

## **Investigating the interrelation between capital structure and financial performance of manufacturing companies in the UK**

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### **ABSTRACT**

**Aim:** The research aims to identify the interrelation between the capital structures and financial performances of different food manufacturers currently operational in the UK.

**Method:** The study would proceed with a secondary quantitative approach that involves collecting data through existing research and financial reports. This was achieved from three food and beverage manufacturing companies' annual reports. The data would comprise data collected in the recent three years, which are; 2018, 2019, and 2020 to measure the financial performance of the food and beverages manufacturing companies.

**Findings:** It was found that Net Profit Margin (NMP) is selected as the dependent variable, whereas DTE, DTA, and EPS is the independent variable. The data would be collected using Stata, and the outcome would comprise descriptive, correlation, Hausman, and fixed/random effect. The following result would depict the development of the financial performances of the chosen organisations and their influences on the independent variables.

**Keywords:** *Capital Structure, Financial Performance, Manufacturing Companies in the UK, Equity, Profit Margin, Asset Ratio.*

### **INTRODUCTION**

Manufacturing companies evolve with the technological advancement initiated through the financial performance of the company. Analysing the financial measures of the company is represented through the capital structure and financial performances leading the company toward certain advancements (Kumar et al., 2021). Xie et al. (2019) indicated the company's fiscal performance also demonstrates the financial health of the organisation, which can improve by enhancing the internal and external forces. Furthermore, the chosen factor, the capital structure, helps to increase the business's profit margins and improve the returns within the highly competitive market. However, innovation within the manufacturing sector requires high finances to improve the company's financial performance and capital structure. As per Rahayu and Saifi (2019), capital structure enhances the company's growth and progress, depicting a particular proportion of how the business's financial performance is divided, comprising external and internal sources. The business's capital structure includes certain financiers, investors, and shareholders. However, it is also demonstrated that the total debt ratio is associated with the total capital employed, depicting the company's leverage. Belas et al. (2018) found that the capital structure is not influenced by the current financial health of the organisation. Still, it is affected by the rise in taxes, the bankruptcy within the country, and certain economic instability leading toward declining the firm's capital structure. The balance between equity financing, debt, and cost benefits is determined through the company's capital structure, as demonstrated in the trade-off theory of capital structure. Manufacturing firms tend to work with the physical and mechanical transformation with innovation in the production and usage of advanced equipment. According to Javeed and Lefen (2019), manufacturing firms must create a balance between tax and bankruptcy within the country, further protected by the debt shield. As per Harris and Raviv (1991), the capital structure theory helps to optimise the companies and how well they need to improve their capital structure and financial performances. Manufacturing companies should focus on implementing advanced technological resources by enhancing their structure of capital and improving their fiscal health.

The focus of the journal demonstrates the influences of Debt to Equity Ratio (DTE), Debt to Asset Ratio (DTA), and Earnings per Share (EPS) on Net Profit Margin (NPM). Each of these variables helps to demonstrate the financial performances of the manufacturing companies and how it

influences the capital structure. The chosen organisations in the journal are Diageo PLC, United Utilities Group PLC, and Unilever PLC. The journal would further proceed with the following objectives;

1. To identify the key financial indicators of the companies to analyse their performances.
2. To highlight the association between the financial performance and capital structure of the company.
3. To evaluate the relationship of DTE, DTA, and EPS on Net Profit Margin (NPM).
4. To analyse whether the allocation of financial resources impacts the financial performance of the companies.

## LITERATURE REVIEW

### Capital Structure

The capital structure involves securities related to equity and debt utilised to finance real investment (Ezirim et al., 2017). Notably, it tends to reflect the financing strategy of the organisation involving the overall target debt-equity ratio and the financing tactics, including the design and timing of a particular issue related to debt (Mutai, 2020). Le and Bich (2017) elaborated that capital structure increasingly impacts an organisation's performance. Moreover, it is regarded as a core issue in finance, and an increased number of theories are known to explain this relationship considerably. These include Modigliani–Miller (MM) theory, Agency Theory, Trade-off theory, and Pecking-order theory.

