

INVESTIGATING TUNNELING FROM NIGERIAN NON-FINANCE LISTED COMPANIES

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ABSTRACT: *The study investigates directors tunnelling in Nigeria drawing samples from listed non-finance firms on the floor of the Nigerian Exchange Group market. While directors tunnelling proxied by directors' remuneration is the dependent variable, the independent variables adopted for this study includes ownership concentration, big4 auditors, capital structure and cash holding. Furthermore, in line with related extant literature, we employed the variable of firm size to control our model. Data set employed in this study spans through the periods between 2011 and 2020. In the light of this, the empirical result of this study leads to the conclusion that out of the four independent variables adopted in this study, only big4 auditors and capital structure significantly affect directors tunnelling. Specifically, we conclude that when a big4 firm audit the accounts of the firms in our sample, directors tunnelling declines. Similarly, we conclude that the more a firm finances their operations through debt, directors tunnelling declines. Succinctly, we recommend that firms should strive towards debt financing while also seeking to employ the services of big4 auditors to keep at bay tunnelling among listed non-finance firms.*

KEYWORDS: investigating, tunneling, Nigeria, non-finance listed, companies

INTRODUCTION

Tunneling is an action taken by controlling shareholders with the intention to benefit through either legal or illegal methods (Faccio, Lang, and Young, 2001). When the flow of benefits that is enjoyed by the controlling shareholders is clearly perceptible, it can be identified as moving in one of two directions: from the subsidiary to the parent company or from the parent company to its subsidiary. Johnson et al. (2000) argue that the term of tunnelling refers to the expropriation activity conducted by the controlling shareholders of a company in the lower level (e.g., subsidiary) to the higher level (parent company). The exploitation of minority shareholders by controlling shareholders has attracted the attention of researchers. For instance, Shleifer and Vishny (1986) find that when the majority shareholders control the company, the agency problem is no longer about the conflict of interest between management and shareholders but about how to prevent controlling shareholders from exploiting minority shareholders. Johnson et al. (2000) invented the term "tunnelling" to describe the asset appropriation conducted by large shareholders who legally or illegally transfer assets and profits for themselves. Tunnelling is not only detrimental to the interests of minority shareholders but also seriously precludes the development of the capital market (Johnson et al., 2000; Wurgler, 2000; Bertrand et al., 2002).

Tunnelling is particularly serious in emerging economies due to poor corporate governance systems that fail to protect minority shareholders and corporate ownership structures that

promote expropriation opportunistic behaviour (Aharony et al. 2010; Claessens et al. 2000; Liu & Lu 2007). Though various methods of tunnelling have been suggested, much of the empirical research focuses on Related Party Transactions (RPT). Weak corporate governance systems and prevailing corporate structures in many nations worldwide, provide a great scope for RPTs to be a convenient mechanism for the expropriation of firm value from minority shareholders (Cheung et al 2009; Gao & Kling 2008; Liu & Lu 2007). There is a view that RPTs are a high-risk factor for investors (Cheung et al. 2009; Kohlbeck & Mayhew 2010). Abusive RPTs have increasingly become a challenge to the integrity of the Asian capital market (OECD 2009).

At a national-level, legal systems and investor protection are merely components of a broader system. Meanwhile, ownership structure is also a single facet of a broader range of firm-level corporate governance mechanisms (Juliarto, Tower, Van der Zahn, & Rusmin, 2013). So far, studies that focus on the impact of directors tunneling are still very limited and the results have been inconclusive. Gao and Kling (2008), Lo, Wong and Firth (2010), Yeh, Shu and Su (2012) and Haß, Johan and Müller (2016), for examples, found that overall board characteristics practices could prevent tunneling activities, whereas Cheung, Jing, Lu, Rau and Stouratis (2009a), Li (2010), Juliarto, Tower, Van der Zahn and Rusmin (2013), and Shan (2013) found that the overall board characteristics variables could not explain the corporate behaviour in relation to tunneling.

