DETERMINANTS OF INFORMATION ASYMMETRY IN FINANCING DECISION:
A THEORETICAL APPROACH

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ABSTRACT

The spate of corporate failure that dominated the global economy in the last decades has been attributed to several factors, one of which is information asymmetry. Corporate managers’ responsibility is to generate wealth with the resources entrusted to them by investors and report adequately and timely to resource owners to enable them make informed decisions. The extent of disclosure of information by corporate managers is being intentionally limited by them so as to hoodwink and conceal vital information from users. Information is said to be asymmetric when one contracting party whose duty is it to provide such information deceitfully discloses limited amount of such information in a manner antithetic to the decision-usefulness of such information. This paper therefore chronicles some of the factors that determine information asymmetry. These determinants include: firm size, leverage, financial performance, book value to market value, analysts’ forecast error and microstructure of the stock market. The paper conceptually reviews these determinants and makes recommendations to regulatory agencies to encourage full information disclosure by corporate chief executives.

Keywords: Information Asymmetry, Financing Decision, Pecking Order Theory

1. INTRODUCTION

Financial reporting remains an important vehicle with which management conveys firm’s performance to stakeholders. Financial information presented to users must of necessity possess the basic qualitative attributes of relevance, reliability and understandability for them to be value relevant for decision-making. When the quantity and quality of the information possessed by management fall short of those available to external stakeholders, information asymmetry become inevitable; and as a consequence, stock markets within such reporting jurisdictions will be at the mercy of market imperfections. This phenomenon will result in inefficient market situation.

Information asymmetry is a condition where contracting parties have varying degrees of information which are manipulated to the benefit of the parties possessing more of such information at the expense of those having less of them. Basically, management possess heterogeneity of information about the company which resource owners (investors) do not have access to. When this is the case, there is the inevitability of information asymmetry. Williamson (1985) notes that information asymmetry causes information impactedness; the condition that
occurs when parties to a contract have knowledge of different and essentially private information when they take part in the contracting process. This condition is costly to overcome and gives rise to a trading hazard, occasionally resulting in market failure.

For more than two decades, the theory of asymmetric information has witnessed a gradual entrance into mainstream positive economics, finance and accounting. Basically, investors possess heterogeneity of information and when this is the case, there is the inevitability of information asymmetry. Ignoring information asymmetry in corporate decision and assuming corporate models of perfect information between management and stakeholders is unrealistic and can lead to negative impact on the firm. Consequently, to the extent that there exists some degree of heterogeneity in information equilibrium between management and other stakeholders, the subject of information asymmetry is critical.

Asymmetrical information negatively affects market transactions. At a minimum, asymmetries make the market operate less efficiently insofar as price will not represent real costs and benefits (Kingma, 2001). In the worse case, if parties are discouraged from transacting, asymmetries can undermine the market all together. Ang and Cheg (2006) note that corporate finance theories typically treat the level of information asymmetry as exogenously given and as such a constant parameter. However, in reality, firms endogenously choose the level of information asymmetry based on the cost and benefits of direct communications with the market. Management, as insider, has superior knowledge of firm’s plan, the values of tangible and intangible assets, and future opportunities and risks amongst others. Thus, there are two general approaches for the managers to inform the market. The first is to simply release the information to the market; that is, direct communications and the second approach is through indirect means of communications as exemplified by signaling. In this regards, a situation of endogenous information asymmetry can be created by the firm if the decision to disclosed information to investors is influenced by concern that such disclosures can damage their competitive position.

2. CONCEPTUAL FRAMEWORK

In recent times there has been a budding need for studies to minimize the variance between mere conceptual and applicable theories by incorporating certain practical constraints in models expected to explain observable phenomena. It is within this context that the subject of Information asymmetry has come to the fore. The foundations for the theory of asymmetric information were established in the 1970s by the works of Akerlof (1970) Spence (1973) and Stiglitz (1975). Their works received the Bank of Sweden Prize in Economic Sciences in Memory of Alfred Nobel in 2001. Firstly, according to Akerlof (1970) in his essay, "The Market for Lemons" which is regarded as the most profound and widely cited study in the literature on information asymmetry, Akerlof introduces the first challenge of information asymmetry referred to as adverse selection and notes that the information or ‘lemons’ problem arises from information differences and conflicting incentives between entrepreneurs and savers. Akerlof (1970) explained further, that adverse selection resulting from information asymmetry creates a rather subjective premise for possible contractual agreements since both investors and entrepreneurs are rational and value investments conditional on their own information. Akerlof (1970:9) notes:

“If investors cannot distinguish between the two types of business ideas, entrepreneurs with bad ideas will try to claim that their ideas are as valuable as the good ideas. Realizing this possibility, investors will value both good and bad ideas at an average level.”
Akerlof shows that hypothetically, the information problem can either cause an entire market to collapse or contract it into an adverse selection of low-quality products. He also pointed to the prevalence and importance of similar information asymmetries, especially in developing economies. Secondly, in his contributions, Stiglitz (1975) substantiates that economic models may be quite misleading if they disregard informational asymmetries. In his arguments, even with capital markets liberalization, the information symmetry assumption of liberalized markets may not often hold and this result in information cost and hinders the efficient allocation of financial resources. In other words, Stiglitz notes that market failure implies its inadequacy to allocate resources efficiently arising from asymmetric information. Their common message has been that in the perspective of asymmetric information, many markets take on a completely different guise, as do the conclusions regarding appropriate forms of public-sector regulation. Stiglitz has analyzed the implications of asymmetric information in many different contexts, varying from unemployment to the design of an optimal tax system. Finally, Spence (1973) in his essay developed his analysis from the perspective of how better informed individuals on a market can credibly transmit their information to less informed individuals, so as to avoid some of the problems associated with adverse selection.