### Modigliani–Miller (MM) Theory

The MM theory is the foundation theory, suggesting that the organisational value experiences reduced effects based on capital structure (Le and Bich, 2017). However, this theory is based on assumptions. This is associated with a perfect capital market that has reduced existence in the real world.

### **Pecking-order Theory**

Various determinants have been identified to have an increased association with capital structure. The pecking-order theory of Krištofik et al. (2022) indicated that the managers have a reduced involvement in setting the target leverage. However, they utilise the sources of capital in a particular direction, including debt and equity, as well as internal funds issues. Notably, the availability of the debt issues is known to be reduced in case the internal fund's adequacy for all possible investments has a positive NPV. This is regarded as the source for ensuring minimised resistance. Krištofik et al. (2022) elaborated on the association of equity in the initial and final points in order and debt that impacts the capital structure. This includes opportunities for growth, profitability, and cash in addition to depreciation and amortisation. All of the identified determinants are related to the adequacy of internal funds. These are identified as external sources rather than the determinants of leverage.

### **Agency Theory**

Abdullah et al. (2018) discussed the agency theory, which indicates that a company's management team may experience reduced motivation to have an optimal level of financial leverage. However, reduced identification and understanding of such a situation may cause a reduced maximisation of the shareholders' wealth. In addition to this, increased levels of financial leverage negatively impact system enhancement in association with the internal control mechanisms that can lead to the development of agency problems. This is ideal based on the designing of the internal control mechanisms for the mitigation of agency conflicts. Therefore, the increase of financial leverage above an optimal level can cause ineffectiveness of the mechanisms involved in the internal control leading to an elevation in the levels of agency conflict. Lou and Jiang (2022) argued that an ineffective capital structure negatively affects the finances of the company while ensuring the improvement of the structure of corporate governance contributes to the increased financing structure regulation of the organisations. Moreover, it also contributes to the advancement of the management of the risks of operations experienced by the company. It is increasingly notable that improving the capital structure enhances the organisation's financial situation.

### **Trade-off Theory**

The trade-off theory is among the most appropriate theories of capital structure and underlies increased empirical work in capital structure. Abel (2018) indicated in a similar context that trade-off theory suggests the equating of the optimum quantity of debt against the marginal benefits concerning a dollar of debt that arises from the reduced payments of interest in consideration of the marginal cost of a dollar of debt that is caused by the increase in exposure to default. Notably, this framework contributes to a change in time or variation in leverage among the organisations. Additionally, differences in the marginal interest are attributed to the tax shield or the differences in the default marginal cost. Abel (2018) further explained that the trade-off theory involves a conventional interpretation as it promotes increased profitability of the firms that require having increased ratios of leverage and a prediction that encounters the empirical fact that increased profitability of firms has a reduced leverage ratio.

### **Financial Performance**

Financial performance is one of the most generally accepted financial measures that assist the company's evaluation. According to Tretiakova et al. (2021), it represents a subjective measure of the organisation's effectiveness in utilising primary occupation assets and generating revenues. Moreover, the financial performance also identifies an organisation's overall financial health for a certain period. Additionally, the improvement in the financial performance based on an organisation's internal and external financing sources has a subsequent impact on its capital structure. Liang and Su (2019) discussed that capital structure had been recognised to have increased importance in corporate finance. Capital structure is identified as the capital raised based on debt and equity, as well as hybrid securities applied by the firm that indicates the corporate capital cost. In addition, it involves a representation of the association existing between capital cost as well as equity and debt. This may assist the organisation in ensuring improved performance with an optimal capital structure. This is regardless of the equivalence of the factors since an optimal capital structure has the potential to provide an increased net return to the organisation through a minimum cost of capital.

