

RELATIONSHIP TREND OF CAPITAL STRUCTURE AND FINANCIAL PERFORMANCE: A SYSTEMATIC LITERATURE REVIEW

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DOI: 10.46609/IJSSER.2022.v07i12.028 URL: <https://doi.org/10.46609/IJSSER.2022.v07i12.028>

Received: 30 November 2022 / Accepted: 22 December 2022 / Published: 31 December 2022

ABSTRACT

Capital structure plays a vital role in determining the mix of debt and equity in any company, value of shareholders also get maximized with the help of balanced capital structure in which financial performance plays a significant role in determining whether capital structure has an impact on company's performance or not. This paper highlighted the relation of capital structure with financial performance with the help of content analysis of latest five years starting from year 2018 to 2022 using keywords search in database with words highlighting "capital structure" and "financial performance". As many empirical studies have been conducted in this regard but very rare studies are done from the perspective of theoretical framework. With the help of this research paper, systematic literature review (content analysis) is explored between capital structure and financial performance with the help of Scopus database, showing a mixture of results, as some of the variables in some countries are positively related and vice-versa. Some companies show negative relation between capital structure and financial performance and some are representing positive relation with each other. The results of the study also highlighted that more of the studies in capital structure are done in developed countries as compared to developing countries.

Keywords: Capital structure, Financial Performance, Systematic Literature Review, ROA

1. INTRODUCTION:

The capital structure decision is crucial for a company as it determines the risk and return profile. Different capital structures can impact the company's cost of capital, financial stability,

flexibility, and overall valuation. Companies strive to strike a balance between equity and debt financing to optimize their capital structure based on factors such as industry norms, risk tolerance, growth prospects, and access to capital markets. It is pertinent to note that the association among capital structure and financial performance can be complex and context-specific. The optimal capital structure for a company depends on its industry, stage of development, growth prospects, profitability, and risk appetite (Myers, 1993). Companies need to carefully analyse their specific circumstances and financial goals when making capital structure decisions.

The relationship between capital structure and financial performance is a topic of significant interest and study in finance. While there is no universal formula for an optimal capital structure that guarantees superior financial performance, the way a company structures its capital can influence its financial results in several ways such as cost of capital, financial flexibility, risk & return trade off, investor perception and creditworthiness and access to capital (Madan, 2007). The capital structure theories, reasons for it, and country-specific components remained the primary areas of concern for the previous academics (Sisodia & Maheshwari, 2022).

A systematic literature review is a research method used to gather and analyse existing literature on a particular topic in a systematic and structured manner. It aims to provide a comprehensive overview of the current state of knowledge on the topic by identifying, evaluating, and synthesizing relevant studies.

The present article aims to illustrate the areas that have been addressed and to synthesise and provide an in-depth examination of the relevance of the topic of capital structure. It also makes an explicit effort to illuminate an extensive examination of capital structure and its impact on financial performance from 2018-22. The significance of capital structure has been recognized and addressed in literature for an array of years, but despite its influence on all aspects of the economy and coverage across each economic segment, its adversity has proven to be inevitable. This article seeks to connect the dots regarding capital structure and its impact on financial performance which currently exist, and propose some recommendations for future research.

2. AIM OF THE STUDY:

The purpose of this research is to highlight that how has the investigation of capital structure and its financial performance progressed all over time, which methodology is used in different research paper for computing the financial performance of the capital structure.

3. RESEARCH METHODOLOGY:

The research investigation is well presented and classified using table, accompanied by suitable title. In addition to an overview of the techniques that were used for integrating certain inclusion/exclusion criteria into data queries. The capital structure and financial performance study in 107 research articles is clarified further in regard to the years in which they were published in which only 65 documents were shortlisted from year 2018 to 2022, choosing only one source type i.e., journal and computed 56 documents for the study. The content analysis of the 15 research papers is done in Table 1, and is followed up by a discussion and potential future research directions.

4. FINDINGS

4.1 Content Analysis of selected papers

Table 1 represents detailed analysis of the selected papers on impact of capital structure on financial performance, to check how much financial performance is affected by capital structure, five different columns were compiled consisting of study, data, methodology, context and findings/result. A total of 15 papers were analysed by scrutinizing the research papers in detail and result derived from the study are explained in context section.

Table 1: Content analysis of selected 15 papers.

