International Journal of Studies in Business Management, Economics and Strategies
Volume 4, Issue 4, April - 2025
ISSN (E): 2949-883X
Scholarsdigest.org

FIRM CHARACTERISTICS, ACCOUNTING AND MARKET PERFORMANCE OF MANUFACTURING FIRMS IN NIGERIA

Asian Asian Umobong
Henry Wobo
Department of Accounting
University of Port Harcourt, Rivers State
Email: Asian.Umobong@uniport.edu.ng

Abstract

The aim of the study was to determine the effect of firm characteristics on accounting and market performance of manufacturing firms in Nigeria based on data collected for the period 2013-2022 from the Nigeria Stock exchange. The sample size using census sampling method was 22 firms which represent 33% of manufacturing firms on Nigeria Stock Exchange during the period of study. We focused on food and beverages, pharmaceuticals and cement subsector of the Nigeria stock exchange which accounts for 40% of the trade volume. The specific firm characteristics under study were leverage, liquidity, asset tangibility, discretional accruals as independent variables and performance measures; return on asset, returns on equity and Tobin Q were used as dependent variables in the study. The effect of inflation as a macroeconomic factor on performance was also considered. Ex-post facto and census sampling method was used in the study. We established the relationship between variables using multiple regression and Hausman test was used in selection of model. Various diagnostic tests were conducted on data set. Granger causality test was carried out to determine the effect of reverse causality. Findings indicate discretional accruals significantly impact Returns on Asset while leverage, asset tangibility and liquidity have weak relationships with Returns on Asset. Leverage, asset tangibility and discretional accruals significantly impact Returns on equity while liquidity has weak relationships with Returns on Equity. We also conclude, liquidity and earnings management proxied by discretional accruals significantly impact the market as indicated by Tobin Q while leverage, asset tangibility have weak relationships with Tobin Q. We conclude that various factors affect firms' performance differently. We also conclude that earnings management significantly impact firms' performance because of its significant relationship to both accounting and market performance indices. Inflation has a negative significant relationship with Tobin Q indicating an increase in inflation reduces market performance of firms. Inflation also insignificantly relate with returns on assets and returns on equity. Thus, inflation have more impact on market returns and valuation of the firm and weak influence on accounting performance of assets and equity. Leverage and asset tangibility have significant relationship with returns on equity and weak relationship with ROA and Tobin Q. Theoretically, the implication of our findings is that the positive significant relationship of leverage with Returns on equity implies that leverage affects performance thus negating the Modigliani and Miller (1958) proposition that capital structure does not affect

profitability and firm value. However, Managers should be cautious when using debt in capital structure as it can result in risk of bankruptcy. The positive significant relationship of earnings management to TOBIN Q shows that Managers can use falsified earnings to impact market value thus aligning with the signaling theory.

KEYWORDS: Leverage, Liquidity, Earnings Management Tobin Q, Returns on Asset, Returns on Equity.

Introduction

In light of the economic and social changes that the world is witnessing The study of the gig Corporate Managers have been at a cross road in maximizing shareholders wealth. There are diverse opinions whether internal factors or external factors are the main drivers of firm performance. Explaining the determinants of firm financial performance is one of the primary objectives of contemporary researches and this phenomenon remains a questionable subject which has continued to attract significant attention and comments of many scholars, financial experts, regulators, public and strategic management of corporate entities. The reason is not farfetched since financial performance impacts the health of the firm and is a major determinant of its survival (Onduso, 2013). Many schools of thoughts suggest that a firm performance is determined by environmental factors and macro-economic environment in which they operate. On the other hand, the resource-based view (Barney, 1991) suggests that the explanation for the existence of profitable firms within the same industry must be found in the internal factors of each firm (for example, market share, firm size, skill level, etc.). These firm-specific factors favor the achievement and maintenance of competitive advantages of each firm, which eventually lead to different profitability levels among firms belonging to the same industry. Iswatia and Anshoria (2007) believes financial performance of a firm depends on its ability to gain and deploy resources to leapfrog competition and achieve an edge.

The traditional economic theory emphasizes the accomplishment or maximization of shareholders wealth and perceives shareholders as the residual owners of the entity. It posits maximization of shareholders interest which must be reflected in prospects, consistent growth and minimization of costs and associated risks. According to Naser and Mokhtar (2004), high performance connotes management effectiveness and efficiency in deployment of resources. However, the challenge facing Managers and entrepreneurs is balancing the trade-off involving liquidity, solvency and making use of firm's resources (Lazaridis, 2006)

The Financial performance of a firm can be evaluated in terms of profitability, dividend growth, sales turnover, and return on investments among others. The issue of evaluation of firm performance is debatable amongst disciplines on the yardstick and determinants of financial performance (Liargovas & Skandalis, 2008). The main objective of financial performance measurement is to determine the operating and financial characteristics and the efficiency and performance of economic unit and management, as reflected in the financial records and reports (Amalendu B, 2010). Financial performance plays a significant role in the firm performance that is expressed in monetary term. It is prudent that before investing

funds, investors should first have understanding about the performance of the firm (Deitiana & Habibuw, 2015). The modest way to determine the performance of a firm is to look at the firm's financial statement. Due to intense competition among the firms, a firm is expected to be able to maintain and improve its performance to compete with others. Consequently, the firm can be able to increase its market share as well as well as reduce its operational costs. This is the strategy which the firm can deploy to leapfrog competitors and remain viable, conversely it can register dismal performance and be edged out of the business. Good Performance by a firm is achieved through implementation of strategies that give competitive advantage over other firms. Whilst performance measurement is both financial and non-financial, firm's characteristics contribute to good performance. Decision making process of a firm relies heavily on its financial performances that determines the direction the firm can take in the future.

Diverse stakeholders are interested in the financial performance of a firm. Managers are constantly faced with investment and financing decision to satisfy these stakeholders. The goal of the Manager is wealth creation evaluated through financial performance. There appears to be an endless argument in the literature over the years on the roles, meaning and determinants of financial performance

Quite recently some firms listed in the Nigeria Stock Exchange have improved in performance, there are others that have experienced declining fortunes, and some have even been delisted from the NSE over the last decade. Significant efforts to turn around such firm or even liquidate them have focused mainly on restructuring of firm level factors. However, managers and practitioners still lack adequate guidance for attaining optimal decision on firm level factors (Kibet, Kibet, Tenai & Muthol, 2011). Although many problems experienced by the firms that have been put under statutory management were largely attributed to firm characteristics factors (Chebii, Kipchumba & Wasike, 2011), there was little systematic empirical evidence to support this.

Leverage is one of the factors identified by many scholars as one of the determinants of firm financial performance**.** The contribution of leverage to performance and firm value has been a subject of debate amongst scholars since Modiglaini & Miller (1976) proposition of irrelevance of capital structure to firm value. Many capital structure theories are proposed by scholars during this raging debate in an attempt to rightly situate the issue leading to emergence of trade-off, pecking order, static theory and signaling theory.

There is also the problem of earnings management with the potential to obscure profit. Earnings management is executed by managers due to benefits derived by them (Stolowy & Breton 2004). Earnings management takes place when managers use their sense of judgment in modifying earnings and in consummating transactions to alter information to either cause wrong decisions by users about the true economic results or to exert influence on outcome of contracts that rely on reported figures (Healy & Whalen, 1999). Schipper (1989) asserts that earnings alterations occur when managers intentionally intervene during reporting process, with the motive of extracting personal benefits in contrast to encouraging normal conduct of activities of entity. Firms' indulge in earnings management for many reasons.

According to Positive accounting theory managers could indulge in falsification of accounting results which ultimately affect reported performance. The motivation could be to achieve

bonus increase, to fulfill debt covenants or to lower political costs. Agency theory however highlights the conflict of interest that might ensue when managers deviate from organizational goals to pursue self-interest to the detriment of organizational goals and may dovetail to earnings management and result falsification. Some falsification of financial reports could be to manipulate earnings and send signals to the market to influence investors' perception of share prices or other stakeholders. It could also be an intentional lowering of profit to avoid tax or smoothing of income to present outlook of income stability. Thus, earnings management in sum affects reported performance. Additionally, the continuous fall in the value of a country's currency where a large sum of money is chasing fewer goods will ultimately affects the firm's operation. The malaise could dovetail into tax being paid out of capital, undervaluation of asset, erosion of earnings, poor demands of goods and services by consumers and effect on workers salary with attendant demand for wage increases and creates a spiral effect and low productivity of the labor force.