## **Association between Capital Structure and Financial Performance of Manufacturing Companies in the UK**

An enhanced relationship is known to exist amongst the capital structure and financial performance of organisations involved in the manufacturing business in the UK. Wamiori et al. (2016) found that manufacturing companies tend to compete in the same market with other organisations involved in the non-manufacturing business. Moreover, social capital and member participation, as well as cooperative performance, indicates that social capital has an increased significance and positively impacts the economic performance of cooperatives. In addition, the determinants of financial performance in manufacturing companies raise concerns about their ability. This is in terms of the traditional corporate goal for the holds on the maximisation of the profit.

Capital structure contributes to the measurement of the source and composition. It also involves the proportion of the equity and debt capital of the organisations. Lou and Jiang (2022) stated that it has an increased association with the internal operating environment and the rights and obligations of the shareholders. In addition, it has an enhanced relationship with the future development direction of the company as well as the decision-making and changes in the structure of governance. The authors have further identified that temporary accountabilities can meet the sustainability of the organisation. It may also assist in enhancing the industry's competitiveness, leading to an increase in the operating income of the organisation.

### **Hypothesis Development**

The following hypothesis has been developed for estimating the equation:

H0a: DTE ratio has no significant impact on the NPM of the manufacturing companies of the UK.

H1a: DTE ratio significantly impacts the NPM of manufacturing companies in the UK.

H0b: DTA ratio has no significant impact on the NPM of the manufacturing companies of the UK.

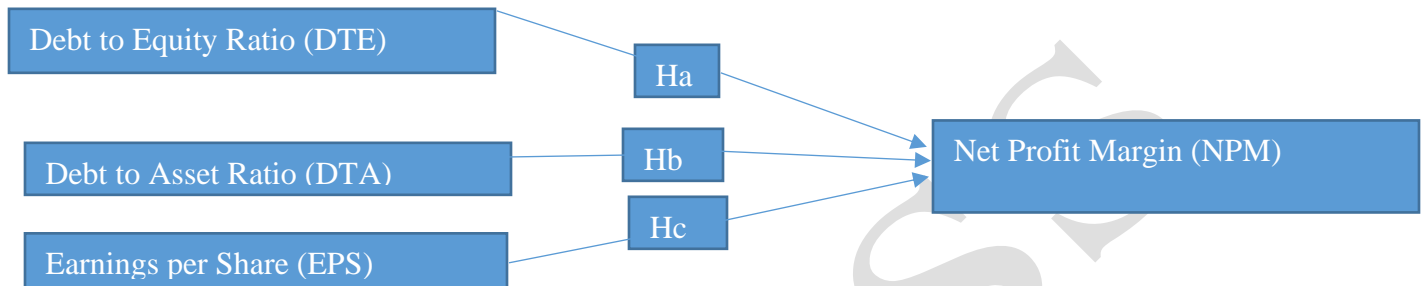
H1b: DTA ratio significantly impacts the NPM of UK manufacturing companies.

H0c: EPS has no significant impact on the NPM of the manufacturing companies of the UK.

H1c: EPS significantly impact the NPM of manufacturing companies in the UK.

### Conceptual Framework

$$NPM_{i,t} = \beta_0 + \beta_1 DTE_{i,t} + \beta_2 DTA_{i,t} + \beta_3 EPS_{i,t} + e_{i,t}$$



## METHODOLOGY

### Research Philosophy

Research philosophy is the phenomenon that involves the development of assumption and knowledge as well as the nature of research. According to Žukauskas et al. (2017), the assumptions are the preliminary statements for reasoning. However, it is based on understanding the individuals' knowledge and insights. These are a product of intellectual activity. This study uses positivism as the research philosophy. This is justified based on the study performed by Park et al. (2020) that specified the alignment of positivism with the hypothetico-deductive model of science that contributes to the verification of a priori hypotheses and experimentation. Researchers can achieve this through the operationalisation of variables and measures. In addition, the results obtained from the hypothesis testing are utilised to inform and advance science.