However, despite considerable anecdotal evidence, there is little direct systematic evidence on the specific transactions through which tunneling actually occurs. Most of the academic literature has attempted to measure tunneling indirectly (Bertrand, Mehta, and Mullainathan, 2002; La Porta, Lopez-de-Silanes, Shleifer and Vishny, (LLSV), 2000a, 2002; Claessens, Djankov, Fan, and Lang, 2002; or Faccio, Lang and Young, 2001). Moreover, the literature also offers mixed evidence that minority shareholders lose value as a result of specific tunneling actions (Bae, Kang, and Kim, 2002). Directors' tunneling has attracted much attention from economists in the past two decades yet most academic work on directors' tunnelling has been concentrated on a few developed countries such as the U.S., U.K., and China, mainly due to data availability. From the foregoing, we examine tunneling among listed non-finance firms in Nigeria.

CONCEPTUAL LITERATURE

Directors Tunneling

The term of tunnelling refers to the expropriation activity conducted by the controlling shareholders of a company in the lower level (e.g., subsidiary) to the higher level (parent company) (Johnson et al., 2000). According to them the term "tunnelling" describe the asset appropriation conducted by large shareholders who legally or illegally transfer assets and profits for themselves. Johnson et al. (2000) list several methods by which tunnelling is achieved: transferring growth opportunities belonging to listed company to themselves or their subsidiaries; transferring profits via intra-group transactions from listed companies to other subsidiaries they own or control; using assets or capital belonging to the listed company or using them as collateral or guarantees for their financing activities; and capital operations aimed at diluting the interests of other shareholders. According to Henemana & Schwab (1972),

tunnelling was first used in this way in the Czech Republic during the first half of the 1990s, when several large, previously privatized banks and factories unexpectedly went bankrupt. It was discovered later that the managements of these companies were deliberately transferring company property and real estate into their own private businesses, sometimes in offshore locations. The term later became a common label for this kind of criminal activity among Czechs and Slovaks. The transfers of firm resources were accomplished through huge loans that were issued without any expectation of repayment, massive overpayment for outsourced services, or simply by selling corporations real estate for a fraction of its market price. The main conditions enabling such a fraud are weak law against conflict of interest, non-existent legal liability of managers for leading their employer towards bankruptcy, and incompetence of financial authorities.

Directors Remuneration

The term executive compensation is used to indicate top employee's gross earnings in the form of financial rewards and benefits (Akewuocha and Saka, 2018). Though, compensation can be examined as a system of rewards that can motivate the employees to perform. Compensation structure takes into consideration qualification, experience, attitude and prevailing rates in the labour market or industry. According to Shin, Lee and Joo (2009), executive compensation is composed of the financial compensation and other non-financial awards received by an executive from their firm for their service to the organization. It is typically a mixture of salary, bonuses, shares of or call options on the company stock, benefits and perquisites, ideally configured to take into account government regulation, tax law, the desires of the organization and the executive, and rewards for performance.

Ownership

Directors' shareholding is the proportion of shares owned by the directors of a company. Jensen (1993) suggests that many problems happen when directors do not own a substantial proportion of the firms' shares. In the first instance, the incentives of the directors to pursue the shareholders' interests will be reduced and this will affect firms' financial health (Simpson & Gleason 1999). According to Jensen and Meckling (1976) firms should use share ownership to align the interests of the directors with the firm. Managerial ownership structure is the largest share ownership structure owned by company management consisting of directors and commissioners as measured by the percentage of shares of management, with managerial ownership management will be more selfish, Managerial ownership structure can be explained through two perspectives, namely the agency approach and the imbalance approach. The agency approach considers the structure of managerial ownership as an instrument or tool used to reduce agency conflict among several claims against a company.

Big4 Auditors

Auditor firm size is defined as the category of independent audit firm(s) engaged by an entity to perform its audit in accordance with statutory regulation and professional requirements. The audit firm in accounting literature is broadly categorized according to variations in firm size, mostly in line with big 4/non-big 4 firm. As such, the studies further categorizes auditor type

into three classes; Single Big4, Single Non-big4 and joint audit team of Big4/Non-big4 audit firms looking at the audit firm structure in Nigeria. The single audit firm category refers to the engagement of one distinct audit firm either a Big4 or a Non-big 4 firm. Wibowo and Rosienta (2009) state that audit quality is often tied to an audit firm scale. DeAngelo (1981) maintains that big audit firms have a superior audit quality, since they already have invested in large audit technology and staff training, and thus they are more competent and more accurate in detecting the problems related to misstatement and going concern assumptions than small audit firms.