Contemporary researches in recent times have extended the original postulations of Akerlof (1970) Spence (1973) and Stiglitz (1975) to examine the implications of information asymmetry on agency conflicts, capital structure decisions, market efficiency studies, corporate financing options amongst others and also attempting to provide empirical validation to the theory.

2.1 INFORMATION AS A CONCEPT

According Kingma (2001), Information is an essential component of any contract. In all transactions, the parties involved must exchange information about the product, price, and settlement. Hence, individuals must acquire information to make informed decisions. Only recently has the economy been labeled an “information economy;” yet the market has always relied on the exchange of information. In spite of the importance of information, neoclassical economics largely ignores its role (Wolpert and Wolpert, 1986). The neoclassical model assumes that market information is perfect, and thus transaction costs are low. In reality, perfect information is impossible. Instead, what exists is a scenario of insufficient and asymmetric information and as such investors and indeed stakeholders in general must make decisions about several variables based on bounded rationality. Several authors have undertaken a conceptual definition of the term. In that regard, Rose (1999) defined Information as a “fuzzy” concept, which has become the subject of economic analysis only in the past 100 years with economists differing in their definitions of the concept. However, according to Rose (1999:12) “Information is that which can be exploited to reduce uncertainty in decision-making.” According to Sampler (1998), relevant information can be defined as information which is able to influence an economic decision likely to be made by the user of that information.

To be relevant, information must have the qualitative characteristics of timeliness and must either have predictive value or act as confirmation or correction of earlier expectations. In some cases, uncertainty also creates a market for information. When agents are uncertain about future events the quality of products or the honesty of others, they look to purchase information to reduce uncertainty (Kingma, 2001). In this sense, information decreases the risk involved in complex transactions.

All information can be described by common properties. For one, information is an intangible resource and an immaterial good (Rose, 1999). Second, information is a highly fungible resource (Sampler, 1998). In this sense, it can be exchanged or interchanged with other information. Yet, information varies in its degree of fungibility or alternative uses (Sampler,
Thus, the nature and value of information change according to its use. In addition, the production of information goods involves high fixed costs and low marginal costs (Shapiro & Varian, 1998). There are also high sunk costs in creating information, but it is relatively cheap to replicate. Thus, information is costly to produce but cheap to reproduce (Shapiro & Varian, 1998). Unlike tangible goods, information is subject to perfectly increasing returns. Once the initial investment is made, information can be reused at no additional cost. Likewise, information can be replicated at zero cost and without limit, and it will never wear out or deteriorate, unlike tangible goods. However, information may become obsolete or untrue with time, and its value may decrease the more it is replicated (Evans & Wurster, 2000).

Given these unique characteristics, information does not easily fit in the traditional neoclassical economic model. As Boisot (1998) has pointed out, neoclassical economics has addressed the problem of information somewhat schizophrenically. On one hand, economic theory treats information as a free good that is not subject to trading and is instantaneously available to all economic agents. In this respect, it functions as a support to exchange and “to foster the perfect foresight so essential to efficient markets,” (Boisot, 1998: 76). Conversely, neoclassical economics also treats information as a good that, through artificial means, can be made subject to hoarding and this portends that information asymmetry could after all be a feature of organized corporate systems.

2.2 INFORMATION ASYMMETRY

The problematic nature of information as a commodity exacerbates the problems of information asymmetry and imperfect information, which are features of any economy. Asymmetries are associated with the uneven distribution of information in the marketplace (Philips, 1988). In expatiating on this, Lensink and Sterken (2000) note that investors possess heterogeneity of information which means different investors possess varying degrees of information. Where market players possess varying levels of information in terms of quantity and/or quality then there is the presence of information asymmetry. Information asymmetry varies over time as the information sets about the fundamentals of a company change. It increases temporarily with the arrival of new private information about operational or strategic activities of a company and decreases when at least some of this information is made public.

According Kingma, (2001) the information asymmetry theory of capital structure assumes that firm managers or insiders possess private information about the characteristics of the firm’s return stream or investment opportunities, which is not known to common investors. Consequently, According Kingma, (2001) defined Information asymmetry as informational uncertainty and informational deficiency which arise for investors in respect to the assessment of the investment and implies a situation where one party has more information which could hamper the efficient allocation of resources amongst others.