### Research Approach

The research approach is referred to as the strategy and the process for research that has an increased involvement of steps using comprehensive expectations to in-depth methods for the collection and analysis as well as interpretation of data (Creswell, 2014). This study involved the

use of a deductive approach. This is justified based on the study by Patel and Patel (2019), which identified that the deductive approach assists the researcher in testing the validity of the existing assumptions or theories/hypotheses. Notably, it allows the researcher to confirm or reject the theories/hypotheses based on the study.

### Data Collection

Data collection is referred to as the process that involves the careful accumulation of the desirable information by ensuring the avoidance of the possibility of distortion (Parween and Showkat, 2017). This ensures the increased effectiveness of the analysis and the credibility of answers relevant to logic. Data collected for this study has been achieved through annual reports based on the selection of five companies from the past five years, 2016-2020.

### Data Analysis

The study involved the use of quantitative data analysis. Ali (2021) explained it as a systematic process involving the collection and evaluation of data that is quantifiable and verifiable. Moreover, it is comprised of a statistical mechanism for the assessment or analysis of quantitative data. The techniques for data analysis applied in this study are descriptive analysis, correlation, Hausman effect, and fixed/random effect.

### Descriptive Analysis

	DTA_R	DTE_R	EPS	NPM
Mean	0.354107	1.16764	1.22808	0.128832
Median	0.386373	0.97	1.17	0.1082
Maximum	0.608428	2.53	3.5	0.2546
Minimum	0.042733	0.038	0.162	0.0326
Std. Dev.	0.174896	0.862153	0.715662	0.075407
Skewness	-0.24301	0.320961	1.290443	0.482684
Kurtosis	2.229762	1.713633	5.220279	1.612812
Jarque-Bera Probability	0.864051	2.152922	12.07356	2.975237
	0.649193	0.3408	0.002389	0.22591



Sum	8.852682	29.191	30.702	3.2208
Sum Sq. Dev.	0.734131	17.83937	12.29212	0.136468
Observations	25	25	25	25

Considering the above table, it is witnessed that the data was collected from five UK food manufacturing companies. However, the data comprises Net Profit Margin (NPM), selected as the dependent variable. In contrast, DTE, DTA, and EPS is the independent variable. The data is collected from each company's recent five years, which is 2016-2020, with a total of 25 observations. Referring to the Debt to Asset Ratio, the mean value is determined as 0.354, and the standard deviation is 0.174.

Furthermore, the table also demonstrates the Debt to Equity Ratio, where the mean value is shown as 1.167, whereas the standard deviation is 0.862. Each independent variable tends to demonstrate the impact on the dependent variable, the Net Profit Margin (NPM). The table also highlights the result of earnings per share on net profit margin, where the mean value is demonstrated as 1.228, and the standard deviation is 0.715. The 25 observations in the above table discuss five food manufacturing companies currently operational in the UK. The data comprises Debt on Equity, Debt on Assets, and Earnings per Share, depicting their impact on the net profit margin.

**Correlation**

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Covariance Analysis: Ordinary

Date: 10/10/22 Time: 23:46

Sample: 2016 2020

Included observations: 25

Correlation

Probability	DTA_R	DTE_R	EPS	NPM
DTA_R	1			
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DTE_R	0.951033	1		
	0	-----		

EPS	-0.22887	-0.15501	1	
	0.2711	0.4594	-----	
NPM	0.560531	0.528802	-0.02305	1
	0.0036	0.0066	0.9129	-----

The purpose of the above table is to analyse the association and the correlation between the variables. The above correlation table depicts a dependent variable, NPM, and the independent variables are DTA, DTE, and EPS. The threshold value of the correlation table is demonstrated as 0.01 to 0.3 with weak association within the variables. 0.31 to 0.7 with moderate association within the variables, and 0.71 to 1 demonstrates a strong association within the variables. The above table aims to analyse the association of all three variables with net profit margin. The association of Debt on Assets with Net Profit Margin is demonstrated as 0.56, and the P value is 0.0036, which means that Net Profit Margin is moderately and positively correlated with debt to asset ratio. Furthermore, the association of the DTE ratio and net profit margin is evaluated, which is 0.528, and the P value is 0.0066, demonstrating that the DTE ratio is also positively and moderately correlated with net profit margin. However, the association of earnings per share and net profit margin is depicted as -0.023, demonstrating that it is negatively correlated with net profit margin.