Capital Structure

There are many definitions given to capital structure of companies. Brealey and Myers (1991) defined capital structure as comprising of debt, equity or hybrid securities issued by the firm. VanHorn (1989) defined capital structure as the proportion of debt to the total capital of the firms. Pandey (2005) defined capital structure as a choice of firms between internal and external financial instruments. From the definitions given by many previous researchers, capital structure of a firm describes the way in which a firm raise capital needed to establish and expand its business activities. It is a mixture of various types of equity and debt capital a firm maintains, resulting from the firm's financing decisions. The amount of debt that a firm uses to finance its assets is called leverage. A firm with a lot of debt in its capital structure is said to be highly levered. A firm with no debt is said to be unlevered. Capital structure essentially refers to a firm's combination of debt and equity financing (Brealey et al. 2007). A major distinction between the two instruments is that the former creates a financial obligation to repay a principal sum plus an interest thereupon, while the latter accrues any residual earnings to its holders.

Cash Holding

Cash holding is that amount of cash set aside by an organization or firm to meet up with its financial need. It is useful to firms in cases when financing through external sources is more expensive than internally generated funds. In a world of perfect capital markets there would be no transaction costs for raising cash, thus holding of liquid assets would be irrelevant and would not affect a firm's value. But markets are far from perfect and transaction costs are relevant. Once capital market imperfections are introduced, firms are not necessarily able to pursue all value-increasing investment opportunities. For instance, capital market frictions increase the cost of outside capital relative to internally generated funds (Myers and Majluf, 1984). Consequently, some firms that have attractive growth opportunities invest less than the first-best optimum, leading to lower future growth and reduced operating performance and firm value. Hence, cash holdings can be valuable when other sources of funds, including cash flows, are insufficient to satisfy firms' demand for capital. Therefore, these imperfections do exist and are more relevant to firms with a lot of opportunities investment.

THEORETICAL REVIEW

Agency Theory

Agency theory (Fama and Jensen, 1983), the dominant theory in accounting and audit (Kevin & Leigh, 2003) suggests contractual mechanisms such as corporate governance are put in place to monitor management to address the separation in ownership and control. Under the agency view, management are viewed as self-interested actors who behave opportunistically, favouring their own interests over those they represent even if these actions are detrimental to owners (Jensen and Meckling, 1976). Thus, two mechanisms are identified to curb this behaviour: contractual mechanisms to align management goals with the principal; and information systems introduced to reduce information asymmetry between owners and management which can also restrict opportunistic behaviour through the realization by management that they cannot deceive the monitors (Kevin & Leigh, 2003). The agency perspective considers independence from management and expertise as the primary and central attributes of a monitor (Kevin & Leigh, 2003).

EMPIRICAL LITERATURE AND HYPOTHESES DEVELOPMENT

Ownership and Directors Tunneling

Management ownership has been seen as a factor that could align the potential divergence of interests between management and the shareholders (Jensen & Meckling 1976). However, some contrary arguments have suggested that the increased management ownership is not always able to improve the welfare of the shareholders as a whole. Managers in a company could increase the percentage of their holdings to a level that allowed them to dominate the board of directors, and thus isolate the interests of other parties in the internal and external control of the company (Fama & Jensen 1983; Gibson 2003; Santiago-Castro & Brown 2011). In the context of emerging markets, Gunarsih (2002), in her study, found that large domestic institutional investors tended to represent their own interests, while Khanna and Palepu (2000) found that foreign institutional investors provided better monitoring functions when interacting with the emerging markets in the global economy compared to domestic institutional investors. Khanna and Palepu (2000) also found that corporate performance was positively related to foreign institutional ownership and was negatively related to domestic institutional ownership. In a company with a concentrated ownership structure, the controlling shareholder could control the company's resources and implement policies that benefit them at the expense of the non-controlling shareholders (La Porta, Lopez-de-Silanes & Shleifer 2000). Gomes and Novaes (2001) suggested that a concentrated ownership structure could facilitate asset expropriation in a company as the major shareholders could not only dominate the board of directors and the shareholders' meetings, but also determine the company's daily operation including influencing contractual policies with related parties and appointing their own candidate as the CEO (Shi & Shitu 2004). Hence, we hypothesized that