Firm have different needs of liquidity that depends on various circumstances. According to Myer (2005), excess liquidity is an expense for the firm. This he clarified by explaining that money can be placed in fixed deposits with banks and earn interest income and that the price of working capital is the interest rate. On the other hand, liquidity deficit can be offset by short term loans or by selling liquid assets which is an expense to the firm. There is therefore an optimal level of liquidity that would benefit a firm in a profitable way. The impact of liquidity position in management of an institution has remained fascinating and intriguing, though very elusive in measurement of financial performance. The Liquidity of a firm and working capital has also been x-rayed by many scholars to determine its contribution to firm financial performance

Many studies have been done to investigate the effect of certain firm characteristics on financial performance, but only concentrated on a few firm characteristics and have used others as control variables even though results of their findings show that the "other firm characteristic" have a significant effect on financial performance (Nunes, Serrasqueiroa & Sequeira, 2009; Dogan, 2013). Studies by Majumdar (1997); Nunes, Serrasqueiro & Sequeira (2008); Lee (2009) and Dogan (2013) investigating the effect of firm size and firm performance totally ignored other potential firm characteristics that have an effect of firm financial performance like asset tangibility. Many studies have indicated that a positive relationship exists between particular firm characteristics and performance (Lu et al., 2010; Dhanaraj & Beamish, 2003; Tseng *et al.,* 2007; Mittelstaedt, Harben & Ward, 2003; White *et al.*, 1998; Calof, 1993). Others have demonstrated that a negative relationship exists between firm characteristics and performance (Cubbin & Leech, 1986; Kilantaridis & Levanti, 2000; Poof & Heriot, 2005). Still other studies found evidence that a relationship existed (Tseng *et al.,* 2007) and other research has proposed that no relationship exists between specific firm characteristics and performance (Amato & Wilder, 1985). A review of the available literature indicates that the relationships between the components of firm level factors and their role in determining accounting performance have conflicting results. Many studies (Almajali et al, 2012; Liargovas & Skandalis, 2008) have been done regarding factors affecting the financial performance of listed firm, especially in developed economies. These studies are of foreign origin ignoring the peculiar economic situation of Nigeria characterized by high inflation,

unemployment, low disposable income, lethargy in demands and low-capacity utilization by manufacturing firms. Also, mixed outcomes are obtained from previous studies and different methodologies were used thereby motivating further examination of the subject under debate. Furthermore, other studies conducted on the subject failed to consider the implications of macro-economic factors (inflation) and managers' latitude to manipulate earnings and its effects on firm performance This study intends to fill this gap by trying to identify firm characteristics that determine performance in Nigeria especially under the present economic situation of galloping inflation, high poverty index, low capacity utilization, low demand and falling standard of living amongst the Nigeria citizens. Thus this study will contribute to the raging debate on the subject and offer firms opportunity to identify factors within the firm that could enhance performance.

2.0 Literature

2.1 Theoretical Underpinning

The financing need of an entity can be fulfilled through equity financing, retained earnings and borrowing. The relationship between the level of debt and equity is referred to as leverage. The balancing between these three methods of financing and how it affects performance has been a subject of debate amongst scholars. **The M and M theory of capital structure** postulated by Modiglani and Miller (1958) suggested the irrelevance of capital structure implying that the way a firm chose to combine its funding needs does not affect the firm but rather the assets and future earnings of the firm does. This proposition states that in perfect markets, the capital structure a company uses doesn't matter because the market value of a firm is determined by its earning power and the risk of its underlying assets. According to Modigliani and Miller, value is independent of the method of financing used and a company's investments.

The pecking order theory suggested by Donaldson (1961) focuses on asymmetrical information costs. This approach assumes that companies prioritize their financing strategy based on the path of least resistance. Internal financing is the first preferred method, followed by debt and external equity financing as a last resort. It is argued that managers issue risky securities when they are overpriced resulting in underpricing of new equity issue, this underpricing occasionally is severe resulting in substantial loss to existing shareholders. To ameliorate information asymmetry whilst fulfilling financing requirements, firms show preference to retained earnings as their main source of financing, followed by debt financing and later by external equity financing as a last resort suggesting that the finance mix of a firm is arranged by a hierarchy of preferences. Agency theory developed by Jensen and Meckling (1976) suggest that an optimal capital mix exist and that an optimal debt level in capital structure can be achieved by minimizing agency costs arising from the divergent interest of managers in relation with shareholders and debt holders. The way a firm mixes its funding needs ultimately affects its performance.

The trade-off theory recognizes the existence of optimal capital structure and is based on a proposition that a firm sets its target debt level and then gradually moves towards it. The theory asserts that a firm's optimal debt equity ratio is achieved at the point when the marginal present value of the tax on additional debt is equal to the increase in the present value of

financial distress costs. According to Myers (1984) marginal benefits of additional debt increases as debt decreases and vice versa just as cost increases as debt increases. The theory thus recognizes three competing forces of taxes, costs of financial distress (bankruptcy costs) and agency costs as the drivers of the financing mix of an entity and ultimately its financing decision affects its performance. According to Kraus and Litzenberger (1973) an optimal leverage exist that depict the trade-off between the cost of bankruptcy and the tax benefits of debt. A firm balances the cost of equity and debt financing with the tax benefits of debt (Margaritis and Psillaki, 2010) to achieve superior performance. However, despite the good efforts of the firm the self-interest of the managers could motivate them to indulge in conflict of interest between their interest and that of the principal.This conflict leads to sub optimal decision that impacts performance.

Positive accounting theory postulates that managers could indulge in actions intended to pull reported earnings from future to present period with the intention to raise bonuses due for personal gains currently. The hypothesis explains that managers who are compensated with bonus pays are likely to deploy accounting techniques that raise or optimize present period income. Watts & Zimmerman (1990) explains that the choice will raise current bonuses if the reward committee of the board of directors do not modify for variations in methods chosen. This behavior by managers is tagged 'opportunistic' due to deliberate selection of procedures which satisfies their selfish intent. Managers could also manipulate earnings because of debt. Firms that are near default in meeting debt obligations managers make accounting policy selections that pull reported profits from future accounting periods to current period. This will increase profits immediately and firms will avoid debt covenant violations. The theory assumes high debt/equity ratio makes it difficult for firms to comply with debt covenants and this increases possibility of incurring additional cost for technical default and managers will use accounting techniques that increase income. Managers will use their initiatives to select methods to improve income, reduce debt problems and costs that can cause default (Watts & Zimmerman, 1990). Managers will indulge in accounting manipulation. Managers could also manage earnings because of high political cost. High profit can result in increased political pressure in form of higher taxes or stiffer regulations like amendments in standards of reporting. The theory explains that bigger and not small firms possess a higher propensity to deploy accounting selection techniques to mitigate reported gains. Thus, size is proxy for political attention. The theory assumes it is costly to inform about earnings or to align with others to legislate on rules that improve welfare. Consequently, individuals are misinformed about activities. The process does not diverge from market and given associated costs of monitoring and obtaining information managers are motivated to exercise their sense of judgement in choosing methods that satisfy their intention in reducing associated costs and satisfying parties involved (Watts & Zimmerman, 1990). The postulation of alteration of reported performance by positive accounting theory is further supported by **Agency theory** propounded by Jensen and Mecklings which further espoused that managers could act deliberately and in conflict by deviating intentionally from organizational goals to pursue self-aggrandizement to the detriment of shareholders. This will ultimately result in falsification of reported earnings and performance. The motivation could be to send wrong signals to the market by smoothing income to influence investors' perception or show that the entity is

highly profitable to drive market price of shares in the exchange. It could also be reasonably expected that such actions of falsification of profit could be motivated by the desire to earn more bonuses.

2.2 Conceptual Framework

2.2.1 Financial Performance

Although "performance" may appear to be an easy concept, a unique definition in the literature does not exist. Moreover, academics often use special definitions tailored to fit the individual research purposes (Langfield-Smith, 1997). The financial performance is often measured using traditional accounting Key Performance Indicators such as Return on Assets, Operating Profit margin, Earnings before Interest and Tax, Economic Value Added or Sales growth (Ittner & Larcker, 1997; Fraquelli & Vannoni, 2000; Crabtree & DeBusk, 2008). The advantage of these measurements is their general availability, since every profit-oriented organization produces these figures for the yearly financial reporting (Chenhall & Langfield-Smith, 2007). In measuring performance for this study, we use return and assets, tobin q and returns on equity thus combining both accounting and market based methods of performance measurement. It is often argued that accounting performance measures are historical in nature and does not consider the impact of macro-economic factors such as inflation in eroding the value of assets thereby affecting comparison of figures over time. This disadvantage is overcome by market based methods which reflects the perception of the market and is futuristic

2.2.2 Firm Characteristics

2.2.2.1 Liquidity

One of the most common measures of working capital is the current ratio. "Current ratio is a measure of relative liquidity that takes into account differences in absolute size. It is used to compare firm with different total current assets and liabilities" (Louderback et al., 2000). Various ratios are used to measure liquidity. These include: the current ratio, which is the simplest measure and is calculated by dividing total current assets by total current liabilities; and the quick ratio, calculated by deducting inventories from current assets and then dividing by current liabilities. Although the two ratios are similar, the quick ratio provides a more accurate assessment of a business's ability to pay its current liabilities. The quick ratio cuts out all but the most liquid of current assets.

2.2.2.2 Asset Tangibility

According to Ellis (1998), asset utilization measures which assets can produce and what they actually produce. Conversely, asset dis-utilization represents losses in revenue in relation to the investment that may be attributable to the inefficient use of assets. Fleming, Heaney & McCosker (2005) pointed out that asset dis-utilization may increase agency costs because managers do not act in the best interests of the owners. A firm is highly competitive if its managers are able to mix tangible and intangible assets in the most effective and efficient manner (Herciu & Ogrean, 2012).

2.2.2.3 Leverage

According to Rajan & Zingales (1995), leverage can be defined as the ratio of total liabilities to total assets. It is alternative for the residual claim of equity holders Leverage is measured by the total debt to total assets and is a proxy to leverage. Debt ratio = Total debt Total Assets Ezeamama (2010) states that debt ratio (DR) measures the amount of the total funds provided by creditors in relation to the total assets of the firm. The formula is given below as Total debt to Total Assets. Finally, the researcher concludes that the correct formula to be used in analyzing this debt ratio is Total Liabilities to Total Assets

2.2.3. Earnings Management (Modified Jones Model)

The modified Jones model was designed to alleviate the flaws in the original Jones model and adopts the use of earnings management through discretionary revenues. The original technique of determining the total accruals was not amended and is still in accordance with the original Jones model. However, the modified Jones model, measures nondiscretionary accruals with the formula:

$NDA_t = a_1 (1/A_{t-1}) + a_2 (\Delta REV_t - \Delta REC_t) + a_3 (PPE_t)$

Where

ΔREC_t = net receivables in year t less net receivables in year t-1 scaled by total assets at t-1.

