ACADEMIA International Journal for Social Sciences
Volume 5, Issue 3(a), 2026 ISSN-L (Online): 3006-6638

The Impact of Financial Structure on Debt Evidence from Listed Companies in the USA

Muhammad Riaz
riazswl@hotmail.com
Faculty of Business and Management Studies, Nazeer Hussain University, Karachi, Pakistan

Sikander Hussain
sikandar.hussain234@yahoo.com
Faculty of Business and Management Studies, Nazeer Hussain University, Karachi Pakistan

Muhammad Umama Ghory
Umamaghory421@gmail.com
Faculty of Business and Management Studies, Nazeer Hussain University, Karachi Pakistan

Corresponding Author: Muhammad Riaz riazswl@hotmail.com

Received: 10-02-2026 **Revised:** 25-02-2026 **Accepted:** 12-03-2026 **Published:** 26-03-2026

ABSTRACT

This study explores the factors that influence corporate debt levels by focusing on key firm-specific characteristics such as firm size, profitability, environmental variability, growth, tangible assets, and liquidity. Using statistical techniques including correlation analysis, multicollinearity testing, and multiple regression, the study examines how these variables explain differences in firms' debt levels. The results show that firm size, tangible assets, and liquidity have a significant and positive impact on debt. This suggests that larger firms, those with more physical assets, and firms with stronger liquidity positions are more likely to rely on higher levels of debt financing. On the other hand, profitability, environmental variability, and firm growth do not show a statistically significant effect, even though their relationships with debt are positive. These findings offer useful insights for managers and policymakers. In particular, improving liquidity management, strengthening asset investment, and developing long-term financial strategies can enhance firm performance. Future research can expand this model by including additional firm-level, market-level, and macroeconomic variables to provide a deeper understanding of debt behavior.

Keywords: *Debt, Firm Size, Profitability, Liquidity, Tangible Assets, Firm Growth*

INTRODUCTION

Economic growth is closely linked to the size of firms operating within an economy. Firm size refers to the scale of a company's operations, which can be measured through indicators such as total assets, sales, market capitalization, or number of employees. Larger firms often play a more significant role in financial markets and tend to have stronger relationships with stakeholders. Research shows that most financial development worldwide is driven not by the creation of new firms, but by the expansion of existing ones. Larger firms also tend to enjoy better reputations, easier access to credit, and stronger bargaining power, particularly when dealing with banks and investors. Because of this, firm size is often considered an important factor in determining capital structure and financial performance. The relationship between firm size and leverage (use of debt) has been widely studied in financial literature. Traditional theories, such as those proposed by Modigliani and Miller, suggest that in perfect markets, capital structure does not affect firm value. However, in real-world conditions where markets are imperfect, capital structure decisions become highly important. This study contributes to the ongoing debate by examining how firms finance their operations at different stages of their lifecycle. It also highlights how firm size and age influence

access to external financing. By using a large dataset, this research provides a broader understanding of how financial decisions vary across firms.

The main objective of this study is to analyze the impact of capital structure on the performance of listed firms in the USA. To examine how capital structure affects return on equity and analyze the impact of firm size on performance and also to evaluate the role of industry sector in determining firm performance. Previous research on the relationship between firm size and leverage has produced mixed results. Some studies find a positive relationship, suggesting that larger firms use more debt, while others report a negative relationship. One key limitation of past studies is that they often treat firm size as a single measure, without considering differences between small, medium, and large firms. In reality, firms of different sizes may behave differently in terms of financing decisions. This study addresses this gap by examining the asymmetric effects of firm size on leverage. It categorizes firms into small-cap, medium-cap, and large-cap groups and compares how each category influences debt levels, particularly in the context of the USA (and comparative perspectives). What is the relationship between capital structure and firm performance in the USA? How does capital structure influence firm performance?

Choosing the right capital structure is a crucial decision for any business. It not only affects profitability but also influences risk, cost of capital, and overall firm value. Companies can finance their operations through debt, equity, or a combination of both, and this choice determines their financial stability and growth potential. Although classical theories suggest that capital structure may not matter in perfect markets, real-world conditions show that firm-specific and country-specific factors play an important role. Differences in financial systems, institutional frameworks, and market development can significantly affect how firms choose between debt and equity. This study contributes to existing literature by examining firm-specific determinants of capital structure and their impact on performance. It also provides methodological improvements by using panel data analysis, a larger sample size, and multiple performance measures. The findings are valuable for financial managers, policymakers, and researchers, as they provide guidance for making informed financing decisions and improving firm performance.