H0: Ownership has no significant effect on tunneling of listed non-finance firms in Nigeria

Big4 Auditors and Directors Tunneling

The size of audit firm has been used as a surrogate for audit quality, that is, large audit firms have a reputation to safeguard and therefore will ensure an independent quality audit service. Larger audit firms have better financial resources and research facilities, superior technology, and more talented employees to undertake large company audits than do smaller audit firms. Their larger client portfolios enable them to resist management pressure, whereas smaller firms provide more personalized services due to limited client portfolios and are expected to succumb to management requirements (Mahdi & Ali, 2009). Therefore, the size of audit firm is an important characteristic that reflects auditor independence. Thus, the issue of maintaining auditor independence is more crucial for smaller firms than larger firms. A large body of research examines the relationship between audit firm size and audit quality. Large audit firms are motivated to perform better audits because they have a high reputation and do not want to risk losing their reputation. They also have substantial material and human resources to attract more specialized and skilled personnel. Large audit firms earn more revenue because they reduce their clients' exposure to prosecution because of having more experience. Hence, we hypothesized that

H0: Big4 auditors has no significant effect on tunneling of listed non-finance firms in Nigeria

Capital Structure and Directors Tunneling

Capital structure of a firm describes the way in which a firm raises capital needed to establish and expand its business activities. It is a mixture of various types of equity and debt capital a firm maintains resulting from its financing decisions. Financial leverage denotes the debt intensity of a company. A broad measure of leverage vastly used in literature is the ratio of financial debt to asset; variations arise from whether long term or total debt is used and whether book or market values are used. According to Megginson and Smart (2005) while capital structure assessment by market values which measure investors' valuation of securities appeal to economists, corporate practitioners prefer book value measurements since they are not subject to market fluctuations. Fernandez (2007) also argues that firm's set target capital structure based on book values which are more realistic. Rajan and Zingales (1995) and more recently Welch (2011) noted a subtle flaw in the common measurement of leverage; comparing financial debt to asset which has elements of non-financial liabilities (like accounts payable which is normally used for transaction purposes) will tend to understate leverage. Hence, we hypothesized that

H0: Capital structure has no significant effect on tunneling of listed non-finance firms in Nigeria

4.0 Methodology

In relation with extant literature, we employed the firm-level approach based on an expo-facto and non-experimental research design. The study is longitudinal covering a period of ten (10) years. That is, from 2011 to 2020 employing listed non-finance firms on the floor of the Nigerian Exchange Group (NGX). The sampling technique employed is purposive since firms

were included in the sample on certain selection criteria. These criteria were based on the view that the firms are listed on the Nigerian Exchange Group (NGX) market from 2011-2020; there were access to their annual financial reports within the period and they were not firms operating subsidiaries in Nigeria that are not listed in the Nigerian Exchange Group (NGX). Newly listed firms and delisted firms were excluded from the study. Thus, only non-finance firms that had all relevant data due to continuous existence were included in the sample. Our final sample size consists of 30 non-finance firms that was arrived at based on the availability of data for ten years for all the research variables. We express our econometric model as

$$DRSA_{it} = \beta_0 + \beta_1 BLOW_{it} + \beta_2 BIG4_{it} + \beta_3 DETA_{it} + \beta_4 CTAR_{it} + \beta_5 FSIZ_{it} + \epsilon_{it}$$

