Advance Social Science Archives Journal
Available Online: https://assajournal.com
Vol.3 No.1,January-March,2025.Page No.1647-1660
Print ISSN: 3006-2497 Online ISSN: 3006-2500
Platform & Workflow by: Open Journal Systems

IMPACT OF CAPITAL STRUCTURE ON FIRM'S PERFORMANCE: AN EMPIRICAL ANALYSIS ON FERTILIZER INDUSTRY OF PAKISTAN

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ABSTRACT

The purpose of our study is to analyze the fertilizer industry in Pakistan and draw conclusions about the relationship between capital structure and business performance. We were able to achieve this by compiling information from the online platforms of four respected Pakistani fertilizer manufacturers. These businesses are: A Division of Engro Fertilizer Limited Company, Fauji Fertilizer Company Limited, Fatima Fertilizer Company Limited Company, Dawood Hercules Fertilizer Company Limited. We used Linear Regression Analysis that was executed in Microsoft Excel, to analyze the data. Capital Framework and Firm Performance do not have a strong correlation, according to our data. This finding aligns with previous research reports. The results of our research can give valuable insights for the Industry to develop effective strategies and make informed decisions in order to enhance their company's productivity. The scope of our analysis was limited to the fertilizer sector in Pakistan. Our study's sample comprised just four enterprises, and we gathered information from the past four years. Others may have the opportunity to replicate our study in additional sectors and countries, using larger research samples.

Keywords: Capital structure, Firm Performance, Fertilizer Industry Pakistan, Debt-Equity, Firm Sustainability

Introduction

Firms must comprehend capital structure, which involves establishing the optimal proportion of both equity and debt. This decision is vital as it significantly affects the firm's future viability and operational efficiency. Research by Boshnak (2023) and Makarla and Degefa (2019) highlights the importance of understanding capital structure. The mix of debt and equity used to fund a company's activities is crucial, as it influences the firm's valuation and cost of capital. Desai (2007) notes that firms with higher leverage are perceived as riskier, leading to lower valuations. A well-chosen

capital structure can optimize the firm's market value per share, making it a critical decision for management. Financial managers, with their expertise, play a key role in determining the financial structure, which directly impacts industrial performance and profitability (I.R., 2008).

Firm performance is assessed using criteria such as productivity, adaptability, and interorganizational disputes (Georgopoulos & Tannenbaum, 1957). A successful organization exhibits high member motivation, satisfaction, and productivity, while maintaining low turnover and expenses (Lupton, 1977). Performance is a multifaceted concept, encompassing efficiency, effectiveness, and competitiveness, as noted by Harrison and Freeman (1999) and Verboncu and Zalman (2005). Factors like quality, efficacy, and assessment are essential for defining performance (Bartoli & Blatrix, 2015). Efficient firms not only maintain high performance but also meet stakeholder expectations, ensuring long-term sustainability.

Research indicates that capital structure, particularly short-term and long-term debt, negatively affects Return on Assets (ROA) but shows no significant correlation with Return on Equity (ROE) (Regina et al., 2023). Studies on SMEs in the UK production industry reveal a strong relationship between capital structure and profitability (Abeywardhana, 2016). Agency costs and pecking order theory drive capital decisions, which often negatively impact corporate success (Dao & Ta, 2020). Excessive leverage can increase borrowing costs and harm profitability, as highlighted by Chowdhury and Chowdhury (2010). However, Miller and Modigliani (1958) argue that financial structure does not affect firm performance, sparking ongoing debate in the field. In Pakistan, the fertilizer industry's capital structure is crucial due to its role in agriculture, which contributes significantly to the GDP and employs a large portion of the workforce. Understanding this relationship can help firms make informed financial decisions to enhance performance and market value.

Research Question and Significance

The study aims to explore the relationship between capital structure and firm performance, addressing gaps in existing research. By analyzing debt-to-equity ratios, cost of capital, and profitability metrics like ROE, the study seeks to provide empirical evidence to guide firms in optimizing their capital structure. This research is significant as it enhances understanding of how capital structure impacts revenue, market value, and operational efficiency, aiding financial professionals in aligning capital structures with strategic goals.

Objectives of the Study

The study aims to:

1. Assess capital structure ratios like debt-to-equity and their impact on financial stability.
2. Analyze the effect of increasing debt on profitability and financial risk.
3. Examine the impact of capital structure on ROE, revenue growth, and market value.
4. Compare capital structures across industries to identify optimal financing strategies.
5. Provide insights for CFOs and accounting professionals to align capital structures with stakeholder and strategic objectives.