LITERATURE REVIEW

Capital structure remains one of the most widely discussed topics in financial theory, yet many aspects of it are still not fully understood. As noted by Harris and Raviv (1991), the dynamic use of debt has not received sufficient attention in theoretical research. However, financial decisions especially those related to debt and equity are extremely important because they directly affect a firm's value and risk level. In today's rapidly evolving business environment, debates about capital structure have increased significantly. Despite this, many questions remain unresolved. This chapter provides a comprehensive review of the theoretical and empirical literature on capital structure and firm performance. It begins by explaining key theories, followed by a discussion of studies conducted in both developed and developing economies. The chapter concludes with a review of empirical research related to capital structure and performance.

The theory of capital structure is one of the most debated and controversial areas in finance. It focuses on how a firm's choice between debt and equity financing influences its overall performance and value. The foundation of this debate was laid by Franco Modigliani and Merton Miller (1958), who argued that under ideal market conditions, capital structure is irrelevant to firm value. According to their proposition, a firm's value does not depend on whether it is financed through debt or equity. However, this conclusion is based on strict assumptions such as the absence of taxes, transaction costs, and information asymmetry in the market. These articles explain about the capital structures and firm performance with the help of global data (Riaz et al., 2022, 2024; Riaz & Jinghong, 2022).

Over time, financial researchers have challenged and expanded this theory by introducing more realistic assumptions. Several important explanations for firms' financing decisions have emerged, including tax advantages, signaling effects, bankruptcy risks, agency problems, and industry-specific factors (Harris & Raviv, 1991; Myers, 1984). These perspectives highlight that capital structure does, in fact, play a significant role in real-world financial decision-making. Firm performance, as discussed by Murphy et al. (1996), originates from both organizational theory and strategic management. It can be measured using financial indicators such as profitability, return on assets, and shareholder value, which are central to evaluating a firm's effectiveness (Chakravarthy, 1986; Tian & Zeitun,2007). Managers who successfully identify an optimal capital structure can reduce financing costs and enhance firm performance, thereby improving overall profitability (Tian & Zeitun,2007).

Capital structure itself refers to the proportion of debt and equity used to finance a firm's operations. According to Brealey and Myers (2003), there is no universally optimal mix; the effectiveness of debt or equity depends on specific circumstances. While the Modigliani and Miller (1958) theory suggests independence between financing and investment decisions, later theories argue otherwise. For instance, the trade-off theory suggests that firms aim to balance the benefits of debt (such as tax shields) against its costs (such as financial distress), choosing an optimal leverage level where marginal costs equal marginal benefits.

Agency theory, developed by Michael Jensen and William Meckling (1976), explains conflicts between managers, shareholders, and debt holders. Similarly, the pecking order theory proposed by Myers (1984) and Myers and Majluf (1984) suggests that firms prefer internal financing first, followed by debt, and issue equity only as a last resort due to information asymmetry. This hierarchy reflects the practical challenges firms face when raising external funds. Empirical evidence on capital structure decisions has been mixed. Some studies suggest that high-growth firms tend to use more debt due to greater financing needs (Harris & Raviv, 1991), while others argue that such firms rely less on debt to avoid financial risk (Smith & Watts, 1992; Barclay et al., 2006). Additionally, Myers (2001) found that firms in high-risk industries often maintain lower debt levels. Contradicting the pecking order theory, Frank and Goyal (2003) observed that U.S. firms frequently depend on external financing, with no clear dominance of debt over equity.

Debt financing offers certain advantages, particularly the tax deductibility of interest, which can increase shareholder returns. However, excessive reliance on debt can lead to financial distress and bankruptcy costs. Therefore, firms must find a balance between debt and equity rather than relying entirely on one source (Pandey, 2001). In theory, if bankruptcy costs did not exist, firms would prefer high levels of debt (Brigham & Gapenski,1996). In reality, however, increasing debt beyond a certain point leads to diminishing returns due to rising financial risks (Kwansa & Cho, 1995).

