Impact of Key Bank Risk Components on Banking System Performance in Nigeria: A Discriminant Analysis Technique

Nwaoha, William Chimee
Lecturer
School of Finance, Business and Communication Studies,
Federal Polytechnic Ohodo, Enugu State, Nigeria.
williamchimee@yahoo.com

Onwuka, Onwuka Okwara
Lecturer
Department of Accountancy,
Abia State University, Uturu, Nigeria.
onwukaonwuka955@yahoo.com

Akandu, Victor Chigozie
Lecturer
Department of General Studies,
Petroleum Training Institute,Effuru, Delta State, Nigeria.
Victorakandu1@gmail.com

Chukwu, Maurice Kalu
Lecturer
Department of Business Admin. & Mgt.
School of Business Management and Technology, Abia State Polytechnic, Aba, Abia State, Nigeria.
Kaluchukwu88@gmail.com

Ikoro, Uzoma Eunice
Lecturer
Department of Business Admin. & Mgt.,
School of Business Management and Technology, Abia State Polytechnic, Aba, Abia State, Nigeria.
uzomaikoro@gmail.com

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ABSTRACT

Using discriminant analysis technique, this study evaluates the impact of key bank risk components on the banking system performance in Nigeria. The performance of the banking sector was evaluated to determine the extent to which each of the key risk components impacts on it. The findings revealed that credit risk, compliance risk and liquidity risk made outstanding contributions of 95.6 percent to the total discriminant score for the function, implying that successful performance of banking sector hinges mostly on the three risk factors. Credit risk contributed 39.1 percent of the total discriminant score; compliance risk scored 38.1 percent while liquidity risk made 18.4 percent. The rest of the risk components-market risk, operation risk and strategic risk share a contribution of 4.4 percent, with strategic risk alone scoring 3.2 percent. The findings also revealed that there is a marginal difference between high return on asset caused by credit risk and poor return on asset as a result of credit risk. This implies that credit risk roughly has a dicey probability of success and failure on the banking sector performance. Compliance risk has higher probability of performance failure than success while the probability that liquidity risk leads to high return on asset is found to be higher than the probability that it leads to poor return on asset. Therefore, we recommend that the regulatory authorities should make banks create functional risk management departments not only in their head offices but also in their branch offices.

Key words: *Return on asset; Discriminant analysis; Credit risk; Liquidity risk; Compliance risk; Strategic risk.*

INTRODUCTION

The 1952 banking ordinance, the subsequent banking acts and reforms meant to avert a run and outright failure of banks perpetuated by free banking era (before 1952) in Nigeria, could not stop drastic losses and incessant failure of banks in the country (Okpara, 2012). This is because of the industry's vulnerability to risk.

Banks are one, if not the most outstanding business institutions that are bedecked with high risks. Right, left and centre the running of banks is surrounded by both systematic and unsystematic risks that impose fragility to the system. The high risk in the banking sector emanates from the fact that banks are the only business that is always highly geared as the proportion of the borrowed funds (deposits and other liabilities) is always higher than the owners' equity. Jaiye (2009) noted that the business of banking is to manage risks associated with accepting deposits, granting loans and trading portfolios.

Risk involves the chance that some or all of the investment actual returns will not be realised owing to some unforeseen contingencies. In other words, it is the probability that an actual return on an investment will be lower than the expected return owing to exogenous and endogenous vulnerabilities that may be mitigated through pre-emptive action. Andrea (2010) contended that

management failure can be easily recognised in losses resulting from over-aggressive leading practices and risk tolerances that were too high.

The key risk factors associated with banking system are credit risk, liquidity risk, market risk, operational risk, strategic risks and compliance risk Owojori, Akintoye and Adidu (2011) identified other risks such as reputation risk, customer satisfaction risk, leadership risk, industry risk, human resource risk and so on as influencing the banks Nevertheless these other risk factors may not be generic.

