Paradox of Corporate Board Diversity Benefits of Quoted Nigerian Firms: Financial Report Reliability-Timeliness Quality Perspective

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Abstract:

Board diversity attracts resources for higher corporate performance. But, it can also promote uncertainty that creates diversity paradox often at the expense of investors. This study examines the board diversity timeliness effect and the earnings reliability paradox using evidence from 74 Nigerian quoted firms for the period between 2000 and 2018.

The study used secondary data and ex-post research design while data were analyzed with both multiple and multivariate regression tools in a two-stage model. We found that board size, audit, and board leadership diversity positively and significantly affect timeliness. However, the timeliness effect is insignificant for professional diversity (coefficient = 0.0599; p-value > 0.05). Gender diversity yielded negative significant effect on timeliness. In diversity paradox, we found a significant trade-off and diversity paradox between timeliness and reliability as gender diversity, professional diversity and audit diversity of corporate boards increase. However, board size diversity and board leadership diversity move in positive direction thus mitigating the paradox in board diversity. Thus, we recommend that board should be selective in modeling board diversity. Focus should be on board leadership and board size diversity.

Keywords: leadership; diversity; corporate governance; gender; paradox; professional skills; reliability; timeliness quality.

JEL Classification: M41; M48; G34.

Introduction

Corporate board diversity has continued to attract shareholders' and researchers' interests with some arguing that several past corporate failures had a link with poor diversity in boards (Lemus 2014, Wong, Cho, Lo 2015). The faulty governance structure must have permitted fraud and financial statements' manipulations (Nindito, Avianti, Koeswayo and Tanzil 2019). Firms are thus being urged to embrace the benefits of board inclusiveness including achieving financial statements' reliability and timeliness properties. Board diversity could enhance firms' absorptive

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capabilities-an idea Mubarok and Widodo (2019) believe it could lead to higher corporate innovation performance. As a motivation, corporate investors place premiums on stocks of firms that are diversifying their boards (Zhang and Wiersema 2009). However, it is not yet clear whether higher level of corporate diversity could decrease reliability quality of financial statements. Higher board diversity could increase earnings persistence because it possesses the potential of minimizing agency problem. At the same, it can be expected that diversity could lead to higher publication time lag that could reduce timeliness character of financial statements. It is important to understand this potential relationship to achieve balance in diversity benefits.

Therefore, this study examined the effect of corporate board diversity on financial statement timeliness and reliability. The study ascertains if an enhancement of firms' reporting timeliness through board diversity leads to reliability quality trade-off. The essence of the investigation is to understand the level of board diversity that could increase timeliness but would not harm financial statement reliability. Several studies have investigated the effect of corporate board diversity on the timeliness of firms' financial statement for example Alsmady (2018), Clatworthy and Peel (2010). However, though the studies found a link between timeliness and board diversity, it was not clear in the study if the increasing timeliness through board, gender or professional diversity leads to reliability of financial statements trade-off. This present study tried to establish a balance between timeliness and reliability through corporate diversity mechanism.

The idea that diversity has a potential trade-off has been examined in other related profession. For example, in Social Psychology, uncertainty-identity theory indicates that an abnormality could occur between society's desire for diversity and people's preference to associate with like-minded colleagues (Hackett and Hogg 2014). In general, such anomaly is a diversity paradox. Diversifying corporate boards is beneficial but such firms could also suffer from diversity paradox. When one group of board members with idiosyncratic attitudes takes decisions in the boards, the ideas might be disliked by the other like-minded opponent board members. Unless the group like-minded opponents are in the minority, they may succeed in debating and prolonging good ideas unnecessarily. In an escalated condition, some good ideas may entirely be stopped.

From accounting perspective, diversity paradox could occur and the effect substantial. For example, diversity paradox could affect the reliability-timeliness quality of financial statements. Reliability and timeliness are both fundamental and enhancing qualitative characteristics of financial statements respectively and ought to be well-balanced to mitigate the risk of trade-off. In this regards, board diversity could lead to good ideas that would result in producing reliable financial statements. Increment in good ideas following board expansions could help in detecting errors and discovering frauds. Financial statements with less reported errors are highly persistent, predictable and reliable, which are good for forecasting future cash flow with some degree of certainty.

However, as firms diversify to achieve reporting reliability and financial statement completeness, more time would be taken, conflicts of opinions could escalate and items methodological treatment divergences may emerge, which may lead to delay in financial statement publication. Such delay impacts financial statements timeliness usually negatively. If financial statements lose timeliness, they lose their usefulness (Ewert and Wagenhofer 2015). Achieving reliability and losing timeliness is not good for investment decision. Consequently, as board diversity paradox increases, it could influence how shareholders make decision with reported financial statements. Often, such paradox effect could lead to adverse portfolio selection, which has far reaching effect on shareholders' wealth growth. Balance in diversity is likely an ideal model for mitigating the potential paradox, and achieving corporate and societal sustainability.

Despite the paradox reality and need for a balance, there has been a significant emphasis and rhetoric on the value enhancing nature of corporate board diversity (Baatwah, Salleh and Stewart 2019, Ntim 2015) in which case industry leaders, researchers and market participants seem to place a premium on firms with board diversity models (Alqatan 2019, Niu and Chen 2017). Some literature associates previous corporate failure to poor board diversity (Lemus 2014, Wong *et al.* 2015) and thus believes that higher performance and sustainability could be achieved by corporate board diversity (Alqatan 2019). Research supports the fact that ideas that could mitigate risk of corporate failure are often shared in an inclusive effective board. Diversified corporate governance board enhances shareholders' trust and positively impacts firms' stock prices in the market (Zhang and Wiersema 2009), which explains why shareholders vote for firms with good diversified boards. By placing a premium on the stocks of board- diversifying firms, investors keep demanding that boards should maintain diversity model.

In terms of performance, the general belief is that diversified boards would be able to attract boards of wider experience through human resource and social capital network, which in turn would promote financial statement reliability. Reliability could be achieved because by bringing expertise in the boards through social and human capital networking, serious error likely to harm the firms' sustainability could be easily identified. In addition, complicated fraud could be intercepted and uncovered where it has occurred. It is also suggested that diversified boards bring innovation and creativity which enable firms to withstand competitive pressure and become relevant in the industry. Diversified boards increase firms' intellectual capital, which has positive effect on performance (Boedi, Nirwanto, Subiyantoro and Kiswanto 2019) Some evidence strongly links board diversity with reporting quality and found mixed-attribute board model as a mitigation against transitory earnings and timeliness (Asogwa, Ofoegbu, Nnam and Chukwunwike 2019, Egbunike and Odum 2018, Alsmady 2018, Clatworthy and Peel 2010). Overall, board diversity is seen as a board governance model that concurrently enhances financial reporting reliability and timeliness. This may not always be so: There could be diversity paradox potential between achieving reliability and timeliness.

Unfortunately, the above interesting studies which emphasis the benefits of diversity failed to acknowledge and investigate the reality of board diversity benefit paradox-a case whereby as firms try to maximize all the benefits of board diversity including financial statement reliability, timeliness quality of financial reports could get traded-off. Similarly, as firms try to achieve higher timeliness value of financial report, reliability quality of the financial statements may decrease significantly at the detriment of potential investors. Achieving timeliness of financial statements is very vital and could be easily realized with less diversified boards. If accounting information lacks timeliness, the financial statements can be of less or no relevant to the users. Evidence shows that financial information potentially loses relevance with age and extended delays in the availability of financial statement information render the information less useful for economic decision making (Clatworthy and Peel 2010). Less diversified boards could reduce the degree of board argument and thus enables quick publication of financial statements. In designing diversified boards, this paradox needs to be taken into consideration to avoid paying diversity hidden cost which could lead to corporate failure.

The rest of the study is organized into three sections namely section 2, section 3 and section 4. Section deals with review of the related literature. In section 3, we focused on the research methodology and design. Finally, in section 4, the result was discussed.

1. Review of Related Literature and Hypothesis Development

1.1. Theoretical Review and Board Diversity

One of the key theories explaining the link between corporate governance and board diversity is the agency theory. In this theory, the principals and the agents have different interests which would lead to the conflict of interests (Jensen and Meckling 1976). To mitigate this conflicting interest, the principals have to hire the second party to control the agents. The idea is that the second party (the boards) would run the business to the best interest of the shareholders. The shareholders believe that as the member of the boards increases, their interest would be better represented with reduced information asymmetry (Ramzi 2009). Such increment in the board membership enhances board diversity and would most likely solve agency problems (Rowley Shipilov and Greve 2017). However, increase in board representation to solve agency problem can result in financial statements' timeliness trade-off because of many opinions which would have to be accommodated and the lengthy arguments that may follow (Liu, Wei and Xie 2014). However, agency theory majorly links the principals and the agents and does not provide explanation for the boards' behavior that influences firms' performance and financial statements' quality.

Board diversity also has an underlying foundation in the resource dependency theory of corporate governance, which emphasizes that organizations should be allowed to tap a variety of available community resources and experiences in order to run their businesses more effectively. Resource dependency theory defines the effect of resource acquisition on the behavior of firms (Hillman, Withers and Collins 2009). In this sense, the theory suggests that in order to acquire societal resources, the organizations must have links with their environment (Pfeffer 1982). Thus executives serve as a nexus between the organizations and the external resources. In boards that diversify, they can tap the resources to advance their goals. Thus, to diversify in terms of gender, professions, and nationality, firms must have a link with the societies' resources (Alqatan 2019). Such a society resource dependent firms will promote greater insight into markets, customers, employees, accounting issues and investment opportunities for better business performance (Hillman *et al*. 2009). Thus, firms could only diversify if they depend on their environment.

Further explanation of the link between corporate board diversity and timeliness of financial statements is that based on human capital theory. Human capital theory is based on the assumption that formal training is helpful and vital in the improvement of productive capacity of the population (Gibbons and Waldman 2004). This means that educated population is a productive and efficient population as such class of people can increase their cognitive stock of economically productive capability. Thus having boards with diverse members such members from different nationalities and educational background brings directors with special human capital as explained by Burgess and Tharenou (2002). The consequence is always better corporate governance that would result in better financial performance and reporting quality (Adams and Ferreira 2009). Similar to resource based theory; desire to attract larger boards with high quality human capital may result in the boards with controversial persons. The potential controversy would likely tamper with the financial statements' timeliness relevance.

Another important theory that has explained the need for board diversity is the social capital theory. This theory can be seen according to Sealy and Vinnicombe (2007) as all the assets or resources that groups or entities gain and accrue as a result of long standing networking, institutional relationship and shared contract. The benefit can be direct, or indirect, real or intangible. Social capital is a social network advantage and assets. This theory backs diversity because it is through social networking that an organization can bring in directors with social capital (Niu and Chen 2017). Firms of gender diverse vision would most likely perform higher than single gender board. This is because according to Luckerath-Rovers (2011), both genders have different social capital wealth that can impact firms' performance and reporting behavior differently.