The Modified Jones model and the standard Jones model differ from each other in the aspect that changes in revenues are adjusted for the change in receivables in the event period (Deschow, 1995). The Modified Jones model assumes that all changes in credit sales result from the use of earnings manipulations. Dechow et al. (1995) conducted a research to ascertain the best suited approach to detecting earnings manipulations and concludes that the Modified-Jones-model has the best explanatory value with the least systematically errors. This finding was supported by further research by Stolowy (2004) affirming the findings by Deschow (1995)

2.3 Empirical Review

Okere et.al (2024) examined the effect of firm characteristics on the financial performance of listed deposit money banks in Nigeria. The study used panel ordinary least squares regression and findings show that there is a positive insignificant association between capital adequacy and return on assets. In addition, there is a negative insignificant relationship between board size and return on assets.

Olawuyi (2023) examined the influence of firms' characteristics on financial performance of listed consumer goods companies in Nigeria from 2011 to 2020. The study found firm size to be positively associated with the profitability of listed consumer goods firms in Nigeria. it also found age of the firm is negatively associated with profitability of listed consumer goods firms in Nigeria.

Sabiya and Joel (2023) examined firm characteristics and financial performance of selected Pension Fund Administrators in Nigeria. Firm age had a significant positive effect on financial performance which is measured by Unit Price.

Mutumanikam , Dessy Adelin (2024) examined the impact of financial leverage on firm performance within emerging markets, with a focus on publicly listed firms in countries such as Indonesia, India, and Brazil.). The results suggest a leverage has positive with ROA and negative effects ROE.

Alim,Ali and Minhas(2022) investigate the impact of leverage on financial performance.. The result showed company's leverage has significant results with Return on asset and insignificant relationship with Returns on equity. Result also show negative relation with operating leverage as well as a positive relation with financial leverage and combine leverage of listed firms

Ali et.al (2022) investigate the relationship between the leverage, ownership structure and firm performance using data of 70 firms listed on Pakistan Stock Exchange, for the years 2010 to 2016. Result from the study confirmed negative significant relationship of leverage on both ROA and ROE while managerial ownership, institutional ownership and family owned ownership have negative significant relationship with performance

Alathamneh et.al (2025) investigated effect of asset tangibility on market value and of listed mining and extraction firms at the Amman Stock Exchange for the period 2013 to 2022 using secondary data and analyzing the relationship using single and multiple regression Tobin's Q is used as a good indicator of firm market value, while return on assets is used as a common indicator of firm profitability., the results showed a significant impact of asset tangibility on firm profitability and firm market value. The results also demonstrated that firm profitability has a significant impact on firm market value. In addition, the results revealed that firm profitability mediates the effect of asset tangibility on firm market value.

Chirchir,Kalui and Tari (2024) examined the effect of firm characteristics on financial performance of non-financial firms listed at the Nairobi Securities Exchange for the period from 2009 to 2018. The study used Asset tangibility, Firm growth and Firm age. As measures of firm characteristics.. From the result it was revealed asset tangibility had significant negative effect on ROA while firm age has a negative significant effect on ROA.

Nangih and Turakpe (2023) investigated the impact of the asset tangibility on market performance of listed consumer and industrial in Nigeria using secondary data of firms for the 2013–2022. The results showed asset tangibility is significant in predicting the market performance of firms, and that tangible noncurrent assets have an insignificant negative impact on market performance indicators, while intangible noncurrent assets have a significant positive impact on market performance

Oganda, Mogwambo and Museve (2023) examined asset tangibility and financial performance of manufacturing firms in Kenya for the period 2010-2019.. Asset tangibility was positively correlated with Tobin Q and enterprise value.

Vengasi (2023) investigated the impact of investment tangibility on financial leverage, examining both tangible and intangible investments. Of African firms. Result confirmed. significant negative relationship between leverage and tangible and intangible investments. The findings indicate that African firms tend to maintain lower leverages regardless of whether they invest in tangible or intangible assets.

Okobo, Ugwuoke and Akpan (2022) examined effects of changes in tangible non-current assets on return on assets of food manufacturing firms in Nigeria for the period 2008 to **2020.** The study revealed changes in investment in land and buildings, plants and machineries and motor vehicles have a statistically significant positive influence on return on assets (ROA)

Daudu et.al (2022) evaluate impact of firm specific characteristics on financial performance of Nigeria listed insurance companies. The study found age and leverage significantly and positively influences asset quality while size significantly and positively influences the capital adequacy, management efficiency and solvency.

Ali, Yasin and Aburaya (2020) investigated impact of firm characteristics on the financial performance of companies listed on Egyptian stock market. Using Regression model was performed to regress six firm characteristics variables, namely firm size, foreign listing, age, leverage, liquidity, and assets tangibility. The study has an impact on both accounting financial performance as measured by ROA or ROE and market-based financial performance as measured by Tobin's Q, with little difference in the level of such impact

Kwaltommaet.al (2019) examined firm characteristics and financial performance of consumer good firms in Nigeria. firm size and age, has a positive relationship with financial performance and leverage too has a positive relationship with financial performance

Soyemi and Olawale (2019) examined impact of firm's characteristics on the quality of financial reporting of listed manufacturing firms in Nigeria. The result revealed that firm size has positive significant effect on financial reporting quality. Tangibility has negative significant effect on audit financial reporting quality. Firm's profitability has also been argued to have a positive influence on the quality of financial reporting while firm growth has negative significant effect on financial reporting quality

Almajali *et al*. (2012) analyze firms listed on the Amman Stock Exchange during 2002-2007, by applying tests and multiple regressions. Their study shows liquidity, leverage, firm size and management competence index have a statistical positive effect on performance. Charumathi (2012), who considered a number of 6 independent variables in a study of Indian firms found profitability is significantly and positively influenced by firm size and liquidity, while leverage, growth of gross written premiums and volume of equity have a negative and significant influence. Mehari & Aemiro (2013) assess the impact of the Ethiopian insurance firm' characteristics on their performance. The study includes 9 insurance firm which are analyzed through panel data technique, during 2005–2010. According to the results, firm size, loss ratio, tangibility and leverage represent important determinants of insurers' performance. The findings of Zeitun & Tian (2007) indicated that leverage has a significant and negative relationship with firm's performance when leverage, growth, size, tax, risk and tangibility were regressed against firm's performance variables.

Mojumder & Chiber (2004) and Rao & Syed (2007) also confirm negative relationship between financial leverage and performance. The results further suggest that liquidity, age and capital intensity have significant influence on financial performance.

Akhtar, et al (2012) examines the relationship between financial leverage and financial performance, evidence from fuel and energy sector of Pakistan. The result shows that there is a general perception that a relationship exists between the financial leverage and the performance of the firm' i.e most of the financial performance indicators have positive

relationship among leverage and the financial performance when compare with debt-to-equity ratio.

Rehman (2013) studies the relationship between financial leverage and financial performance in listed sugar firm of Pakistan. The results show positive relationship of debt equity ratio with return on asset and sales growth, and negative relationship of debt equity ratio with earning per share, net profit margin and return on equity. This negative relationship between debt equity ratio and earnings per share (EPS) support the fact that as debt increases, the interest payment will also rise, so EPS will decrease. Akinmulegun (2012) examines the effect of financial leverage on selected indicators of corporate performance in Nigeria. This shows that financial leverage significantly affects corporate performance in Nigeria. Rajin (2012) investigates the influence of financial leverage on shareholders return and market capitalization, evidence of telecommunication sector firm in India. He finds out that the nature of relationship and the state of influence of the financial leverage on shareholder's return and market capitalization individually indicates positive relationship between financial leverage and shareholder return but negative relationship between financial leverage and market capitalization. Enuju & Soocheong (2005) examine the effect of financial leverage on profitability and risk of Restaurant firms. They find that financial leverage does not influence the restaurant firms' profitability. The sign of financial leverage is positive meaning that more leveraged firms had more profits on average even though it was not statistically significant.

Taani (2012) investigates impact of working capital management policy and financial leverage on financial performance. The study shows firm's working capital management policy, financial leverage and firm size have significant relation to net income and no significant impact on return on equity (ROE) and return on Assets (ROA). Akbarian (2013) examines the investigation effect of financial leverage and environment risk on performance firms of listed firm in Tehran stock exchange. The result shows that there is a negative relation between financial leverage and cash flow per share and between variables market risk and economic risk with free cash flow per share positive significant. It also indicates that financial leverage, market risk and economic risk with return of equity have positive significant relationship.

Gleason, et al (2000) in their study of European countries, found a significant negative relationship between the financial leverage and return on assets and profit margin. Deesomsak (2004) in Malaysia also found a negative relationship between financial leverage and net profit margin.