### Hausman Effect

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Correlated Random Effects - Hausman Test  
 Equation: Untitled  
 Test period random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random	3.082705	3	0.379

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The purpose of executing the Hausman effect is to identify the use of the fixed or random effect during the panel analysis. Within the Hausman effect, the fixed effect is considered when the null hypothesis is rejected, and it proceeds to accept the alternative hypotheses. However, the random effect is selected during the Hausman effect when the Prob chi-square value is larger in comparison

to the threshold value, which is 0.05. Referring to the above table, it can be witnessed that the probability value is 0.379, which depicts that the chosen method to identify the significance of the variables would be a random effect.

### Random Effect

Dependent Variable: NPM

Method: Panel EGLS (Cross-section random effects)

Date: 10/10/22 Time: 23:53

Sample: 2016 2020

Periods included: 5

Cross-sections included: 5

Total panel (balanced) observations: 25

Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DTA_R	0.285547	0.181912	1.569693	0.1314
DTE_R	-0.06106	0.03194	-1.91162	0.0697
EPS	0.087532	0.018896	4.632205	0.0001
C	-0.00849	0.063513	-0.13363	0.895

#### Effects Specification

	SD.	Rho
Cross-section random	0.085149	0.8854
Idiosyncratic random	0.030639	0.1146

#### Weighted Statistics

R-squared	0.489567	Mean dependent var	0.020469
Adjusted R-squared	0.416648	SD dependent var	0.042363
SE of regression	0.032356	Sum squared resid	0.021984
F-statistic	6.713856	Durbin-Watson stat	1.103293
Prob(F-statistic)	0.002371		

#### Unweighted Statistics

R-squared	-0.69876	Mean dependent var	0.128832
Sum squared resid	0.231825	Durbin-Watson stat	0.104628

Significant at 1 % \*\*\*, 5% \*\*, 10%\*

The significance of the variables in random effect is evaluated where significance at 1%. This is depicted with \*\*\*, significant at 5% is depicted with \*\*, and significance at 10% is depicted with \*. Furthermore, it is also being analysed that the threshold value within the random effect should be greater than 0.05. The variable debt to asset probability value is demonstrated as 0.1314, and the coefficient value is 0.2877, demonstrating that debt to the asset is insignificant with the net profit margin. Furthermore, the probability of debt to equity is depicted as 0.0697 with a coefficient of -0.0616, demonstrating that it is significant but negatively correlated with the net profit margin. Considering the significance of earnings per share, the probability value is 0.0001, where the coefficient is 0.0875, which depicts that earnings per share are insignificant with a net profit margin.

Moreover, the table above also demonstrates the value of the R-square, which shows that the mean of the dependent variable is 12.88%. This means that 12.88% of the changes are predicted within the model because of the difference in the independent variable. Therefore, the P value in the table is  $0.002371 < 0.05$ , demonstrating that the model used is significant to proceed with the analysis.

## DISCUSSION

This research aims to explore the financial performance and capital structure impact on manufacturing companies operating in the UK. It further proceeded with 25 observations, including five food manufacturing companies, and the data was recorded for the recent five years, 2016-2020. It also comprises the Net Profit Margin (NPM), which is considered a dependent variable. In contrast, DTE, DTA, and EPS is the independent variable. Through the results mentioned above, it is evaluated that the debt-to-asset ratio significantly impacts the net profit margin and the debt-to-equity ratio. However, it is demonstrated that earnings per share have a minor effect on the NPM. However, it also depicts that the debt-to-equity ratio negatively correlates with the net profit margin.