1.2. Empirical Review

This empirical review cuts across corporate governance, board diversity and all reporting quality proxies thus, we did not limit the review to only timeliness quality effect. Research on corporate governance and earnings quality is always being considered from different governance mechanisms and proxies of earnings quality such as predictability, persistence, discretionary accruals, value relevance and timeliness. First, the study reviewed literature that dealt with governance mechanisms and timeliness quality. Second, the study reviewed literature that has to do with corporate governance and earnings quality.

Alsmady (2018) examined the board of directors' characteristics and ownership type on the timeliness of financial reports. The study examined CEO duality, board size, the proportion of women on the board, the proportion of CEOs on the board, foreign ownership, and non-foreign ownership as key directors' attributes and board characteristics. The authors studied 68 annual reports of firms listed on Amman Stock Exchange between 2011 and 2015. The study found that the proportion of women in the board has significant effect on the timeliness of financial report. The study found that the company age and size have negative effect on timeliness of firms' financial statements. The author found that foreign ownership has positive effect on timeliness, while the non-foreign ownership has a negative effect on financial statements' timeliness. However, the study found that management ownership has no significant effect on financial statements' timeliness.

Clatworthy and Peel (2010) used a large sample of UK private companies to investigate whether corporate governance characteristics impact upon the timeliness of financial reporting information. After they have controlled for various firm characteristics, they found that corporate diversity enhances financial reporting timeliness. Their analysis showed that the presence of a professionally qualified accountant on the board, the proportion of women on the board, the size of the board and the presence and quality of an auditor all enhance financial reporting timeliness.

Dyer and McHugh (1975) investigated the determinants of the reporting lag for 120 Australian companies listed on the Sydney Stock Exchange. The study found evidence that among other things larger companies are associated with higher delays due to the economies of scale in preparing financial statements. However, they found no evidence that more profitable companies are associated with timelier reporting due to bad news taking longer to be disclosed. Whittred (1980) study discover that companies in Australian that received 'first time' audit qualifications are significantly associated with longer reporting lags compared to firms that have clean audit reports. The study also found that the more serious the qualification is the longer the reporting delay time. Owusu-Ansah (2000) study of 47 companies listed on the Zimbabwe Stock Exchange, found that corporate size, profitability and age are associated with variation in financial reporting timeliness. The study however, found no evidence of the influence of gearing on financial statement gearing on timeliness. Leventis and Weetman (2004) find that proprietary costs, information cost savings and the extent of favorable or unfavorable news disclosures contained in the information are all factors influencing reporting lag of Greek listed firms. The study found public issue of shares, change in profitability, industry concentration and the number of remarks in audit reports to factors significantly influencing financial reporting timeliness. In terms of multinational and domestic companies, evidence from Lee, Mande and Son (2008) shows that the audit delay is more significant for multinational firms because of their more complex business nature.

Having dealt with above literature that directly investigated the impact of corporate governance on timeliness, we shall focus this section on the generally study of corporate governance diversity on earnings quality. These other proxies of earnings quality emphasize the effect of corporate mechanisms on the reliability of financial statements.

Man and Wong (2013), Xie, Davidson and DaDalt (2003) and Ramzi (2009) the effect of corporate governance on earnings quality. Their empirical evidence shows that board size limits the ability of the board to monitor effectively managers' practices and then limit their accounting information bias. Specifically, Xie *et al.* (2003) and Peasnell, Pope and Young (2005) found that that having a larger board is associated with less earnings management because it encourages diversification of board members and ideas. Their conclusion is that board diversity increases earnings quality. However, Mashayekhi and Bazaz (2008) and Klein (2002) found a contrary empirical result. They showed evidence that larger board size results in weaker earnings quality. Their evidence changed with higher independent directors and frequencies of board meetings as such mechanisms improve earnings quality. However, it seems the effect depends on the measure of earnings quality. For example, when earnings quality is measured by discretionary accrual, Mashayekhi and Bazaz (2008) found that board size positively affects earnings quality inconsistent with (Klein 2002). Ismail (2011) discovered that board size is positively associated with nonfamily firms and negatively associated with the board size.

Yasser and Almanu (2015) provide evidence that unitary or dual leadership structure has no impact on public listed companies' performance and reporting quality. They also found that female CEOs negatively impact on firms' performance and reporting quality in Malaysia and Pakistan consistent with Hili and Affes (2012)'s France evidence that earnings persistence is not enhanced by the presence of women directors on the board. Similarly, Damagum, Oba, Chima and Ibikunle (2014) found evidence that the presence of women in the board did not lead to financial reporting credibility in Nigeria. However, Gavious, Segev and Yosef (2012) found that earnings management decreases when either CEOs or the Chief financial officers are women and found positive relationship between the ratio of female to male in the board and firms' value. Consistently, Kreder (2016)'s US evidence shows that the relationship between gender and the quality of earnings is positive and that as the proportion of women in the board increases, the credibility of financial reporting improves.

Baatwah *et al.* (2019) used a sample of Malaysian firms and found that the audit committee chair with accounting experience is associated with a reduction in audit delay, which could enhance credibility in reporting though the evidence was more pronounced when the chair is a shareholder of the firms. Nelson and Devi (2013) investigation show that the presence of non-accounting experts and accounting experts is significant to minimize accrual manipulations. Hutchinson, Percy and Erkurtoglu (2008) used Australian sample and found that board independence and audit committee independence negatively influenced performance-adjusted discretionary accruals. Marzuki, Abdul Wahab and Haron (2016) found that the revised Malaysian Code on Corporate Governance enhances earnings conservatism and that audit committee financial expertise and independence positively influenced earnings conservatism. They also found that board financial expertise mix affects conservatism. Iyengar, Land and Zampelli (2010) analysis shows that significant negative association exists between reported earnings quality and the proportion of CEO incentive pay and that board independence does not seem to be associated with earnings quality, thus suggesting that the emphasis on board independence as an effective monitoring device may be misplaced. Suyono and Al Farooque (2018) found that 'institutional ownership, managerial ownership and independent boards have a significant deterrent effect on earnings management, which invariably could translate into reporting quality. Lu, Christensen, Hollindale and Routledge (2018) found in UK that compliance with the code improved investee companies' earnings quality. Demirkan and Platt (2009) investigation shows that corporate governance affects managers' decisions to use discretionary accruals and thereby artificially influence company financial reports. They found the effect of governance index on accrual to be positive as strong governance appears to minimize the incidence of mid-range firms engaging in accruals management. Habib and Azim (2008) Australia evidence shows that firms with strong governance structure exhibit higher value-relevance of accounting information and provide support that significant regulatory reforms regarding corporate governance around plays a key role in ensuring credible financial reporting. Yasser and Al Mamun (2016) found with Asian-Pacific evidence that the relationship between CEO duality attributes and earning management is not significant and is not associated with firm financial reporting quality. They found that unitary leadership pattern has no significant effect on companies in the Asia-Pacific. Baatour, Othman and Hussainey (2017) found that the effect of multiple directorships on accrual-based earnings management and real earnings management in Saudi Arabia is positive on earnings quality while the effect is insignificant on discretionary accrual. Jouber and Fakhfakh (2014) used a panel of 1,500 American, Canadian, British, and French firm-year observations found that firms from countries within the Anglo-American corporate governance structure, which provides greater protection of shareholder rights, and enhances strict enforcement of law scores high on board oversight and tend to maintain lower degree of discretion over earnings. Chambers and Payne (2011) found that accrual persistence increased significantly in the post-SOX period and that post-SOX the firms audited by Big-N auditors with lower-independence yielded the highest improvement in accrual persistence. Alzoubi, (2016) sample of 62 companies listed on the

Amman Stock Exchange showed that insider managerial ownership, institutional ownership, external block holder, family ownership and foreign ownership yield greater effect on financial reporting quality. Egbunike and Odum (2018) found that board size and board composition positively and significantly affected earnings quality in Nigeria for selected manufacturing firms. They found that the proportion of non-executive directors was negative and significant; while, CEO duality was significantly positive. Siagian and Tresnaningsih (2011) found that both discretionary accrual and earnings response coefficients improved significantly after firms acquire independent directors and independent audit committees in Jakarta. Yo (2009) used a pooled-OLS and found that earnings quality depends on the background of outside directors in Korea. According to the researcher, there is negative relationship between outside directors having high profile background and earnings quality for instance politicians, and lawyers. This relationship also holds for outside directors, who are professors and foreigners. However, his result shows that outside directors, who are finance expert and former employees are positively associated with earnings quality. Liu, Harris and Omar (2013) found that the separation of the office of CEOs, and the board chairperson positively associates with discretionary accounting.

Based on the broad review, it was found that most researchers focused on the effect of diversity on firms' earnings quality and performance. There was no study that dealt with the effect of board diversity on financial information timeliness in Nigeria and the extent diversity enhances reliability by trading off timeliness quality of financial statements. Moreover, we found evidence that the effect of board diversity on earnings quality is context specific, which means that it can depend on the setting of the study. As such, evidence in developed countries cannot substitutes for evidence in the developing countries thus making this study very important for investors in developing countries.

1.3. Statement of Hypotheses

1.3.1. Board Size Diversity and Timeliness

The board in corporate governance is charged with the responsibility ensuring that the organization is run in the best interest of the investors and other relevant stakeholders. Thus, they minimize agency conflict and reduce agency cost. One of the key roles of the board is to ensure that firms issued out financial reports that are free and fair. Such a statement would be regarded as quality and when it was published within the expected time, it would be normally regarded as timely. Generally, earnings quality depends on corporate board size, which also implies that timeliness of financial statements could depend on board size diversity. In this case, as the board size increases earnings quality in terms of timeliness could increase. Corporate governance best practices codes encourage firms' effectiveness through board diversity. The argument of the agency postulation is that managerial incentives to bias accounting report for selfish interest could be limited by the presence of the several third parties in the form of monitoring boards. Increasing board size is an effective corporate governance mechanism for achieving such effectiveness including reporting quality (Man and Wong 2013). Increasing board effectiveness through board diversity is backed by resource dependency theory. In connection with board size earnings quality relations, the theory maintains that the presence of board members connects the business with its environment and reduces business operational risks. Thus, the expansion of the corporate board would connect talents from the environment that could encourage higher performance, reporting quality and timely reporting (Rowley *et al.* 2017, Hillman *et al.* 2009, Sealy and Vinnicombe 2007). It can thus be implied that monitoring effectiveness increases with the board diversity. As such, evidence shows that corporate organizational board plays the monitoring roles that could influence accrual quality (Kukah, Amidu and Abor 2016). In addition, compliance will increase with large efficient boards as they make sure that managers follow the established control measures in running the business affairs.