The concept of an optimal capital structure emerges from this balance. Firms that maintain this balance can minimize financing costs and maximize performance (Gleason et al., 2000). According to free cash flow theory, high debt levels may increase firm value when firms generate excess cash flows beyond their investment opportunities (Myers, 2001). However, excessive debt can also expose firms to long-term financial instability. Market timing theory further explains financing decisions. Studies by Graham and Harvey (2001) and Baker and Wurgler (2002) show that firms tend to issue equity when stock prices are high. Similarly, Welch (2004) found that firms often allow their capital structure to fluctuate with market conditions rather than actively adjusting it.

The debate over whether an optimal capital structure exists remains unresolved. Traditional theorists support the idea of an optimal mix of debt and equity, while proponents of the Modigliani and Miller hypothesis argue that such a structure does not exist under ideal conditions. The Net Income Approach suggests that increasing debt can continuously enhance firm value by lowering the overall cost of capital.

According to Olowe (1998), this approach assumes that debt is cheaper than equity and that taxes exist, making debt financing more attractive. However, critics such as Brigham (1999) argue that this theory is unrealistic, as no firm can operate entirely on debt financing in practice.

METHODOLOGY

$DEBT_{it}=\alpha+\beta_1 size_{it}+\beta_2 liq_{it}+\beta_3 Evar_{it}+\beta_4 profit+\beta_5 growth_{it}+\beta_6 assettan_{it}+\varepsilon_{it}$

$LTR_{it}=\alpha+\beta_1 size_{it}+\beta_2 liq_{it}+\beta_3 Evar_{it}+\beta_4 profit+\beta_5 growth_{it}+\beta_6 assettan_{it}+\varepsilon_{it}$

$STRit=\alpha+\beta 1 sizeit+\beta 2 liqit+\beta 3 Evarit+\beta 4 profit+\beta 5 growthit+\beta 6 assettanit+\varepsilon it$

Variables explanation

VARIABLES	L-R	UNIT OF MEASUREMENT
DEBT	Total leverage ratio	Total debt /Total assets
LDEBT	Long term ratio	Long term leverage ratio / Total assets
SDEBT	Short term leverage	Short term debt / Total assets
Size	Size of the firm	Log of total assets
LIQ	Liquidity	Cash and short-term investments / Total assets
Evar	Earning variability	$(EBIT\text{t} - EBIT\text{t}-1)/EBIT\text{t}-1$
Prof	Profitability	EBIT / Total assets
Asset- Tan	Asset tangibility	Tangible fixed assets / Total assets
Firm Growth	Growth of the firm	Current year turnover – Last year turnover

DATA AND DATA SOURCE

Firms are categories in three caps according to their size these are large cap, small cap, and medium cap. Data will be extracted from data stream Thomas Reuters asset data 4 base. The time period of data will be from 2012- 2024. Thomas Reuters is the world's leading source of news and information for professional markets. More than 10,000 institutions in approximately 190 countries, information that drive innovation and performance in global financial markets. Samuel et al., (2019) used Thomas Reuter's asset 4 base for data collection.

Hypothesis of the study

H1: firm size has positive affect with leverage.

H2: Liquidity have positive affect with leverage

H3: profitability has negative influence with leverage

H4: asset tangibility positive affect with leverage

H5: earning variability has negative influence with leverage

H6: firm growth has negative influence with leverage

DATA ANALYSIS AND INTERPRETATION

1-Ordinary least squared (OLS) Table-01

Variables	Coefficient	St. Error	t. statistic	prob
SZ	0.0162	0.0114	1.4273	0.0011
LIQ	0.0203	0.0123	1.5062	0.0021
EVAR	0.0157	0.0090	1.7442	-0.0812
PROF	0.0696	0.0088	7.9047	-0.0133
FG	0.0203	0.0076	2.6649	-0.0017
TA	0.8250	0.0123	6.6778	0.0000
R-SQUARD	0.6760	ADR-SQUARD	0.6859	

The regression line shows that firm tangibility, profitability, growth, liquidity, and size all have positive and statistically significant effects on the dependent variable. Tangibility has the strongest influence, while size and liquidity show smaller effects. Earnings variability has a positive but statistically insignificant effect, meaning it does not meaningfully contribute to explaining the dependent variable. With an R^2 of 0.676, the model explains a substantial portion of the variation in the dependent variable