Huang & Song (2004) studies on Chinese firm found a negative relationship between long-term debt and return on assets, as well as between all the liability and return of assets. Berger & Bonaccorsi (2006) evidence that neither high level of financial leverage nor small capital of the firm, are associate with higher efficiency of firm's performance. Rao et al. (2007) also confirms the negative relationship between leverage and performance. Jelinek (2007) examines the effect of financial leverage and free cash flow and firm growth on earnings management. The results indicate that firm experiencing an increase in financial leverage during a five-year period gradually compared to those which had high leverage degree in the same period has performed less earnings management. Alcock, et al (2013) examines the role of financial leverage in the performance of private equity real Estate funds. The results

indicate that funds overall are unable to deliver significant positive out performance based on managerial skill that is unrelated to the exposure to the variation in the underlying market return. Adams & Buckle (2003) examine the determinants of operational performance in the Bermudian insurance market, during 1993–1997. By applying a model of panel data to 47 insurance firm, the authors highlight the fact that firms with high leverage, low liquidity and reinsurers have better operational performance than those situated to the opposite. Onaolapo & Kajola (2010) found a significant and negative relationship between debt ratio and firm's financial performance. The study conducted by Krishnan & Moyer (1997) found a negative and significant relationship between leverage and firm's performance while other factors affecting firm's performance positively includes size, growth, tax and risk. Based on empirical result the role of leverage on financial performance of firms are found to be mixed.

Ogundipe, Idowu & Ogundipe (2012) conducted a study to examine the impact of working capital management on the performance and market value of firm. The study used Tobin Q, ROA, EBIT, and ROI as the dependent variables while the independent variables were cash conversion cycle; current ratio; current asset to total asset ratio; current liabilities to total asset ratio; and debt to asset ratio. Using correlation and multiple regression analysis techniques, the study established that a significant negative relationship exists between cash conversion cycle and market valuation and a firm's performance. The study, however, only focused on short-term financing decisions. Ehiedu (2014) conducted a study on the Impact of liquidity on profitability of Some Selected Firm in Nigeria and concluded that 75% of them indicated that current ratio has a significant positive correlation with profitability. Studies by Ankintoye (2000) on profit determinants revealed that liquidity of Ukrainian firms, measured by current ratio, has a significant positive influence on profitability. . The analysis of liquidity management for Belgian firms (Amadi & Akani, 2005) shows that liquidity requirements are relatively the same across all firm within the industry. However, the liquidity measurements are not stable as they are influenced by macroeconomic factors especially changes in interest rates, competition, and technological developments among others. Similar results were found by Weinraub & Visscher (1998) in their study of the issue of aggressive (low level of liquidity) and conservative (medium level of liquidity) working capital management policies in US firms. Their study on 10 industries groups investigated the differences between the influences of two policies onto profitability and concluded that there is high and significant negative correlation between industry assets and liability policies.

Lambert & Valming (2009) findings suggested that the adaptation of liquidity strategies do not have significant effect on ROA. Raheman & Nasr (2007) revealed a negative relationship between liquidity and profitability as well as a significant negative relationship between debts used by the firms and its profitability in a study which had average collection period, inventory turnover in days, average payment period, cash conversion cycle, current ratio, size of firm, and financial assets to total assets ratio as independent variables and net operating profit as the dependent. Benjamin & Kamalavali (2006) had current ratio, quick ratio, inventory turnover ratio, working capital turnover ratio, debtor's turnover ratio, ratio of current asset to total asset, ratio of current asset to operating income, comprehensive liquidity index, net liquid balance independent variables while the dependent variable was return on investment (ROI) in an investigation that revealed a negative association between ROI and current ratio, cash

turnover ratio, current asset to operating income and leverage. There was a positive association between ROI and quick ratio, debtor's turnover ratio, current asset to total asset and growth rate.

Konadu (2009) did a study on liquidity and profitability: empirical evidence from listed banks in Ghana and found no positive relationship between liquidity trend and profitability. The research also indicated a negative relationship between liquidity and profitability in the Ghana banking sector.)

3.0 Methodology

The study used cross sectional ex-post facto design based on secondary data derived from firm's financial statement. In all twenty two manufacturing firms were sampled based on census sampling method in gathering data across the sub sectors of food and beverages, cement and Pharmaceuticals manufacturing firms and ignored sampling size determination which is not required in census method. This sample size represent 25 percent of the entire population of manufacturing firms in Nigeria and therefore statistically significant for the study. Multiple regression analysis was used to determine the nature of relationship between the variables. Diagnostic tests and cross dependence test were carried out on data set. The distribution of the density functions for the data used in the study are further tested since the aim of observing the study is to examine the patterns of probability and normality of the distributions among the datasets. Hausmann test was conducted for selection of Models, Causality test was also conducted to ascertain the effect of reverse causality amongst the variables of study. The impact of earnings management on performance was considered and proxied as accrual quality and modified Jones model was adopted in the determination of discretional accruals. Inflation is observed to affect performance and this macro-economic factor was considered as there is presently galloping inflation in Nigeria. The measurements of variables in our study is denoted on the table below:

Table 1: Measurement of Variables and Aporipori Expectation

Independent Variable	**Measurement**	**Expected Sign**
Leverage	Total liabilities / Total Asset	Positive
Tangibility	Fixed Asset / Total Assets	Positive
Liquidity	Current Assets / Current Liabilities	Positive
Dependent		
Returns on Asset (ROA)	Earnings before interest and taxes / Total Assets	Positive
ROE	Earnings before Interest and Taxes / Shareholders' Equity	Positive
TOBIN Q	Market value of Equity + MV of debt / Total assets	Positive
Control variable:		
Inflation	As published by Federal office of Statistics	Negative
Accrual Quality (Earnings management)	Calculated using Modified Jones Model	Negative

Statistical Estimation

$$TOBQ = \alpha_0 + \alpha_1 LEV + \alpha_2 TAN + \alpha_3 LIQ + \alpha_4 INF + \alpha_5 ACR + U_1, t \quad - \quad (i) \quad (v)$$

$$RONE = \beta_0 + \beta_1 LEV + \beta_2 TAN + \beta_3 LIQ + \beta_4 INF + \beta_5 ACR + U_2, t \quad - \quad (ii) \quad (vi)$$

$$RONA = w_0 + w_1 LEV + w_2 TAN + w_3 LIQ + w_4 INF + w_5 ACR + U3,t \quad (iii$$

4.0 Results

4.1 Descriptive Statistics

Table.2 presents annualized mean, annualized standard deviation and other summary statistics on the financial performances of the selected firms and the other variables in Nigeria. The descriptive statistics show that, for the performance variables, average Tobin's Q for the manufacturing firms is 6.58, suggesting relatively low performance of the selected firms in terms of significance in the market. The Table also shows that certain firms had very low Tobin's Q ratios for certain years, while some other firms had values up to 14.76 percentage points. Average ROA is lower than average ROE for the firms, although the standard deviation of ROE is quite high at 3.23 which shows that there were wide variations in the performance of ROE among the firms or over the years. This is also confirmed by the high skewness value of 4.39, which suggests a very positive skewness among the data and show that much of the ROE values for the firms actually lie below the reported average value in the Table.

Table 2: Descriptive Statistics of the Data

	Mean	Med	Max.	Min.	S.D.	Skew	Kurt	J-B	Prob.
TOBINQ	6.58	6.57	14.76	-0.47	2.35	0.20	7.20	75.58	0.00
ROA	0.09	0.07	0.38	-0.30	0.11	-0.25	3.92	4.64	0.10
ROE	0.27	0.21	3.23	-0.50	0.49	4.39	27.25	2827.12	0.00
LEV	0.54	0.57	1.50	0.19	0.18	1.31	10.23	251.30	0.00
TAN	0.63	0.59	6.14	0.07	0.60	7.64	71.06	20676.49	0.00
LIQ	1.74	1.07	56.57	0.07	5.54	9.65	95.94	38297.13	0.00
INFL	11.58	9.01	16.50	8.06	3.75	0.39	1.20	16.41	0.00
ACCR	0.05	0.00	1.60	0.00	0.22	5.26	32.00	4044.67	0.00

For the explanatory variables, average leverage is 0.54, which shows that over 50 percent of the assets of most of the firms is made up debt instruments. The standard deviation of 0.18 ir relatively low, suggesting that the leverage of the firms are evenly distributed, though the skewness value of 1.31 shows slight leaning towards lower values of the mean reported, tangibility is 0.63 on average and liquidity is 1.74 on average (suggesting highly liquidity financial indicators for the firms)..

The J-B tests for each of the categories are high and easily passed the significance tests at the 1 percent level indicating that the datasets are non-normally distributed. These show clear cases of heterogeneity in the data sets across the firms. Essentially, the non-normal

distribution shows that there are strong firm-specific influences on the outcome of each of the performance and determinant datasets reported in the Table.

The correlation Table for the financial performance variables in the study is shown below. From the Table, it is seen that, positive correlations exist among all the performance variables in the study. This shows that when each of the performance indicators among the companies are increasing, the other indicators are also increasing. Thus, all performance indicators, move in the same direction. However, Moreover, the correlations among the variables are significant (at least at the 5 percent level

Table 3: Correlation Matrix for performance variables

	TOBINQ	ROA	ROE
TOBIN	0.22		
	0.03		
ROA	0.13	0.25	
	0.19	0.01	
ROE	0.08	0.04	0.09
	0.45	0.66	0.36

The correlations among the selected determinants of financial performances among the firms are also presented in this section. This correlation analysis helps to present the initial patterns of relationship among the independent variables and also to consider the level of multicollinearity among the explanatory variables. It should be noted the multicollinearity may occur in estimates where the correlations among independent variables are very high, thereby rendering the estimated coefficients highly inefficient and biased. From the correlation matrix in Table 3, the correlations among each of the variables are very low, The low correlation among the variables shows that the problem of multicollinearity among the variables would not arise since all the variables are shown to exhibit less relationships among each other.

Table 4: Correlation Matrix for determinants variables

	LEV	TAN	LIQ
	0.86		
TAN	-0.05		
	0.60		
LIQ	-0.05	-0.08	
	0.65	0.40	
	0.00	0.17	0.73
INFL	-0.02	-0.12	0.10
	0.87	0.22	0.31
ACCR	-0.09	-0.09	0.00
	0.36	0.34	1.00

In general, the correlation matrix shows that Leverage has a negative correlation with other variables.