Problem Statement

Capital structure & firm performance have been the topic of much research, yet there are still ongoing controversies in financial economics about the nature of this link. A company's worth in fully efficient markets does not depend on its capital structure, according to the Modigliani-Miller theorem. Because of information bias, organizational problems, duties, and bankruptcy costs, among other market imperfections, a company's performance may hinge on the capital structure decision. The issue is that opinions vary on how businesses should use their funds for maximum return. There is conflicting evidence regarding the relationship between debt and company value. Some research suggests that higher levels of debt are linked to bankruptcy as well as other financial problems, while other research suggests that leverage, in the manner of tax safeguarding and managerial discipline, can actually enhance performance. This study intends to address that knowledge gap by delving further into the correlation between capital structure and company performance. The major objective is to determine if different financing options have the same effect on business performance in different industries and economic situations. Also included in this research will be an examination of external issues, such as regulations and guidelines and market dynamics. By illuminating the complex relationships between capital structure decisions and company success, the research's examination of these trends will offer invaluable insights to specialists, experts, and managers.

Literature Review

The capital structure of a corporation refers to the combination of debt and equity used to finance its operations, and this decision is critical due to the significant

investments involved, as it directly impacts the firm's performance and competitive edge. A well-balanced capital structure can enhance efficiency and profitability, while poor decisions may lead to financial instability. Research by Onyebuchi (2023) and Mubeen et al. (2020) highlights the importance of understanding how debt and equity influence a company's financial health. Studies, such as those by Raheman and Mustafa (2007), have shown that capital structure significantly affects firm profitability, as evidenced by analyses of firms listed on stock exchanges like the Islamabad Stock Exchange (ISE). Similarly, Pouraghajan et al. (2012) found a strong correlation between capital structure and firm performance across various industries, emphasizing the need for optimal financing strategies.

The relationship between capital structure and firm performance is complex and varies across industries and regions. Some studies, such as those by Abor (2005) and Margaritis and Psillaki (2007), suggest a positive correlation, indicating that higher debt levels can improve profitability and market competitiveness. Conversely, research by Huang and Song (2006) and Ghosh (2007) found a negative relationship, where excessive leverage reduces profitability and increases financial risk. For instance, studies on Chinese firms by Cheng et al. (2010) revealed that moderate debt levels enhance performance, but excessive debt leads to declining profitability. Similarly, investigations in Jordan and Malaysia by Soumadi and Hayajneh (2012) and Mohammad and Abdullah (2012) confirmed that high leverage negatively impacts financial performance, underscoring the importance of maintaining a balanced capital structure.

The mixed findings across different contexts highlight the need for firms to tailor their financing strategies to their specific industry and economic conditions. For example, while some firms benefit from leveraging debt to expand operations, others may face financial distress if debt levels become unsustainable. This variability underscores the importance of financial managers' expertise in making informed capital structure decisions that align with the firm's strategic goals and market conditions. Ultimately, understanding the interplay between capital structure and firm performance is essential for optimizing financial outcomes and ensuring long-term sustainability. By carefully balancing debt and equity, firms can maximize profitability, minimize risk, and maintain a competitive edge in their respective markets.

Methodology:

In methodology we have methods, techniques and data collection process, that help us answer the relevant issue.

Data Collection:

We are using secondary data for this research and for that reason we used the data from different company's websites. We are doing our research on Fertilizer industry of Pakistan.

Population:

As the population of our study, we took the Fertilizer Industry of Pakistan.

Sample Size:

The sample size of our study consists of 4 renowned fertilizer companies of Pakistan:

- Engro Fertilizer Limited
- Fauji Fertilizer Company Limited
- Fatima Fertilizer Company Limited
- Dawood Hercules Corporation Limited

Data Analysis Method/Tool:

We have used linear regression analysis to verify the relationship between dependent and independent variables.

Software Used:

We have used linear regression model with the help of Microsoft Excel.

Hypothesis:

H1: There is significant positive relationship between Capital Structure and Firm Performance.

H0: There is no significant positive relationship between Capital Structure and Firm Performance.

Variables:

Independent Variable*:*

Capital Structure:

The right debt to equity ratio must be determined for a capital structure because long-term viability and performance are greatly impacted by it. Makarla and Degefa (2019) and Boshnak (2023).