The following firm specific characteristics have been identified as determinants of the level of information asymmetry. They include; firm size, leverage, financial performance, firm book value to market value, analyst forecast error and the microstructure of the stock market. They are examined below:

(a) Firm size

According to O’Donovan, (1997) large companies come under more scrutiny than smaller companies. These companies thus feel the pressure to disclose more information and thus reduce the level of information asymmetry and consequently obtain approval from the stakeholders for continued survival. Larger firms are also perceived to be important economic entities and therefore have greater demands placed on them to provide more information for
customers, suppliers, analysts and government bodies (Cooke, 1991). A positive association between size of a corporation and the extent of information asymmetry has been consistently confirmed by prior studies (Stanny and Ely, 2008; Ho and Taylor, 2007). There seems to be some level of consensus in the literature on the positive relationship between the firm’s size and its information environment. The reason for this according to studies (Watts and Zimmerman, 1978; Bujaki and Richardson, 1997) is that large firms are more willing to reduce information asymmetry and thus reduce their political costs, since their size makes them quite visible in the corporate environment and could make them easy targets for litigation and other regulatory sanctions.

(b) **Leverage**

Debt providers are a class of stakeholders who are also concerned with the information environment of the firm. Companies with higher level of financial leverage may find it more needful to reduce the extent of information asymmetry and thus tend to disclosed more information than companies with lower level of financial leverage. According to the agency theory, firms with higher level of financial leverage tend to voluntarily improve the information environment either through direct or indirect channels in order to satisfy creditors and remove the suspicions of wealth transfer to shareholders. Consequently, leverage has often provided an indicator of the nature of a firm’s information environment and thus the level of information asymmetry (Zazerski 1996). According to Myers and Majluf (1984), equity and debt is costly for companies that cannot resolve information asymmetry by communicating and improving their disclosure levels. Others studies such as (Lev, 1988; Lang and Lundholm, 2000) provide evidence that leverage induces higher disclosure quality which reduce information asymmetry. According to Healy and palepu (1995). Leverage may be an indicator of the extend of information disclosure, as firms may need to resolve asymmetric information and agency problems with the stakeholders. Thus following the argument that managers who anticipate external financing have incentives to provide voluntary disclosure. We could also expects reduced information asymmetry for firms that rely on external financing.

(c) **Financial performance**

Companies with higher level of profitability tend to disclose more information and hence reduce information asymmetry than companies with lower level of profitability. According to stakeholder theory, economics performance of a firm affects management’s decision to either disclose more or disclose less which will indicate the extent of information asymmetry. When companies are not performing well, economic demand and the anticipated benefits will determine the nature of the firm’s information environment (Roberts, 1992). Freedman & Jaggi (1992) argues that the economic performance (measured by profitability) of firm is critical indicator of the extent of asymmetry that the firm will permit. The arguments are at polarity depending on what the firm considers to be in line with its corporate objectives at that point in time and thus the theoretical expectation as to the direction of the relationship are quite inconclusive.

(d) **Firm’s Book Value to Market Value**

Book to market value ratio has been a tool in the hands of financial analysts for several purposes including using it to proxy information asymmetry. The conceptual linkage stems from the reasoning that managers of high growth firms have superior knowledge about their investment opportunity set, as well as a better knowledge of the expected future cash flows from their firm’s existing assets (Smith and Watts, 1992). The justification therefore is that the
possession of superior information by management should necessarily lead to the benefits of such information economics. This typifies a scenario where even relatively informed investors accede to a kind fact the beyond publicly disclosed information and private sources, managers show evidence of a kind of monopoly over certain sensitive information which is show to result in better corporate performance over and beyond investors forecast and rational expectations. Consequently, book to market value as an index of corporate performance has been employed severally in the literature as an indicator of the level of information asymmetry with higher book to market ratio signaling higher level of information asymmetry and vice-versa. Thus with regards to the theoretical expectations on the relationship, we expect a positive relationship.

(e) Analyst Forecast Error

Investors possess heterogeneity of information which means different investors possess varying degrees of information in terms of quantity and/or quality. It increases temporarily with the arrival of new private information about a company and decreases when at least some of this information is made public. In this regards, Krishnaswami and Subramanian (1998) note that this heterogeneity in information available to investors at any given point in time has implications on the rational expectations made by investors about company fundamentals. Given that investors must make informed judgments about futuristic trends based on available information, it follows therefore that the more the level of information asymmetry, the larger the variance otherwise called the analyst forecast error from observable trends. The appropriateness of analyst forecast error as an indicator of information asymmetry is based on the finding of Blackwell and Dubins (1962) who demonstrate that the degree of forecast error is positively related to the level of information asymmetry and that expectations about company fundamentals tend to converge as level of information asymmetry decreases. Elton, Gruber, and Ultekin (1984) provide evidence as the usefulness of analyst forecast as an indicator of information asymmetry.

(f) Microstructure of the Stock Market

According to O’Hara (1995), market microstructure is concerned with the process and outcomes of exchanging assets as guided by certain market rules and regulations and in some effects the formation of asset prices. The theoretical base for the relationship between the market microstructure and information asymmetry stems from inherent propensity of structure, system and certain structural variables that tend to facilitate equity operations such as the level of transparency and information disclosure by firms, centralized and decentralized trading systems, the existence of manual and electronic trading system in inducing information asymmetry. Mendelson (1987) argues that decentralized trading system has effects on the level of information asymmetry. The kernel therefore is that information asymmetry may be inducing by market microstructures. The orthodoxy has been to assume that markets with well developed microstructure may lead to and thus indicate reduced information asymmetry while those with less developed microstructure may lead to and thus also indicate higher information asymmetry.

