	3	3	1	3	23

Agree	1	7	5	7	8	1	5	7	1	5	47
Und.	0	0	2	1	2	0	1	1	0	0	7
Dis. Ag	1	1	2	2	2	0	2	2	1	1	14
Str. Dg	1	0	0	0	0	0	0	1	0	2	4
Total	5	9	11	13	16	2	11	14	3	11	95

Source: Questionnaire Administered 2009

On subjecting the Table 4 to the Chi square test, the results of the analysis reveal the computed chi-square value of 22.0, a degree of freedom (df) of 36, and a p-value of .960, which appears not significant. The full results are contained in Appendix I. The implication of these findings is that contrary to the expectations of the Nigeria's regulatory authorities, managements of banks do not perceive sizes of banks to have serious relevance in determining their going concern. By extension the likely explanation for having such outcome could be attributed to the fear of banks managers of bailout aftermath, in which case they can lose their job and have what were misappropriated recouped.

Section 5: Conclusion and Recommendations

Based on the data analysis and hypothesis testing, the results of the study provide evidence for the failure to reject the null hypothesis. The study therefore concludes that the perception of banks' managements on tbtft in relation to ensuring strong and reliable banking sector in Nigeria lacks basis, and hence recommends that the regulatory authority should concentrate on creating stable business environment instead of making provision for bailout. Finally, future researches in this area should be conducted that will utilize both primary and secondary data.

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Appendix 1

Chi-square Contingency Table Test for Independence

2	1	2	3	4	1	3	3	1	3	23
1	7	5	7	8	1	5	7	1	5	47
0	0	2	1	2	0	1	1	0	0	7
1	1	2	2	2	0	2	2	1	1	14
1	0	0	0	0	0	0	1	0	2	4
5	9	11	13	16	2	11	14	3	11	95

expected values:

1.21	2.18	2.66	3.15	3.87	.48	2.66	3.39	.73	2.66	23.00
2.47	4.45	5.44	6.43	7.92	.99	5.44	6.93	1.48	5.44	47.00
.37	.66	.81	.96	1.18	.15	.81	1.03	.22	.81	7.00
.74	1.33	1.62	1.92	2.36	.29	1.62	2.06	.44	1.62	14.00
.21	.38	.46	.55	.67	.08	.46	.59	.13	.46	4.00
5.00	9.00	11.00	13.00	16.00	2.00	11.00	14.00	3.00	11.00	95.00

22.0	chi-square
36	df
.960	p-value
.434	contingency coefficient