4.2.2 Cross-section Dependence Test

Before conducting the cause-effect testing for the study, the cross-section dependence tests are conducted. Such tests allow for disentangling the crucial features of the relevant variables taking into consideration the issue of cross-section dependence in the data. Notice that the presence of cross-section dependence within the framework of our dataset can lead to estimations that require the introduction of firm-biased variables in the study. Moreover, since the firms in the sample are all Nigerian firms, they are likely to exhibit similar responses to overall financial climate of the economy thereby presenting certain levels of interdependencies which may lead to spatial autoregressive processes. The issue of dependence across the companies is investigated by implementing the most commonly used test for cross section dependency (Pesaran, 2004 and 2007). Given that the number of cross-sectional units in this study is greater than the period (n = 21 and T=5), the standard Breusch and Pagan (1980) LM test for cross-equation correlation is also appropriate for testing cross-sectional dependence in a panel data model (Baltagi, Feng & Kao, 2012). Thus, for this study, we also adopt the cross-sectional dependence (CD) test developed by Pesaran (2004) which uses a pair-wise average of a sample correlation to test the existence of cross-sectional dependence.

Table 5: Cross-section Dependence Test Results

Variables series tested	Pesaran CD	P-value	Breusch-Pagan LM	P-value
TBQR equation	7.63	0.00	300.8	0.00
ROA equation	3.28	0.00	275.4	0.00
ROE equation	3.04	0.01	277.6	0.00

The results of cross-section dependence test are reported in Table 5. From the result, it is seen that the Peseran CD test and Breusch-Pagan LM test for each of the equations on firm performance pass the significance test at the 5 percent level, suggesting the absence of cross-sectional dependence for the estimation structure. The absence of cross-sectional dependence implies that the estimations are efficient even with heterogeneous operational structures among the firms in the sample. Apparently, the test above rejects the null of presence of cross-section dependence.

4.3.1 Empirical Results on the Panel Analysis

The goal of the regression analysis based on the Panel data framework is to determine the effects of each of the selected determinant factors on the financial performance of the non-financial firms in Nigeria. We conduct our econometric analysis to test for the roles of the factors in predicting the behavior of performances among the firms. There are six dependent variables that measure performance of the companies. The analysis of the regression results is interested in determining the strength, significance and direction of effects of the determinant factors on performances of the companies.

The results of the OLS estimates among the relationships are essentially biased since heterogeneity issues have been noted in the J-B statistics test above. As stated in the previous section, the standard test for the method of panel analysis to adopt is the Hausman test for random effects. For this test, the null hypothesis is that that a random effect does not exist in the cross sections of the data. Thus, if the coefficient of the Chi-square is significant, the null hypothesis is rejected, then the random effect estimates become inefficient in capturing the relationships in the Equations. The results of the Hausman test is presented in Table 6 and indicates that the null hypothesis is rejected for both the each of the Equations. From the Hausman test results, the statistic provides little evidence against the null hypothesis that there is no misspecification when the fixed effect model is employed for the performance Equations. Hence, the best method to apply is the Fixed-effect strategy.

Table 6: Hausman Test for Cross-Section Random Effects

Model	*Chi-Sq. Statistic*	*Chi-Sq. d.f.*	*Prob.*
Tobin's Q	12.41	8	0.019
ROA equation	12.25	8	0.016
ROE equation	13.47	8	0.00

4.3.2 Panel Estimation Analysis

In this study, we report the fixed effects estimates and use the results for conclusions drawn. In the results also, the estimates are presented for their effects on firm performance.

4.3.2.1 Determinants of Financial performance and Tobin Q

The result of the fixed effects model for firm performance (using Tobin's Q ratio as indicator) are presented in table 7 below. The goodness of fit statistics are impressive for the results. The adjusted R-squared value shows that about 98 percent of systematic variations in Tobin's Q is captured in the models with control and without control. This also shows that the model has high explanatory power.

Table 7: Determinants of financial performance (Dependent variable is *Tobin's Q)*

Variable	**Coeff.**	**t-Stat.**	**Prob.**
C	9.37	37.95	0.00
LEV	0.25	0.53	0.60
TAN	0.01	0.17	0.86
LIQ	0.00	2.73	0.03
INFL	-0.02	-2.69	0.03
ACCR	0.73	2.89	0.02
Adj. R-sq.	0.98		
F-statistic	149.22		

The effect of the explanatory variables on Tobin's Q ratio is determined by observing the coefficients of the estimates in terms of signs and significance. From the result of the estimates LIQ and ACCR passed the test at the 5 percent level ($p < 0.05$ liquidity and accruals all have significant positive impact on Tobin's Q ratio implying that when these variables increase in a firm, the market performance of the firms will also increase. The coefficients of LEV and Tan do not have any significant impact on firms' Tobin's Q ratio among the firms.

4.3.2.2 Determinants of Financial Performance and Returns on Assets

Table.8 shows the result of the effects of the determinant factors on firms' ROA (operational performances). From the result, the diagnostic statistics are all high and impressive. The adjusted R-sqaured statistic is very high at 0.958, suggesting that over 95 percent of the variations in ROA was captured in the model. The individual contributions of the explanatory variables to the performance of ROA in the model is demonstrated by the coefficients of the explanatory variables. From the results in Table 4.6, only the coefficients of discretional accruals passed the significance test at the 1 percent and 5 percent levels. All the other variables in the model, including LEV, TAN and LIQ all fail the significance test even at the 5 percent level. This implies that these variables are not important determinants of ROA for firms in Nigeria.

Table 8: Determinants of financial performance (Dependent variable is ROA*)*

Variable	Coefficient	t-Statistic	Prob.
C	-0.034	-1.025	0.309
LEV	0.004	0.110	0.913
TAN	0.002	0.664	0.509
LIQ	0.000	1.436	0.155
INFL	-0.001	-1.302	0.197
ACCR	0.024	2.436	0.017
Adjusted R-squared	0.958		0.168
F-statistic	79.03		1.324355

4.3.2.3 Determinants of Financial Performance and Returns on Equity

The result for ROE is also shown in Table.9 below and it suggests an impressive goodness of fit statistics for the model. The adjusted R-squared value of 0.917 is very high. It shows that the model exhibits are very high explanatory power and the main determinants of ROE has been captured in the model. The F-statistic value of 38.79 is also highly significant at the 1 percent level, which shows that the model has impressive overall significance. Indeed, the result of the F-test shows that a significant relationship exists between ROE and all the independent variables combined.

Table 9: Determinants of financial performance (Dependent variable is ROE*)*

Variable	Coefficient	t-Statistic	Prob.
C	-0.194	-2.169	0.033
LEV	0.629	6.038	0.000
TAN	-0.040	-2.935	0.005
LIQ	0.004	1.515	0.134
INFL	0.002	1.237	0.220
ACCR	-0.195	-5.294	0.000
Adjusted R-squared	0.917		
F-statistic	38.789		

A close examination of the individual coefficients of the explanatory variables reveals that the coefficients of LEV, TAN, and ACCR all passed the significance test at the 1 percent level, while those of the other variables fail the significance test even at the 5 percent level. This shows that the main factors that determine ROE among the firms are leverage, tangibility, and accruals. The other factors are not important determinants of ROE among the firms. The result also shows that leverage have positive impacts on ROE, while tangibility and accruals have negative impacts on ROE

4.5 Test of Hypotheses

HO1:There is no statistically significant relationship between leverage tangibility, liquidity and Tobin Q

The outcome of the study revealed that there is a mixed statistical relationship between determinants of financial performance and Tobin Q as a measure of performance. We summarized the findings below Leverage has a positive coefficient of 0.25 and p-value 0.60 >0.05 therefore we accept the sub null hypothesis that there is no significant relationship between leverage and Tobin Q. Asset tangibility has a positive co-efficient of 0.01 and p-value 0.86.>0.05 indicating insignificant relationship, therefore we accept the sub-hypothesis which states that there is no significant relationship between asset tangibility and Tobin Q. Liquidity has a positive co-efficient of 0.00 and p-value 0.03<0.05 indicating significant positive relationship of liquidity with Tobin Q, therefore we reject the sub-hypothesis that there is no significant relationship between liquidity and Tobin . Inflation has a negative co-efficient of 0.02 and p-value 0.03<0.05 indicating significant relationship with Tobin Q, therefore we reject the sub hypothesis which states that there is no significant relationship between inflation and Tobin q. Discretional accrual (earnings management) has a positive co-efficient of 0.73 and p-value 0.02<0.05 indicating significant relationship, therefore we reject the sub-null hypothesis which states that there is no significant relationship between earnings management and Tobin Q. In sum, liquidity and earnings management significantly impact Tobin Q while leverage, asset tangibility has weak relationships with Tobin Q

H02: There is no statistically significant relationship between leverage, assets tangibility, liquidity and Returns on Asset.