This risk syndrome accounts for indiscriminate and incessant failure of banks. To avoid a run on banks risks is obvious. Good management however does not eliminate the risk but mitigates the risks. The internal factors constituting the risk may be diversified away while banks have no jurisdiction over the external factors. Thus, the risks still exist in the system as a challenge which must be battled with to extract success. In response to this, banks have almost embarked on upgrading of their risk management and control systems Banks management needs reliable risk measures to direct capital to activities with the best risk - reward ratios.

The objective of this research work is to find out the impact of each of these key bank risks on the banking system performance in Nigeria. Using discriminant analysis, the researcher wants to determine the key risk component(s) that discriminate(s) most on the performance of the banking system. The result of this investigation will help the management of the banks as well as the regulatory bodies to understand the risk component(s) which management and policy actions will be mostly directed.

In the light of these objectives, the work is divided into five sections. Section one is the introduction, section two discusses the related literature, section three is the method and material, and section four is the results and discussions while section five is the conclusion.

LITERATURE REVIEW

A. Risks and Crisis in Nigerian Banking Sector

Bank regulation and control ushered by the 1952 Banking Ordinance and its subsequent amendments in Nigeria have not waged bank crisis. The financial innovations in 1987 resulting from the structural adjustment programme of 1986 provided inadequate backbone for the thriving of financial industry in the country. This submission can be substantiated by the post 1987 events which were characterised by the unprecedented level of banking sector distress necessitated by large volume of non-performing loans, insolvency, liquidity problem and default in meeting depositors and inter-bank obligations (Okpara, 2012). With government withdrawal of its deposits from the commercial banks in 1989 to Central Bank of Nigeria, the poor state of the banking sector

became exposed that banks' non-performing loans and hence distress became conspicuously showcased.

Non performing loans and advances for the distress banks increased at an increasing rate from N2.9 billion in 1989 to N40.7 billion in 1997 and dropped to N18.7 billion in 1998, picked from N21 billion in 1999 where it continues to increase at an increasing rate until it peaked at N149.6 billion in 2004. The N25b recapitalization exercise which started in 2004 and ended in 2005 brought to an end the issue of bank distress. Some banks which could not by themselves meet with the recapitalization requirement resorted to merging with others instead of being distressed. However, 14 of the banks which could neither cope with this requirement nor merge with others were shut down in January 2006.

The proportion of non- performing loans and advances to total loans and advances of the distress banks was high at 76.1% in 1989 and stood at an average of 75.1% between 1989 and 1991. The value peaked in 1997 at 81.92% and decreased to 79.2% in 2004 (see table 1). For the banking industry as a whole, the proportion of non performing loans and advances to total loans and advances was 40.8% in 1989 which peaked at 45.5% in 1992, reduced to 41% in 1993 and d deteriorated further to 43% in 1994 from where it fluctuated at a decreasing rate to 15.04% in 2010 (see table 1).

In this study, credit risk is proxied by the ratio of non performing loans and advances to the total loans and advances (NPLA/TL) granted by the banking sector. Thus, indices of loans and advances (LA) and non-performing loans and advances (NPLA) and the ratio of non-performing loans to total loans are presented in table I below.

Table 1. Loans and Non-performing Loans in Nigerian Banking Sector.

	Loans and Advance (N Billion)		NPLA (N billion)		NPLA/TL	
Year	Industry	Distressed	Industry	Distressed	Industry	Distressed
1989	23.1	4.3	9.4	2.9	40.8	76.1
1990	27.0	6.4	11.9	4.7	44.1	72.8
1991	32.9	5.4	12.8	4.1	39.0	76.5
1992	41.4	15.7	18.8	6.8	45.5	43.0
1993	80.4	25.3	32.9	14.7	41.0	58.0
1994	109.0	54.6	46.9	29.5	43.0	64.6
1995	175.9	48.9	57.8	29.5	32.9	68.9
1996	213.6	51.7	72.4	33.9	33.9	75.5