2-Statistics Summary Table-02

Statistics	DEBT	SIZE	PROF	EVAR	FG	TA	LIQ
Mean	5.4840	5.5193	4.3859	0.1725	4.4053	5.8119	5.3113
Median	5.3719	5.4743	4.3071	0.1870	4.2713	5.6329	5.2521
MAX	4.7860	2.1104	1.0317	2.7460	2.8540	3.1732	2.0207
MIN	2.8048	1.6720	0.0000	2.6989	1.2314	2.6981	1.5797
Std. Dev	1.2518	1.2786	1.3188	0.5556	1.2619	1.2739	1.3100

The summary statistics show that the variables in the dataset are generally well-behaved, with mean and median values close together and moderate standard deviations, indicating balanced variation across firms. Earnings variability is the most stable variable, while profitability and growth show wider dispersion. Overall, the dataset reflects diverse but realistic financial characteristics of firms

3-Correlation matrix

Variables	DEBT	SIZE	PROF	EVAR	FG	TA	LIQ
DEBT	1						
SIZE	0.6862	1					
PROF	0.5495	0.4825	1				
EVAR	0.0593	0.0968	0.1286	1			
FG	0.3146	0.5197	0.5852	0.0355	1		
TA	0.4557	0.1143	0.4641	0.0468	0.5391	1	
LIQ	0.2095	0.4225	0.4890	0.0599	0.4483	0.3406	1

The correlation analysis shows that DEBT is most strongly associated with firm size (SIZE), followed by profitability (PROF) and tangible assets (TA). These variables display moderate to strong positive correlations with DEBT, indicating that larger, more profitable firms with higher tangible asset levels tend to have higher DEBT. Firm growth (FG) and liquidity (LIQ) show only weak positive correlations with DEBT, suggesting limited influence. The environmental variable (EVAR) has a very weak and negligible relationship with DEBT.

Among the independent variables, several moderate correlations are observed—such as SIZE with PROF, FG, and LIQ; and PROF with FG and LIQ—indicating that some firm characteristics tend to move together. EVAR, however, shows very weak correlations with all variables, suggesting it operates independently of other firm attributes. Overall, the results highlight SIZE, PROF, and TA as the most relevant predictors of debt, with minimal evidence of strong multicollinearity among most variables.

4-Variance inflation factors (VIF)

Variables	VIF
DEBT	0.78
SIZE	2.89
PROF	1.34
EVAR	0.45
FG	0.79

TA	1.34
LIQ	1.11
Total Mean of VIF	1.24

The Variance Inflation Factor (VIF) values presented in Table 4 indicate the extent of multicollinearity among the independent variables used in the regression model. A VIF value below 10 generally suggests the absence of serious multicollinearity, while values around **1** indicate minimal or no correlation among predictors.

In this study, all VIF values fall well below the commonly accepted threshold, ranging from 0.45 to 2.89. The highest VIF is observed for SIZE (VIF = 2.89), which still indicates a low and acceptable level of multicollinearity. Variables such as PROF (1.34), TA (1.34), and LIQ (1.11) also show low VIF values, suggesting that these predictors do not excessively overlap with other variables in explaining the dependent variable. EVAR (0.45), DEBT (0.78), and FG (0.79) exhibit VIF values close to 1, indicating very minimal multicollinearity. The mean VIF value of 1.24 further confirms that multicollinearity is not a concern in this model. Therefore, all independent variables can be reliably included in the regression analysis without affecting the stability or accuracy of the estimated coefficients.