There is a mixed statistical relationship between determinants of financial performance and Returns on Asset as a measure of performance. We summarized the findings below Leverage has a positive coefficient of 0.004 and p-value 0.913>0.05 therefore we accept the sub null hypothesis that there is no significant relationship between leverage and Returns on Asset. Asset tangibility has a positive co-efficient of 0.002 and p-value 0.509.>0.05 indicating insignificant relationship, therefore we accept the sub-hypothesis which states that there is no significant relationship between asset tangibility and Returns on Asset. Liquidity has a positive co-efficient of 0.00 and p-value 0.155>0.05 indicating insignificant positive relationship of liquidity with Returns on Asset, therefore we accept the sub-hypothesis that there is no significant relationship between liquidity and Returns on Asset. Inflation has a negative co-efficient of- 0.001 and p-value 0.197<0.05 indicating insignificant relationship with Returns on Asset, therefore we accept the sub hypothesis which states that there is no significant relationship between inflation and Returns on Assets Discretional accrual (earnings management) has a positive co-efficient of 0.024 and p-value 0.017<0.05 indicating significant relationship, therefore we reject the sub-null hypothesis which states that there is no significant relationship between earnings management and Returns on Assets. In sum earnings management significantly impact Returns on Asset while leverage, asset tangibility and liquidity have weak relationships with Returns on Asset.

HO3: There is no statistically significant relationship between leverage, assets tangibility, liquidity and Returns on Equity

The outcome of the study produces a mixed statistical relationship between determinants of financial performance and Return on Equity as a measure of performance. We summarized the findings below Leverage has a positive coefficient of 0.629 and p-value 0.000 <0.05 implying significant relationship amongst the variables, therefore we reject the sub null hypothesis that there is no significant relationship between leverage and Returns on Equity. Asset tangibility has a negative co-efficient of -0.004 and p-value 0.005.>0.05 indicating significant relationship, therefore we reject the sub-hypothesis which states that there is no significant relationship between asset tangibility and ROE. Liquidity has a positive co-efficient of 0.004 and p-value 0.134>0.05 indicating insignificant positive relationship of liquidity with ROE therefore we accept the sub-hypothesis that there is no significant relationship between liquidity and Returns on Equity. Inflation has a positive co-efficient of 0.002 and p-value 0.220>0.05 indicating insignificant relationship with ROE, therefore we accept the sub hypothesis which states that there is no significant relationship between inflation and ROE. Discretional accrual (earnings management) has a negative co-efficient of -0.195 and p-value 0.0000<0.05 indicating significant negative relationship; therefore, we reject the sub-null hypothesis which states that there is no significant relationship between earnings management and ROE. In sum Leverage and asset tangibility and earnings management significantly impact ROE liquidity has a weak relationship with Returns on Equity.

4.6 Discussion of Findings

The objective of the study was to determine the nature of relationship between determinants (leverage, assets tangibility, liquidity) and financial performance measures (Tobin Q, ROA and ROE).

Previous study indicate that leverage is an important determinant of financial performance of a firm**.** Malik (2011) examined 35 Pakistani firms, during the interval 2005–2009 and concluded that leverage has negative effect on firm financial performance. Gleason, et al (2000) in their study of European countries, found a significant negative relationship between the financial leverage and return on assets and profit margin. Taani (2012) study shows financial leverage has a significant relation to net income and no significant impact on return on equity (ROE) and return on Assets (ROA).

Deesomsak (2004) in Malaysia found a negative relationship between financial leverage and net profit margin. Almajali *et al*. (2012) analyze firms listed on the Amman Stock Exchange during 2002-2007 and found that leverage has a statistical positive effect on performance. Charumathi (2012 leverage have a negative and significant influence on performance. Akhtar, et al (2012) examines the relationship between financial leverage and financial performance, evidence from fuel and energy sector of Pakistan. The result shows that Leverage has a positive and significant relationship with financial performance. Mojumder & Chiber (2004) and Rao, & Syed (2007) confirm negative relationship between financial leverage and performance. Zeitun & Tian (2007) indicated that leverage has a significant and negative relationship with firm's performance. Our study found a positive insignificant relation of leverage with Tobin Q and ROA showing a weak relationship with the variable and a positive significant relationship with ROE indicating that leverage influences the value of equity. This latter positive association of leverage with ROE agrees with the findings of Almajali *et al*. (2012) and negates the findings of Malik (2011), Charumathi (2012 and Zeitun & Tian (2007). This later finding can equally be explained that highly levered firm are perceived by the market to be highly risky and in case of liquidation debt holders rank higher than equity holders who are the residual owners and the risk bearers. Thus, highly geared firm's profits are dampened by high interests' costs.

Mojumder & Chiber (2004) and Rao, & Syed (2007) suggest that liquidity have positive significant influence on financial performance. Shiu (2004) analyzes the determinants of the performance of the UK general insurance companies, over the period 1986–1999 and found positive significant relation of performance with liquidity. Almajali *et al*. (2012) study on the Amman Stock Exchange during 2002-2007 showed liquidity has a statistical positive effect on performance. Charumathi (2012), in a study of Indian firms found profitability is significantly and positively influenced by liquidity. Ogundipe, Idowu & Ogundipe (2012) established that a significant negative relationship exists between liquidity and a firm's performance. Ehiedu (2014) in Nigeria concluded that Liquidity positively and significantly impact Profitability. Studies by Akintoye (2000) revealed that liquidity of Ukrainian firms has a significant positive influence on profitability. Eljelly (2004) in a study Saudi Arabia firms found significant negative relation between the firm's profitability and its liquidity level. Konadu (2009) in a study in Ghana found a negative relationship between liquidity and profitability in the Ghana banking sector. Omondi and Muturi, (2013) in Kenya showed that

liquidity had a significant positive effect on financial using (ROA). Lambert & Valming (2009) suggested that the adaptation of liquidity strategies do not have significant effect on ROA. Raheman & Nasr (2007) revealed a negative relationship between liquidity and profitability. Benjamin & Kamalavali (2006) revealed a negative association between ROI and liquidity. Antwi, Boadi (2013) study showed a weak positive relationship between the liquidity and the profitability of the listed banks in Ghana. *Emami, Ahmadi & Tabari (2013)* found that liquidity risk has a significantly negative effect on both criteria of the performance i.e., return on asset and return on equity. It means that liquidity risk will cause to weaken the performance of bank. Our study confirmed a significant positive relation of liquidity with TOBIN Q thus agreeing with the study of Ankintoye (2000), Ehiedu (2014), Mojumder & Chiber (2004) and Rao, & Syed (2007), Almazari (2014) and negating the studies of Emami , Ahmadi & Tabari (2013); Ogundipe, Idowu & Ogundipe (2012) Benjamin & Kamalavali (2006). Mehari & Aemiro (2013) study showed asset tangibility is important determinants of performance. .Zeitun and Tian (2007 observed that tangibility has a negative and significant relationship with firm's performance. Our study found positive insignificant relation of asset tangibility with TOBIN Q implying the presence of non-current assets in a firm does not determine Performance measured by TOBIN Q, negative significant relationship of asset tangibility with ROE implying that high concentration of non-current assets mitigate returns to equity. This could be attributed to the factor that high non-current assets are used as collateral for borrowing with the risk of bankruptcy and equity holders are residual recipients during bankruptcy. Secondly borrowing is associated interest payments that may dampen profits. The study also confirmed positive insignificant relationship with ROA implying asset tangibility is a weak determinant of returns on asset. The role of earnings management was also studied in relation to TOBINQ, ROA and ROE. The study confirmed that earnings management negatively and significantly affects ROE implying increases in earnings management reduces return on equity and vice versa. Also, study confirmed earnings management positively significantly relate with TOBIN Q. Increase in earnings management increases TOBIN Q and ROA. Confirming earnings management to present a positive outlook in the market triggers a significant effect on price thus supporting signaling theory

5.1 Conclusion

The goal of the research was to empirically ascertain the determinants of firm financial performance. Leverage, assets tangibility and liquidity were examined against Performance variables (Tobin q, Returns on Asset and Returns on Equity) to ascertain the extent of relationship amongst the variables of study. From the result of the study we conclude that earnings management significantly impact Returns on Asset while leverage, asset tangibility and liquidity have weak relationships with Returns on Asset. Further we conclude that Leverage, asset tangibility and earnings management significantly impact ROE while liquidity and has weak relationships with Returns on Equity. We also conclude, liquidity and earnings management significantly impact Tobin Q while leverage, asset tangibility have weak relationships with Tobin Q. We conclude that various factors affect firms' performance differently.

5.2 Recommendation

Given the result of the study we recommend that Managers in firm should pay special attention and use factors that positively impact the performance of the firm to enhance performance. These determinants are asset tangibility and liquidity when improving market performance

5.3 Implication for Theory and Practice

The positive significant relationship of leverage with ROE implies that leverage affects performance thus negating the Modigliani and Miller proposition that capital structure does not affect profitability and firm value. However, Managers should be cautious when using debt in capital structure as it can result in risk of bankruptcy. The positive significant relationship of earnings management to TOBIN Q shows that Managers can use falsified earnings to impact market value thus aligning with the signaling theory, bonus compensation hypothesis. In practice, Managers can deliberately deploy asset tangibility to increase various spectrum of performance depending on the objective and firm mission.

5.6 Future Research

The present study focused on manufacturing; other studies can focus on other sectors of the economy as industry factors can affect performance. Secondly, the same research can be replicated using other research methods. The study considered manufacturing sector, future studies can be focused on banking and financial sector which is the engine for the economy. Further, the length of time adopted for this study is short, future studies could adopt longitudinal research design which considers a long length of time to make the result more robust.

