

## Effect of Statutory Reserve and Bank Branches on Revenue Reserves of Deposit Money Banks in Nigeria

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**ABSTRACT:** *The study examined the effect of statutory reserves and bank branches on the revenue reserves of deposit money banks in Nigeria. Retained earnings were the dependent variable. The study adopted an ex-post-facto research design, covering the period between 2010 and 2019. Secondary data were extracted from the annual reports and accounts of sampled deposit money banks in Nigeria. Multiple regression analysis was used for the test of hypotheses. The study of the regression analysis revealed that statutory reserves have a significant and negative effect on the revenue reserve of deposit money banks in Nigeria. Furthermore, the number of branches of deposit money banks had no significant effect on their revenue reserves. The findings imply that statutory reserves can be used to predict and make decisions on retained earnings of deposit money banks in Nigeria. The study, therefore, recommends that banks focus on working on technicalities that will enable them to reduce their statutory reserve. However, the CBN should give the banks more freedom to have in-house retention than reserving with the CBN. This is because when it is reduced, there will be more loanable funds at the disposal of deposit money banks, and their profitability chances increase as well. Also, the insignificant effect of the number of branches indicates that the firms should not see an increase in the number of their branches as the solution to higher revenue reserves*

**KEYWORDS:** statutory reserve, bank branches, revenue reserves, deposit money banks, Nigeria

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### INTRODUCTION

Corporate entities like banks are in constant need of funds to finance their business activities. These funds which are either internally or externally sourced have various consequences on the overall performance of these corporations. Although there are many available financing sources, firms can conveniently access the three broadly-available sources, namely earnings retained, new equity, and debt. Hovakimian, Opler, and Titman (2001) opine that the viable options here are obvious: either new equity or retention of earnings would be preferred for firms with significantly high-growth potential. Firms with growth potential would tend to maintain a high retained earnings ratio to net income, as retained earnings are the cheapest source of funding advocated by the pecking order theory (Myers and Majluf, 1984). Park and Pincus (2001) submit that internal savings are the best source for financing the fixed assets requirements of firms.

Corporate savings are the most appropriate source of financing due to various considerations; for instance, firms are discouraged to go for new equity for the reason that new equity may cause the share price to fall. Revenue reserves are the most important source of financing for the growth of a bank. Gilchrist and Himmelberg, (1995) submit that the level of internally sourced funds conveys information about the growth prospects of companies. Banks that want to attain the highest possible growth pay lower dividends, reinvest more of their revenues and provide a greater percentage of their total returns in the form of capital gains. Banks with few investment opportunities would pay more dividends than banks with lots of investment opportunities because they have profitable uses for capital. So, growth is likely to place a greater demand on internally generated funds.

Deposit money banks and other financial institutions play important roles in the economic development of any economy. Roles deposit money banks play in Nigeria are not limited to providing funds for investment in various sectors of the economy, collecting savings and mobilizing these savings for investment in an industrial project, and providing funds to investors to enable them to finance new projects and complete an already existing project. They are, therefore, capable of influencing the major saving propensities and opportunities in a country. The need to achieve sustained economic growth within any economy can be possible with a strong financial institution and precisely with the existence of a virile banking system. The banking sector is a catalyst, engine, and live wire to every other sector of the economy, be it the agricultural sector, manufacturing sector, mining or even services sector, they all cannot do without banks.

However, banks' ability to engender economic growth and development depends on the health, soundness, and stability of the system. The need for a strong, reliable and viable banking system is underscored by the fact that the industry is one of the few sectors in which the shareholders' fund is only a small proportion of the liabilities of the enterprise. It is, therefore, not surprising that the banking industry is one of the most regulated sectors in any economy. Soludo (2002) outlined the first phase of its banking sector reforms designed to enable the banking system to develop the required resilience to support the economic development of the nation by efficiently performing its functions as the fulcrum of financial intermediation.

Additional costs that come with recapitalization through borrowing, make revenue reserve the most convenient and cost-free source of finance available to these banks. The revenue retention capacity of these deposit money banks is expected to be explainable by some indices and/or characteristics yet to be appropriately located. This study intends to explore some characteristics of deposit money banks in Nigeria to determine their relationship with earnings retained at the end of the accounting year. When this is done, the findings will help to provide a clue to how statutory reserve and bank branch helps deposit money banks in Nigeria increase the revenue reserve base of the banks and by extension, the capital base. Consequently, the study ascertained the effect of statutory reserve and bank branches on retained earnings of deposit money banks in Nigeria.