It can also be argued larger board size could play key role in the reduction of fraudulent behaviour of managers (Imoniana, DeFeitas, and Perera 2016). This is because the chances of fraud detection would increase and the professional diversity increases with board increment. Empirical evidence has also supported the idea that the ability of the board to monitor effectively to limit the accounting information bias depends on the size or composition of the board (Man and Wong 2013, Ramzi 2009). Xie *et al*. (2003) highlight that having a larger board is associated with less earnings management. This is because diversifying in term of board membership brings useful skills and monitoring ideas that could help in running the business in a more effective way than when the business is directed by just one or few people (Yusoff and Idris 2013). However, Lehmann (2016) maintains that even the strongest boards in terms of board size can be associated with low earnings quality. In this regard, it is argued that increasing the board membership may result in having many external board leaders who may not rise to the challenge of the firms because they do not have the real knowledge of the firms like the managers. Mashayekhi and Bazaz (2008) used discretionary accrual, earnings predictability and earnings persistence as dependent variables, and found that a larger board size results in weaker earnings quality and an increase in the number of independent directors and frequency of board meetings add value to firms' earnings quality status. In the same way, Mashayekhi and Bazaz (2008) found that a significant positive correlation occurred between board size and financial performance. The researchers confirm the argument that a larger corporate board representation yields more valuable resources to organizations. Consistent with this, Xie *et al*. (2003) make case that big boards in terms of representation are well equipped in terms of knowledge mix. The consequence is that better monitoring is being enhanced. Mashayekhi and Bazaz (2008) suggest that larger board size makes monitoring less efficient because corporate communication will be less efficient, which translates into poor accounting information. Nkanbia-Davies, Gberebge, Ofurum and Egbe (2016) found that there was a positive relationship between board size and accrual quality, which indirectly impacts timeliness quality. There exists positive relationship between board size and accrual quality (Peasnell *et al*. 2005). However, Klein (2002) shows that board size and independent do not influence abnormal accruals positively. Ismail (2011) follow a partial multi-proxy approach and discover that board size is positively associated for nonfamily firms' earnings persistence and earnings value relevance. Egbunike and Odum (2018) also confirmed this empirical evidence when they found that board size and board composition positively and significantly influenced income quality in Nigeria for selected manufacturing firms. Based on this, we postulate the following hypotheses:

H1: Board size diversity does not affect timeliness of financial statements significantly.

1.3.2. Board leadership Models, Professional Diversity and Timeliness Quality

Board leadership structures play a vital role in influencing firms' level of earnings quality. However, this effect is limited by attributes of board leaders in terms of professional experience. Resource-dependency theory highlights that, firms can tap societal resources to influence their performance. This brings about diversification in the boards of companies. In this case, board can be enriched by members with special skills such as accountants, lawyers, religious leaders, engineers and those with innovative minds. These leaders have certain objectives for entering the boards. Sometime their desire conflicts with overall goal of firms and the investors, thus increasing agency conflicts. As the board size increases, attributes compositions keep changing. On one hand, such a change could enhance control mechanisms by increasing the monitoring intensity. On the other hand, such diversification could bring in members with moral lapses and opportunistic tendencies, which could negatively impact on governance effectiveness thus leading to poor credibility in financial reporting.

This study postulates that the effect of board duality on earnings quality including on timeliness are a function of leadership characteristics and professionalism. It is reasonable to argue that if the board chairman is a financial expert and a chartered accountant; duality might influence accrual management negatively, thus improving the overall firms' earnings quality including timeliness. This is because the board chairperson would still be in a position to bridge any likely knowledge gap that would arise for not being actively involved in the corporation accounting system. We argue that playing insider role would likely give one insight into firms' accounting processing system. Board chairpersons are not usually insiders and thus, may not have the first class information on the accounting processes. CEOs are normally experienced in the financial systems. They also play the insider deals and occupy a privileged position of preparing financial statements. As such, they can use both their position and expertise attributes to manipulate financial documents in their favour (Ramzi 2009), which would affect timeliness. However, since, the board chairpersons are resource experts in financial reporting; there is a high likelihood of detecting reported accounting abnormalities and manipulations usually associated with the opportunistic management. In this case, it might not be surprising that board leadership structure such CEO duality could improve firms' earnings quality in terms of timeliness.

However, if the board chairpersons are not experts in financial reporting relative to authoritative and experienced CEOs, such a separation could result in accrual management that would undermine earnings reporting timeliness. This is because the board chairman is likely going to play a novice role in financial reporting processes, which could lead to delay. Therefore, although the CEOs would not be able to play a domineering influence in the board meetings, the board chairpersons are likely going to submit to their financial professional expertise. And since the board chairpersons are not experts in the corporate accounting systems, the material irregularities in the reported earnings would likely not be detected and mitigated easily. As such, professional diversity might still not play an earnings management constraining role in these kinds of organizations. Therefore, overall, it is plausible to postulate that the dominant attributes of corporate leaders in terms of their profession significantly affect firms' earnings timeliness. Thus, we hypothesize the following:

Hypothesis 2: Boards' professional skill diversity has significant effect on firms' financial statements' timeliness.

Hypothesis 3: Board leadership diversity significantly affects financial statements' timeliness.

1.3.3. Gender Diversity and Earnings Timeliness Quality

The growing impact of women in the workforce has kept the researchers busy to understand the leadership style of women (Pounder and Coleman 2002). There is a growing willingness of women to take up corporate organizational leadership while some countries are making their presence in the board a compulsory. Yet, the impact of their leadership style earnings quality has not been fully examined especially with regards to how their presence can affect timeliness quality of reported earnings. Women have idiosyncratic skills and this could define their leadership styles. Generally, a skill that is required for board member directors in the board of audit committee can be called leadership. Thus, it is the ability to lead. Research shows that a difference in the style of leadership could lead to a different way of managing. Such a difference could influence the earnings quality of firms. However, different types of leadership could depend on several different characteristics of leaders. In this regard, Pounder and Coleman (2002) described in a review about the characteristics of men and women that could influence their leadership styles. Park (1996) research shows that men are aggressive, independent, objective, logical, rational, analytical and decisive. On the contrary, women are emotional, sensitive, expressive, co-operative, intuitive, warm and tactful. This means that their style of could differ significantly. Osland, Synder and Hunter (1998) found that the characteristics of men are also confident, assertive, ambitious, opportunistic and impersonal. However, they showed evidence that the characteristics of women are that of receptive to ideas, talkative, gentle, emphatic and submissive.

From managerial perspective, research also shows that there are differences in managerial styles between men and women particularly due to their natural differences home management (Ponder and Coleman 2002). For instance, Helgesin (1990) states that women's central involvement in managing households, judging careers and raising children give them the skills for prioritization in leadership role. Thus, they score high in management relative to men based on the study. Specifically, Rosener (1989) found that women are more transformational in their leadership approach than men. They can promote contingent rewards, active management by exception and passive management by exception. Between directive and empowering, Eagly and Johannesen-Schimidt (2001) stated that men have directive leadership style while women are more empowering leaders in nature. In this direction, contribution of Rigg and Sparrow (1994) showed that female leaders are more people oriented. Moreover, women on the board emphasized team work. However, their evidence shows that men leaders are more authoritarian and paternalistic than women. Schubert, Brown, Gysler, and Brachinger (1999) found that men and women differ in approaches to risks. According their experimental study, men are more risk-prone towards gains, in gambling decisions, and women are more risk prone towards losses. However, the paper concludes that in terms of risky choices, there is no difference between women and men.

Following this potential leadership different, it has become clear that such behavior can affect the way female directors influence financial report timeliness. For example, being people orientated could lead to higher performance, which could influence timeliness publication of financial statements. In another perspective, their risk-prone attitude towards loss could influence their approach for discretionary reporting as women are less aggressive in terms of risk taking. Thus, their inclusion in the board could reduce the likelihood of accrual manipulation that could reduce timeliness of financial statement. However, across research, critical mass theory has not been consistent (Hili and Affes 2012, Kreder 2016). It also appears that critical mass theory of corporate governance is limited by the experience of board members (Gavious *et al.* 2012). Ye, Zhang and Rezaee (2010), examine whether the gender of top executives affects earnings quality. They found that earnings quality proxies including earnings persistence, the accuracy of current earnings in forecasting future cashflow, the association between earnings and stock returns, and the absolute magnitude of discretionary accruals do not display significant differences for firms with female and male top executives. Ye, Zhang, Cao, Wei and Namuny (2020) examined the effect of boardroom gender diversity on stock liquidity using empirical evidence from Chinese A-share market. They found that the boardroom gender diversity increase stock liquidity significantly and that the effect of boardroom gender diversity on stock liquidity is more significant in firms with more female director ownership than in firms with less female director ownership. Na and Hong (2017) examined the effect of CEO gender on earnings management. They found that the male CEOs use aggressive discretionary accruals and real activities operations in order to report small positive earnings or small earnings increases. Their analysis also shows that earnings management using real activities operation of suspect firms disappears in the female CEO group. Khuong, Thu and Thao (2017) examined the effect of top executive gender on accrual earnings management using simple analysis of Vietnamese listed firms. They found a correlation between earnings management and top executive gender, firm size and tenure. Thus, they confirm the potential effect of female executives on earnings management, which has negative implication for earnings quality. Thus, diversifying boards in terms of gender has proven effectively because it brings in women board chairs that are creative (Kenney, Lynch, Huntress, Haley and Anderson 2012). Luckerath-Rovers (2011) found that both genders have different social capital wealth that can impact firms' performance and reporting behaviour differently. Alsmady, (2018) found that the proportion of women in the board has significant effect on the timeliness of financial report. Since there is a confirmed impact of gender diversity on firms' earnings quality, there is thus a link between board gender diversity and timeliness of financial statement reporting. We thus state the following hypothesis:

Hypothesis 2: Board gender diversity negatively affects earnings reporting timeliness.

1.3.4. Audit Committee and Timeliness Quality

Agency theory argues that in principal-agent relationship that the conflicts of interest would always occur. To avoid such conflict of interest that could lead to hidden information to mislead, shareholders demand effective governance that would play as a watchdog. One of these governance mechanisms is the audit committee. Audit committee plays a monitoring role and when the committee is effective it could constrain a lot of accounting restatements, which could influence timeliness and reliabilities of the financial report. To make the audit committee effective, it should be diversified based on the knowledge and human resource-based view. As audit committee of corporate firms diversifies, they could have members, who can get things done quickly. However, accommodation different opinions could impact the time of financial statements approval.