Where:

| | | |
|---------------------|---|-------------------------|
| DRSA | = | Director's Remuneration |
| BLOW | = | Ownership Concentration |
| BIG4 | = | Big4 Auditors |
| DETA | = | Capital Structure |
| CTAR | = | Cash Holding |
| FSIZ | = | Firm Size |
| β_0 | = | Constant |
| $\beta_1 - \beta_5$ | = | Slope Coefficient |
| | = | Stochastic disturbance |
| i | = | i th firm |
| t | = | time-period |

Thus, our apriori expectations are stated as; $X_t - X_{t-1} > 0$: which means that a rise in the determinant variables of ownership concentration, big4 auditors, capital structure and cash holding will lead to a rise in tunneling of listed non-finance firms in Nigeria. The econometric techniques adopted in this study are the panel fixed and Random effect regression techniques. The rationale for its usage is based on the following justifications: the data that will be collected may have time and cross-sectional attributes as well as across the sampled firms (cross-section); panel data regression provides better results since it uses large observation and reduces the problem of degree of freedom (Muhammad, 2012); it avoids the problem of multicollinearity and help to capture the individual cross-sectional (or firm-specific) effects that the various pools may exhibit with respect to the dependent variable in the model.

EMPIRICAL RESULTS AND DISCUSSION

The study investigates directors tunnelling in Nigeria drawing samples from listed non-finance firms on the floor of the Nigerian Exchange Group market. While directors tunnelling proxied by directors' remuneration is the dependent variable, the independent variables adopted for this study includes ownership concentration, big4 auditors, capital structure and cash holding. Furthermore, in line with related extant literature, we employed the variable of firm size to control our model. Data set employed in this study spans through the periods between 2011 and 2020. Table 4.1 below describes the data in terms of the companies which they belong.

Overall, the descriptive statistics provides some insight into the nature of the selected Nigerian listed non-finance companies that were employed in this study.

Descriptive Analysis

In this section, we examine the descriptive statistics for both the explanatory and dependent variables of interest. Each variable is examined based on the mean, standard deviation, maximum and minimum. Table 1 below displays the descriptive statistics for the study.

Table 1: Descriptive Statistics

| VARIABLES | MEAN | SD | MIN | MAX | NO OBS |
|-----------|-------|-------|-------|--------|--------|
| DRSA | 0.73 | 0.81 | 0.01 | 4.30 | 298 |
| BLOW | 56.13 | 20.38 | 8 | 95 | 300 |
| BIG4 | 0.72 | 0.45 | 0 | 1 | 299 |
| CTAR | 14.56 | 14.73 | -4.65 | 68.75 | 299 |
| DETA | 56.35 | 18.98 | 4.28 | 123.35 | 299 |
| FSIZ | 7.41 | 0.72 | 6.34 | 9.31 | 299 |

Source: Author (2021)

The table above shows the summary of the descriptive statistics of the study. From the table it is observed that directors' remuneration (DRSA) on the average is 0.73 with a standard deviation of 0.81. Ownership concentration (BLOW) on the average is observed to be 56.13 with a standard deviation of 20.38. We also find that big4 auditors (BIG4) has a mean of 0.72 with a standard deviation of 0.45 indicating that about 72% of the firms in our sample engaged the services of Big4 auditors. The table also shows that Cash holding (CTAR) had a mean of 14.56 with a standard deviation of 18.98. We find that capital structure (DETA) had a mean of 56.35 with a standard deviation of 18.98. For our control variable, the table reveal that firm size (FSIZ) had a mean of 7.41 and a standard deviation of 0.72.

Correlation Analysis

In examining the association among the variables, we employed the Pearson correlation coefficient (correlation matrix) and the results are presented in the table below.

Table 2: Correlation analysis

| | DRSA | BLOW | BIG4 | CTAR | DETA | FSIZ |
|------|-------|-------------|-------|-------|------|------|
| DRSA | 1.00 | | | | | |
| BLOW | -0.16 | 1.00 | | | | |
| BIG4 | -0.07 | 0.07 | 1.00 | | | |
| CTAR | 0.17 | 0.18 | 0.14 | 1.00 | | |
| DETA | -0.29 | -0.08 | -0.16 | -0.14 | 1.00 | |

| | | | | | | |
|------------------------------------|-------|------|------|-------|------|------|
| FSIZ | -0.59 | 0.35 | 0.17 | -0.24 | 0.18 | 1.00 |
| Author's computation (2021) | | | | | | |