1997	290.4	49.6	74.9	40.7	25.81	81.9
1998	327.2	24.2	63.3	18.7	19.3	77.3
1999	370.2	29.1	24.8	21.0	25.6	72.2
2000	519.0	26.4	111.6	29.0	21.5	75.8
2001	803.0	123.1	135.7	35.4	16.9	28.9
2002	938.6	102.4	199.6	40.0	21.27	39.1
2003	1205.0	129.9	260.2	98.4	21.59	76.7
2004	1519.8	191.2	350.82	149.6	23.08	79.2
2005	1832.18	-	368.76	-	20.13	-
2006	2840.10	-	225.08	-	7.92	-
2007	5250.00	-	387.99	-	7.39	-
2008	7411.43	-	463.49	-	6.25	-
2009	8451.38	-	2922.8	-	32.8	-
2010	7166.76	-	1077.7	-	15.04	-

Source: NDIC Annual Report and Statement of Accounts.

Note: Ailing banks resorted to merging in 2005 to end the case of distress

The total number of failed banks that were closed since 1994 was 36 before January 2006. Out of the 36 banks that were closed the litigation in respect of the revocation of banking licences of savannah bank and Peak Merchant Bank were then yet to be resolved. In January 2006, 14 more banks were closed for not meeting the minimum recapitalisation directive of the Central Bank of Nigeria (NDIC, 2006). With this closure insured banks non-performing credits dropped by over 38% from N368.76 billion to N225.08 billion within the period. The decrease was partly due to the fact that the greatest proportion of the non-performing credit in 2005 belonged to some of the insured banks that were closed in January 2006

(NDIC, 2006).

Collaborative study by Central Bank of Nigeria (CBN) and the Nigeria Deposit Insurance Corporation (NDIC) in 1995 shows that financial institution operators apportioned largest proportion of blames (19.5% for the entire financial institutions or 30.1% for commercial banks) on bad loans and advances as being responsible for bank failure. This over emphasised non performing loans and advances are the source of credit risk. Okpara (Okpara, 2009) noted that a number of banks had and poor credit policies and that loans were granted without ng securities and/or ability of the borrower to pay back. Okpara (1997) observed that it was not uncommon to find 89 securities being overvalued and sometimes funds were and disbursed without securities. Odejimi (1992) in his work noted that the major factors responsible for the precarious financial condition of the banks were huge uncollectible loans and advances. In his own submission, Ajani

(1992) put it that this maladministration of credit portfolio was one of the most of lapses that could make a high-flyer manager lose everything and overnight.

Other internal factors identified with high score in the collaborative study of CBN/NDIC are bad management (BM). (17.9%) and fraudulent practices (FP). (16.7%) as presented an in table II. These two factors can affect operational risk and even liquidity risk. In table II below, undercapitalization is represented by UC, rapid changes of government policies by RCGP, lack of adequate supervision by LAS and undue reliance on foreign exchange by URF.

Table 2. Financial Institutions assessment of the causes of distress in the industry

Causes	All financial institutions	Commercial Banks	Merchant Banks	Community banks	Finance houses
BLA	19.5	30.1	12.9	17.2	20.3
FP	16.7	16.4	18.8	18.5	18.9
UC	11.8	7.6	9.6	12.7	9.0
RCGP	10.8	9.8	5.5	17.9	13.5
BM	17.9	13.1	21.7	14.0	16.4
LAS	16.9	20.1	29.4	17.5	17.5
URF	6.4	2.9	2.1	3.2	4.4
Total	100.0	100.0	100.0	100.0	100.0

Source: CBN/NDIC collaborative study of distress in Nigerian financial services industry

This loan default is masterminded by interference by board members. Available evidence from the failed banks showed that directors of some of the failed banks obtained lion shares of the facilities granted by the banks. The number of directors of some of the failed banks involved, the amount they obtained as at closure and the percentage of total risk assets involved are presented in table 3 below.