Dependent Variable:

Firm Performance:

Performance should be defined with consideration for the following elements, according to Bartoli and Blatrix (2015): efficacy, efficiency, quality, effectiveness, piloting, and assessment.

Theoretical Frame Work:

To achieve the purpose of this study, capital structure is considered as an independent variable and financial performance is considered as a dependent variable.

Analysis and Result

4.1 Table of capital structure and net income

Capital Structure	Net Income
0.414669869	21000
0.479025175	18520
0.581518747	21000
0.515 866199	26191
0.359145413	20810
0.316864814	35690
0.310254886	14000
0.423344751	46511
0.285768445	13270
0.245617138	39870
0.240736907	14000
0.22339546	46511
0.372775747	8320
0.357547112	39870
3.698949825	8500
0.674444344	8322

Capital Structure

This represents the proportion of debt and equity used by a company to finance its operations. A higher value indicates more reliance on debt.

Net Income

This is the profit a company makes after all expenses, taxes, and costs have been deducted from total revenue.

Key Points

Higher Capital Structure

Generally, a higher capital structure value means the company is using more debt. For example, a value of 0.5815 means the company has a higher proportion of debt compared to a value of 0.2234.

Net Income Variation

The net income varies significantly across different capital structures. For instance, a capital structure of 0.4233 corresponds to a high net income of \$46,511, while a very high capital structure of 3.6989 corresponds to a much lower net income of \$8,500.

4.2 Table of summary output

Regression Statistics	
Multiple R	0.346914273
R Square	0.120349513
Adjusted R Square	0.057517336
Standard Error	13177.72264
Observations	16

Multiple R Value 0.3469 This is the correlation coefficient. It measures the strength of the linear relationship between the predictor variables and the response variable. A value closer to 1 indicates a stronger relationship.

R Square 0.1203 Also known as the coefficient of determination, it represents the proportion of the variance in the response variable that can be explained by the predictor variables. In this case, about 12% of the variance is explained.

Adjusted R Square 0.0575 This is a modified version of R Square that adjusts for the number of predictors in the model. It is always lower than R Square and provides a more accurate measure when comparing models with different numbers of predictors.

Standard Error 13,177.72 This measures the average distance that the observed values fall from the regression line. A smaller value indicates a better fit.

Observations 16 This is the number of data points used in the regression analysis.

Key Points

Multiple R Indicates a moderate linear relationship between the variables.

R Square Shows that only 12% of the variability in the response variable is explained by the model, suggesting that other factors might be influencing the outcome.

Adjusted R Square Slightly lower than R Square, accounting for the number of predictors in the model.

Standard Error A relatively high value, indicating that the data points are spread out around the regression line.

Observations The analysis is based on 16 data points.

4.3 Table of Anova

	Df	**SS**	**MS**	**F**	**Significance F**
Regression	1	332615857.8	332615857.8	1.915412098	0.18803075

Residual	14	2431133235	173652373.9		
Total	15	2763749093			

DF (Degrees of Freedom)

Regression 1 degree of freedom, representing the number of predictor variables.

Residual 14 degrees of freedom, representing the remaining variability not explained by the model.

Total 15 degrees of freedom, representing the total number of observations minus one.

SS (Sum of Squares)

Regression 332,615,857.8, representing the variability explained by the regression model.

Residual 2,431,133,235, representing the variability not explained by the model.

Total 2,763,749,093, representing the total variability in the data.

MS (Mean Square)

Regression 332,615,857.8, calculated by dividing the regression SS by its degrees of freedom.

Residual 173,652,373.9, calculated by dividing the residual SS by its degrees of freedom.

F (F-Statistic)

Regression 1.9154, calculated by dividing the regression MS by the residual MS. It measures the overall significance of the model.

Significance F

Regression 0.1880, representing the p-value. A lower value (typically less than 0.05) indicates that the model is statistically significant

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	27237.05701	4082.940924	6.670940755	1.05938E-05	18480.01967	35994.094	18480.0197	35994.0944
Capital Structure	-5621.929971	4062.134682	-1.383984139	0.18803075	-14334.3424	3090.4824	-14334.342	3090.48242

Coefficients

Intercept (27237.05701) This is the value of the dependent variable (e.g., profit) when all independent variables (e.g., capital structure) are zero. Think of it as the starting point.