3. THEORETICAL FOUNDATION

Two types of argument have emerged to analyze the implication of information asymmetry for corporate financing decision. One of the most popular models of corporate financing decisions in the literature is the pecking order theory of Myers (1984). It is based on the argument in Myers and Majluf (1984) that asymmetric information problems drive the capital structure of firms. Myers (1984) argues that if managers know more than the rest of the
market about their firm’s value (information asymmetry), the market penalizes the issuance of equity whose expected payoffs are crucially related to the assessment of such a value. Therefore, the pecking order theory predicts that companies should use stock issuances to cover financing deficits only as a last resort, after cheaper, less information sensitive alternatives (like internal cash, bank debt, or public debt) have been exhausted.

Myers (1984) and Myers and Majluf (1985) are the pioneering scholars who subscribe to the preference of debt over equity in the presence of asymmetric information. They note that managers tend to protect the existing shareholders if equity financing would be underpriced by new investors. They argued further that firms would prefer internal financing in such an instance and where such seems unattainable the next option would be the issuance of redeemable debt followed by convertible debt, the last resort being the issuance of equity. This is the pecking order theory in which firm managers are believed to be acting in the best interest of the existing shareholders. However, another argument is that equity is the best option in corporate financing decisions especially with regards to external financing when information asymmetry is high. The argument expressed by Stiglitz and Weiss (1981), Daniel and Titman (1984), DeMeza and Webb (1987), and Giammarino and Neave (1982) is that where lenders observe that a firm’s managers possess better information about the risk of a potential investment project, the interest rate goes up to compensate for the undetermined level of assumed risk and uncertainty. In a nutshell, information asymmetry has modulating effects on the corporate decisions with regards to financing options (Saar, 2001; Chakravarty, Sarkar & Wu, 1998; Aydogdu & Shekhar, 2005; Moerman, 2006). Understanding these issues is important for corporate financing decisions in Nigeria since equity is the most traded instrument on the Nigerian capital market as it constitutes above 60% of the market operations (Akingunola, 2005).

The pecking order theory of capital structure of Myers (1984); and Myers and Majluf (1984) predicts that firms prefer debt over equity because of information asymmetry between well-informed managers and less-informed investors. When investment needs exceed internal funds, they are met primarily with debt, while equity is used as a residual source of financing. To test for the pecking order theory, Shyam-Sunder and Myers (1999) suggest regressing net debt issuance ($D_{it}$) on the financing deficit ($DEF_{it}$) as follows:

$$D_{it} = \alpha + \beta DEF_{it} + \epsilon_{it}, \hspace{1cm} (1)$$

Where $D_{it}$ is long-term debt issuance minus long-term debt reduction, while $DEF_{it}$ is given by the accounting cash flow identity;

$$DEF_{it} = DIV_{it} + CAPEX_{it} + WC_{it} - CF_{it} \hspace{1cm} (2)$$

Where $DIV_{it}$ are dividend payments, $CAPEX_{it}$ are capital expenditures, $WC_{it}$ is the net change in working capital, and $CF_{it}$ is operating cash flow (after interest and taxes).

According to Shyam-Sunder and Myers (1999), the strict pecking order theory implies that the regression coefficient $\beta$ should be close to one, since firms would recur to equity only as a last resort. Myers (1984); and Myers and Majluf (1984) also describe a modified pecking order that recognizes the tradeoff between adverse selection costs and the costs of financial distress when too much debt is issued. Under the modified version of the theory, firms may issue equity in place of debt when faced with financing deficit to maintain both liquid assets and debt capacity for future investments. The slope coefficient in equation (1) should still be positive but may be lower than one. Regardless of this debate, most existing tests on the pecking order do not examine a key assumption of that theory: the extent of information asymmetry problems plaguing firms’ external funding. After all, Myers (2001) emphasizes that the pecking
order theory is a conditional theory of firms’ corporate financing decisions that relates information differences to financing choices. As such, we should expect the pecking order theory to provide a relatively more accurate description of firms’ financing behavior only when adverse selection costs associated with the issuance of information-sensitive securities are larger. Accordingly, the modified pecking order theory predicts that, ceteris paribus, the regression coefficient β should be greater for firms with higher information asymmetry. Several studies have examined this conditional relationship, e.g., with respect to information releases (Korajczyk, Lucas, and McDonald 1991), the aggregate volume of equity issuances (Bayless and Chaplin 1996), or the business cycle (Choe, Masulis, and Nanda 1993).

Rajan and Zingales (1995) survey the extant literature on factors driving debt-asset ratio and distill its key implications into a simple model relating the cross section of firm leverage to such conventional firm characteristics as size, tangibility, profitability, and market-to-book assets ratio and a parameter that accounts for information asymmetry. The specified model is stated thus:

\[ \text{Leverage} = a + u + b_1 \text{ASY} + b_2 \text{Tangibility} + b_3 Q \text{ ratio} + b_4 \text{Log sales} + b_5 \text{Profitability} + \epsilon \]  

Where Log sales is the natural log of net sales used as a proxy for firm size

\[ u = \text{firm fixed effects.} \]

\[ \text{ASY}= \text{information asymmetry.} \]

\[ \epsilon = \text{error term} \]

The results establishes the aprori expectation in the relationship between financing options as measured by the debt-equity ratio and information asymmetry. Also, the extent of firm-level adverse selection helps explain the cross-sectional variation in firms’ capital structure in accordance with the main assumption of the pecking order theory even after controlling for conventional leverage factors in the literature.