Table 3. Facilities Granted to Owners and Directors of Some Failed Banks in Nigeria

Banks (in liquidation)	**No of directors involved**	**Amount as at closure**	**% of total risk assets**
Alpha Mb plc.	11	1,314,418,700,4	33%
United CB Ltd	5	741,755,808,86	30%
Financial MB Ltd	1	383,061,096,00	100%
Highland B plc.	12	33,197,157,58	38%
Com. Trust B Ltd	1	247,749,719,10	38%
ABC CB ltd	8	272,981,634,00	49%
Royal MB Ltd	7	646,940,182,23	69%
Northsouth B ltd	13	240,668,637,62	32%

Abacus MB ltd	14	568,888,254,11	47%
Credit B Nig. Ltd	6	379,634,611,47	76%
Prime MB ltd	1	539,634,611,47	64%
Amicable B ltd	7	149,854,896,00	56%
Century MB ltd	5	272,072,261,00	32%
Group MB Ltd	13	595,836,077,20	80%
Commerce B Plc.	4	1,294,851,665,6	52%
Pinnacle CB Ltd	10	298,766,751,76	20%
Republic B Ltd	1	161,375,466,00	38%

Source: Ogunleye (2006)

NB: CB represents Commercial Banks while MB represents Merchant Banks

Table 3 shows that all the loans in the financial merchant bank limited were granted to its directors while 80 percent, 76 percent and 69 percent of the total risk assets were granted to the directors in Group Merchant Bank. Credit Bank Nigeria Lad and Royal Merchant Bank Ltd respectively (Okpara, 2000).

This nuisance constituted by non-performing loans cast doubt on whether banks in Nigeria have credit policies guiding them in credit administration. It is however glaring that section 18(b) of Banks and Other Financial Institutions Act (BOPIA) of 1991 as amended, forbids a bank from granting any advance, loan or credit facility to any person unless it is authorized in accordance with the rules and regulations of the banks. The same section also directs the banks to obtain adequate securities for advances, loans or credit facilities yet these directives seem not to be adhered to.

B. Risk and the Banking System

Various kinds of risks, some exogenous and some endogenous are associated with the banking sector. The risk associated with this sector can be classified into six generic types namely systematic or market risk, credit risk, liquidity Ti, operational risk, strategic risk and compliance or legal risk. Each of these risks can be explained as follows:

Market risk: Market risk is the risk of losses in on and off Statement of Financial Position as a result of adverse changes in market prices such as interest rates, foreign exchange rates, equity prices and commodity prices (Bank of Tanzania, 2010). Pyle (1997) defined market risk as the change in net asset value due to changes in underlying economic factors such as interest rates, exchange rates, and equity or commodity prices. Market risk therefore, can be said to encompass the risk of financial loss resulting from movements in market prices, exchange rate, changing of currency, interest rate policy, other monetary and fiscal policy, and political and social measures that can affect banking business. It is the risk of losses in on and off Statement of Financial Position arising from adverse movement of environmental changes. According to Santomero (1996), by its nature market risk can be edged but cannot be diversified completely away and it is however

thought of as an undiversified risk. Market risk exists in both trading and banking book. A trading book consists of position in financial instruments and commodities held either with trading intent or in order to hedge other elements of the trading book.

Credit risk: Credit risk arises from the potential that an obligor is either unwilling to perform on an obligation or its ability to perform such obligation is impaired resulting in economic loss to the institution Credit risk arises as a result of changes in portfolio value due to the failure of counter-parties to meet their obligations. In other words, it can be defined as the risk of loss arising from a debtor being unlikely to pay its loan or any other contractual obligations in full.

Liquidity risk: Liquidity risk is the potential for loss to an institution arising from either its inability to meet its obligations as they fall due or to fund increases in assets without incurring unacceptable cost of loses. Liquidity risk includes inability to manage unplanned decreases or changes in funding sources. Liquidity risk also arises from the failure to recognise or address changes in market conditions that affect the ability to liquidate assets quickly and with minimal Joss in value. It can also be said to be the risk that a given security (asset) cannot be traded quickly to prevent loss. That an asset is illiquid implies that, that asset has a limited ability to be liquidated at a short notice.