## REVIEW OF RELATED LITERATURE

### Statutory Reserve

Central bank of Nigeria (CBN) Prudential Guidelines for Deposit Money Banks in Nigeria (2010) stipulates that Every bank shall maintain a reserve fund appropriated out of its net profits for each year (after due provision made for taxation) and before any dividend is declared as follows:

Where the amount of the reserve funds are;

- i. less than the paid-up share capital, transfer to the reserve fund a sum equal to not less than 30% of the net profit; and
- ii. equal to or above the paid-up share capital, transfer to the reserve fund a sum equal to not less than 15% of the net profit;

Provided that no transfer under this subsection shall be made until all identifiable losses have been made good. This stipulation affects the dividend payout and revenue reserve of deposit money banks in Nigeria. The CBN shall prescribe the minimum cash reserve ratio for banks in Nigeria from time to time in line with its monetary policy's directions (CBN, 2010). The existence of many banking sectors is driven by the reserve requirement of the CBN Peydr'ó, (2010) and Robitaille, (2011) and invariably, the Central Bank's reserve requirement is a primary security measure that serves as a warranty for the existence of deposit money banks. Research has shown that most of the world's banking sectors are regulated in light of the reserve requirement (Santos, 2000).

### Number of Branches

To help drive the service delivery to their customers, banks make use of different channels which come in form of branches (physical and e-branch) and other electronic service points. Recent innovations in the delivery of retail financial services have raised questions about the role of banks and their branches in the delivery of highly prized financial services as this has prompted a rapid and significant branch office expansion program with its attendant significant increases in the volume of customers' transactions in the banking industry for survival and profitability (Johnson, 2005). The advent of Internet banking, the proliferation of automatic teller machines (ATMs), and the increasing reliance on centralized call centres, all seemed to challenge the traditional branch method of delivering banking services.

The number of full-service branches in Nigeria has increased steadily since the early 1990s (1855 by 1989 and 2023 by 1991). It is expected that the increased branches will have a considerable effect on the profitability of banks in Nigeria because the branches will need to undertake a lot of costs while performing their statutory duties of servicing the customers. The cost to be undertaken could come in form of startup cost, research and development cost, cost of deploying staff to the branches and feasibility cost to determine the viability of the branch. Also, there will be a need to consider a lot of political costs needed to sustain the functionality of the branch.

Aladwan (2015) posited that no matter the benefit accrued to the increased branch network, there is evidence that there are a lot of costs to be incurred that will reduce the profitability of banks any day as witnessed in Jordan despite increased technology and the need to open more branches to meet the needs

of customers in the country. Various research studies have attempted to find out factors that affect banks' retained earnings and performance without considering the cost of running the banks and their branches. Also, the need to meet the needs of customers scattered throughout the country of operation of the banks will surely affect the growth of the banks. In all these postulations, the recent growth in branch networks as listed by the Central Bank of Nigeria (CBN) gives so much to be considered when it comes to the issue of banks' branch size and the revenue reserve of banks in Nigeria.

### **Revenue Reserve**

Chasan (2012) states that revenue reserve is that part of the net profit of a bank that is reserved by the bank rather than disperses to shareholders as dividends. The purpose of reserving this part of the revenue is to reinvest it into the business for growth and expansion. It is an essential internal financing source that the bank utilizes that does not create additional costs for the bank. (Mohamed, 2010). Altman (1993) opines that a bank's major decision is on how much of its revenue is to be paid to fund providers as dividends and how much it will reserve for reinvestments. Revenue reserve does not have any transaction cost or bankruptcy cost, hence, it is the cheapest source of finance available to a bank. Falex (2009) states that the more organizations reserve a proportion of their revenue for investment in research and development, the more they grow and expand.