	Hypothesis Statements	Accepted	Rejected
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H0a	H0a: DTE ratio has no significant impact on the NPM of the manufacturing companies of the UK.		✓
H1a	H1a: DTE ratio significantly impacts the NPM of manufacturing companies in the UK.	✓	
H0b	H0b: DTA ratio has no significant impact on the NPM of the manufacturing companies of the UK.		✓
H1b	H1b: DTA ratio significantly impacts the NPM of UK manufacturing companies.		✓
H0c	H0c: EPS has no significant impact on the NPM of the manufacturing companies of the UK.	✓	
H1c	H1c: EPS significantly impact the NPM of manufacturing companies in the UK.	✓	

## CONCLUSION

Finally, it has been identified that capital and financial performance have a significant relationship. This has been measured based on various factors of capital structure, including DTE, DTA, and EPS. It has been further observed that the obtained findings have an increased contribution to the development of enhanced knowledge related to the influence of debts on the financial performance of manufacturing organisations in the UK. The study also found that the organisation has the potential to improve its performance through the implementation of the optimum structure of capital and the equity of other factors for the achievement of increased Net Profit Margin (NPM) through reduced capital cost. The study further contributes to developing information about the association between financial performance and capital structure. It has been identified as

increasingly noteworthy that the findings achieved from the survey have enhanced practical implications in financial decision-making amongst the manufacturing organisations of the UK.

### **Recommendations**

- The managers of manufacturing companies in the UK are recommended to have an increased understanding associated with the availability of short-term debts (Opoku-Asante et al., 2022).
- In addition to this, the managers are also recommended to explore short-term debts that involve increased benefits, as debt maturity has a reduced influence on the organisation's financial performance (Opoku-Asante et al., 2022).
- The manufacturing organisations of the UK are recommended for the establishment of the point that allows the minimisation of the weighted average cost of capital and the maintenance of the optimal capital structure that will assist the organisations in maximising the shareholder's wealth (Abeywardha, 2016).
- Financial managers are recommended to ensure the increased efficiency associated with utilising tangible assets (Liang and Su, 2019).
- The organisations are recommended to have increased involvement in developing and implementing enhanced strategies for raising funds under pressure from external and growth responsibility (Liang and Su, 2019).
- The policymakers are also recommended to ensure the development of effective policies to assist the manufacturing organisations of the UK in retaining profits, particularly for SMEs. This may involve a reduced rate of taxation or increased tax allowances offered to SMEs (Liang and Su, 2019).
- It is recommended that SMEs ensure an increased utilisation of tangible assets to achieve enhanced financial performance (Liang and Su, 2019).

### **Future Implications**

Future studies are required to have increased involvement in the examination of the relationship with the help of measures related to financial performance other than the NPM, such as operating cash flow, and EBITDA or Earnings Before Interest, Taxes, Depreciation, and Amortisation, in addition to the other measures of profitability. This study did not involve organisations specific to the financial sectors and conglomerate firms for the examination of the relationship on a sectorial basis. Moreover, the study lacks the involvement of financial institutions. This is due to their increased regulation in consideration of their requirement for capital. Therefore, future studies may study the association amongst capital structure and the fiscal activity of financial organisations in consideration of the impact of sector-based regulations.