In the case of the correlation between the variables of interest, the above results show that there exists a negative and weak association between directors' remuneration and ownership concentration (-0.16). There exists a **negative and weak** association between directors' remuneration and big4 auditors (-0.07). There exists a **positive and weak** association between directors' remuneration and cash holding (0.17). There exists a negative **and moderate** association between directors' remuneration and capital structure (-0.29). In the case of our control variable, we find that there exists a **negative and moderate** association between directors' remuneration and firm size (-0.59). To test our hypotheses a regression results will be needed since correlation test does not capture cause-effect relationship.

Regression Results

Specifically, to examine the cause-effect relationships between the dependent variables and independent variables as well as to test the formulated hypotheses, we present a panel data regression and an OLS pooled results in the table below.

Table 2: Regression Result

| | DRSA Model (Pooled OLS) | DRSA Model (FIXED Effect) | DRSA Model (RANDOM Effect) |
|-------------------------------------|------------------------------------|--------------------------------------|---------------------------------------|
| C | 5.74 {0.000} *** | 2.28 {0.111} | 4.73 {0.000} *** |
| BLOW | 0.00 {0.835} | 0.00 {0.675} | 0.00 {0.797} |
| BIG4 | -0.02 {0.843} | -0.17 {0.042} ** | -0.16 {0.046} ** |
| CTAR | 0.00 {0.801} | -0.00 {0.144} | -0.00 {0.475} |
| DETA | -0.01 {0.000} *** | -0.01 {0.000} *** | -0.01 {0.000} *** |
| FSIZ | -0.62 {0.000} *** | -0.10 {0.592} | -0.43 {0.000} *** |
| F-statistics/Wald Statistics | 35.59 (0.00) *** | 8.34 (0.00) *** | 57.91 (0.00) *** |
| R- Squared | 0.38 | 0.14 | 0.13 |
| VIF Test | 1.21 | | |
| Heteroscedasticity Test | 76.55 (0.000) | | |

HAUSMAN TEST

Prob>chi2 = 6.90 (0.2284)

Note: (1) bracket {} are p-values

(2) **, ***, implies statistical significance at 5% and 1% levels respectively

In the table above, we observed from the OLS pooled regression that the R-squared value of 0.38 shows that about 38% of the systematic variations in directors tunneling proxied by directors' remuneration in the pooled non-finance firms over the period of interest was jointly

explained by the independent and control variables in the model. The unexplained part of directors tunneling can be attributed to exclusion of other independent variables that can impact on directors tunneling but were captured in the error term. The F-statistic value of 35.59 and its associated P-value of 0.00 shows that the OLS regression model on the overall is statistically significant at 1% level, this means that the regression model is valid and can be used for statistical inference. The table above also shows a mean VIF value of 1.21 which is within the benchmark value of 10, this indicates the absence of multicollinearity, and this means no independent variable should be dropped from the model. Also, from the table above, it can be observed that the OLS results had heteroscedasticity problems since its probability value was significant at 1% [76.55 (0.00)]. The presence of heteroscedasticity clearly shows that our sampled firms are not homogeneous. This therefore means that a robust or panel regression approach will be needed to capture the impact of each firm heteroscedasticity on the results. In this study we adopted the panel regression method using both fixed and random effect models.

The F-statistic and Wald-statistic value of 8.34 (0.00) and 57.91 (0.00) for fixed and random effect models respectively shows that both models are valid for drawing inference since they are both statistically significant at 1%. In the case of the coefficient of determination (R-squared), it was observed that 14% and 0.13 systematic variations in directors tunneling proxied by directors' remuneration was explained jointly by the independent and control variables in both models respectively. This therefore implies that less of the variation in directors tunneling were explained when compared to the OLS pooled regression. In selecting from the two panel regression estimation results, the Hausman test was conducted, and the test is based on the null hypothesis that the random effect model is preferred to the fixed effect model. A look at the p-value of the Hausman test (0.2284), implies that we should accept the null hypothesis and reject the alternative hypothesis at above 5% or 1% level of significance. This implies that we should adopt the random effect panel regression results in drawing our conclusion and recommendations. This also implies that the random effect results tend to be more appealing statistically when compared to the fixed effect. Following the above, the discussion of the random effect results became imperative in testing our hypotheses. The below is a specific analysis for each of the independent variables using the random regression.