Capital Structure (-5621.929971) This coefficient shows the relationship between capital structure and the dependent variable. A negative value means that as the capital structure increases, the dependent variable decreases.

Standard Error

Intercept (4082.940924) This measures the accuracy of the intercept. A smaller standard error means the estimate is more precise.

Capital Structure (4062.134682) This measures the accuracy of the capital structure coefficient. Again, a smaller value indicates a more precise estimate.
ANOVA (Analysis of Variance)
This section is used to analyze the differences among group means and their associated procedures.
P-value
Capital Structure (0.18803075) This value helps determine the significance of the results. A smaller p-value (typically less than 0.05) indicates strong evidence against the null hypothesis, meaning the result is statistically significant.
Confidence Intervals
Lower 95% / Upper 95% These values (e.g., -14334.3424 to 3090.4824 for Capital Structure) provide a range within which we can be 95% confident that the true coefficient lies.
Summary
Intercept Starting value of the dependent variable.
Capital Structure Shows the impact of capital structure on the dependent variable.
Standard Error indicates the precision of the coefficients.
P-value indicates the statistical significance.
Confidence Intervals Range within which the true value of the coefficient likely falls.
A company's capital structure significantly affects its success, according to our analysis. The following are the primary results: We have a p-value greater than 0.5 from our hypothesis test. If the null hypothesis is not rejected, this finding implies that there is a substantial amount of evidence supporting it. In light of this lack of evidence, it appears that the null hypothesis that capital structure has no discernible impact on firm performance must be accepted.
One statistical metric that measures the proportion of the dependent variable's variance that can be clarified by the independent variable or variables is the R-Square, which is also called the Coefficient of Determination. In this case, its coefficient of determination (R-squared) was 0.1
Modifications to a company's funding mechanism explain just about 12% of the variance in its success. Additional factors that were not considered in our model are probably to blame for the excess variation. Our regression model yielded a standard error of 13,177.722. This chart shows how far real data points typically stray from the prediction line. When the standard error is larger, it means that the data surrounding the fitted model is more variable. A degree of significance (F) of 0.188030 indicates that the regression model is statistically significant. The significance of the regression

formula is illustrated in this graphic. Beyond the usual threshold (e.g., 0.05), there is a lack of strong evidence to support the claim that there is a significant link between structure of capital and company performance. Our findings are in line with those of Ajay Singh et al. (2022), who also failed to identify a significant correlation between the capital framework and business performance.

Conclusion and Recommendation

This study looks at the fertilizer industry in Pakistan and how the financial structure of different companies affects their performance. The Pakistani bank has each company's registration details. A crucial decision that greatly affects a company's financial health is its capital structure, which describes how the business finances its activities. Optimal decisions regarding the company's finance structure greatly improve its success. Unwise decisions have a negative impact on a company's output. Companies should keep their debt-to-equity ratio in a healthy range. A company's capital structure is the mix of equity and debt that it employs to finance its activities. Results from several studies on the topic of capital structure and company success have shown positive and negative connections. Choices made on the capital structure of a firm can significantly impact its financial success or failure. We use methods and procedures for gathering data to address the issue. Pakistani state banks including Engro Fertilizers Limited, Fauji Fertilizer Company Limited, Fatima Fertilizer Company limited, the Dawood Hercules Corporation Ltd. were among the sources from which we culled data. Statistically, we have utilized regression analysis and Excel to examine data and test various hypotheses. While the variables affecting a company's performance are dependent on one another, those affecting its capital structure are seen as independent. Chowdhury and Choudhury (2010) determined that capital structure has little bearing on company performance. Approximately 12% of the variation in firm performance might be explained by shifts in capital structure, according to the R-squared identification coefficient of 0.120. The rest of the variation, however, is probably due to additional factors that our model overlooked. A typical error of 13,177.722 was produced by our regression model. The actual data points' standard deviation from a line of regression is shown in this figure. A larger standard error relative to the accepted model indicates more data variability. The significance level of the regression model that we utilized is 0.188030. This number shows how crucial the regression equation is in general. There isn't enough proof to back up the link with capital structure and corporate performance because the correlation is higher than the usual significance levels, like 0.05.