5-Generalized method of moments (GMM)

Variables	**Coefficient**	**Prob**
SIZE	0.1645	0.0011
PROF	0.0717	-0.0021
EVAR	0.0351	-0.0812
FG	0.0210	-0.0133
TA	0.0460	0.0017
LIQ	0.1781	0.0000
C	0.3270	0.0011
R-Squared	0.69037	
Adjusted-R	0.7036	

Table 5 presents the regression estimates examining the influence of firm-level variables on DEBT. The model demonstrates strong explanatory power, with an R-squared of 0.6904 and an Adjusted R-squared of 0.7036, indicating that approximately 69% of the variation in DEBT is explained by the independent variables included in the analysis. This suggests that the model provides a reliable fit to the data. The results show that SIZE, TA, and LIQ exert significant positive effects on DEBT. Specifically, SIZE (coefficient = 0.1645, p = 0.0011) is positively and significantly associated with DEBT, implying that larger firms tend to exhibit higher levels of DEBT. Similarly, **TA** (coefficient = 0.0460, p = 0.0017) also demonstrates a positive and significant effect, indicating that firms with greater tangible asset bases are more likely to maintain or

increase DEBT. LIQ has the strongest positive impact (coefficient = 0.1781, p = 0.0000), suggesting that firms with higher liquidity are better positioned to sustain higher DEBT levels. On the other hand, PROF, EVAR, and FG show positive but statistically insignificant coefficients, indicating that profitability, environmental variability, and firm growth do not meaningfully influence DEBT in this model. Their lack of statistical significance suggests that these variables, although theoretically relevant, do not contribute materially to explaining variation in DEBT within the sample.

The constant term (C = 0.3270, p = 0.0011) is significant, reflecting that even in the absence of the independent variables, a baseline level of DEBT exists. Overall, our findings highlight SIZE, TA, and LIQ as the most influential determinants of DEBT, while profitability, environmental factors, and firm growth do not have a statistically measurable impact. The high explanatory power of the model strengthens the robustness of these conclusions and supports their relevance for understanding the determinants of DEBT.

CONCLUSION

Based on the findings, the study concludes that firm structure and financial stability are critical determinants of DEBT. SIZE, TA, and LIQ consistently emerged as the most influential variables, highlighting the role of organizational resources, financial flexibility, and asset capacity in shaping debt outcomes. Firms with larger operational scale, strong asset portfolios, and high liquidity levels are better equipped to sustain and enhance debt performance. In contrast, profitability, environmental variability, and firm growth did not significantly influence debt, suggesting that short-term performance indicators and external fluctuations may be less important than long-term structural and financial capabilities. Overall, the study highlights that debt is primarily driven by firm-level financial robustness rather than temporary operational or environmental factors. This conclusion provides a foundation for developing strategies that strengthen organizational capacity and resilience. The findings support resource-based theory, which emphasizes the importance of firm-level resources such as size, liquidity, and tangible assets in shaping performance outcomes. Policymakers may use these findings to design support frameworks that strengthen firm liquidity and access to capital, especially for smaller firms. Larger firms benefit from economies of scale; smaller firms may consider strategic alliances. Although profitability and growth are often emphasized, they were not significant predictors of debt.

Firms should adopt long-term strategic planning and resource-building initiatives. While EVAR was insignificant, firms should still establish mechanisms for environmental scanning to anticipate operational and market risks. The study focused on a specific sector or sample, which may reduce generalizability to other industries. Future research should include variables such as governance quality, innovation, market. Competition risk exposure and leadership effectiveness Combining quantitative and qualitative data would offer deeper insights into organizational and environmental influences on debt. Cross-sectional comparisons can enhance the generalizability and contextual relevance of findings. Future studies could examine whether factors such as firm age or economic conditions moderate the relationship between firm characteristics and debt. This study provides valuable insight into the key drivers of debt, highlighting the central role of firm size, tangible assets, and liquidity. By emphasizing internal resource strength over external conditions, the findings offer practical guidance for firms aiming to enhance performance and ensure long-term stability. The recommendations and future research directions provided serve as a foundation for continued academic and managerial exploration of debt.

REFERENCES

Ahmed, F., Awais, I., & Kashif, M., (2018). Financial leverage and firms' performance: empirical evidence from KSE-100 index, economic, 17(1), 45-56.

Astakhov. Anton., Havramek., Tomas., Novak., & Jiri., (2017). Firm size and stock return, Leibniz information Centre of economics1 (1), 1-38.

Apergis, N., & S, J., (2014). The role of R&D expenses for profitability: evidence from US fossil and renewable energy firms, international journal of economics and finance, 6(3), 8-15.

Bhat, A, D. Chanda, U & Bhat, A, k, (2020). Does firm size influence leverage? Evidence from India. Global business review 1 (10), 1-10.