An important empirical question has been about the effect of gender diversity of the audit committee on earnings quality. Though specific question has not been directed towards the timeliness of financial statement, the effect of audit committee on earnings quality can be as well through light on how diversity of audit committee could influence timeliness of financial statements. Srinidhi, Gul and Tsui (2011) provide evidence that gender diversity in audit committee affects earnings quality. They argued that female directors exhibit better reporting discipline in audit committee. In the study of Thiruvadi and Huang (2011) where the effect of gender diversity of audit committee on the earnings quality of a firm was investigated, found that gender diversity increases the external governance function of an audit committee, which leads to enhanced earnings quality by decreasing earnings management. In addition, the study found that the presence of women in the audit committee reduces earnings management by increasing negative discretionary accruals. Thus, the paper concludes that the presence of female directors do have significant impact on earnings quality.

Overall, audit committee diversity can affect earnings quality. We thus make the following audit committee diversity-timeliness hypothesis.

Hypothesis 4: Board audit committee diversity significantly affects firms' financial statements' timeliness.

1.3.5. Board Diversity Reliability-Timeliness Perspective

One important approach to corporate governance solidifications has been to increase diversity in boards' membership (Baatwah *et al.* 2019, Mashayekhi and Bazaz 2008, Klein 2002). The directors' assumption is that the presence of certain individuals with certain skills and backgrounds would improve reporting quality, enhance investors' confidence and performance (Khan and Subhan 2019) while encouraging good managerial and board decision making processes (Carter, Simkins and Simpson 2003). In fact, this is an idea expressed in resource dependence theory, social capital proposition and human capital wealth theories (Sealy and Vinnicombe 2007, Hillman *et al*. 2009, Gibbons and Waldman 2004). Thus, the present corporate boards comprised individuals with different religious, ethnicity (Ntim 2015), professional, political and educational backgrounds (Yasser and Almanu 2015, Baatwah *et al*. 2019). Board diversity aimed at making corporate governance more effective also involves gender balance in the board, in which case significant board positions and decision roles are given to women (Kreder 2016). The latest view in this regard is that gender imbalance in the board is regarded as unethical practice as such boards discriminate against sex. For instance, if the proportion of male is substantially higher than that of the female, unethical board order has been set up, this is considered unethical practice. But the concern is whether such an increment delivers values, improves financial statement reliability and does not trade off-time that would affect financial statements' usefulness. Kreder's (2016) US evidence shows that the relationship between gender and the quality of earnings is positive and that as the proportion of women in the board increases in diversity, the credibility of financial reporting reliability improves consistent with the famous critical mass theory though contrary evidence has also been discovered (Hili and Affes 2012). These latter authors found that in France, earnings quality is not enhanced by the presence of women directors on the board though the study did not specifically attribute the transitory nature of the earnings to potential effect of timeliness trade-off following gender diversity.

Thus, despite these important emerging studies promoting the advantages of board diversity (Kahn & Subhan 2019, Baatwah *et al.* 2019), there is little evidence on the financial statements' reliability qualitative characteristic timeliness trade-off of diversity in corporate governance boards in Nigeria. It is not clear how the emerging diversity model of corporate governance in Nigeria affects the quoted firms' financial statements' timeliness quality in relation to reliability of the financial statements. Recent studies, though not from Nigerian perspective, have focused on the effect on firms' financial performance (Slama, Aiina and Lakhal, 2019, Kahn and Subhan 2019). While these studies made some important contribution to literature, there remains a lacuna in literature regarding how board diversity affects earnings quality in terms of timeliness. Whether diversity in governance limits decision making speed that negatively impacts timeliness of reported financial statements in Nigeria is an unfilled gap among Nigerian corporate governance researchers.

Interestingly, the fact that the past few years in Nigeria have witnessed adverse portfolio selection that suggests accounting information timeliness problem provides a good reason to examine whether increase in diversity of board members' occasions reporting delay. We thus ought to approach the acclaimed benefit of corporate board diversity with care when we take its timeliness trade-off into consideration. We argue that an increase in board diversity could reduce overall financial statements' timing utility following the timeliness trade-off, which suggests that as delay in reporting publications increases, the usefulness of the financial statement falls. In fact, while diversity in corporate governance are associated with several benefits including delivering an expert opinion and creativity (Carter *et al.* 2003, Julizaerma and Sori 2012), enhancing good portfolio selection including higher equity performance (Ntim 2015, Sarhan, Ntim, and Al Najjar 2019), and mitigating complex accounting problems (Carter *et al.* 2003), there is little evidence whether an increase in board diversity consumes unnecessarily financial statement publication time that could lead to deviation in publication dates due to large room for arguments and opinion accommodations. As expert opinions emerge and increase in the board decision making processes, we expect the time of debating an element of financial statement or an exceptional item to rise, thus leading to financial statements' reporting timeliness problem and lag. In the same manner, the time for loss recognition could increase with increase in arguments, thus leading to less timeliness in financial reporting of loss, which has earnings management implication. Evidence from Julizaerma and Sori (2012) and Liu *et al.* (2014) suggests that gender diversity for instance proves that women always come with new ideas, communicate better and make lengthy arguments in the meetings of the boards. While the new idea based on gender diversity can increase creativity that can improve performance, and financial statement reliability, women often face serious challenge (Kenney *et al.* 2012), which can lead to deviation in the publication of financial statements if their ideas are unnecessarily attacked. Moreover, the lengthy arguments could lead to deviations from the normal decision making time range. Thus, we postulate that:

Hypothesis 6: Board diversity increases financial statement reliability at the expense of financial statements' timeliness quality.

2. Methodology

This study used secondary data. As such an ex post facto research design was used. We followed a firm-year approach to determine the population of the study. We purposely selected a 9-year period between 2000 and 2018 to provide the latest evidence. There were 180 firms in the Nigerian Stock Exchange (NSE) as of February 2, 2020. However, this study used only 74 quoted firms and thus eliminated some firms. Of the 180 firms in the NSE, 82 service firms, which included 57 financial firms, 25 service firms and 24 other firms, were excluded. We purposefully excluded the firms because of their poor disclosure practices. We found that most of the firms filed their accounts with SEC for periods under consideration; their financial statements did not make some vital disclosure. For instance, some were in abridged forms and it cannot be found which kind board structure they run. The data used was sourced from NSE database and was analyzed using multiple and multivariate regressions.

2.1. Diversity Structural Model

Time series panel data analysis has been found to yield consistent quality if the fixed effect model is used. Therefore, we used fixed effect model to analyze the effect of corporate governance diversity on financial statement timeliness quality. Based on this, we model the effect using the following structural fixed effect model.

$$Timl_{it} = \beta_1 BDSDvs_{it} + \beta_2 GenDiv1_{it} + \beta_3 GenDiv2_{it} + \beta_4 ProfDiv_{it} + \beta_5 CEODiv_{it} + \beta_6 AudDiv_{it} + \beta_7 Auq_{it} + \beta_8 FZ_{it} + \beta_9 Lev_{it} + \mu_I + \gamma_i + e_{rit} \quad (1)$$

where: $Timl_{it}$ measures timeliness of financial statements on assumption that financial statement reported earlier is more useful to investors than delayed financial statement. The variable is a component of two dependent variables namely $Timl1_{it}$ is the reporting lag of firm i at time t. To measure timeliness $Timl1_{it}$, we followed the guidelines of Conceptual Framework, which states that if financial reporting is not published six months after its signing that it could be of poor timeliness quality. Thus, reporting lag was measured in terms of deviation from normal reporting time. However, specifically, we followed example of Alsmady (2018) that measured timeliness by the difference between the fiscal year and the issuance of the annual reports. Thus, timeliness is captured by the absolute value of the difference in days between fiscal year and the issuance of financial statements divided by 365 days. μ_i is firm fixed effect. γ_i is the year effect while e_{rit} is the stochastic error;

$BDSDvs_{it}$ is the board diversity measured in terms of board size. Thus, we assume that diversity in terms of number of persons with different background is directly related to the numbers of board size. Thus, as the board size increases, the numbers of persons with different professional background as well increases;

$GenDiv1_{it}$ is a gender diversity variable one. It is featured based on critical mass theory, which argues that as the number of the women increases in the boards the effect on earnings quality increases. Thus, we measure this variable as the proportion of female board members' relative to male in the boards;

$GenDiv2_{it}$ is gender diversity variable 2. It measures the presence of women as the board chairs in firm i for year t. Thus, it takes value 1 if the board chair is a female and 0 if a female is not the chairman of the board;

$ProfDiv_{it}$ is a robust variable measuring the impact of professional diversity. It is the proportion of board members with key accounting professional and legal background. These two were selected because of key roles they play in the boards. They are regarded as board members with corporate governance driven professionals and as such would always be listened to. It was also featured in order to avoid the case where increase in the board size does not involve diversity as in the case where a specific class of professionals was heavily engaged;

$CEODiv_{it}$ is a variable that measures for board leadership diversity. It takes value 1 if the CEOs are not the same as the board chairpersons and 0 otherwise for any specific year. We measure the leadership in reality rather than in form or legality of it. Thus, if board meeting holds with the absence of board chairs consecutively we count such firms as passive duality principle firms and as such signs the value 0 to such artificial dual based firms. We do this because virtually all quoted firms do display duality to show that their governance principle is qualitative and avoid delisting;

$AudDiv_{it}$ is an audit size diversity which measures the proportion of internal auditors with professional skills; Auq_{it} is a measure of the effect of external audit on firms' timeliness. It takes value 1 if firms are audited by one of the Big 4 for year t and 0 otherwise; FZ_{it} is a control for firms' size. It is measured as the log of firm i's gross total asset for year t; Lev_i is a control variable that measures the effect of leverage on firms' timeliness in reporting quality. It measured as the ratio total long-term debt to total assets.

2.2. Timeliness-Reliability Trade-Off Model

To measure the reliability timeliness trade-off effect, we use multivariate model. Thus, the following model examines how board diversity affects reliability and timeliness concurrently. We also test the relationship using correlation matrix.

$$(T,R,) = \alpha_{T,R,+} (\beta_{1T},\beta_{1R})BDSDvs_{it} + (\beta_{2T},\beta_{2R})\beta_2 GenDiv1_{it} + (\beta_{3T},\beta_{3R})GenDiv2_{it} + (\beta_{4T},\beta_{4R})ProfDiv_{it} + (\beta_{5T},\beta 5_R)\beta_5 CEODiv_{it} + (\beta_{6T},\beta_{6R})AudDiv_{it} + (\beta_{7T},\beta_{7R})FZ_{it} + (\beta_{8T},\beta_{8R})Lev_{it} + \mu_i + \gamma_i + e_{rit} \quad (2)$$

where: T equals timeliness, and R equals reliability measured in terms of earnings persistence, which indicates stability quality of earnings. We measure persistence based on the regression of second period earnings (r_2) on first period earnings (r_1).