Frank and Goyal (2003) argue that a stronger test of the main implication of the strict pecking order theory as specified by Shyam-Sunder and Myers (1999) in Equation (1). They note that the cross section of firms’ financing decisions can be constructed by running Equation (4) in first differences. Accordingly, if adverse selection is an important determinant of debt issuance decision; the main assumption of the pecking order theory, we expect the variable ASY to lead to higher leverage in the cross section of firms. Thus, we expect a positive and significant coefficient on \[ \text{ASY} \] in the following firm fixed effects panel regression:

\[ \text{Leverage}_{it} = a + u_i + b_1 \text{ASY}_{it} + b_2 \text{Tangibility}_{it} + b_3 Q \text{ ratio}_{it} + b_4 \text{Log sales}_{it} + b_5 \text{Profitability}_{it} + b_6 \text{Leverage}_{it-1} + \epsilon_{it}. \]  

Where all variables are fiscal year-on-year changes of the level variables in Equation (4). Equation (5) also includes lagged leverage to account for the evidence of mean reversion in leverage in the literature (e.g., Taggart 1977; Marsh 1982). According to Frank and Goyal (2003) the sign and significance of the coefficients for the year-on-year changes in the conventional variables are again in line with the literature. Further, the coefficient for lagged leverage is large, negative, and significant, suggesting some mean reversion in leverage among firms. Nonetheless, even after accounting for these considerations, the coefficient on information asymmetry (ASY) in the firm fixed effects regression of Equation (5) is positive and strongly significant. Hence, changes in the extent of firm-level adverse selection help explain the cross-sectional variation in changes in firms’ capital structures. Overall, the results provide strong confirmation that asymmetric information considerations are important in explaining corporate financing decisions of U.S. firms over the past three decades, consistent with the main assumption of the pecking order theory.
4. LITERATURE REVIEW

Consistent with the pecking order theory that information asymmetry influences corporate financing decisions, the work of Titman and Wessels (1988), Rajan and Zingales (1995), Antoniou et al, (2002) and Bevan and Danbolt (2002) in developed countries, Booth et al, (2001), Pandey (2001), Um (2001), Wiwattanakantang (1999), Chen (2004) and Al-Sakran (2001) in developing countries all find a negative relationship between leverage ratios and profitability employed as proxy for information asymmetry. Two types of argument have emerged to analyze the implication of information asymmetry for corporate financing decision. Prominent scholars who subscribe to the preference of debt over equity in the presence of asymmetric information are Myers (1984) and Myers and Majluf (1985) who felt that managers tend to protect the existing shareholders if equity financing would be underpriced by new investors. They argued further that firms would prefer internal financing in such an instance and where such seems unattainable the next option would be the issuance of redeemable debt followed by convertible debt, the last resort being the issuance of equity. This is the pecking order theory in which firm managers are believed to be acting in the best interest of the existing shareholders.

However, studies such as Saar, (2001) Chakravarty, Sarkar and Wu, (1998) Aydogdu and Shekhar (2005) Bardong, Bartram and Yadav (2006) Moerman (2006) Chan, Menkveld and Yang,(2006) are of the view that equity is the best option in corporate financing decisions especially with regards to external financing when information asymmetry is high. The argument expressed by Stiglitz and Weiss (1981), Daniel and Titman (1995), DeMeza and Webb (1987), and Giammarino and Neave (1982) is that where lenders observe that a firm’s managers possess better information about the risk of a potential investment project, the interest rate goes up to compensate for the undetermined level of assumed risk and uncertainty. In a nutshell, information asymmetry has modulating effects on the corporate decisions with regards to financing options. Understanding these issues is important for corporate financing decisions in Nigeria since equity is the most traded instrument on the Nigerian capital market as it constitutes above 60% of the market operations (Akingunola, 2005). According to Rosser (2001) Ciner and Karagozoglu (2005) Oluba (2008) and Murray, (2008) Information asymmetry has been identified as one of the challenges facing emerging markets and especially where the market is found to be exhibiting weak form efficiency. In their arguments, even with capital markets liberalization, the information symmetry assumption of liberalized markets may not often hold and this result in information cost and hinders the efficient allocation of financial resources. In other words, Stiglitz and Rodrik (2005) note that market failures imply its inadequacy to allocate resources efficiently arising from asymmetric information. The market can capture fluctuations in information asymmetry through the adjustment of stock price.