DISCUSSION OF FINDINGS

Since, the study is an extension of existing studies, only few findings in literature are not in agreement with the current positions of this study. Specifically, we find that ownership Concentration (Random effect regression = 0.00 (0.797)) as an independent variable to directors tunnelling appears to have a positive and insignificant influence on directors tunnelling. This therefore means we should accept the null hypothesis {H₀: Ownership structure has no significant effect on directors tunneling of listed non-finance firms in Nigeria}. This suggests that an increase in ownership concentration will insignificantly increase directors tunnelling. This result agrees with prior empirical results which show that ownership structure insignificantly increases directors tunneling (Khanna and Palepu, 2000). However, we fail to agree with the studies of Gibson 2003; Santiago-Castro & Brown 2011 who concluded that ownership structure significantly causes directors tunneling. Our results also shows that big4 auditors (Random effect regression = -0.16 (0.046)) as an independent variable to directors tunnelling appears to have a negative and significant influence on directors tunnelling. This

therefore means we should reject the null hypothesis {H₀: Big4 auditors has no significant effect on directors tunneling of listed non-finance firms in Nigeria}. This suggests that when a big4 firm audit the accounts of the firms in our sample, directors tunnelling declines. This result agrees with prior empirical results which show that big4 auditors significantly decrease directors tunneling (Mahdi & Ali, 2009). However, we fail to agree with the studies of Khanna and Palepu, 2000 who concluded that big auditors significantly increases directors tunneling. We also provide evidence that cash holding (Random effect regression = -0.00 (0.475)) as an independent variable to directors tunnelling appears to have a negative and insignificant influence on directors tunnelling. This therefore means we should accept the null hypothesis {H₀: Cash holding has no significant effect on directors tunneling of listed non-finance firms in Nigeria}. This suggests that increase in cash holding insignificantly decreases directors tunnelling. This result agrees with prior empirical results which show that cash holding insignificantly decrease directors tunneling (Megginson and Smart, 2005). However, we fail to agree with the studies of Khanna and Palepu, 2000 who concluded that cash holding significantly increases directors tunneling. As for the variable of capital structure, our results shows that capital structure (Random effect regression = -0.01 (0.000)) as an independent variable to directors tunnelling appears to have a negative and significant influence on directors tunnelling. This therefore means we should reject the null hypothesis {H₀: Capital Structure has no significant effect on directors tunneling of listed non-finance firms in Nigeria}. This suggests that the more a firm finances their operations through debt, directors tunnelling declines. This result agrees with prior empirical results which show that capital structure significantly decrease directors tunneling (Megginson and Smart, 2005). However, we fail to agree with the studies of Khanna and Palepu, 2000 who concluded that capital structure significantly increases directors tunneling.

CONCLUSION AND RECOMMENDATION

The exploitation of minority shareholders by controlling shareholders has attracted the attention of researchers. When the majority shareholders control the company, the agency problem is no longer about the conflict of interest between management and shareholders but about how to prevent controlling shareholders from exploiting minority shareholders. Tunnelling is not only detrimental to the interests of minority shareholders but also seriously precludes the development of the capital market (Johnson et al., 2000; Wurgler, 2000; Bertrand et al., 2002). In the light of this, the empirical result of this study leads to the conclusion that out of the four independent variables adopted in this study, only big4 auditors and capital structure significantly affect directors tunnelling. Specifically, we conclude that when a big4 firm audit the accounts of the firms in our sample, directors tunnelling declines. Similarly, we conclude that the more a firm finances their operations through debt, directors tunnelling declines. Succinctly, we recommend that firms should strive towards debt financing while also seeking to employ the services of big4 auditors to keep at bay tunnelling among listed non-finance firms.

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