Thus, we use the model:

$$r_2 (Earnings_t) = \alpha + \beta(r_1)(Earnings_{t-1}, \quad (3)$$

which simplifies to:

$$PS = \frac{Cov(r_1 r_2)}{var(r_1)} = \beta\text{-}1 \quad (4)$$

where: PS equals persistence, β is the measure for persistence. r_1 and r_2 are the first and second period earnings respectively. α is the constant and *cov* equals the covariates. β_{1T}, *to* β_{8T} are the coefficients of the independents variables associated with timeliness quality while β_{1R}, to β_{8R} are the coefficients of the independents variables associated with reliability quality. $BDSDvs_{it}$, $GenDiv1_{it}$, $GenDiv2_{it}$, $ProfDiv_{it}$, $CEODiv_{it}$, and *AudDiv* are measures of board size diversity, gender diversity, professional skill diversity, board leadership diversity and audit diversity respectively. They have previously been defined in section 2.2.

2.3. Endogeneity Issues

An endogenous problem could occur between corporate-related variables including board diversity and performance (Cahan, Chen and Nguyen 2015, Rahman, Rodríguez-Serrano and Lambkin 2017). To examine the potential of endogenous problem in this study, we followed prior literature, to conduct Durbin-Wu-Hausman test. The test showed that there is no endogenous as its presence is found to be negative ($\chi 2$ Durbin–Wu–Hausman test = −10.5, p = 0.678). Researchers also predicted that reverse causality could cause a severe problem in the present study environment (Cahan *et al*. 2015). AS such, we carried out a Granger causality test and we found that the effect took earnings quality - corporate board diversity governance direction (FGranger test = 0.26, p = .4572).

3. Results

Descriptive Statistics

Table 1. Descriptive statistics of the variables

Variables	Minimum	Maximum	Mean	Std. Deviation
TIMI2	0.0020	0.9547	0.464745	0.2629055
CEODiv	0.0000	1.0000	0.722973	0.4490496
BSDiv	0.6021	1.2788	0.957443	0.1532445
GenDiv	0.0000	1.0000	0.250000	0.4344830
GenDiv2	0.0020	0.9547	0.403072	0.2753621
ProfDiv	0.0000	1.0000	0.358108	0.4810721
AudDiv	0.0031	0.4615	0.205598	0.1060096
Auq	0.0000	1.0000	0.540541	0.5000460
FZ	5.4050	9.6663	7.289131	0.8448776
Lev	0.0003	7.5739	0.751359	0.9201453

Source: SPPS

In Table 1 above, the values 0 and 1 as minimum and maximum for professional diversity, gender diversity and board leadership diversity show that during the periods under study, firms experienced diversity. The Table also shows that the data is good for regression analysis as the standard deviations are not high and did not exceed 1, which is the benchmark.

Correlation Matrix

Table 2. Correlation matrix of the diversity and timeliness variables

Variable	CEODiv	BSZDiv	GenDiv1	GenDi2	ProfDiv	AudDiv	Auq	FZ	Lev	TIML2
CEODiv	1									
BSZDiv	-.111	1								
GenDiv1	-.131	.366	1							
GenDiv2	.038	-.113	-.086	1						
ProfOiv	-.136	-.021	.057	-.138	1					
AudDiv	.096	.008	-.017	.060	-.068	1				
Auq	.066	.162	.000	-.086	.038	.050	1			
FZ	-.174	.393	-.029	-.056	-.069	.009	.088	1		
Lev	-.126	.014	.087	-.117	.127	.003	.037	-.216	1	
TIML2	.128	-.010	-.147	.096	.080	.023	.145	-.090	-.020	1

Source: SPPS

Based on the above correlation Table 2, the correlation among the independent variables are very high. This implies that the regression would not have any multicolinearity problems. We found that timeliness correlates positively with different diversity variables. Therefore, board diversity could encourage timeliness. However, we found that gender diversity variables correlate negatively with timeliness, which means that diversity could limit the timeliness of financial statements' report.

Regression Analyses: Fixed Effect

Table 3. Fixed effect regression results

Variable	Coefficients	Std. Error	t-Statistic	Prob.
C	-0.014732	0.270183	-0.054526	0.9566
AudDiv	0.059877	0.232684	0.257332	0.7974
Auq	0.061326	0.045354	1.352164	0.1793
BDSDivs	0.333271	0.178596	1.866060	0.0649
CEODiv	0.084339	0.957457	1.467848	0.1452
FZ	0.001972	0.033194	0.059396	0.9528
GenDiv1	0.073124	0.094992	0.769793	0.4432
GenDiv2	-0.136183	0.059350	-2.294521	0.0238
Lev	0.027172	0.029368	0.925214	0.3570
ProfDiv	0.066291	0.055271	1.199385	0.2332
		Effect Specifications	0.059877	Rho
		Cross-Section fixed (dummy variable)	0.00000	0.0000
		Idiosyncratic random	0.25348	1.0000
Weighted Statistics				
R-Squared		0.354944	Mean dependent var	0.464745
Adjusted R-Squared		0.070361	S.D dependent var	0.262905
S.E of regression		0.253488	Akaike info criterion	0.342379
Sum squared resid		6.554110	Schwarz criterion	1.273945
Log likelihood		20.66398	Hannan-Quinn criter.	0.720872
F-Statistic		1.2472	Durbin-Watson stat	2.548129
Prob(F-Statistic)		0.180268		

Source: SPSS

Table 3 above indicates that the timeliness effect of diversity is positive and significant for some variables. up to 35% of the variations in the timeliness is accounted for by corporate governance diversity. However, the combined effect is supported at 5% significance. The Durbin-Watson is 2.54, which shows that the autocorrelation at the residual does not constitute a problem.

3.4. Random Effect

Table 4. Random Effect Regression Results

Variable	Coefficients	Std. Error	t-Statistic	Prob.
C	0.463851	0.226776	2.045411	0.0427
AudDiv	0.015384	0.006621	2.318103	0.0215
Auq	0.072839	0.042877	1.698780	0.0916
BDSDivs	0.179636	0.079662	2.256289	0.0395
CEODiv	0.054319	0.015007	3.620730	0.0187
FZ	-0.038842	0.028935	-1.342357	0.1817
GenDiv1	0.101409	0.078032	1.299592	0.1959
GenDiv2	-0.103755	0.053429	-1.941922	0.0452
Lev	-0.008240	0.024037	-0.342797	0.7323
ProfDiv	0.059960	0.044768	1.339341	0.1827
		Effect Specifications	SD	Rho
		Cross-Section Random	0.00000	0.0000
		Idiosyncratic random	0.25348	1.0000
Weighted Statistics				
R-Squared		0.087082	Mean dependent var	0.464745
Adjusted R-Squared		0.027544	S.D dependent var	0.262905
S.E of regression		0.259259	Sum squared resid	9.275731
F-Statistic		1.996231	Durbin-Watson stat	1.950049
Prob(F-Statistic)		0.043763		
Unweighted Statistics				
R-Squared		0.087082	Mean dependent var	0.464745
Sum squared resid		9.275731	Durbin-Watson Stat	1.950049

Note: Cross-section random effects test equation

Similar to the fixed effect, the random effect as shown in Table 4 above indicates that the timeliness effect of diversity is mostly positive and significant for some variables. The analysis shows up to 8.7% of the variations in the timeliness being accounted for by corporate governance diversity. The combined effect is supported at 5% significance, which suggests that the focus of discussion should be group and individual variable based. The Durbin-Watson is 1.95, which shows that the autocorrelation at the residual does not constitute a problem.

3.5. Fixed-Random Effect Hausman Test

Table 5. Correlated random effects-Hausman test

Test Summary			Chi-Sq. Statistic	CHI-Sq. d.f	Prob.
Cross-section random			22.278	9	0.0098
Cross-section random effects test comparisons					
Variable	Fixed	Random	Var(Diff.)	Prob.	
AudDiv	0.059877	0.015384	0.014504	0.7118	
Auq	0.061326	0.072839	0.000219	0.4361	
BDSDivs	0.333271	0.179636	0.004516	0.0222	
CEODiv	0.084339	0.054319	0.000879	0.3113	
FZ	0.001972	-0.038842	0.000265	0.0121	
GenDiv1	0.073124	0.101409	0.002934	0.6016	
GenDiv2	-0.136183	-0.103755	0.000668	0.2095	
Lev	0.027172	-0.008240	0.000285	0.0359	
ProfDiv	0.066291	0.059960	0.001051	0.8451	

Note: Cross-section random effects test equation

The comparison between random and fixed effect models shows that the random effect is consistent with the corporate board diversity analysis. The Chi-Sq. Statistic equals 22.278 with p-value equals 0.0098. Thus we conclude that the use of random effect model gave a better result. As such, the discussion of the results was based on random effect model.

3.6. Diversity Reliability-Timeliness Trade-off Effect Analysis

Table 6. Diversity trade-off effect

Parameter	Model 1 (Timeliness)	Model 2 (Reliability)	Diversity Trade-off Effect Direction	Wilks' Lambda Value	Partial Eta Squared
Intercept	0.475	16.396	-	0.970	0.030
CEODiv	0.056	4.335	Negative	0.967	0.009
BSZDiv	0.178	30.031	Negative	0.987	0.008
GenDiv1	-0.096	-9.674	Negative	0.962	0.021
GenDiv2	0.102	-1.574	Positive	0.988	0.012
ProfDiv	0.058	-5.446	Positive	0.953	0.012
AudiDiv	0.038	-21.576	Positive	0.994	0.000
Auq	0.069	1.685	-	0.982	0.017
FZ	-0.041	-4.064	-	0.976	0.014
LEV	-0.009	-.166	-	0.976	0.001

Source: SPSS

Table 6 shows the trade-off relationship between timeliness and reliability of earnings report. The Wilks' Lambda for individual diversity variables are strong showing an average of 90% model fit. The partial eta squared is significant for all the variables, which shows support for all reliability-timeliness trade-off effect.

4. Discussion of Results

The discussion would be based on two aspects namely the diversity effect of timeliness and the reliability-timeliness trade-off effect. Thus, we brought the random effect table to focus the discussion.