S.No.	Study	Data	Methodology	Context	Finding/Result
1.	Ulbert J., Takács A., Csapi V. (2022)	Data: 455 U.S. and European manufacturing and service firm’s data over 2010-2019 Dataset: Thomson Reuter Database	Regression analysis	We identify strong correlations among deviations from the capital structure grounded on the golden ratio and the historical maximums of the firm's sales, income, market value and stock price.	Positive impact on financial performance
2.	Das N.C., Chowdhury M.A.F., Islam M.N. (2022)	Data: 165 listed companies over period of 2007-2016. Dataset: Listed nonfinancial joint-stock companies of	Dynamic panel approach, namely system and differenced GMM, Quantile regression	The quantile regressions demonstrated a complicated relationship between leverage and profitability, whilst the GMM demonstrated that the indicators of leverage have an adverse impact on the performance of the	ROE& ROA show a negative impact on firm performance

		Bangladesh	approach	companies when measured in terms of ROE (return on equity) and ROA (return on assets).	
3.	Ben Saad S., Belkacem L. (2022)	Data: French companies over a period of 2006-17. Dataset: French non-financial listed companies	SEM and difference-in-difference approach	The research presented here demonstrates that CSR & financial performance have a strong positive correlation. It was additionally pointed out that the capital structure channel modulates the relationship among CSR and financial performance.	Positive impact on financial performance
4.	Sdiq S.R., Abdullah H.A. (2022)	Data: 25 industrial firms over period of 2004-2020 Dataset: Iraq stock exchange	Pooled mean group	The findings provide strong proof in favour of the agency theory, which illustrates whether capital structure and financial performance are related.	Positive impact on financial performance
5.	Ferriswara D., Sayidah N., Agus Buniarto E. (2022)	Data: 13 companies over a period of 2015-2021 Dataset: Jakarta Islamic index	Partial least square with structural equation modelling	The outcomes demonstrate that corporate governance has a big impact on financial performance of companies and have a negative influence whereas corporate governance has no significant influence on firm value. Capital structure has no impact on firm value and financial performance.	Negative impact on financial performance
6.	Ayange A., Emmanuel N.C., Rosemary I.H., Ndudi U.C., Samuel U.E. (2021)	Data: 102 listed firms from 1999-2018 Dataset: Annual reports	Panel data analysis	The study demonstrates that Nigerian businesses heavily rely on short-term loan financing, which validates the Pecking Order Theory.	Negative impact on financial performance when compared to pecking order theory and positive

					impact, compared to agency cost theory
7.	Xu J., Sun Z., Shang Y. (2021)	Data: 39 agricultural listed companies from 2013 to 2019 Dataset: China stock market and accounting research database	Panel regression technique	The empirical results show that while long-term debt ratio has little influence on ROA and ROE, overall short-term debt ratio and debt ratio have an adverse effect on the financial performance of Chinese agricultural listed organisations.	Negative impact on financial performance
8.	Ullah A., Pinglu C., Ullah S., Zaman M., Hashmi S.H. (2020)	Data: 90 textile firms over a period of 2008 to 2017. Dataset: annual reports	Panel regression technique	The findings demonstrate that the ATR(asset turnover ratio) and firm performance exhibited an adverse &statistically insignificant link, nevertheless the debt to equity variable has a significant and adverse association with financial performance.	Negative impact on financial performance
9.	Ngatno, Apriatni E.P. (2020)	Data: 241 rural banks over a period of 2014 to 2018 Dataset: Financial service authority website	Moderating regression analysis	The capital structure, as determined by the total debt to total equity and total equity ratios, both significantly lowers ROA and ROE. Savings and loan impacts have a detrimental influence on ROA and ROE. While other types of debt have little or no impact.	Negative impact on financial performance
10.	Sakr A., Bedeir A. (2019)	Data:62 listed Egyptian firms over a period of 2003-2016 Dataset:	Correlation and regression analysis	The results revealed that implying ROA as a performance measure results in a substantial adverse impact of capital structure (STD,LTD& TD);	Negative impact on financial performance with ROA and positive impact