Operational risk: Operational risk is the current and prospective risk to earnings and capital arising from inadequate or failed internal processes, people and systems of from external events (Bank of Tanzania, 2010). According to Pyle (1997) operational risk results from costs incurred through mistakes made in carrying out transactions such as settlement failures, failures to meet regulatory requirements and untimely collections. An operational risk can also be defined as a risk incurred by an organization's internal activities. It can include other classes of risk such as fraud and legal risks Basel II accord defines operational risk as the loss resulting from inadequate or failed internal process, people and systems, or from external events.

Strategic risk: Strategic risk is the current and prospective impact on earnings or capital arising from poor business decisions, substandard execution of decisions or lack of response to industry, economic or technological changes Strategy may include consideration of seizing fruitful opportunities as they arise, designing technological and technical innovations that enable the firm to make different development that will be attractive to the market and providing means by which these development will be achieved. Strategic risk lies along the line of the management ability to carry out this innovation successfully or unsuccessfully. In other words, it is the risk of strategy failure resulting to poor earning and/or capital adequacy.

Compliance risk: Compliance risk is the current and prospective risk to earnings, capital and reputation arising from violations of banking laws and regulations. It can also be defined as the risk of legal sanctions, financial loss or loss to reputation the bank may suffer as a result its failure to comply with laws and regulations. This risk is sometimes called integrity risk.

C. Essentials of Risk Management in Banking Sector

Risks are common phenomenon facing all banks. The extent of risk management in banks differs according to the banks perception of risk. Risk management as commonly perceived means optimizing risk-reward trade off and does not necessarily imply risk reduction. It is the

responsibility of a bank to its key risks, set in place the measuring rod, the control measures and the monitoring standard. Thus, risk management involves four key processes which could be elaborated as follows.

Risk identification: the first step in risk management is the identification of risks involved in the existing or new undertaking. When the real disease is not identified from a patient, treating of symptom associated with the illness becomes a waste of time. Each of the activities of the banking sector has its inherent risks which must be brought to lime light. For instance, lending activity involves credit risk, liquidity risk, interest rate and operational risks. A particular activity may incorporate with it some variants of risks.

Risk measurement: The risks identified should be measured to determine the extent of the impact of such risk(s) on the performance or capital position of the bank. This can be done using simple or complex models that has been tested for validity and/or accuracy. Accurate and timely measurement of risk is necessary for effective risk management.

Risk control: The complement of risk identification and measurement is control. This implies that control must be exercised to follow up the identified risks with the view to mitigating the risk or optimizing the risk-reward trade-off. It requires that standards of performance be developed and the activities of the bank be kept in line with these standards. This could be done through designing various mitigating tools capable of minimizing exposure to various risks. Investigation of correct operational action is necessary to guide against deviations.

Risk monitoring: The risk management guideline and structure should be well understood and imbibed by the management, directors and stock holders so that all hands will be on deck to monitor risk levels and facilitate timely review of risk positions. Bank of Tanzania (2010) added that monitoring reports should be frequent, timely, accurate and informative and should be distributed to appropriate individuals to ensure action when needed.

METHOD AND MATERIAL

Discriminant analysis technique which classifies an observation into poor performance or high performance dummy variables is employed to evaluate the model. The estimated centriod for poor and high performance is compared while the contributions of the variables of the total discriminant score is estimated in percentage form. To ascertain the reliability of the discriminant function, the canonical correlation and F-ratio for poor and high return on asset are evaluated.