As stated by Harkavy (1953), Plough's back of corporate profits gives rise to appreciation in the value of corporate securities. Earnings retained are the most important sources of financing growth of a firm. The level of internal funds conveys information about the growth prospects of companies (Gilchrist and Himmelberg, 1995). Thirumalaisamy (2013) posits that during the years when the firms were with growth rates more than the average, the retained earnings played a significant role in their financing pattern. James Bates and Henderson (1967) identify that internal finance has always been one of the most important sources of funds for small business enterprises. However, public companies can replace this source with a greater degree of external financing, whilst small firms do not have such opportunities. For many small concerns, growth is possible only if it could be financed largely from earnings retained in the business. What proportion of earnings to put by, depends very much on individual circumstances like the desire to expand, speed of growth desired, ownership considerations and market prospects among others? Small firms save more out of their income than large companies in the long-run. The rate of savings is determined mainly by the level of profits and dividends paid in the preceding year.

## **THEORETICAL FRAMEWORK**

### **Agency Theory**

This is a theory concerning the relationship between the principal (shareholders) and the agent of the principal (company's managers). This suggests that the firm can be viewed as a nexus of contracts (loosely defined) between resource holders. An agency relationship arises whenever one or more individuals, called principals, hire one or more other individuals, called agents, to perform some service and then delegate decision-making authority to the agents. The agency theory concept was initially developed by Berle and Means (1932), who argued that due to a continuous dilution of equity ownership of large corporations, ownership and control become more separated. This situation allows professional managers to pursue their interests instead of that of shareholders.

Jensen and Meckling (1976) suggested an optimal debt level in capital structure by minimizing the agency costs arising from the divergent interest of managers with shareholders and debt holders. They suggest that either ownership of the managers in the firm should be increased to align the interest of managers with that of the owners or users of debt should be motivated to control managers' tendency for excessive extra consumptions. Jensen (1986) presents an agency problem associated with free-cash-flow. The researchers suggested that the free cash flow problem can be somehow controlled by increasing the stake of managers in the business or by increasing debt in the capital structure, thereby reducing the amount of "free" cash available to managers. Firms which are mostly financed by revenue reserve do not have to deal with transaction costs and bankruptcy costs. They do not have to pay interest or dividends for such funds; hence, this is the most sought-after funding in corporate finance.

### **Empirical Review**

In a study conducted by Aladwan (2015) the Jordanian banking sector was used to determine the effect of bank size on profitability. The study aimed to examine the relationship between the size of a bank measured by its assets and its profitability measured by its ROE. To effectively check the relationship, there were two hypotheses proposed by the study and these were to check the effect of bank size on the profitability of banks with different assets. The banks were divided into three parts. Also to test the effect of the banks' size on the whole banks in the country using regression. The result from the various test conducted indicated that an increase in branch networks and size reduces the profitability of banks in Jordan. From the Jordanian test, we can infer that increase in branch networks will reduce the profitability of banks while a simple bank with small branch networks will increase assets and profitability in the years of operation.

Adelowotan and Oshadare Segun (2017) examined branch network growth and bank performance in Nigeria. The study used the whole banks in Nigeria during the period 1981 and 2013 using a pooled data analysis on ordinary least squares (OLS). The variables used include the total number of bank branches in the rural and urban areas and those domiciled abroad regarded as foreign branches. It also considered the total number of banks at each period and year of study while the growth in Total Assets is proxied as the dependent variable. The findings showed that there is a positive relationship between the growth of the branches in the rural, urban and foreign centres which implies that there is a need to open more branches if the banks want the Asset to grow. The study found no systematic relationship between the number of banks and Asset growth perhaps because banking organizations optimize the size of their branch network operations as part of an overall strategy involving both branch-based and non-branch-based activities.

Akani and Sweneme (2017) examined the effects of macroeconomic aggregate on the retention ratio of selected quoted manufacturing firms in Nigeria for the period 1981 to 2014. The study used secondary data. The techniques adopted are the Ordinary Least Squares, Error correction mechanism and Autoregressive Distributed Lag (ARDL) Bounds approach to cointegration. The dynamic short-run estimate revealed that interest rate exerts a negative influence on the retention ratio. The study also found that oil price exerts a positive and significant impact on the retention ratio. Further, it revealed that capital market development exerts a positive influence on the retention ratio, but the financial sector's development showed a positive relationship with the retention ratio, inflation rate appeared with an

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expected negative sign. Foreign exchange rate showed a positive relationship with retention ratio; money supply exhibited a positive influence on the retention ratio of quoted firms in Nigeria. The error correction coefficients were significant with the expected sign. The long-run relationship between the variables was established.