Table 7. Random effect regression results

Variable	Coefficients	Std. Error	t-Statistic	Prob.
C	0.463851	0.226776	2.045411	0.0427
AudDiv	0.015384	0.006621	2.318103	0.0215
Auq	0.072839	0.042877	1.698780	0.0916
BDSDivs	0.179636	0.079662	2.256289	0.0395
CEODiv	0.054319	0.015007	3.620730	0.0187
FZ	-0.038842	0.028935	-1.342357	0.1817
GenDiv1	0.101409	0.078032	1.299592	0.1959
GenDiv2	-0.103755	0.053429	-1.941922	0.0452
Lev	-0.008240	0.024037	-0.342797	0.7323
ProfDiv	0.059960	0.044768	1.339341	0.1827
		Effect Specifications	SD	Rho
		Cross-Section Random	0.00000	0.0000
		Idiosyncratic random	0.25348	1.0000
Weighted Statistics				
R-Squared		0.087082	Mean dependent var	0.464745
Adjusted R-Squared		0.027544	S.D dependent var	0.262905
S.E of regression		0.259259	Sum squared resid	9.275731
F-Statistic		1.996231	Durbin-Watson stat	1.950049
Prob(F-Statistic)		0.043763		
Unweighted Statistics				
R-Squared		0.087082	Mean dependent var	0.464745
Sum squared resid		9.275731	Durbin-Watson Stat	1.950049

Note: Cross-section random effects test equation.

4.1. Discussions

Based on the analysis as shown in Table 7 above, we found that the board size diversity significantly and positively affected timeliness quality of financial statement (coefficient = 0.1796; p-value<0.05). Therefore, we reject the hypothesis that *board size diversity does not affect timeliness of financial statements significantly.* We found evidence that board size increases, timeliness can be achieved. This is contrary to the postulation that increase in board size can bring differences in opinion that can lead to delay in financial statement reporting, which impacts negatively on timeliness quality of financial statements (Julizaerma and Sori 2012, Liu, Wei and Xie 2014). Rather, we found that as diversity of board increases, creativity and innovation which could reduce the length of financial statements' reporting period could occur. Our analysis fully supports resource dependency theory, which defines the effect of resource acquisition on the behavior of firms (Hillman *et al.* 2009) as performance advancement. Consistent with the theory, we that achieve timeliness, firms' should diversify by acquiring societal talent resources. It also implies that firms should maintain links with their environment (Pfeffer 1982) in order to attract resources that would enhance reporting creativity and innovation that would ensure timely financial statement reporting. Thus, we found evidence that board diversification and executives serve as a nexus between the organizations and the external resources for organizational financial reporting innovation consistent with the evidence that diversifying boards with regards to nationality, education, gender, experience and backgrounds implies that the directors have considerable wealth of knowledge and skills (Alqatan 2019). This suggests that the board diversity will promote greater insight into markets, customers, employees, accounting issues and investment opportunities for better business performance (Hillman *et al.* 2007) consistent with the reported positive impact. Generally, board size diversification enhances earnings quality as confirmed by several empirical literatures (Egbunike and Odum 2018, Lu *et al.* 2018, Jouber and Fakhfakh 2014).

Based Board gender diversity and earnings reporting timeliness analysis, we found evidence that gender diversity yields negative effect on firms' reporting timeliness (coefficient -0.1037; p-value <0.05). Therefore, we accept the *board gender diversity negatively affects earnings reporting timeliness.* This evidence is consistent with the argument that resource dependency theory could attract people on board with argumentative spirit that could reduce the ability of the board to publish financial statements timely despite evidence that a well represented boards for instance multiple directorship and gender diversity enhances firms' risk management (Hillman *et al.* 2007). Social capital networking argues that board diversity aimed at making corporate governance more effective also involves gender balance in the board. This proposes that board positions and decision roles should be given to women (Kreder 2016). In fact, the latest view in this regard is that gender imbalance in the board is regarded as unethical practice because such boards discriminate against sex. While this argument can be context specific, we show that board gender balance does not deliver values in terms of timely reporting of financial statements. Though Kreder's (2016) US evidence shows that the relationship between gender and the quality of earnings is positive and that as the proportion of women in the board increases in diversity, the credibility of financial reporting reliability improves consistent with the famous critical mass theory, we found support for the evidence as discovered by Hili and Affes (2012) that based on France, earnings quality is not enhanced by the presence of women directors on the board. Thus, our analysis does support the view that firms of gender diverse vision would most likely perform higher than single gender board in respect of timely reporting despite argument according to Luckerath-Rovers (2011) that both genders have different social capital wealth that can impact firms' performance and reporting behavior differently, perhaps positively.

Evidence based board leadership diversity and financial statements' timeliness showed that board leadership models affect firms' earnings quality. In some firms' boards there are multiple directors. This means that the board leadership is diversified. Our analysis shows that board leadership diversity positively affects financial statements' timeliness (coefficient -0.0543; p-value < 0.05). Therefore, we accept the hypothesis 3 that *board leadership diversity significantly affects financial statements' timeliness* consistent with Baatour *et al.* (2017) and inconsistent with Yasser and Al Mamun (2016). We found that for a unit change board leadership diversification, reporting timeliness improves by 5.45%. This means that boards with a diversified leadership structure could achieve creativity and reporting innovation that enhance reporting timeliness. This supports resource dependency, human capital and social capital networking hypothesis (Sealy and Vinnicombe 2007). Social capital network benefit of diversity argues that all the assets or resources that groups or entities gain and accrue as a result of long standing networking, institutional relationship and shared contract can enhance firms' performance direct, or indirect. The benefit can be real or intangible. Social capital is a social network advantage and assets, which board leadership diversity, can depend on to achieve timeliness. Thus, this theory backs diversity because it is through social networking that an organization can bring in directors with social capital (Niu and Chen 2017) consistent with our finding.

Audit committee plays a key role in firms' internal control system. Thus, their diversity is expected to enhance firms' reporting quality. We found evidence that diversity in audit committee positively and significantly affects timely reporting (coefficient = 0.0153; p-value < 0.05). Based on this evidence, we accept the hypothesis 4 that *Board audit committee diversity significantly affects firms' financial statements' timeliness.* Therefore, as firms' audit committee becomes diversified, 1.53% of timeliness is most likely to be achieved. This also supports resource dependency, social capital networking and human capital theories (Niu and Chen 2017, Sealy and Vinnicombe 2007) where firms' tap the wealth of experiences and social assets available in their environment to advance their goals. Our analysis thus, implies that audit committee with diversity would most likely enhance timeliness through innovation and creativity that would resolve issues quickly, which encourages fast financial statements' publications. Empirical research also found that audit committee diversity enhances earnings quality (Baatwah *et al.* 2019). Baatwah *et al.* (2019) using Malaysian firms found that the audit committee chair with accounting experience is associated with a reduction in audit delay (increases timeliness quality), which could enhance credibility in reporting though the evidence was more pronounced when the chair is a shareholder of the firms. This evidence is consistent with our finding.

Boards' professional skill diversity and firms' financial statements' timeliness yields significant effect. Boards with mixed professional skills have been found to enhance reporting quality. We test this evidence from the perspective of diversity. We found evidence that increase in professional diversity of corporate boards positively affects financial statements' reporting timeliness. However, the effect is not statistically significant (coefficient = 0.0599; p-value > 0.05). We found that as firms' boards continue to increase diversity in profession, firms' ability to overcome delay in financial statements' report decreases by 94%. Therefore, we partially reject the hypothesis 5 that *boards' professional skill diversity has significant effect on firms' financial statements' timeliness.* We conclude that though the effect is positive, it is not statistically significant at 5%. This evidence is bizarre given several reports that professional skills significantly affect earnings quality (Asogwa *et al.* 2019, Nelson and Devi 2013), Inconsistent with our study, Nelson and Devi (2013) investigation show that the presence of non-accounting experts and accounting experts is significant to minimize accrual manipulations. However, this last hypothesis authenticates our postulations that expansion of boards could bring in members with awkward or argumentative spirit, which could reduce the speed conflict resolution. In Social Psychology, Hackett, and Hogg, (2014) argues that uncertainty-identity theory highlights that an anomaly could occur between society's desire for diversity and people's preference to be with like-minded colleagues, which leads to a diversity paradox.

4.2. Corporate Board Reliability- Timeliness Trade-Off Effect

We consider diversity paradox as a situation where increase in financial statements' reliability quality reduces timeliness of financial statements. We use multivariate analysis to examine this effect. Based on Table 7 above, we found that board leadership diversity does not trade-off timeliness and reliability. Thus, board leadership diversity enhances both earnings reliability and timeliness of financial statements' report (coefficients 0.056 and 4.35; eta value >0.05). This implies that board leadership diversity can be pursued without concern for the diversity paradox. With regards to gender diversity, we found that as reliability increases, timeliness of reported financial statements decreases (coefficients 0.102 and -1.574; eta partial value<0.05). This means that the trade-off is statistically significant and pursuit of gender diversity should be done with care as it may enhance reliability at the expense of timeliness and vice versa. Gender diversity paradox exists as women have been found to make longer argument in the boards (Julizaerma and Sori 2012, Liu *et al.* 2014). Consistent with our finding, Julizaerma and Sori (2012) and Liu *et al.* (2014) found that gender diversity encourages new ideas from women and makes for better communication by women. However, they found that women make lengthy arguments in the meetings of the boards. Thus, while the new idea based on gender diversity can increase creativity that can improve performance including financial statement reliability, women often face serious challenge (Kenney, Lynch, Huntress, Haley and Anderson 2012), which can lead to deviation in the publication of financial statements if their ideas are unnecessarily attacked. As such, the lengthy arguments could lead to deviations from the normal decision making time range, which is the diversity paradox. We also found a positive reliability-timeliness trade-off for professional skills diversity (coefficients 0.058, and -5.446; partial value < 0.05). Therefore, as professional skills diversity increases, either of the response variables could be traded off such that as one increases the other decreases significantly.

Based on the analysis, we accept the hypothesis that board diversity increases financial statement reliability at the expense of financial statements' timeliness quality**.** As such, we conclude that as reliability of financial statements increases through diversity timeliness quality of financial statements gets impaired.

Conclusions and Policy Implications

Corporate board diversity plays a vital role in ensuring financial statements' timeliness reporting quality. We found a confirmatory evidence that as board size diversity, professional diversity and audit committee diversity increase, firms reports financial statements timely consistent with evidence that diversity enhances reporting credibility (Asogwa *et al.* 2019, Baatwah *et al.* 2019, Egbunike and Odum 2018). Our finding also confirmed the human capital and social capital networking theories, which propose that firms' environments opens greater opportunities and resources for firms to access and that through networking with different people with wealth of experience creativity and innovation that can encourage issues resolution speed can be achieved. This possibility translates into higher timeliness of financial reporting (Niu and Chen 2017, Sealy and Vinnicombe 2007). Following this evidence, firms should pursue diversity in boards and professional skills. We found that gender diversification does not enhance timeliness. As such, firms should exercise care in trying to diversify boards to promote gender equality. The idea that women are creative and as such should be allowed to actively participate in the board may not be good for timeliness quality of financial statements. This is despite the idea that firms of gender diverse vision would most likely perform higher than single gender board in respect of timely reporting (Luckerath-Rovers 2011). We conclude contrary to Luckerath-Rovers (2011) that both genders have different social capital wealth that can impact firms' performance and reporting behavior differently, perhaps positively.