Grouping of performance into two is based on classification of the return on asset into poor and high ROA. Industry's data are used as proxy for the risk and performance of the banks. The data are sourced from the Nigeria Deposit Insurance Corporation (NDIC) Annual Report and Statement of Accounts. The high performances are assigned to group 1 while the poor performances are assigned to group 0. The function of the variables X.....X_n, that discriminates the variables into the two mutually exclusive and exhaustive categories- the poor and high, is a linear combination of the X_i explanatory variables such that the explicit presentation of the model takes the form

$Z=b_1x_1, + b_2x_2+b_3x_3..... b_nx_n$ ……(1)

Where Z the discriminant variables poor and high performance

X_i= the explanatory variables namely, credit risk (C) given as the ratio of non- performing loans to total loans, liquidity risk (ALR) proxied by average liquidity ratio, market risk (MKTR) proxied by banks' lending rate, operation risk(OPR) proxied by proportion of actual fraud to amount of fraud involved, compliance risk (COMR), is represented by number of distressed/unsound banks to total number of banks and finally the strategic risk (STR) is proxied by the average of the internal risks. B_{is} are the parameters to be estimated.

RESULTS AND DISCUSSIONS

Analysis of the impact of various risk components on banking sector performance using return on asset as a performance indicator was carried out in this work. Descriptive statistics of the discriminant result was first presented in table 4 and interpreted.

Table 4. Descriptive Statistics of the Discriminant Results

Risk Variable	Std Dev. of Success	Std Dev. Of failure	Prob. Of Success	Prob. Of failure	Prob. Difference
CR	11.98887	11.49768	0.51	0.49	0.02
ALR	29.37255	16.51168	0.64	0.36	0.28
MKTR	4.70264	3.17800	0.60	0.40	0.20
OPR	16.96233	17.38300	0.51	0.49	0.02
COMR	11.85123	24.65776	0.32	0.68	-0.36
SR	6.65708	6.33222	0.51	0.49	0.02

Source: Authors' computation, 2023

The result in table 4 shows that there is a marginal (or insignificant) probability difference between high return on asset caused by credit risk and poor return on asset as a result of credit risk. This shows that the effect of credit risk on the performance of the banking sector is roughly dicey. On the other hand, credit risk has roughly equal probability of success as it has to failure. This may be one of the reasons why non- performing loans have been constituting a nuisance to the soundness of the banking sector in developing economies.

Other risk components with marginal probability differences include operation risks and strategic risks. These risks are endogenous as they are linked to management. The prudential management of these risks will lead to high return on asset while mismanagement of the risks will in the opposite way lead to high level of performance failure.

The probability that liquidity risk will lead to high return on asset is higher than the probability that it will lead to poor return on asset. This result could be justified because cash is barren and cannot yield any return unless it is judiciously invested. Nevertheless, the pragmatic objectives of the firm at must be strictly adhered to.

Compliance risk has higher probability of performance failure than success. This could be so, probably because incessant non-compliance to bank regulations could lead to revocation of the bank's license.

To determine the functions at group centroid, the canonical discriminant functions evaluated at group means is presented in table 5 below.

Table 5. Function at Group Centroids

Z	Function
	1
0	.890
1	-.667

Source: Authors' computation, 2023 (Unstandardized canonical discriminant functions evaluated at group means)

The estimated centroids in table 5, for high return on asset is -0.667 and that for low return on asset is 0.890 implying that the higher the composite score of any classified performance, the higher the probability that the performance will be classified as poor. In this case, the high composite score indicates a higher probability that the return on asset will be poor.

The predictive model for the standardized canonical discriminant function is estimated and the result stated as follows:

Z-1 19CR +1 117ALR-0602MKTR+0.3140PR+0X13COMR-03345R….(2)

From the above function (2), the discriminant coefficients of credit risk, liquidity risk and compliance risk seem to be higher in absolute value suggesting that these variables discriminate most on the performance of the banking sector. Nevertheless, the performance contribution of the individual variables to the total discriminant score will identify the correct discriminant variables. The percentage contribution is presented in table 6 below.

Table 6. Percentage Contribution of Individual Variables to Total Discriminant Score.