Ikpefan (2017) investigated the impact of shareholders' funds on bank performance in Nigerian deposit money banks (1986-2006). The study captured their performance indicators and employed cross-sectional and time series of bank data obtained from the Central Bank of Nigeria (CBN). The formulated models were estimated using the ordinary least square regression method. The study identified a positive relationship between shareholders' funds and bank loans. We also find that there is a significant relationship between shareholders' funds and banks' liquidity, bank deposits, and bank loans. The efficiency of management measured by operating expenses is negatively related to return on capital. The implication of this study, among others, is that adequate shareholders' funds can serve as a veritable stimulant in strengthening the performance of Nigeria's deposit money banks and also heighten the confidence of customers, especially in this era of global economic meltdown that has taken its toll in the Nigerian financial system.

Masood (2017) evaluated the determinants of retained earnings in the profitability of cement companies in the cement sector of India. Multiple linear regression is used to identify the determinants of retained earnings for sixteen years. Profit after tax, debt-equity ratio, and inventory has a positive and significant impact on retained earnings. Dividend paid has a negative and significant effect on retained earnings.

Iheduru and Okoro (2018) examined external factors that determine the retained earnings of quoted manufacturing firms in Nigeria. Annual time series data were sourced from the Central Bank of Nigerian Statistical Bulletin, and Annual Reports of the selected manufacturing firms, the study modelled retained earnings as the function of money supply, exchange rate, oil price, inflation rate and interest rate. The Ordinary Least Square method was employed with a multiple regression model based on the Statistical Package for Social Sciences version (22.0). The Durbin-Watson statistics show the presence of multiple serial autocorrelations. The result shows collinearity that corresponds with the Eigenvalue condition index and variance constants are less than the required number, while the variance inflation factors indicate the absence of auto-correlation. It was found that the oil price has a positive impact on the retention rate of the selected manufacturing firms while the exchange rate and interest rate harm the dependent variable. It was also found that the money supply harms the dividend payout rate while the inflation rate has a positive impact on the retention rate.

Masood (2018) examined the determinants of retained earnings in profitable steel companies in the steel sector of India. Multiple linear regression is used to identify the determinants of retained earnings for sixteen years. Profit after tax and current ratio showed a positive and significant impact on retained earnings. Dividends paid and corporate tax showed a negative and significant impact on retained earnings. Reserves, debt-equity ratio, investments, and cash flow showed a neutral and insignificant impact on retained earnings. The impact of variable CT on retained earnings is negative and is statistically not significant.

Ogundipe, Asikhia, Kabouh, and Ajike (2020) examined the effect of regulatory requirements on loan loss provision of deposit money banks in Nigeria. The study adopted an *ex post facto* research design. Validated data was collected from the annual financial reports of 10 deposit money banks. The panel regression analysis tool was employed to analyse the data with descriptive statistics, Pearson correlation model, multiple linear regression tools and linearity test, heteroskedasticity, autocorrelation, cointegration and Hausman test were also carried out including analysing the data and results duly interpreted. The result shows that regulatory requirements significantly affect loan loss provision (Adj.R2 = 0.345, F(9, 96) = 6.701,  $p < 0.05$ ), with  $p$ -value of F-statistics of 0.00, which is significant as it is less than the chosen significance level of 5%. It was recommended that the management of banks' use of discretion to provide a large sum for loan loss provision should be monitored and prevented to enhance the performance of banks in Nigeria.