To account for any changes in the outcomes of this study, future studies should cover diverse sectors of Pakistan. A particular industry was the focus of this study. Success is

heavily dependent on a company's financial structure, according to the study. The impact of debt that is short-term as well as long-term on a company's performance is substantial. The cost of short-term obligations is acknowledged to be higher than that of long-term borrowings. Given the lower cost linked to long-term commitments compared to short-term loans, firms are urged to use the former for financing needs. Institutional investors must be actively involved in a company's operations. There will be good and helpful effects from the performance. The impact of the capital framework on the success of certain industries, such as food and textiles, may necessitate additional study. The use of global data also allows for the conduct of these investigations. Investigating the optimal capital structure could prove to be an advantageous research approach. It is the responsibility of future researchers to examine the exclusionary elements. Companies traded on the Karachi Stock Exchange can have their capital structure, which includes shareholders' wealth, payouts, and annual non-debt shield tax, broken down into its component parts. Additionally, future researchers may opt to use probability sampling or proportionality probability sampling procedures to select their target businesses. This will increase the findings' precision and make sure the conclusion may seem applied to more individuals.

References

Abor, J. (2005). The effect of capital structure on profitability: an empirical analysis of listed firms in Ghana. *The journal of risk finance, 6*(5), 438-445 %@ 1526-5943.

Aggarwal, R., & Zhao, X. (2007). The leverage–value relationship puzzle: An industry effects resolution. *Journal of Economics and Business, 59*(4), 286-297 %@ 0148-6195.

Ahmad, Z., Abdullah, N. M. H., & Roslan, S. (2012). Capital structure effect on firms performance: Focusing on consumers and industrials sectors on Malaysian firms. *International Review of Business Research Papers, 8*(5), 137-155.

Al-Taani, K. (2013). The relationship between capital structure and firm performance: evidence from Jordan. *Journal of Finance and Accounting, 1*(3), 41-45.

Antoniou, A., Guney, Y., & Paudyal, K. (2008). The determinants of capital structure: capital market-oriented versus bank-oriented institutions. *Journal of financial and quantitative analysis, 43*(1), 59-92 %@ 1756-6916.

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 %@ 0378-4266.

Cai, J., & Zhang, Z. (2006). Capital structure dynamics and stock returns. *Available at SSRN 685462*.

Chen, S.-S., Chung, T.-Y., Ho, K. W., & Lee, C.-F. (2007). Intra-industry effects of delayed new product introductions. *Review of Pacific Basin Financial Markets and Policies, 10*(03), 415-443 %@ 0219-0915.

Cheng, Y.-S., Liu, Y.-P., & Chien, C.-Y. (2010). Capital structure and firm value in China: A panel threshold regression analysis. *African Journal of Business Management, 4*(12), 2500 %@ 1993-8233.

Chowdhury, A., & Chowdhury, S. P. (2010). Impact of capital structure on firm's value: Evidence from Bangladesh. *Business and Economic Horizons, 3*(3), 111-122 %@ 1804-1205.

Dave, M. A. A., Dave, A. R., Parwani, A. H., & Joshi, A. B. Financial Management–An Insight.

Donaldson, G. (1961). Corporate debt capacity: a study of corporate debt policy and the determination of corporate debt capacity. *(No Title)*.

El-Sayed Ebaid, I. (2009). The impact of capital-structure choice on firm performance: empirical evidence from Egypt. *The journal of risk finance, 10*(5), 477-487 %@ 1526-5943.

Eriotis, N. P., Frangouli, Z., & Ventoura-Neokosmides, Z. (2002). Profit margin and capital structure: an empirical relationship. *Journal of Applied Business Research (JABR), 18*(2 %@ 2157-8834).

Ghosh, S. (2007). Leverage, managerial monitoring and firm valuation: A simultaneous equation approach. *research in economics, 61*(2), 84-98 %@ 1090-9443.

Goyal, A. M. (2013). Impact of capital structure on performance of listed public sector banks in India. *International journal of business and management invention, 2*(10), 35-43.

Hossain, A., Khan, A. A. Y., & Khalid, M. S. (2019). An Empirical Analysis of Capital Structure and Firms Financial Performance in a Developing Country. *Global Journal of Management and Business Research, 19*(3), 8-16.

Huang, G. (2006). The determinants of capital structure: Evidence from China. *China economic review, 17*(1), 14-36 %@ 1043-1951X.

José Arcas, M., & Bachiller, P. (2008). Performance and capital structure of privatized firms in Europe. *Global economic review, 37*(1), 107-123 %@ 1226-1508X.