Prominent scholars who subscribe to the preference of debt over equity in the presence of asymmetric information are Myers (1984) and Myers and Majluf (1985) who felt that managers tend to protect the existing shareholders if new issues would be underpriced by new investors. They argued further that firms would prefer internal financing in such an instance and where such seems unattainable the next option would be the issuance of redeemable debt followed by convertible debt, the last resort being the issuance of equity. This is the pecking order theory in which firm managers are believed to be acting in the best interest of the existing shareholders. Managers are perceived to have more information than the investors. The pecking order theory suggests that a firm should finance its operations in order of internal funds (capital and general reserve), new debts and new equity issues. In all cases, equity issues should be the last option. Pecking order helps managers to avoid adverse selection that may arise from underpriced stocks by uninformed investors (Myers, 1984; Myers and Majluf, 1985; Jalal, 2007). This class of argument contradicts the position of Jung, Kim, and Stulz (1996) in their
agency model which suggests that firm manager would always act in conflict with the interest of the shareholders where their own interest is involved. Similarly, Frank & Goyal (2003) believe the concept of pecking order is relevant to large firms seeking additional funding rather than smaller firms. Lemon and Zender (2004) expressed the view that a modified pecking order that considered financial cost of distress can be used to explain a firm’s financing behaviour.

Fama and French (2005) disagreed with Lemon and Zender (2004). Also, Bharath, Pasquariello & Wu (2008) argue that deficiency in the pecking order has to do with low information asymmetry between the firm managers and the investors. Interestingly, Jung, Kim and Stulz (1996) disagreed with the view expressed by Bharath, Pasquariello & Wu (2008). Um (2001) in a study of Libyan firms argues that growing companies' funding pressure for investment opportunities is likely to exceed their retained earnings and, according to the 'pecking order' are likely to choose debt rather than equity. Thus, if the information asymmetry theory is pertinent in Libya, a positive relationship is expected between financial leverage and growth. Booth et al, (2001) argue that this relation is generally positive in all countries in their sample, except for South Korea and Pakistan. Pandey (2001) finds a positive relationship between growth and both long-term and short-term debt ratios in Malaysia. Myers (1984) suggests that issuing debt secured by collateral may reduce the asymmetric information related costs in financing. The difference in information sets between the parties involved may lead to the moral hazard problem (hidden action) and/or diverse selection (hidden information). Hence, debt secured by collateral may mitigate asymmetric information related cost in financing. Therefore, a positive relationship between tangibility used as a proxy for information asymmetry and financial leverage may be expected.

Titman and Wessels (1988) and Rajan and Zingales (1995) report a positive relationship between tangibility and leverage for developed countries, whilst Wiwattanakantang (1999) and Um (2001) report a positive relationship between tangibility and leverage for Thailand and South Korea, respectively. The impact of information asymmetry on the value of the firm and its instruments has received extensive discussions in the literature. Scholars like Clarke and Shastri (2001), Myers and Majluf (1985) and Grossman and Hart (1981) have made concerted efforts to prove that ignoring information asymmetry in corporate decision of financing and investment can lead to negative impact on the firm. Also Easley and O’Hara (2004) argued that a firm’s cost of capital can be influenced by the presence or absence of information asymmetry. Much as information is vital to every decision making process, it is necessary that the required information is obtained at the appropriate time and the content of the information is understood for optimal decision making by the user of the information.

According to Akintoye and Ashaolu (2008) in recent times, governments of emerging markets have made enormous efforts in attracting foreign investments to their economies. All the efforts may amount to nothing if the issue of information asymmetry remains unaddressed. Information asymmetry is a problem that needs to be addressed in equity pricing if the emerging market must attract needed funds through the capital market. Many of the models available for pricing equity assumes perfect market environment without considering time variation in information available to investors. Javed (2000) developed a conditional capital asset pricing model from the work of Sharper (1964) that aims to price assets in the presence of “conditional lagged information variables". The model which was tested in Pakistan’s stock market by Javid & Ahmad (2008) did not incorporate measures of asymmetry information. According to Lensink and Sterken (2000) one of the defects of Capital Asset Pricing Model is the assumption of information homogeneity for all investors. This is untrue in real life. Investors possess heterogeneity of information which means different investors possess varying degrees of information. Where market players possess varying levels of information in terms of quantity and/or quality then there is the presence of information asymmetry and in such a situation market players tend to perceive the same product differently. Rothschild and Stiglitz, (1976)
Leland & Pyle, (1977) in their studies notes that asset pricing is a dual function of the ask–bid price offers. The seller or the buyer makes an offer subject to available information about the asset and the market. The extent and quality of information at the disposal of the buyer and/or seller determine the quality of the pricing decision to be made. As a matter of fact, just as information is critical in decision making in the financial market, so also is information asymmetry in the financial market. Biais, Bossaerts and Spatt (2005) did a theoretical and empirical analysis of the implications of information asymmetry for equilibrium assets pricing and portfolio selection. They discovered that investors’ portfolios are a reflection of the information at their disposal and uninformed investors derive information from market prices. The finding of Biais, Bossaerts and Spatt (2005) that uninformed investors derived information from asset prices agrees with common reasoning that asset prices are determined based on available information about the asset.