We conclude that there is significant reliability-timeliness trade-off for the effect of gender diversity, professional skills diversity and audit committee diversity. As such, as firms' advance reliability through gender diversity, it is important to watch the timeliness trade off, which is the paradox of diversity, Boards that increase professional skill diversity also suffers from timeliness trade off that is significant. As such, we recommend a balance between pursuing reliability and timeliness through corporate board diversity.

References

[1] Adams, R.B., Ferreira, D. 2009. Women in the boardroom and their impact on governance and performance. *Journal of Financial Economics,* 94(2*)*: 291-309. DOI: https://doi.org/10.1016/j.jfineco.2008.10.007

[2] Alqatan, A. 2019*. The association between board diversity, earnings management and firm performance in Kuwait: A research agenda.* Corporate governance: Search for the Advanced Practice, 254-274. DOI: https://doi.org/10.22495/cpr19p14

[3] Alsmady, A.A. 2018. The effect of board of directors' characteristics and ownership type on the timeliness of financial reports. *International Journal of Business and Management,* 13(6): 276-287. DOI: https://doi.org/10.5539/ijbm.v13n6p276

[4] Alzoubi, E.S.S. 2016. Ownership structure and earnings management: evidence from Jordan. *International Journal of Accounting & Information Management,* 24(2): 135-161. DOI. https://doi.org/10.1108/IJAIM-06-2015-0031

[5] Asogwa, C.I., Ofoegbu, G.N., Nnam, J.I., and Chukwunwike, O.D. 2019. Effect of corporate governance board leadership models and attributes on earnings quality of quoted Nigerian companies. *Cogent Business & Management,* 6(1): 168. DOI: https://doi.org/10.1080/23311975.2019.1683124

[6] Baatour, K., Othman, H.B., Hussainey, K. 2017. The effect of multiple directorships on real and accrual-based earnings management: Evidence from Saudi listed firms. *Accounting Research Journal, 30*(4): 395-412. DOI: https://doi.org/10.1108/ARJ-06-2015-0081

[7] Baatwah, S.R., Salleh, Z., and Stewart, J. 2019. Audit committee chair accounting expertise and audit report timeliness: The moderating effect of chair characteristics. *Asian Review of Accounting, 27*(2): 273-306. DOI: https://doi.org/10.1108/ARA-12-2017-0190

[8] Boedi, S., Nirwanto, N., Subiyantoro, E., and Kiswanto. 2019. Intellectual capital disclosure: Empirical evidence of Indonesian banking companies. *Journal of Applied Economic Sciences,* Volume XIV, Winter*,* 4(66): 993-1010. DOI: https://doi.org/10.14505/jaes.v14.4(66).06

[9] Burgess, Z., and Tharenou, P. 2002. Women board directors: Characteristics of the few. *Journal of Business Ethics,* 37(1): 39-49. DOI: https://doi.org/10.1023/A:1014726001155

[10] Cahan, S.F., Chen, C., Chen, L., and Nguyen, N.H. 2015. Corporate social responsibility and media coverage. *Journal of Banking & Finance,* 59: 409 - 422. DOI: https://doi.org/10.1016/j.jbankfin.2015.07.004

[11] Carter, D.A., Simkins, B.J., and Simpson, W.G. 2003. Corporate governance, board diversity, and firm value. *Financial Review, 38*(1): 33-53. DOI: https://doi.org/10.1111/1540-6288.00034

[12] Chambers, D., and Payne, J 2011. Audit quality and accrual persistence: evidence from the pre- and post-Sarbanes-Oxley periods. *Managerial Auditing Journal, 26*(5): 437-456. DOI: https://doi.org/10.1108/02686901111129580

[13] Clatworthy, M.A., and Peel, M.J. 2010. *Does corporate governance influence the timeliness of financial reporting? Evidence from UK Private Companies*. Cadiff Business School Research Seminar, HEC Emphi, 15 p.

[14] Damagum, Y.M., Oba, V.C., Chima, E.I., and Ibikunle, J. 2014. Women in corporate boards and financial reporting credibility: Evidence from Nigeria. *International Journal of Accountancy and Financial Management Research,* 4(1): 1-8. Available at: https://www.academia.edu/40548930_WOMEN_IN_CORPORATE_BOARDS_AND_FINANCIAL_REPORTING_CREDIBILITY_EVIDENCE_FROM_NIGERIA

[15] Demirkan, S., and Platt, H. 2009. Financial status, corporate governance quality, and the likelihood of managers using discretionary accruals. *Accounting Research Journal, 22*(2): 93-117. DOI: https://doi.org/10.1108/10309610910987475

[16] Dyer, J.C., McHugh, A.J. 1975. The timeliness of the Australian annual report. *Journal of Accounting Research, 13*(2): 204-219. DOI: https://doi.org/10.2307/2490361

[17] Eagly A., and Johannesen-Schimidt, M. 2001. The leadership style of women and men. *Journal of Social Issues, 57*(4): 781-797. DOI: https://doi.org/10.1111/0022-4537.00241

[18] Egbunike, C.F., and Odum, A.N. 2018. Board leadership structure and earnings quality: Evidence from quoted manufacturing firms in Nigeria. *Asian Journal of Accounting Research, 3*(1): 82-111. DOI: https://doi.org/10.1108/AJAR-05-2018-0002

[19] Ewert, R., and Wagenhofer, A. 2015. Economic relations among earnings quality measures. *ABACUS,* 51(3). DOI: https://doi.org/10.1111/abac.12054

[20] Gibbons, R., and Waldman, M. 2004. Task specific human capital. *American Economic Review*, 94(2): 203-207. DOI: https://doi.org/10.1257/0002828041301579

[21] Gravious, I., Segev, E., and Yosef, R. 2012. Female directors and earnings management in high technology firms. *Pacific Accounting Review, 24*(1): 4-32. DOI: https://doi.org/10.1108/01140581211221533

[22] Habib, A., and Azim, I. 2008. Corporate governance and the value-relevance of accounting information: Evidence from Australia. *Accounting Research Journal, 21*(2): 167-194. DOI: https://doi.org/10.1108/10309610810905944

[23] Hackett, J.D., and Hogg, M.A. 2014.The diversity paradox: when people who value diversity surround themselves with like-minded others. *Journal of Applied Social Psychology, 44*(6): 415-422. DOI: https://doi.org/10.1111/jasp.12233

[24] Helgesin, S. 1990. The female advantage: Women's ways of leadership. Double day currency. Available at: https://books.google.com.ng/books/about/The_Female_Advantage.html?id=V_t-U5v5fU8C&redir_esc=y

[25] Hili, W., and Affess, H. 2012. Corporate boards gender diversity and earnings persistence: The case of French listed firms. *Global Journal of Management and Business Research, 12*(22): 51-59. Available at: https://journalofbusiness.org/index.php/GJMBR/article/view/919

[26] Hillman, A., Withers, M., and Collins, B. 2009. Resource dependency theory: A review. *Journal of Management, 35*: 1404-1427. DOI: https://doi.org/10.1177/0149206309343469

[27] Hutchinson, M.R., Percy, P., and Erkurtoglu, L. 2008. An investigation of the association between corporate governance, earnings management and the effect of governance reforms. *Accounting Research Journal*, 21(3): 239-262. DOI: https://doi.org/10.1108/10309610810922495

[28] Imoniana, J.O., DeFeitas, E.C., and Perera, L.C.J. 2016. Assessment of internal control systems to curb corporate fraud-evidence from Brazil. *African Journal of Accounting, Auditing and Finance, 5*(1): 1-24. DOI: https://doi.org/10.1504/AJAAF.2016.077592

[29] Ismail, W.A.B.W. 2011. Earnings quality, family influence and corporate governance: Empirical evidence from Malaysia. PhD Thesis; Victoria University of Wellington. Available at: http://restrictedarchive.vuw.ac.nz//handle/123456789/6242

[30] Iyengar, R.J., Land,J., and Zampelli, E.M. 2010. Does board governance improve the quality of accounting earnings. *Accounting Research Journal, 23*(1): 49-68. DOI: https://doi.org/10.1108/10309611011060524

[31] Jensen, M.C., and Meckling, W.H 1976. Theory of the firm: Managerial behaviour, agency costs and ownership structure. *Journal of Financial Economics,* 3: 306-360. DOI: https://doi.org/10.1111/j.1540-6261.1993.tb04022.x

[32] Jouber, H., Fakhfakh, H. 2014. The association between CEO incentive rewards and earnings management: Do institutional features matter? *EuroMed Journal of Business, 9*(1): 18-36. DOI: https://doi.org/10.1108/EMJB-11-2012-0019

[33] Julizaerma, M., and Sori, Z.M. 2012. Gender diversity in the boardroom and firm performance of Malaysian public listed companies. *Procedia-Social and Behavioral Sciences, 65*: 1077-1085. DOI: http://doi.org/10.1016/j.sbspro.2012.11.374

[34] Kenney, G., Lynch, V., Huntress, M., Haley, J., and Anderson, N. 2012. *Medicaid/CHIP participation among children and parents.* Timely Analysis of Health Policy Issues. Available at: www.urban.org

[35] Khan, A.W., and Subhan, Q.A. 2019. Impact of board diversity and audit on firm performance. *Cogent Business & Management, 6*(1). DOI: https://doi.org/10.1080/23311975.2019.1611719

[36] Khuong, N.V., Thu, P.A., and Thao, D.T.T. 2017. The effect of top executive gender on accrual earnings management: Simple analysis of Vietnamese listed firms. *VNU Journal of Science: Economics and Business, 3392:* 26-37. DOI: https://doi.org/10.25073/2588-1108/vnueab.4075

[37] Klein, A 2002. Audit committee, board of directors characteristics, and earnings management. *Journal of Accounting and Economics, 33* (3): 375-400. DOI: https://doi.org/10.1016/S0165-4101(02)00059-9

[38] Kreder, R. 2016. *Board diversity and earnings quality: The association between female board presence and the magnitude of discretionary revenue activities, evidence from US-listed firms*. Erasmus University Rotterdam Thesis. Available at: https://ro.uow.edu.au

[39] Kukah, M.A., Amidu M., and Abor, J.Y. 2016. Corporate governance mechanisms and accounting information quality of listed firms in Ghana. *African Journal of Accounting, Auditing and Finance, 5*(1): 38-58. DOI: https://doi.org/10.1504/AJAAF.2016.077599