Karadeniz, E., Yilmaz Kandir, S., Balcilar, M., & Beyazit Onal, Y. (2009). Determinants of capital structure: evidence from Turkish lodging companies. *International Journal of Contemporary Hospitality Management, 21*(5), 594-609 %@ 0959-6119.

Kim, E. (2006). The impact of family ownership and capital structures on productivity performance of Korean manufacturing firms: Corporate governance and the "chaebol problem". *Journal of the Japanese and International Economies, 20*(2), 209-233 %@ 0889-1583.

King, M. R., & Santor, E. (2008). Family values: Ownership structure, performance and capital structure of Canadian firms. *Journal of Banking & Finance, 32*(11), 2423-2432 %@ 0378-4266.

Kulikov, A., Alabed Alkader, N., Panaedova, G., Ogorodnikov, A., & Rebeka, E. (2023). Modelling Optimal Capital Structure in Gas and Oil Sector by Applying Simulation Theory and Programming Language of Python (Qatar Gas Transport Company). *Energies, 16*(10), 4067 %@ 1996-1073.

Mitani, H. (2014). Capital structure and competitive position in product market. *International Review of Economics & Finance, 29*, 358-371 %@ 1059-0560.

Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *The American economic review, 48*(3), 261-297 %@ 0002-8282.

Mubeen, R., Han, D., Abbas, J., & Hussain, I. (2020). The effects of market competition, capital structure, and CEO duality on firm performance: a mediation analysis by incorporating the GMM model technique. *Sustainability, 12*(8), 3480 %@ 2071-1050.

Muritala, T. A. (2012). An empirical analysis of capital structure on firms' performance in Nigeria. *International Journal of Advances in Management and Economics, 1*(5), 116-124.

Mustapha, M., Ismail, H., & Minai, B. (2011). *Determinants of debt structure: Empirical evidence from Malaysia*.

Myers, S. C. (1984). Capital structure puzzle. In: National Bureau of Economic Research Cambridge, Mass., USA.

Nirajini, A., & Priya, K. B. (2013). Impact of capital structure on financial performance of the listed trading companies in Sri Lanka. *International Journal of Scientific and Research Publications, 3*(5), 1-9.

Onaolapo, A. A., & Kajola, S. O. (2010). Capital structure and firm performance: evidence from Nigeria. *European Journal of Economics, Finance and Administrative Sciences, 25*(1), 70-82.

Raheman, A., & Zulfiqar, B. Mustafa.(2007)."Capital Structure and Profitability: A Case of Islamabad Stock Exchange". *International Review of Business Research Papers, 3*(5), 347-361.

Saeed, R. B. A., & Badar, R. (2013). Impact of capital structure on performance empirical evidence from sugar sector of Pakistan. *European Journal of Business and Management, 5*(5), 78-86.

Saeedi, A., & Mahmoodi, I. (2011). Capital structure and firm performance: Evidence from Iranian companies. *International Research Journal of Finance and Economics, 70*, 20-29 %@ 1450-2887.

Shubita, M. F., & Alsawalhah, J. M. (2012). The relationship between capital structure and profitability. *International Journal of Business and Social Science, 3*(16), 104-112.

Simerly, R. L., & Li, M. (2000). Environmental dynamism, capital structure and performance: a theoretical integration and an empirical test. *Strategic management journal, 21*(1), 31-49 %@ 0143-2095.

Srivastava, A. (2011). Ownership structure and corporate performance: Evidence from India. *International Journal of Humanities and Social Science, 1*(1), 23-29.

Talberg, M., Winge, C., Frydenberg, S., & Westgaard, S. (2008). Capital structure across industries. *International Journal of the Economics of Business, 15*(2), 181-200 %@ 1357-1516.

Tongkong, S. (2012). Key factors influencing capital structure decision and its speed of adjustment of Thai listed real estate companies. *Procedia-Social and Behavioral Sciences, 40*, 716-720 %@ 1877-0428.

Tsangyaa, C., Kuei-Chiu, L., Yao-Men, Y., & Chia-Hao, L. (2009). Does capital structure affect operating performances of credit cooperatives in Taiwan? Application of panel threshold method. *International Research Journal of Finance and Economics, 32*, 18-21.

Vuong, N. B., Vu, T. T. Q., & Mitra, P. (2017). Impact of capital structure on firm's financial performance: Evidence from United Kingdom. *Journal of Finance & Economics Research, 2*(1), 16-29.