According to Yang and Wu (2002) in their study notes that information disclosure is vital for effective operation of the securities market and an important tool for the reduction of information asymmetry between market players. They attributed the rise in the demand for increasing information disclosure by investors to the presence of asymmetric information. Masulis and Nahata (2007) implied an inverse relationship between level of information asymmetry and the market prices: as the former decreases the latter increases. Halov & Heider, (2003) Loughran, (2008) notes further that problems of information asymmetry are not restricted to investors alone. Firms seeking external finance also face the same problems of information asymmetry. Companies seeking funds from the capital market face the problem of information asymmetry as fallout of asset mispricing and to avoid such problems they prefer to seek internal financing, and where they have no choice, preference is given to debt over equity. In the same vein, Beasley, Pagach and Warr (2007) drawing from the works of Myers (1984) and Myers and Majluf (1985) and in agreement with Song (2005) argued that firms with higher growth potentials face higher level of information asymmetry regarding future performances which may lead to financial distress for the firm. During financial distress growth potentials are more likely to be underpriced limiting the chance and creating higher costs to raise additional funds from the capital market to fund viable growth opportunities as a result of information asymmetry. The effect of information asymmetry on asset pricing between issuers and investors could be devastating. Underwriters are usually engaged by issuers of equities to reduce the impact of information asymmetry (Loughran & Schultz, 2006).

The work of Moerman (2006) appears to be the only extensive attempt to examine the impact of information asymmetry on asset pricing with focus on debt though, Akintoye and Ashaolu (2008) argue that there is a direct relationship between individual market operators’ interpretation of market information and the trading volume. Moerman (2006) examined whether loan pricing is subject to information asymmetry between the lenders and borrowers in the primary market or by traders in the secondary market. He discovered that uninformed debt issuers increase debt prices (interest rates) and that asymmetry has a significant impact on debt pricing regardless of whether or not it is anticipated to be traded in the secondary market. In fact, Cheung and Krinsky (1994) argue that underpricing occurs in an environment of information asymmetry. In line with studies that have used tangibility as a proxy for information asymmetry, Um (2001) suggests that firms with high levels of tangible assets will be in a position to provide collateral for debts. If the company then defaults on the debt, the assets will be seized but the company may be in a position to avoid bankruptcy. It is expected, therefore, that companies with high levels of tangible assets are less likely to default and will take on relatively more debt resulting in a positive relationship between tangibility and financial leverage. While the majority of empirical studies in developed countries (Titman and Wessels, 1988; Rajan and Zingales, 1995, among others) find a positive relationship between tangibility and leverage, the empirical studies in developing countries find mixed relationship. For
instance, whilst the work of Wiwattanakantang (1999) in Thailand, and work of Um (2001) in Korea report a positive relationship between tangibility and leverage, other studies such as Booth et al., (2001) in ten developing countries, and Huang and Song (2002) in China, find that tangibility is negatively related to leverage. It is argued, however, that this relation depends on the type of debt. Nuri (2000) argues that companies with a high fixed asset ratio tend to use more long-term debt. Bevan and Danbolt (2000 and 2002) also find a positive relationship between tangibility and long-term debt, whereas a negative relationship is observed for short-term debt and tangibility in the UK.

Antoniou et al., (2002) argue that several studies find that the size of a firm is a good explanatory variable for its leverage ratio. Bevan and Danbolt (2002) also argue that large firms tend to hold more debt, because they are regarded as being ‘too big to fail’ and therefore receive better access to the capital market. Hamaifer et al., (1994) argue that large firms are able to hold more debt rather than small firms, because large firms have higher debt capacity. According to Bevan and Danbolt (2002) the information structure of a firm refers to the three categories of information within a firm: that subject to mandatory disclosure, that which is voluntarily disclosed, and that which is undisclosed. Of the information that is disclosed, managers can either publish news through a public channel or they can release news to privileged groups through a selective channel. Evidence suggests that voluntary public information can reduce the level of information asymmetry among market participants, and thus can help to form a sound and efficient market. Analytically, Barry and Brown (1985), Diamond (1985), Diamond and Verrecchia (1991) and Kim and Verrecchia (1994) argue that more information generally reduces information risk on prices; likewise voluntary disclosure serves to reduce information asymmetry among traders. In an empirical study, Healy (2003) Leuz and Verrecchia (2000) and Welker (1995) investigate links between voluntary disclosure and capital market liquidity. Their findings are mixed. While Welker and Leuz and Verrecchia find that firms with better quality disclosure have lower bid-ask spreads, Healy find that firms with a larger amount of disclosure have significantly higher bid-ask spreads. In addition, Botosan and Plumlee (2002) test the capital market effect of voluntary disclosure on the cost of capital, and they find that the cost of capital decreases with more disclosure. Trabelsi et al. (2004) and Trabelsi et al. (2008) study the performance pattern and incentives of internet financial reporting, and find that internet disclosure helps to reduce analysts’ forecasting error. Most (but not all) of the above evidence is consistent with the idea that public voluntary disclosure serves to reduce information asymmetry and information risk.

On the other hand, there is not much documentation on the capital market consequence of private information. Admati (1985), Wang (1993), Dow and Gorton (1995) and Easley and O’Hara (2004) all model the activities of informed and uninformed traders, and they find that because of the different degree of available information, informed traders and uninformed traders invest in different portfolios. Specifically, informed traders construct their portfolios on the efficient frontier associated with their superior information. Since uninformed traders have inferior information, they cannot “replicate” the informed traders’ portfolios, thus their portfolios will always locate below the informed traders’ efficient frontier. As selective disclosure causes information asymmetry to arise between these two parties, it makes informed traders better off at the expense of uninformed traders. Ataise and Bauber (1994) have argued that analyzing the total volume traded in the capital market helps to understand the effects of information asymmetry and how the market assimilates information. Investigating the market turnover is likely to yield insight into the influence of information asymmetry on price volatility and trading volume resulting from Information disclosures. According to chae (2005) trading volume tends to exhibit downward trends prior to scheduled announcements and then exhibits upward trends after such scheduled announcements. Easley and O’Hara (2004) develop a framework to consider both public information and private information together. They provide
an analytical model to demonstrate how a firm’s information structure affects its capital market behaviour. Their finding suggests that for stocks with more private information and less public information, uninformed investors require a higher rate of return as compensation because more private information increases information asymmetry and the information risk uninformed investors face.