[40] Lee, H., Mande, V., and Son, M. 2008. A comparison of reporting lags of multinational and domestic firms. *Journal of International Financial Management & Accounting,* 19(1): 28-56. DOI: https://doi.org/10.1111/j.1467-646x.2008.01015.x

[41] Lehmann, N. 2016. The role of corporate governance in shaping accruals manipulation prior to acquisitions. *Accounting and Business Research, 46*(4): 327–364. DOI: https://doi.org/10.1080/00014788.2015.1116969

[42] Lemus, E.M.I.B.A. 2014. The financial collapse of the Enron Corporation and its impact in the United States capital market. *Journal of Management and Business Research: Accounting and Auditing, Volume* XIV. Available at: https://journalofbusines.org/index.php/GJMBR/article/view/1539

[43] Leventis, S. and Weetman, P. 2004. Timeliness of financial reporting: Applicability of disclosure theories in an emerging capital market. *Accounting and Business Research*, 34(1): 43-56. DOI: https://doi.org/10.1080/00014788.2004.9729950

[44] Liu, J., Harris, K., and Omar, N. 2013. Board committees and earnings management. *Corporate board: Role Duties & Composition, 9*(1): 6-17. DOI: https://doi.org/10.22495/cbv9i1art1

[45] Liu, Y., Wei, Z., and Xie, F. 2014. Do women directors improve firm performance in China? *Journal of Corporate Finance, 28*: 169-184. DOI: https://doi.org/10.1016/j.jcorpfin.2013.11.016

[46] Lu, C., Christensen, J., Hollindale, J., and Routledge, J. 2018. The UK stewardship code and investee earnings quality. *Accounting Research Journal, 31*(3): 388-404. DOI: https://doi.org/10.1108/ARJ-09-2016-0116

[47] Luckerath-Rovers, M. 2011. Women on boards and firm performance. *Journal of Management & Governance,* 17(2): 491-509.

[48] Man, C.K., and Wong, B. 2013. Corporate governance and earnings management: A survey of literature. *Journal of Applied Business Research, 29*(2): 391-418. DOI: https://doi.org/10.19030/jabr.v29i2.7646

[49] Marzuki, M.M., Abdul Wahab, E.A., and Haron, H. 2016. Corporate governance and earnings conservatism in Malaysia. *Accounting Research Journal, 29*(4): 391-412. DOI: https://doi.org/10.1108/ARJ-04-2014-0043

[50] Mashayekhi, B., Bazaz, M.S. 2008. Corporate governance and firm performance in Iran. *Journal of Contemporary Accounting and Economics, 4*(2): 156-172. DOI: https://doi.org/10.1016/S1815-5669(10)70033-3

[51] Mubarok, M.H., and Widodo. 2019. The development model of strategic transformation capability based on relational quality to exploitability knowledge and innovative performance. *Journal of Applied Economic Sciences,* Volume XIV, Winter, 4(66): 1108-1115. DOI: https://doiorg/10.14505/jaes.v14.4(66).17

[52] Na, K., and Hong, J. 2017. CEO gender and earnings management. *Journal of Applied Business Research, 33*(2): 297 -308. DOI: https://doi.org/10.19030/jabr.v33i2.9902

[53] Nelson, P., and Davis, S. 2013. Audit committee experts and earnings quality. Corporate Governance: *The International Journal of Business in Society,* 13(4): 335-351. DOI: https://doi.org/10.1108/CG-02-2011-0009

[54] Nindito, M., Avianti, I., Koeswayo, P.S., and Tanzil, N.D. 2019. Financial statement fraud: An investigation into its prevalence in cross sector industries in Indonesia. *Journal of Applied Economic Sciences,* Volume XIV, Winter, 4(66): 1180-1190. DOI: https://doi.org/https://doi.org/10.14505/jaes.v14.4(66).24

[55] Niu, Z., and Chen, C.C.H. 2017. Social capital of directors and corporate governance: A social network analysis. *Brooklyn Journal of Corporate*, *Financial and Commercial Law,* 11(2): 343-376. Available at: https://ink.library.smu.edu.sg/sol_research/2218

[56] Ntim, C.G. 2015. Board diversity and organizational valuation: Unveiling the effects of ethnicity and gender. *Journal of Management & Governance,* 19(1): 167-195. DOI: https://doi.org/10.1007/s10997-013-9283-4

[57] Osland, J., Synder, M., and Hunter, L. 1998. A comparative study of managerial styles among female executives in Nicaragua and Costa Rica. *International Studies of Management and Organization*, 28(2): 54-73. DOI: https://doi.org/10.1080/00208825.1998.11656734

[58] Owusu-Ansah, S. 2000. Timeliness of corporate financial reporting in emerging capital markets: Empirical evidence from the Zimbabwe stock exchange. *Accounting and Business Research*, 30(3): 241-254. DOI: http://dx.doi.org/10.2139/ssrn.215929

[59] Park, D. 1996. Gender role, decision style and leadership style. *Women in Management Review, 11*(8): 13-17. DOI: https://doi.org/10.1108/09649429610148737

[60] Peasnell, K.V., Pope, P.F., and Young, S. 2005. Board monitoring and earnings management: Do outside directors influence abnormal accruals. *Journal of Business Finance and Accounting, 32* (7/8): 1311-1328. DOI: https://doi.org/10.1111/j.0306-686X.2005.00630.x

[61] Pfeffer, J. 1982. *Organizations and Organizational Theory*. Marshfield, MA: Pitman. ISBN: 978-0273018513, 378 p.

[62] Pounder, J., and Coleman, M. 2002. Women-better leaders than men? *Leadership & Organization Development Journal, 23*(3): 122-133. DOI: https://doi.org/10.1108/01437730210424066

[63] Ramzi. B. 2009. Does the presence of independent directors influence accruals management? *The Journal of Applied Business Research,* 25: 77-86. DOI: https://hal.archives-ouvertes.fr/hal-01120999

[64] Rigg, C., and Sparrow, J. 1994. Gender, diversity and working styles. *Women in Management Review*, 9(1): 9-16. DOI: https://doi.org/10.1108/09649429410050971

[65] Rosener, J. 1989. Ways women lead. *Harvard Business Review*. Available at: https://www.org.com/amp/s/hbr.org/amp/1990/11/ways-women-lead

[66] Rowley, T.J., Shipilov, A.V., and Greve, H.R. 2017. Board reform versus profits: The impact of rating on the the adoption of governance practices. *Strategic Management Journal, 38(4): 815-833.* DOI: *https://doi.org/10.1002/smj.2545*

[67] Sarhan, A.A., Ntim, C.G., and Al. Najjar, B. 2019. Board diversity, corporate governance, corporate performance, and executive pay. *International Journal of Finance & Economics*, 24(2): 761-789. DOI: https://doi.org/10.1002/ijfe.1690

[68] Schubert, R., Brown, M., Gysler, M., and Brachinger, H.1999. Financial decision-making: Are women really more risk-averse? *The American Economic Review,* 89(2): 381-385. DOI: https://doi.org/10.1257/aer.89.2.381

[69] Sealy, R., Singh, V., and Vinnicombe, S. 2007. *The female FTSE report 2007.* International Centre for Women Leaders at the Crainfield School of Management. Available at: https://dspace.lib.cranfield.ac.uk/handle/1826/3992

[70] Siagian, F.T., and Tresnaningsih, E. 2011. The impact of independent directors and independent audit committees on earnings quality reported by Indonesian firms. *Asian Review of Accounting,* 19(3): 192-207. DOI: https://doi.org/10.1108/13217341111185128

[71] Slama, R.B., Ajina, A., and Lakhal, F. 2019. Board gender diversity and firm financial performance in France: Empirical evidence using quartile difference-in-differences and dose-response models. *Cogent Economics & Finance,* 7(1). Available at: https://10.1080/23322039.2019.1626526

[72] Srinidhi, B., Gul, F., and Tsui, J. 2011. Female directors and earnings quality. *Contemporary Accounting Research, 28*(5): 1610-1644. DOI: https://doi.org/10.1111/j.1911-3846.2011.01071.x

[73] Suyono, E., and Al Farooque, O. 2018. Do governance mechanisms deter earnings management and promote corporate social responsibility? *Accounting Research Journal, 31*(3): 479-495. DOI: https://doi.org/10.1108/ARJ-09-2015-0117

[74] Thiruvadi, S., and Huang, H.W. 2011. Audit committee gender differences and earnings management. *Gender in Management, 26*(7): 483-498. DOI: https://doi.org/10.1108/17542411111175469

[75] Whittred, G.P. 1980. Audit qualification and timeliness of corporate annual reports. *The Accounting Review: 55*(4): 563-577.

[76] Wong, R.M.K., Kim, J.B, and Lo, A.W.Y. 2015. Are related party sales value-adding or value destroying? Evidence from China. *Journal of International Financial Management & Accounting, 26*(1): 1-38. DOI: https://doi.org/10.1111/jifm.12023

[77] Xie, B., Davidson, W.N., and Da Dalt, P.J. 2003. Earnings management and corporate governance: The role of the board and the audit committee. *Journal of Corporate Finance, 9*(3): 295-316. DOI: https://doi.org/10.1016/S0929-1199(02)00006-8

[78] Yasser, Q.R., Al Mamun, A. 2016. The relationship between board leadership structure and earnings management in Asia-Pacific. *Accounting Research Journal, 29* (4): 413-428. DOI: https://doi.org/10.1108/ARJ-06-2015-0080

[79] Ye, J., Zhang, H., Cao, C., Wei, F., and Namuny, M. 2020. Boardroom gender diversity on stock liquidity: Empirical evidence from Chinese A-share market. *Emerging Markets Finance and Trade.* DOI: https://doi.org/10.1080/1540496x.2019.1684892

[80] Ye, K., Zhang, R., and Rezaee, Z. 2010. Does top executive gender diversity affect earnings quality? A large sample analysis of Chinese listed firms. *Advances in Accounting, 26*(1): 47-54. DOI: https://doi.org/10.1016/j.adiac.2010.02.008

[81] Yo, H.A. 2009. *The effect of corporate governance on earnings quality: Evidence from Korea's corporate governance reform*. Doctoral Thesis; College of Business, RMIT University. Available at: http://researchbank.rmit.edu.au

[82] Yusoff, W.F.W., and Idris, A.A. 2012. Insight of corporate governance theory. *Journal of Business & Management,* 1(1): 52–63. DOI: https://doi.org/10.12735/jbm.v1i1p52

[83] Zhang, Y., and Wiersema, M.F. 2009. Stock market reaction to CEO certification: The signaling role of CEO background. *Strategic Management Journal, 30*(7): 693-710. DOI: https://doi.org/10.1002/smj.772