## METHODOLOGY

The study adopted an *ex post facto* (after the facts) research design. Asika (2005) opines that *ex post facto* research is expected to provide a systematic and empirical solution to research problems with historical concern. The research adopted an *ex post facto* design because it made use of data which are already in existence in annual reports and accounts of banks in Nigeria. The research was conducted in Nigeria's banking sector of the economy. The study made use of secondary data. Panel data from 2010 to 2019 were extracted from the annual report and accounts of the selected banks in Nigeria. Before the 2004 Central Bank of Nigeria (CBN) banking reform, there were 89 banks in Nigeria. Due to the inability of most of the banks to meet up with the N25 billion capital base requested by CBN, consolidation through merger and acquisition reduced the number of these banks to 23. These twenty-three (23) banks formed the population of the study. These banks include: Access Bank Plc, Citibank Nigeria Limited, Diamond Bank Plc, Ecobank Nigeria Plc, Fidelity Bank Plc, First Bank Nigeria Limited, First City Monument Bank Plc, Globus Bank Limited, Guaranty Trust Bank Plc, Heritage Banking Company Ltd, KeyStone Bank, Polaris Bank, Providus Bank, Stanbic IBTC Bank Ltd., Standard Chartered Bank Nigeria Ltd., Sterling Bank Plc, SunTrust Bank Nigeria Limited, Titan Trust Bank Ltd, Union Bank of Nigeria Plc, United Bank For Africa Plc, Unity Bank Plc, Wema Bank Plc, and Zenith Bank Plc

### Sample Size and Selection Technique

This study made use of a systematic sampling technique. Inyama (2016) described systematic sampling as one in which every  $K^{\text{th}}$  value on a list is selected for inclusion in the sample. The study critically chooses the "K" value of 2 as the sampling interval. The sample size was determined by dividing the population size by the K-value ( $23/2 = 11.5$ ). Eleven (11) deposit money banks listed on the Nigerian Stock Exchange formed the sample of the Study. Descriptive Statistics, Graphical representations, and panel multiple regression was used as the statistical tool for data analysis.

### Model Specification

Multiple regression model was specified as follows:

$$\text{Log (RETEARN)}_{ti} = \beta_0 + \beta_1 \text{Log (STRV)}_t + \beta_2 \text{Log (NOB)}_t + \epsilon_t$$

Where,

RETEARN = Retained Earnings

STRV	= Statutory Reverse
NOB	= Number of Branches
$\varepsilon$	= Stochastic disturbance (Error) Term
$\beta_0$	= Coefficient to be estimated
$\beta_1 - \beta_2$	= Parameters of the independent variables to be an estimate

## DATA ANALYSIS

### Regression Results (OLS)

After the application of the ordinary least square (OLS) estimation method on the model earlier suggested in section three, the following results shown in the table below were obtained.

**Table 4.2.2 OLS Estimation Result [Dependent Variable: RETEARN]**

Variable	Coefficient	Standard Error	t-Stat	p-Value
STRV	-1.828571	0.623264	-2.934333	0.0042
NOB	-0.002497	0.002767	-0.902151	0.6393
TDP	-11.67723	6.848730	-1.705021	0.0915
TA	19.50050	6.590008	2.959101	0.0039
BSIZE	-0.306695	0.102504	-2.992043	0.0035
C	-34.44037	10.142188	-3.767191	0.0003
$R^2 = 0.337$ , Adjusted $R^2 = 0.302$ , F-Stat = 9.584837, Prob(F-stat) = 0.000000, D.W. Stat. = 2.36				

*Source: Computed by Researcher Using Eview 10.0 Statistical Software*

**Statutory Reserve:** The value of the t-statistics ( $-2.934333 > 2$ ) and the probability of the t-Statistic ( $0.0042 < 0.05$ ) shows that the Statutory Reserve has a significant effect on the Revenue Reserve of deposit money banks in Nigeria.

**Number of Branches:** The value of the t-statistics ( $-0.902151 < 2$ ) and the probability of the t-Statistic ( $0.6303 > 0.05$ ) shows that the Number of Branches has a non-significant effect on the revenue reserve of deposit money banks in Nigeria.

**Control Variables:** Among the control variables of the study (BSIZE, TA, TDP), total assets and board size exhibit significant effects on the revenue reserve of deposit money banks in Nigeria.

### Test of Hypotheses

The hypotheses were tested using the following decision rule: According to Gujarati and Porter (2009), the decision rule involves accepting the alternate hypothesis ( $H_1$ ) if the sign of the coefficient is either positive or negative, the modulus of the t-Statistic  $> 2.0$ , and the P-value of the t-Statistic  $< 0.05$ . Otherwise, accept  $H_0$  and reject  $H_1$ .