References

1. Aaron D. C., & Gerald K. D. (2008). The effects of adopting the Balanced Scorecard on shareholder. Advances in Accounting, 24(1), 8-15.
2. Adams, M. & Buckle, M. (2003). The Determinants of Corporate Financial Performance in the Bermuda Insurance Market. Applied Financial Economics, Routledge, 13, 133-143. EBMS Working Paper EBMS/2000/12 (ISSN: 1470-2398).
3. Adams, M., & Buckle, M. (2000). The determinants of operational performance in the Bermuda insurance market. Applied Financial Economics, 13, 133-143.
4. Akbarian, S (2013). The investigation effect of financial leverage and Environment Risk on Performance firms of listed firm in tehran Stock Exchange 8(3): 249 – 255.
5. Akhtar, S; Javed, B; Maryam, A & Sadia, H (2012). Relationship between financial leverage and financial performance: Evidence from fuel and energy sector of Pakistan European Journal of Business and Management 4(11): 7 – 17.
6. Akinmulegun, S.O (2012). The effect of financial leverage on corporate performance of some selected firm in Nigeria. Canadian Social Science 8(1): 85 – 91.
7. Akintoye, 1.R (2008). Effect of capital structure on firms' performance: the Nigerian experience. European Journal of Economics, Finance and Administrative Sciences, 10, 233- 243.

8. Alathamneh,M, Obeidat, M, Almomani,M, Almomani,T & Darkal, N (2025). The Mediating Role of Profitability in the Impact Relationship of Assets Tangibility on Firm Market Value. .Risk Financial Managememt. 18(2), 104; **https://doi.org/10.3390/jrfm18020104**
9. Ali, J. Tahira, Y. , Amir, M. , Ullah, F. , Tahir, M. , Shah, W. , Khan, I. & Tariq, S. (2022) Leverage, Ownership Structure and Firm Performance. Journal of Financial Risk Management, **11**, 41-65. doi: 10.4236/jfrm.2022.111002.
10. Ali, S. A., Yassin, M., & AbuRaya, R. (2020). The impact of firm characteristics on corporate financial performance in emerging markets: evidence from Egypt. International Journal of Customer Relationship Marketing and Management (IJCRMM), 11(4), 70-89.
11. Alim, W. Amjad A. & Minhas,S (2022). The Impact of Leverage on the Firm Performance: A Case of Fertilizers Sector of Pakistan. Online at https://mpra.ub.uni-muenchen.de/114200/ MPRA Paper No. 114200, posted 16 Aug 2022 17:28 UTC
12. Almajali, Y. A., Alamro. A & Al-Soub, Z. Y. (2012). Factors Affecting the Financia performance of Jordanian Insurance Firm Listed at Amman Stock Exchange; Journal of Management Research, 4(2), 226-289
13. Alocock, J; Baum, A; Colley, N and Steiner, E (2013). The role of financial leverage in the performance of private equity real estate funds The Journal of portfolio management: 99 – 110.
14. Amadi & Akani, 2005. Interest rate and private domestic investment in Nigeria. Niger Delta University Press
15. Amalendu,B. (2010).Financial Performance of Indian Pharmaceutical Industry: A Case Study. .Asian Journal of Management Research, ISSN 2229 –3795.
16. Amarjit, G.etal. (2010). The relationship between working capital management and profitability: Evidence from the United States. Business and Economics Journal, Vol.2010: BEJ-10
17. Amato, L. & Wilder, R. P. (1985). The Effects of Firm Size on Profit Rates in U. S. Manufacturing. Southern Economic Journal,52(1), 181 –190.
18. Baltagi, B. H., Bratberg, E., & Holmås, T. H. (2005). A panel data study of physicians' labor supply: the case of Norway. Health Economics, 14(10), 1035-1045.
19. Barney, J. (1991). Firm resources and sustained competitive advantage. Journal of Management, 17, 99–120.
20. Benjamin & Kamalavali (2006)). Sensitivity of profitability to working capital management in India Corporate hospital. Journal of Business Finance
21. Berger, A. N., & Di Patti, E. B. (2006). Capital structure and firm performance: A new approach to testing agency theory and an application to the banking industry. Journal of Banking & Finance, 30(4), 1065-1102.
22. Calof (1993). The mode choice and change decision process and its impact on international performance. International Business Review, 4 (2), June 115-131
23. Charumathi, B. (2012). On the Determinants of Profitability of Indian Life Insurers – An Empirical Study. Proceedings of the World Congress on Engineering, 1 WCE 2012, July 4-6, 2012, London, UK, ISBN: 978-988-19251-3-8.

24. Chebii, Kipchumba & Wasike, (2011). Relationship between firm's capital structure and dividend payout ratios: companies listed at nairobi stock exchange (nse**).** Business, Economics.
25. Chenhall & Langfield-Smith (2007).Multiple Perspectives of Performance Measures - ScienceDirect.comwww.sciencedirect.com, 25 (4), 266-282
26. Chirchir,F. , Fredrick M. Kalu,F and Tar,J (2024). Firm Characteristics and Financial Performance of Non-Financial Firms Listed at Nairobi Securities Exchange, Kenya. International Journal Of Academic Research in Business and Social Sciences 1 4(6)
27. Cubbin, J. and D. Leech (1986), Growth Versus Profit Maximization: A Simultaneous Equations Approach to Testing the Marris Model 7(2) Managerial Economics. 123-131
28. Dechow, P. M., Sloan, R. G., & Sweeney A. P. (1995). Detecting Earnings Management. Accounting Review, 70, 193-225
29. Deesomsak (2004). The determinants of capital structure: evidence from the Asia Pacific region. Journal of Multinational Financial Management, 2004,14, issue 4-5, 387-405
30. Deitiana, T., & Habibuw, L. G. (2015). Factors affecting the financial performance of property Andreal estate companies listed at Indonesia stock exchange. Asian Business Review, issue 2, 79-8
31. Dhanaraj, C., & Beamish, P. W. (2003). A resource-based approach to the study of export performance. Journal of small business management, 41(3), 242-261.
32. Dogan, M. (2013) Comparison of Financial Performances of Domestic and Foreign Banks: The Case of Turkey. International Journal of Business and Social Science, 4, 233-240.
33. Donaldson, G. (1961). Corporate Debt Capacity: A Study of Corporation Debt Policy. Boston: Division of Research, Graduate School of Business Administration, Harvard University
34. Ehiedu V. C. (2014). The impact of liquidity on profitability of some selected companies. The Financial Statement Analysis (FSA) approach. Research Journal of Accounting
35. Eljelly, A. (2004). Liquidity –profitability tradeoff: an empirical investigation in an emerging market. IJCM, 14,(2), 48-61.
36. Ellis, R. (1998). Asset utilization: A metric for focusing reliability efforts (7th ed.).Marriott Houston: Westside Houston.
37. Enekwe, C. I., Agu, C. I., & Eziedo, K. N. (2014). The effect of financial leverage on financial performance: Evidence of quoted pharmaceutical companies in Nigeria. IOSR Journal of Economics and Finance, 5(3), 17-25.
38. Enuju, Y & Soocheong, J (2005). The effect of financial leverage on profitability and Risk of Restaurant firms. Journal of Hospitality Financial Management 13(1): 1 – 18.
39. Ezeamama, M.C (2010). Fundamentals of Financial Management: A practical guide. Enugu: Ema press Ltd.
40. Fahmi, I. 2014 Corporate Financial Management and Capital Markets. Issue 1. Jakarta: Publisher Partners Media Discourse.
41. Fleming, G.and McCosker, R. (2005). Agency costs and ownership structure in Australia. Pacific-Basin Finance Journal,.13, 29–52..

42. Fraquelli, G. & Vannoni,D. (2000).Multidimensional performance in telecommunications, regulation and competition: Analyzing the European major players
43. Gleason, K. C., Mathur, L. K., & Mathur, I. (2000). The interrelationship between culture, capital structure, and performance: evidence from European retailers. Journal of business research, 50(2), 185-191.
44. Healey, P.M., & J.M. Wahlen (1999): Commentary: A Review of the earnings management literature and its implications for standard setting. Accounting Horizon, pp.365-383.
45. Houang, G & Song, F.S (2006). The Determinants of Capital structure: Evidence from China China Economic Review 14: 14 – 36.
46. Iswatia, S., & Anshoria, M. (2007) The Influence of Intellectual Capital to Financial Performance at Insurance Firm in Jakarta Stock Exchange (JSE). Proceedings of the 13th Asia Pacific Management Conference, Melbourne. .
47. Ittner, C. D. & D. F. Larcker (1997). Quality strategy, strategic control systems, and organizational performance. Accounting, Organizations and Society 22(3-4)
48. Jelinek (2007) . The Effect of Leverage Increases on Earnings Management. Journal of Business & Economic Studies, 13 (2), pp. 24-46
49. Jensen, M & Meckling, W (1976): Theory of the firm: managerial behavior, agency cost and capital structure." Journal of Financial Economics, 3, 11- 25.
50. Jensen, M & Ruback, R (1983). The market for corporate control: the scientific evidence. Journal of Financial Economics, 11, 5-50..
51. Jensen, M (1986). Agency costs of free cash flow, corporate finance and takeovers. American Economic Review, 76, 323- 329.
52. Jhingan, M. L. (2004). Advanced Economic Theory (Micro & Macroeconomics). 12th Ed. New Delhi, India:Vrinda Publications (P) Ltd.
53. Kibet, B., Kibet, L., Tenai, J. & Mutwol, M. (2011). The Determinants of Leverage at the Nairobi Stock Exchange, Kenya. The Second Asian Business and Management Conference 2011 Osaka, JP: Sage Global Publishers
54. Kilantaridis, C., & Levanti, A (2000). Internationalization and the size of the firm. Paper presented at Association for Small Business Enterprises
55. Köksal, F. N. (2013). The Role and Usage of Visual Rhetoric in Advertising. Online Journal of Communication and Media Technologies.
56. Kraus and Litzenberger (1997). Management control systems and strategy: A critical review econpapers.repec.org: 22(2), 207-232 Konadu (2009). Liquidity and Profitability: Empirical evidence from banks in Gha na. The Journal of Finance 2009. 52(6), 12-23
57. Lamberg, S., & Vålming, S. (2009). Impact of Liquidity Management on Profitability: A study of the adaption of liquidity strategies in a financial crisis. Journal of Economics
58. Langfield-Smith, K. (1997). Accounting, Organizations and Society, 22(2), 207-232
59. Lazaridis, L. (2006, June). Relationship between working capital management and profitability of listed firm in Athens stock exchange. Journal of financial management and analysis, 19, 5-7.
60. Lee,J. (2009). Does Size Matter in Firm Performance? Evidence from US Public Firms. Journal of the Economics of Business, 16 (2), 189 –203.