Variables	coefficient	Mean Difference	Product Weight	Percentage Contribution
CR	1.190	-7.5231	13.61	39.1
ALR	1.117	-4.7839	6.425	18.4
MKTR	-0.602	-0.3894	0.354	1.0
OPR	0.314	-0.0905	0.075	0.2
COMR	0.813	-16.3083	13.26	38.1
SR	-0.334	-1.6555	1.111	3.2
			34.833	100

Source: Authors' computation, 2023

Table 6 shows that three variables in order of severe impact credit risk, compliance risk and liquidity risk, made outstanding contributions to the total discriminant score for the function. Credit risk contributed about 39.1 percent of the discriminant score while compliance risk and liquidity risk contributed about 38.3 and 18.4 percent respectively. The three variables have a total share of 95.6 percent of risk components in the successful performance of the banking sector. The rest of the risk components market risk operation risk, and strategic risk share a contribution of about 4.4 percent with operation risk scoring lowest figure of 0.2 percent while strategic risk made highest score of 3.2 percent out of the 4.4 percent remaining composite score. The negative mean differences suggest that a bank chance of making a successful performance decreases as any of the risk components increases.

The value of canonical correlation (0.63) is good indicating a good correlation of the variables with the group and thus showing that the function is a better one. Also the F-ratio (52.105) which tests the significance of the linear discriminant function is significant(See table 7)

Table 7. Canonical Correlation and F-Ratio.

Discriminant function	Canonical Correlation	F-Radio	Sig.
1	0.630	52.105	0.048

Source: Authors' computation, 2023

Using classification performance of the estimated discriminant function, the researcher determined how well the developed model performs in classifying high return on asset and poor return on asset. The percentage of misspecification error, estimated is presented in the classification results of table 8 below.

Table 8. Classification Results[a]

		Z	Predicted group membership		Total
			0	1	
Original Count		0	6	3	9
		1	1	11	12
	%	0	66.7	33.3	100.0
		1	8.3	91.7	100.0

Source: Authors' computation, 2023

The proportion of non-performance (poor return on asset) erroneously classified as successful performance (high return on asset) constituted about 33.3 percent while successful performance was about 91.7 percent classified. This kind of misspecification error nevertheless, constitutes risk in banking system analysis.

CONCLUSION

In the business of banking, various type of risks which inhibit expected returns and could possibly lead to losses or outright bank failure are inherently and inevitably involved. Thus, the identification and management of these risk components become of primary concern to the running of the sector in order to avail a run on banks.

Credit risk, compliance risk and liquidity risk are identified to be critical to the running of banks. Credit risk and compliance risk are the most risky component of the risk items in the banking sector, while liquidity risk takes the third position. Credit risk roughly has a dicey probability of success and failure on the banking sector performance. In other words it roughly has equal probability of causing high performance and poor performance in the banking sector.

Compliance risk has higher probability of performance failure than success. This is not surprising as non compliance to bank regulations may attract penalties which can adversely affect the bank's performance. Also insistent violation or non compliance may lead to revocation of the bank's licence.

The probability that liquidity risk will lead to high return on asset is higher than the probability that it will lead to poor return on asset. This could be so because cash is barren and cannot yield any return if it is not invested. Nevertheless, the pragmatic objective of the firm should be strictly adhered to. Other risk component that should be closely watched and managed is the strategic risk while operation risk however, should not be neglected. There is therefore an implication that the

chance of belonging to the group of poor return on asset increases profoundly as its credit risk, compliance risk and liquidity risk increase.

In the light of these findings, the researcher recommends that the regulatory authorities should make banks create functional risk management departments not only in their head offices but also in their branch offices. Banks should be made to maintain a good credit administration, measurement, monitoring processes and adequate control over credit, liquidity and other risks components. The banks' risk management programmes should compulsorily include the key risk processes, namely (i) risk identification which will be necessary for identification of other generic and peculiar risks, (ii) risk measurement in order to determine the impact of the identified risks on the banking returns, (iii) risk control to make sure that the standard set for mitigating risk is actualized and (iv) risk monitoring which should make all hands to be on deck to monitor risk levels and facilitate timely review of risk positions. Finally, the pre-commitment approach a situation where certain amount of capital is set aside for taking care of any trading loss arising from market risk should be adopted by banks as a strategy for addressing systematic risk.

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