## REFERENCES

- Abel, AB, 2018. Optimal debt and profitability in the trade-off theory. *The Journal of Finance*, 73(1), pp.95-143.
- Abeywardhana, D.Y, 2016. Impact of capital structure on firm performance: Evidence from manufacturing sector SMEs in the UK.
- Alabdullah, T.T.Y., Laadjal, A., Ries, E. and Al-Asadi, Y.A.A., 2018. Board features and capital structure in emerging markets. *Journal of Advanced Management Science*, 6(2).
- Ali, A., 2021. Quantitative Data Analysis.
- Belas, J., Gavurova, B. and Toth, P., 2018. Impact of selected characteristics of SMEs on the capital structure. *Journal of Business Economics and Management*.
- Creswell, J.W., 2014. *The selection of a research approach*. Research design: Qualitative, quantitative, and mixed methods approaches, 2014, pp.3-24.
- Ezirim, C.B., Ezirim, U.I. and Momodu, A.A., 2017. CAPITAL STRUCTURE AND FIRM VALUE: THEORY AND FURTHER EMPIRICAL EVIDENCE FROM NIGERIA. *International Journal of Business, Accounting, & Finance*, 11(1).
- Harris, M. and Raviv, A., 1991. The theory of capital structure. *the Journal of Finance*, 46(1), pp.297-355.
- Javeed, S.A. and Lefen, L., 2019. An analysis of corporate social responsibility and firm performance with moderating effects of CEO power and ownership structure: A case study of the manufacturing sector of Pakistan. *Sustainability*, 11(1), p.248.
- Krištofík, P., Medzihorský, J. and Musa, H., 2022. Capital Structure and Its Determinants—A Comparison of European Top-Rated CSR and Other Companies. *Journal of Risk and Financial Management*, 15(8), p.325.
- Kumar, S., Sureka, R. and Colombage, S., 2020. Capital structure of SMEs: a systematic literature review and bibliometric analysis. *Management Review Quarterly*, 70(4), pp.535-565.



- Le, T.P.V. and Phan, T.B.N., 2017. Capital structure and firm performance: Empirical evidence from a small transition country. *Research in international business and finance*, 42, pp.710-726.
- Liang, D. and Su, R., 2019. The Study on the Impacts of Capital Structure on Corporate Financial Performance in Food Manufacturing and Hotel Industries: Evidence from SMEs in UK. *International Journal of Advances in Agriculture Sciences*, pp.73-85.
- Luo, Y. and Jiang, C., 2022. The Impact of Corporate Capital Structure on Financial Performance Based on Convolutional Neural Network. *Computational Intelligence and Neuroscience*, 2022.
- Mutai, T.K., 2020. Effect of chief executive officer characteristics on capital structure of publicly listed firms in Nairobi securities exchange, Kenya (Doctoral dissertation, Moi University).
- Opoku-Asante, K., Winful, E.C., Sharifzadeh, M. and Neubert, M., 2022. The Relationship Between Capital Structure and Financial Performance of Firms in Ghana and Nigeria. *European Journal of Business and Management Research*, 7(1), pp.236-244.
- Park, Y.S., Konge, L. and Artino, A.R., 2020. *The positivism paradigm of research*. *Academic Medicine*, 95(5), pp.690-694.
- Parveen, H., and Showkat, N., 2017. Data Collection.
- Patel, M. and Patel, N., 2019. Exploring Research Methodology. *International Journal of Research and Review*, 6(3), pp.48-55.
- Rahayu, S.M. and Saifi, M., 2019. The reciprocal relationship between profitability and capital structure and its impacts on the corporate values of manufacturing companies in Indonesia. *International Journal of Productivity and Performance Management*.
- Tretiakova, V.V., Shalneva, M.S. and Lvov, A.S., 2021. The Relationship between Capital Structure and Financial Performance of the Company. *SHS Web of Conferences*, Vol. 91, p. 01002. EDP Sciences.
- Wamiori, G., Namusonge, G.S. and Sakwa, M., 2016. Effect of capital structure on financial performance among manufacturing firms in Kenya. *International Journal of Finance Management*, 23(99), pp.42986-43005.

Xie, J., Nozawa, W., Yagi, M., Fujii, H. and Managi, S., 2019. Do environmental, social, and governance activities improve corporate financial performance? *Business Strategy and the Environment*, 28(2), pp.286-300.

Žukauskas, P., Vveinhardt, J. and Andriukaitienė, R., 2018. *Philosophy and paradigm of scientific research*. Management culture and corporate social responsibility, 121.

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