**Hypothesis One**  $H_0$ : Statutory Reserve has no significant effect on the revenue reserve of deposit money banks in Nigeria.



From the regression analysis result in the table above, the calculated p-value for STRV is 0.0041 which is lesser than the alpha value of 0.05. It falls in the rejection region, hence, we reject the null hypothesis ( $H_0$ ). This means that statutory reserve has a significant and negative impact on the retained earnings of deposit money banks in Nigeria.

### ***Hypothesis Two***

$H_0$ : The number of branches has no significant effect on the revenue reserve of deposit money banks in Nigeria.

From the regression analysis result in the table above, the calculated p-value for the number of branches (NOB) is 0.6393 which is greater than the alpha value of 0.05. It falls in the acceptance region, hence, the null hypothesis ( $H_0$ ) is accepted. The conclusion here is that the number of branches of deposit money banks in Nigeria has no significant effect on their revenue reserves.

## **CONCLUSIONS AND RECOMMENDATIONS**

The regression analysis conducted in the study produced some key findings which include that statutory reserves have a significant and negative effect on the revenue reserve of deposit money banks in Nigeria. Furthermore, the number of branches of deposit money banks had no significant effect on their revenue reserves, as shown in the results of the regression analysis. Therefore, the study recommends that banks focus on working on technicalities that will enable them to reduce their statutory reserve. However, the CBN should give the banks more freedom to have in-house retention than reserving with the CBN. This is because when it is reduced, there will be more loanable funds at the disposal of deposit money banks, and their profitability chances increase as well. Also, the insignificant effect of the number of branches indicates that the firms should not see an increase in the number of their branches as a solution to higher revenue reserves.

In conclusion, the study found that statutory reserves have a negative effect on the retained earnings of deposit money banks in Nigeria, while the number of branches has a non-significant effect. Also, other variables used in the study such as total assets and board size were found to have a significant effect on the revenue reserve of deposit money banks, while total deposits have an insignificant effect on the revenue reserves of deposit money banks in Nigeria.

## **REFERENCES**

- Adelowotan, M. O. & Oshadare, S. A. (2017). Branch network growth and banks performance in Nigeria. *British Journal of Marketing Studies*, 5(2), 39-49.
- Akani, H. W & Sweneme, Y. (2017). Macroeconomic aggregates and retention ratio of quoted firms in Nigeria. *European Journal of Accounting Auditing and Finance Research*, 5(10), 1-11.
- Berle, A. & Means, G. (1932). The modern corporation and private property. *Open Journal of Business and Management*, 3(2), 199-218.
- Gilchrist B. C. & Himmelberg, C. P. (1994). R&D and internal finance: A panel study of small firms in high-tech industries. *The Review of Economics and Statistics*, 76(1), 38-51.

- Harkavy, O. (1953). The relation between retained earnings and common stock prices. *The Journal of Finance*, 8(3), 283-297
- Hovakimian A, Opler T, Titman S (2001). The debt-equity choice. *Journal of Financial and Quantitative Analysis*, 36(1), 1-24.
- Iheduru, G. & Okoro, C. U. (2018). Macroeconomic variables and retained earnings of quoted manufacturing firms in Nigeria: A time-variant study. *International Journal of Accounting & Finance Review*, 3(1), 33-47.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behaviour, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360.
- Masood, S. (2017). Determinants of retained earnings in profitable cement companies in India: A study of the cement sector. *International Journal of Research Granthaalayah*, 6(1), 389-399.
- Masood, S. (2018). Determinants of retained earnings in profitable steel companies in India: A study of the steel sector. *International Journal of Trend in Research and Development*, 4(5), 245-249
- Myers, S. C. & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, 13(2), 187-221.
- Ogundipe, S. A., Asikhia, O. U., Kabouh, N. M., and Ajike, E. (2020). Effect of regulatory requirements on loan loss provision of deposit money banks in Nigeria. *American Based Research Journal* 9(6), 25-35.
- Park, C. W. & Pincus, M. (2001). Internal versus external equity funding sources and earnings response coefficients. *Review of Quantitative Finance and Accounting*, 16(1), 33-52.
- Thirumalaisamy, R. (2013). Firm growth and retained earnings behaviour: a study on Indian firms. *European Journal of Business and Management*, 5(27), 40-57.