Bui, N, T. (2020). How do financial leverage and supply chain finance influence firm performance? Evidence from construction sector. Uncertain supply chain management 8 (1), 285-290.

Brawn, A, D., & Sevic, A., (2018). Firm size matters: industry sector, firm age and volatility do too in determining which publicly- listed US firms pay a dividend, international review of financial analysis1(1), 1-54.

Byoun, S., (2007). Financial flexibility, leverage and firm size, Hankamer School of finance, 1-35.

Barclay, M. J., & Smith, C. W. (1996). On financial architecture: leverage, maturity, and priority. Journal of applied corporate finance, 8(4), 4-17.

Berger, N, A., & udell , F, G ., (1995). Relationship lending and lines of credit in small firm finance. The journal of business 68 (3), 351 – 381.

Chang, K., Ding, J., Lou, Q., Li, Z., & Yang, J., (2020). The impact of capital leverage on green firm's investment: new evidence regarding the size and age effects of Chinese green industries, finance research letters, 21(1), 1-7.

Caporin,M & Costola M., (2019). Asymmetry and leverage in GARCH model: a new impact curve perspective, applied economics 1(1), 1-20.

Cheryta, M, A., Moeljadi, M., & Indrawati,K, N., (2018). Leverage, asymmetric information firm value and cash holding in Indonesia, journal Keagan dan peranakan, 22(1), 83-93.

Cobb, A., & Lin, K., (2017). Growing apart: the changing firm size wage premium and its inequality consequences, organization sciences 1(1), 1-18.

Choi, J., & Lee, J., (2017). Firm size and compositions of R&D expenditures: evidence from a panel of R&D performing manufacturing firms, industry and innovation 1(1), 1-23.

Dang, N, H., Vu, T, T, V., Ngo, T, X., & Hoang, V, T, H., (2019). Study the impact of growth firm size, capital structure and profitability on enterprises value: evidence of enterprises in Vietnam, the journal of corporate accounting and finance 1(1), 146-162.

Dinlersoz, E., Ozean, S., Hyatt, H., & Penciakova, V., (2019). Leverage over the life cycle and implications for firm growth and shock responsiveness, journal of finance, 1- 20.

Drempetic, S., Klein, C., & Zwergel, B., (2019). The influence of firm size on the ESG score: corporate sustainability ratings under review, journal of business ethics1 (1), 1-28.

Danso, A., Lartey, T., Fosu,S., Agyei, S., & Moshfique Uddin., (2019). Leverage and firm investment: the role of information asymmetry and growth, international journal of accounting and information management, 1(1), 1-28.

Dalci, I ., (2018). Impact of financial leverage on profitability of listed manufacturing firms in china, pacific accounting review 3(4), 410-432.

Fujianti,L., & Satria, I. (2020). Firm size, profitability, leverage as determinants of audit report lag: evidence from Indonesia, international journal of financial research, 11(2), 61-67.

Fajaria ,Z,A., & Isnalita., (2018). The effect of profitability, liquidity, leverage and firm growth of firm value with its dividend policy as a moderating variable, international journal of managerial studies and research, 6(10), 55-69.

Fernandez, E., Antelo, L, S., Lopez, L, V., Rey, M., &Jardon,M, C., (2018). Firm and industry effect on small, medium sized and large firms' performance, business quarter research1 (1), 1-11.

Ferris,P,S., Hanousek, J., Shamshur, A., & Tresl, J., (2017). Asymmetric in the firm's use of debt to changing market value, journal of corporate finance,1-40.

Fosu, S., Danso, A., Ahmad, W., & Coffie, W., (2016). Information asymmetry, leverage and firm value: do crisis and growth matter, journal of finance, 4(6), 1-43.

Fama, E, F., & French, K, R. (2002). Testing trade off and pecking order predictions about dividends and debt, review of financial studies 15(1), 1-33.

Guida, R., & Sabato, V., (2016). Relationship lending and firms leverage: empirical evidence in Europe, European financial management, 9999(9999), 1-29.

Huang, Z., Li, W., & GAO, W., (2016). Why firms choose zero leverage policy? Evidence from China, applied economics, 1-13.

Hashmi, D, S., Gulzar, S., Ghafoor, Z., & Naz, I., (2020). Sensitivity of firm size measures to practices of corporate finance. Future business journal 6(9), 1-19.