61. Liargovas, P., & Skandalis, K. (2008), Factor affecting firms financial performance: The Case of Greece. Athens: University of Peloponnese Press.
62. Lu, Y., Zhou, L., Bruton, G., & Weiwen, L. (2010). Capabilities as a mediator linking resources and the international performance of entrepreneurial firms in n emerging economy. Journal of International Business Studies, 41, 419-436.
63. Mahendra DJ, A., Artini, LGS, and Suarjaya, AG (2012). The influence of the financial performance of the firm's value in manufacturing firm in Indonesia Stock Exchange. Matrix: Journal of Management, Business Strategy and Entrepreneurship.
64. Majumdar, S.K & Chhibber, P (1999). Capital structure and performance: evidence from a transition economy on an aspect of corporate governance. Public Choice, 98, 287- 305.
65. Majumdar, S.K.(1977). The Impact of Size and Age on Firm-Level Performance: Some Evidence from India. Review of Industrial Organization 12, 231–241
66. Makori, D. & Jagongo .A. (2013). Working Capital Management and from profitability: International Journal of Accounting and Taxation, 1(1), 1-14
67. Malik, H. (2011). Determinants of Insurance Firm Profitability: An Analysis of Insurance Sector of Pakistan. Academic Research International, Vol. 1 Issue 3, 315-321. Available: http://www.savap.org.pk/ journals/ARInt./ 1(3)/2011(1.3-32)
68. Margaritis, D., & Psillaki, M. (2010). Capital structure, equity ownership and firm performance. Journal of banking & finance, 34(3), 621-632.
69. Mehari, D. and Aemiro, T. (2013). Firm specific factors that determine insurance firm' performance in Ethiopia. European Scientific Journal, 9, (10), 245-255.
70. Mittelstaedt, J.D., Harben, G.N., & Ward, W.A. (2003). How small is too small? Firm size as a barrier to exporting from the United States. Journal of Small Business Management, 41(1): 68-84.
71. Modigliani, F., & Miller M.H. (1958). The Cost of Capital, Corporation Finance, and the Theory of Investment. American Economic Review, 48(3): 261–97.
72. Mutumanikam,P & Dessy ,D (2024).The Impact of Financial Leverage on Firm Performance in Emerging Markets: An Empirical Analysis. Dinasti Accounting Review. https://doi.org/10.38035/dar.2(1)
73. Myers, S.C. & Nicholas S. M. (1984) Corporate Financing and Investment Decisions When Firms Have Information That Investors Do Not Have. Journal of Financial Economics 13: 187-221.
74. Myers, Stewart C. (1984). The Capital Structure Puzzle. Journal of Finance 39: 575-592
75. Naser , K., Kabhari, Y., & Zulkifli, M. (2004). Impact of ISO 9000 registration on firm performance: Evidence from Malaysia. Managerial Auditing Journal, 19(4), 509-516.
76. Naser, K. & Mokhtar, M. (2004). Determinants of Corporate Performance of Malaysian Firm. Fourth Asia Pacific Interdisciplinary Research in Accounting Conference, Singapore.
77. Nunes, P. J. M., Serrasqueiro, Z. M., & Sequeira, T. N. (2009). Profitability in Portuguese service industries: a panel data approach. The Service Industries Journal, 29 (5), 693-707
78. Odhiambo,J, Murari C & Aringo, C. (2025). Financial Leverage and Firm Performance: Empirical Review and Analysis. East African Journal 4(1)

79. Odongo, S. O. (2015). The effect of operational growth on financial performance of deposit taking micro finance institutions in Kenya (Doctoral dissertation, University of Nairobi).
80. OECD (2005). SME and Entrepreneurship Outlook. Paris: OECD
81. Oganda, A. J., Mogwambo, V. A., & Museve, E. (2023). Asset Tangibility and Financial Performance: The Moderating Role of Economic Growth and Earnings Volatility . Journal of Finance and Accounting, 7(1), 139–164. https://doi.org/10.53819/81018102t2125
82. Ogundipe,S.E., Idowu,A. & Ogundipe,L.O. (2012).Working Capital Management, Firms' Performance and Market Valuation in Nigeria. International Journal of Social and Human Sciences, 6(1), 143-147.
83. Okere, W. Nonso, J, Bibian,N.Uke, N & Okere,C. (2024), Firm characteristics and financial performance of listed deposit money banks in Nigeria.American Journal of Finance and Accounting, 8(2)150-163 https://doi.org/10.1504/AJFA.2024.141559
84. Okobo,M .Ugwoke,R & Akpan,E. (2022).Investment in tangible noncurrent assets and financial performance of food manufacturing firms in Nigeria. Investment Management and Financial Innovations, 19, (3)
85. Omondi, M. & Muturi, W. (2013). Factors affecting the financial performance of listed firm at the Nairobi Securities Exchange in Kenya. Research Journal of Finance and Accounting, 4(15), 99-104.
86. Onaolapo, A. & Kajola, S. (2010). Capital structure and firm performance: Evidence from Nigeria. European Journal of Economics, Finance and Administrative Sciences, 25, 70-82.
87. Poof, J., & Heriot, K. C. (2005).No firm size is too small, but firm size matters: a new analysis of Mittelstaent, Harben and Ward
88. Rajan,R.G. & Zingales, l.(1995).What do we know about capital structure? Some evidence from international data. Journal of finance, 50(5),1421-1460.
89. Rajin, S (2012). Impact of Financial Leverage on Shareholders returns and market Capitalization: Empirical evidence of telecommunication sector Firm India International Journal of Research in IT, Management and Engineering 2(12).
90. Rao, N., Al- Yahyaee, K & Syed, LA.M (2007). Capital structure and financial performance: evidence from Oman. Indian Journal of Economics and Business 1- 23.
91. Raza, A (2012). The Optimal Relationship of Cash Conversion Cycle with Firm Size and Profitability", International Journal of Academic Research in Business and Social Sciences, 2(12), 189- 203.
92. Rehman, S.S (2013). Relationship between financial leverage and financial performance: Empirical Evidence of listed sugar firm of Pakistan Global Journal of management and Business Research Finance 13(8): 33 – 40.
93. Schipper (1989). Commentary on earnings management. Accounting Horizons. (December): 91-102
94. Serrasqueiro, Z. S. & Nunes, P. M. (2008). Performance and size: empirical evidence from Portuguese SMEs. Small Business Economics, 31 (2), 195 – 217.

95. Shiu, Y. (2004). Determinants of United Kingdom general insurance firm performance. British Actuarial Journal, 10 (5), 1079-1110.
96. Smith , L. (1997). Management Control systems and strategy. A critical Review. Accounting, Organization and society 22(2) 207-232
97. Smith K., (1980). Profitability versus liquidity tradeoffs in working management" in Readings on the management of working capital, K. Smith (ed.), St. Paul: West Publishing Firm, 9(3), 549-562
98. Smith, & Lynch. (2004). Is income inequality a determinant of population health. part 1 a systematic review. Accounting, Organizations and sociiety.
99. Smith, C. & Warner, J., (1979). On financial contracting: an analysis of bond covenants. Journal of Financial Economics 7, 117–161.
100. Sondakh, F., Tommy, P., & Mangantar, M. (2015). Current Ratio, Debt to Equity Ratio, Return on Assets, Return on Equity Effect on Stock Price In LQ 45 In BEI Period 2010-2014. EMBA Journal: Journal of Economic Research, Management, Business and Accounting, 3 (2).
101. Stolowy H & Breton, G (2004). Accounts Manipulation: A Literature Review and Proposed Conceptual Framework. Review of Accounting and Finance,
102. Stolowy, H., & Breton, G. (2004). Accounts manipulation: A literature review and proposed conceptual framework. Review of accounting and finance, 3(1), 5-92.
103. Taani, K (2012). Impact of working capital management policy and financial leverage on financial performance: Evidence from Amman Stock Exchange listed firm International Journal of management sciences and Business Research 1 (8): 10 – 17.
104. Tseng, C., Tansuhaj, P., Hallagan, W., & McCullough, J. (2007). Effects of firm resources on growth in multinationality. Journal of International Business Studies, 38, 961–974.
105. Ugwuanyi, W (2004). Introduction to financial Analysis and Project Evaluation. Lagos: Johnken and Willy Publications Nig. Ltd.
106. Vengasi, A (2023). Unveiling the Role of Investment Tangibility on Financial Leverage: Insights from African-Listed Firms. Risks 11(11
107. Watts, R & Zimmerman, J (1990). Positive Accounting Theory: A ten year Perspective. The Accounting Review, 65 (1), 131-156
108. White, D.S., Griffith, D. A., & Ryans, J. K. J. (1998). Measuring export performance in service industries. International Marketing Review, 15(3), 188-204.
109. Zeitun, R & Tian, G.G (2007). Capital structure and corporate performance: evidence from Jordan. Australasian Accounting, Business & Finance Journal, 1(4), 40-61.