		Egyptian stock exchange		while implying ROE as a performance measure only ended up resulting in an insignificant impact of capital structure when utilising STD.	with TD and LTD in case of ROE.
11.	Ramli N.A., Latan H., Solovida G.T. (2019)	Data:7819 firms from 1990 to 2010 Dataset: Data stream database	PLS-SEM approach	The findings showed that there is only a substantial optimistic association among company leverage & firm financial performance in the Malaysian sample. Malaysian businesses increase performance by using external financing rather than internal financing. The outcomes additionally demonstrate that in Malaysia but not for the Indonesian sample, company leverage mediates the association.	Positive impact of financial performance in India and negative impact of performance in Indonesia
12.	Hoang T.V.H., Dang N.H., Tran M.D., Vu T.T.V., Pham Q.T. (2019)	Data: 269 large listed companies from 2010-2016 Dataset: Audited financial statements	Quantile regression and OLS technique	According to the findings, there is a link between firm size and financial performance. On the contrary, the association between financial performance and capital structure, short-term liquidity, and fixed asset investment is detrimental. While growth rate and receivable management exhibit different effects across different quantiles, both have no effect on financial success at the low level.	Mixed results from different variables

13.	Desai, J., & Desai, R. (2018)	Data: Indian Pharma companies from 2007-08 to 2016-17. Dataset: CMIE Prowess	Correlation and multiple regression model	Financial performance is taken as dependent variable and measured with ROE, ROA, EPS and Tobin's Q (TQ). Ratio of Long-term debt to total asset (LDR) and Short-term debt to total asset (SDR) are considered as proxy for financing decision.	Both debt ratios have negative and significant effect on ROA only.
14.	Obay, L. A. (2018)	Data: 16 firms listed on the Bahrain Stock Exchange, 24 on the Doha Stock Market, 25 between the Dubai Financial Markets and the Abu Dhabi Stock Exchange, and 85 on the Saudi stock Exchange from 2000-2009. Dataset: Zawya database	A two-stage least squares regression	The results show that size, profitability, tax-shield and collateral have a significant impact on leverage. A country effect is also observed. Firms operating in the United Arab Emirates (UAE) exhibit a significantly higher level of leverage when compared to their peers in the neighboring countries.	Positive impact on financial performance
15.	Sivalingam, L. & Kengatharan, L. (2018)	Data: 10 banks from 2007 to 2016. Dataset: Annual reports of central bank of Sri Lanka	Panel regression technique	According to the model, total debt to total assets ratio was significantly negatively related to ROA, However, growth in banks deposit was significantly and positively related to ROA. Size, short-term debt to total assets ratio and long term debt to total assets ratio did not show any relationship with ROA. Random effect model was	Mixed results from different variables

				considered as the most suitable model to examine the relationship between capital structure and ROE. As per the model, total debt to total assets ratio was significantly negatively related to ROE, while growth in bank deposit was significantly and positively related to ROE	
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Source: Author’s compilation using literature review

5. CONCLUSION AND RECOMMENDATIONS

A handful of knowledge that can be extracted with the help of topic on capital structure and its impact on financial performance is used to conclude that how financial performance of the companies are related to capital structure for which a systematic literature is performed from year 2018 to 2022 in which a total of 15 research papers are chosen to show the impact of capital structure on financial performance and results in the table highlighted a mixed result that some of the studies shows a positive relation to capital structure (Ramli N.A.*et.al.*, 2019; Sdiq S.R.&Abdullah H.A., 2022), some shows that both are negatively related to each other (Sakr A.&Bedeir A., 2019; Ayange A.*et.al.*,2021) and some of the research paper shows a mixed results highlighting that different variables have different impact on capital structure in different countries (Hoang T.V.H.*et.al.*,2019). The findings of content analysis highlight that significant variables in the field of capital structure and its impact on financial performance are ROA, ROE, Short-term debt, Long-term debt, Total debt, Tobin’s Q.

Despite a number of studies in field of capital structure, there is a dearth in existing literature as more studies are available from developed countries and they are highlighting the impact on financial performance, very few studies are done in developing countries which shows a scant literature in developing countries and results of developed countries cannot be implemented on developing countries due to various factors which leads to scant research and vague conclusions. A high demand for study in developing countries are required to make capital structure more impactful both in developed as well developing countries.

Some of the limitations of the study is that data is extracted from Scopus database and is relied only to particular years, upcoming researchers can exceed the database to web of science, IEEE etc. and increase the number of years to make study more detail including other sources as well.