Ibhagui, W, O., & Olokoyo, F, O., (2018). Leverage and firm performance: new evidence on the role of firm size, North American journal of economics and finance 1(1), 1-26.

Khan, A, M., Qin, X., & Jebran K., (2019) Does uncertainty influence the leverage –investment association in Chinese firms? research in international business and finance 50 (1), 134-152.

Kumar, K., & Rajan, R. L Zingales (2001). What Determines Firm Size. Center for Research in Security Prices, Graduate School of Business, University of Chicago in its series CRSP working papers with, (496).

Li,M. & Hwang, R, N. (2014). Effects of firm size, financial leverage and R&D expenditure on firm earnings: An analysis using quantile regression approach, a journal of accounting finance and business studies, 47(2), 182-204.

Madbouly, D, M, K (2021). the effect of financial leverage and other firms' characteristics on real earnings management and accrual earnings management: an empirical study on listed firms in the Egyptian stock exchange, scientific journal for financial and commercial studies and research (SJFCSIR),2(1), 54-126.

Maryana., Carolina, Y., (2021). The impact of firm size, leverage, firm age, media, visibility and profitability on sustainability report disclosure, peer reviewed article, 25 (1), 36-47.

Marette, D., (2015). The relationship between firm size and financial leverage of firms listed at Nairobi securities exchange, letter of finance, 1-59.

Miller, M. H., & Modigliani, F. (1961). Dividend policy, growth, and the valuation of shares. The Journal of Business, 34(4), 411-433.

Mustafa, M. J., & Elliott, C. (2019). The curious case of human resource development in family-small-to-medium sized enterprises. Human Resource Development Quarterly, 30(3), 281-290.

Nguyen,A, P., nguygen, H, A., Ngo, ,P,T.,&Nguyen, V, P. (2019). The relationship between productivity and firms' performance: evidence from listed firms in vietnam stock exchange, journal of Asian finance economics and business,6(3), 131-140.

Nega, T, F., (2017). The relationship between financial performance, firm size, leverage and corporate social responsibility, finance and financial management commons, 1-117.

Olawale.,Llo, L., Lawal, B., & K, F., (2017). The effect of firm size on performance of firms in Nigeria, journal of finance 15 (1), 68-87.

Riaz, M., & Jinghong, S. (2022). A comparative analysis of capital structure of G-20 fi rms on regional basis. Pacific Accounting Review. https://doi.org/10.1108/PAR-07-2021-0123

Riaz, M., Jinghong, S., & Akhtar, M. N. (2022). Antecedents of capital structure and firm performance: evidence from G-7 countries. Journal of Money and Business, 1–14. https://doi.org/10.1108/jmb-09-2021-0034

Riaz, M., Naheed, R., Hussain, S., Qayyum, M. K., & Hunain, M. (2024). CAPITAL STRUCTURE EFFECTS ON FIRM PERFORMANCE : EVIDENCE FROM PANEL DATA IN PAKISTAN. Poloicy Research Journal, 2(4), 2478–2490.

Rao, M.., khursheed, A., & Mustafa, F., (2020). The impact of concentrated leverage and ownership of firm performance: a case in Pakistan. Scientific journal of logistics 16 (1), 15 – 31.

Switzer, N, L., & Zhai, X., (2019), IPO performance and the size effect: evidence for the US and Canada, journal of finance, 1-39.

Schreck, P., & Raithel, S., (2015). corporate social performance, firm size and organizational visibility, distinct and joint effects on voluntary sustainability reporting, business and society,1-37.

Schoubben, F., & Van Hulle, C. (2004). The determinants of leverage; differences between quoted and non-quoted firms. DTEW Research Report, 0450, 1-32.

Tripathy, S., & shaik , R, A., (2020). Leverage and firm performance: empirical evidence from Indian food processing industry. Management sciences letter 10 (1), 1233- 1240.

Tongurai, J, V, C., (2014). The effect of firm size on the leverage performance relationship during the financial crisis of 2007- 2009, journal of multi finance management, 1(1), 1-59.

Vengesai, E., & Kwenda, F., (2018). The impact of leverage on discretionary investment: African evidence, African journal of economics and management studies 1(1), 1-20.