4. DISCUSSIONS

4.1 INFORMATION ASYMMETRY AND CORPORATE FINANCING DECISIONS

Studies such as Soar, (2001) Chakravart, Sarkar and Wu, (1998) Aydogdu and Shekhar (2005) Bardong, Bartram and Yadav (2006) Moorman (2006) Chan, Meakveld and Yang, (2006) are of the view that equity is the best option in corporate financing decisions especially with regards to external financing when information asymmetry is high. The argument expressed by Stiglitz and Weiss (1981), Daniel and Titman (1995), Demeza and Webb (1987), and Giannarino and Neave (1982) is that where lenders observe that a firm’s managers possess better information about the risk of a potential investment project, the interest rate goes up to compensate for the undetermined level of assumed risk and uncertainty. In a nutshell, information asymmetry has modulating effect on the corporate decision with regards to financing options. Understanding this issue is important for corporate financing decisions in Nigeria since equity is the most traded instrument on the Nigerian capital market as it constitutes above 60% of the market operations (Akingunola, 2005).

According to Rosser (2001) Ciner and Kalaguzgulu (2004) Oluba (2008) and Murray, (2008) information asymmetry has been identified as one the challenging facing emerging markets and especially where the market is found to be exhibiting weak efficiency. In their arguments, even with capital markets liberalization, the information symmetry assumption of liberalized market may not often hold and this results in information cost and hinders the efficient allocation of financial resources. In other words, Stiglitz and Rodrik (2005) note that market failure imply its inadequacy to allocate resources efficiently arising from asymmetry information. The market can capture fluctuations in information asymmetry through the adjustment of stock price.

Prominent scholars who subscribe to the preference of debt over equity in the presence of asymmetric information are Myers (1984) and Myers and Majluf (1985) who felt that managers tend to protect the existing shareholders if new issues would be underpriced by new investors. They argued further that firms would prefer internal financing in such an instance and where such seems unattainable the next option would be the issuance of redeemable debt followed by convertible debt, the last resort being the issuance of equity. This is the pecking order theory in which firm managers are believed to be acting in the best interest of the existing shareholders. Managers are perceived to have more information than the investors. The pecking order theory suggest that a firm should finance its operations in order of internal funds (capital and general reserve) before resorting to new debt and new equity issues. In all cases equity issues should be the last option. Pecking orders helps managers to avoid adverse selection that may arise from underpriced stocks by uninformed investors (Myers, 1984; Myers and Majluf, 1985: Jalal, 2007).

This class of argument contradicts the position of Jung, Kim, and Stulz (1996) in their agency model which suggests that firm managers would always act in conflict with the interest of the shareholders where their own interest is involved. Similarly, Frank & Goyal (2003) believe the concept of pecking order is relevant to large firms seeking additional funding rather than smaller firms.
Lemmon and Zender (2004) expressed the view that a modified pecking order that considered financial cost of distress can be used to explain a firm's financing behavior. Fama and French (2005) disagree with Lemmon and Zender (2004). Also Bharath, Pasquariello & Wu (2008) argue that deficiency in the pecking order has to do with information asymmetry between the firm managers and the investors. Interestingly, Jung, Kim, and Stulz (1996) disagreed with the view expressed by Bharath, Pasquariello & Wu (2008). Um (2001) in a study of Libyan firms argues that growing companies’ funding pressure for investment opportunities is likely to exceed their retained earnings and, according to the ‘pecking order’ are likely to choose debt rather than equity.

Much as information is vital to every decision making process, it is necessary that the required information is obtained at the appropriate time and the content of the information is understood for optimal decision making by the user of the information. Masulis and Nahata (2007) note that companies seeking funds from the capital market face the problem of information asymmetry as fallout of asset mispricing and to avoid such problem they prefer to seek internal financing, and where they have no choice, preference is given to debt over equity.

5. CONCLUSION

Available evidences suggest that a preponderance of corporate failure cases recorded in the last decade were attributed to insider trading and non-disclosure of adequate information by the corporate chief executives. The Nigerian banking sector had a fair share of these corporate managers’ malfeasances; where the chief executives of the collapsed banks withheld vital information from investors. The Nigerian economy has since not recovered from the debility of this fiasco. Kudos to the Central Bank of Nigeria for the revelation. However, a lot still needs to be done. Corporate managers should consciously remind themselves of their contract with the resource owners; and constantly act in the best interest of their principals. This is because the consequences that are characteristic of asymmetric information could debilitate investors’ confidence, while spelling doom for the economic growth and development. This may even be more for an emerging economy like Nigeria. Therefore, the various regulatory agencies should put a corporate governance framework in place and implemented effectively to detect information asymmetry prosecute those found culpable.

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