References

- Ayange A., Emmanuel N.C., Rosemary I.H., Ndudi U.C.&Samuel U.E. (2021). Effect of capital structure on firms performance in Nigeria. *Universal Journal of Accounting and Finance*, 9(1), 15-23. <http://dx.doi.org/10.13189/ujaf.2021.090102>
- Ben Saad, S.&Belkacem, L. (2022). How does corporate social responsibility influence firm financial performance?. *Corporate Governance*,22(1),1-22. <https://doi.org/10.1108/CG-10-2020-0467>
- Das, N.C., Chowdhury, M.A.F.&Islam, M.N. (2022). The heterogeneous impact of leverage on firm performance: empirical evidence from Bangladesh. *South Asian Journal of Business Studies*,11(2),235-252. <https://doi.org/10.1108/SAJBS-04-2020-0100>
- Ferriswara D., Sayidah N.&Agus Buniarto E. (2022). Do corporate governance, capital structure predict financial performance and firm value? (empirical study of Jakarta Islamic index). *Cogent Business and Management*, 9(1), 2147123. <https://doi.org/10.1080/23311975.2022.2147123>
- Hoang T.V.H., Dang N.H., Tran M.D., Vu T.T.V.&Pham Q.T. (2019). Determinants influencing financial performance of listed firms: Quantile regression approach, *Asian Economic and Financial Review*, 9(1), 78-90. <http://dx.doi.org/10.18488/journal.aefr.2019.91.78.90>
- Ngatno, Apriatni E.P. (2020). Moderation effects of organisational environment on the relationship between capital structure and financial performance of central Java rural banks, Indonesia. *Asian Economic and Financial Review*, 10(1), 78-93. <https://doi.org/10.18488/journal.aefr.2020.101.78.93>
- Ramli, N. A., Latan, H. & Solovida, G. T. (2019). Determinants of capital structure and firm financial performance—A PLS-SEM approach: Evidence from Malaysia and Indonesia. *The Quarterly Review of Economics and Finance*, 71, 148-160. <https://doi.org/10.1016/j.qref.2018.07.001>
- Sakr A., Bedeir A. (2019). Impact of capital structure on firm's performance: Focusing on non-financial listed Egyptian firms. *International Journal of Financial Research*, 10(6), 78-87. <https://doi.org/10.5430/ijfr.v10n6p78>
- Sdiq S.R.&Abdullah H.A. (2022). Examining the effect of agency cost on capital structure-financial performance nexus: empirical evidence for emerging market. *Cogent Economics and Finance*, 10(1), 2148364. <https://doi.org/10.1080/23322039.2022.2148364>

Ulbert J., Takács A.&Csapi V. (2022). Golden ratio-based capital structure as a tool for boosting firm's financial performance and market acceptance. *Heliyon*, 8(6). <https://doi.org/10.1016/j.heliyon.2022.e09671>

Ullah A., Pinglu C., Ullah S., Zaman M.&Hashmi S.H. (2020). The nexus between capital structure, firm-specific factors, macroeconomic factors and financial performance in the textile sector of Pakistan. *Heliyon*, 6(8). <https://doi.org/10.1016/j.heliyon.2020.e04741>

Xu J., Sun Z.&Shang Y. (2021). Capital structure and financial performance in China's agricultural sector: a panel data analysis. *Custos e Agronegocio*, 17(2), 445-463.

Madan, K. (2007). An analysis of the debt-equity structure of leading hotel chains in India. *International Journal of Contemporary Hospitality Management*, 19(5), 397-414.

Myers, S. C. (1993). Still searching for optimal capital structure. *Journal of Applied Corporate Finance*, 6(1), 4-14

Desai, J., & Desai, R. (2018). Financing decision as a determinant of firms' performance: Indian pharmaceutical industry. *SCMS Journal of Indian Management*, 15(3), 20-28.

Obay, L. A. (2018). The Capital Structure Choice: Evidence of Debt Maturity Substitution by GCC Firms. *Asian Economic and Financial Review*, 8(11), 1298-1312.

Sivalingam, L. & Kengatharan, L. (2018). Capital Structure and Financial Performance: A Study on Commercial Banks in Sri Lanka. *Asian Economic and Financial Review*, 8(5), 586-598.

Sisodia, A., & Maheshwari, G. C. (2022). Capital Structure Study: A Systematic Review and Bibliometric Analysis. *Vision*, 0(0). <https://doi.org/10.1177/09722629221130453>