

# The Relationship between Capital Structure and Firm Performance

Subjects: Business, Finance

Contributor: Amanj Mohamed Ahmed, Deni Pandu Nugraha, István Hágén

Capital structure is negatively related to firm performance. Agency cost also has a negative impact on corporate performance; however, in the case of return on assets (ROA) and earnings per share (EPS), the relationship is positive. Interestingly, the findings illustrate that increasing the level of debt can reduce agency costs and enhance firm performance. Moreover, robust correlations are revealing that agency cost significantly affects the relationship between capital structure and corporate performance.

Keywords: agency theory ; capital structure ; financial performance

---

## 1. Introduction

The concept of an agency relationship highlights that a manager (agent) and shareholder (principal) behave in their own interest and this creates conflict of interest, which results in increasing enterprise costs, commonly known as “agency costs” ([Hoang et al. 2019](#)). According to [Demsetz and Lehn \(1985\)](#), huge publicly listed companies, including manufacturing firms, are often reported to have extremely diffuse ownership composition that efficiently segregates ownership of residual rights from corporate control. This division of control and ownership is a significant topic of debate in both organizational economic theory and the continuing discussion of the social impact of contemporary businesses. Many companies need significant amounts of money in order to obtain scale economies. Thus, efficient managers may be more suitable for managing a company due to their technical proficiency, knowledge, and personal characteristics ([Sdiq and Abdullah 2022](#)). For the benefit of large shareholders, however, agents are pressured by the owners to eliminate diversification and achieve a certain level of adequate performance ([Thomsen and Pedersen 2000](#)). These elements result in agency issues between agents and principals. Agency cost is involved in monitoring agents, supervising agents, and also trying to prevent their abuse ([Hoang et al. 2019](#); [Sdiq and Abdullah 2022](#)).

In addition, owners suffer from agency conflict, as their executive managers may not perform effectively on their behalf and may receive excessive bonuses and luxury salaries ([Abdullah and Tursoy 2023](#); [Baykara and Baykara 2021](#); [Kalash 2019](#)). Hence, agency cost of equity may increase when the interest of the managers is different from the interests of shareholders, and this can only be eliminated by effective planning ([Sdiq and Abdullah 2022](#)). [Jensen and Meckling \(1976\)](#) have also argued that agency problems can be reduced by utilizing debt financing because managers may be disciplined by having consistent debt payment. Debt also restricts the agent's capacity to diminish value via lack of effort or perquisite spending. However, costs may be involved in a prominent level of leverage, and this may increase the agency costs regarding debt ([Jensen 1986](#)). Thus, the company's capital structure has a crucial role in creating a balance between the agency costs regarding equity, debt, and other benefits of debt.

A firm's capital structure, on the other hand, can be seen through a statement of financial position (balance sheet), and it is a mixture of debt (short and long-term) and the owners' equity (preferred and common stock) ([Ali and Ahmed 2021](#); [Ngatno et al. 2021](#); [Sdiq and Abdullah 2022](#)). The balance sheet also contains total assets, which are acquired through equity or debt ([Abdullah 2021](#)). When examining a firm's capital structure, one important aspect to consider is the ratio of debt to equity. This means that when decisions are made by the managers on financial strategy, agency costs appear ([Dawar 2014](#)). The findings from prior literature provide different arguments and suggest that more studies are still needed to explain the relationship between capital structure and firm performance in less-developed countries ([Ayalew and McMillan 2021](#); [Sdiq and Abdullah 2022](#)).

Further, one of the crucial financial metrics for investors is financial leverage, which is generated from the amount of debt, because it may reveal a company's capital structure ([Bae et al. 2017](#)). [Diantimala et al. \(2021\)](#), [Ngatno et al. \(2021\)](#), and [Myers \(1984\)](#) argue that projected capital structure as a combination of debt capital, preferred stock capital, and equity capital uses by the company as a long- and short-term funding strategy. This means that debt and equity have been

combined to represent the structure of capital historically. The first proposal was MM theory by ([Modigliani and Miller 1958](#)), which argued that capital structure has no bearing on a firm's value. This theory, however, is predicated on restrictive expectations of a perfect capital market, which does not exist in reality ([Le and Phan 2017](#)). If these assumptions are disproved, the debt-to-equity ratio decision becomes essential for determining value. For example, based on the assumption of no taxes, [Modigliani and Miller \(1963\)](#) argued that companies ought to employ the maximum possible debt in the structure of their capital due to interest payments that are tax-deductible. Therefore, the firm's performance can be improved by using maximum debt, and shareholders have access to a greater amount of earnings. The findings from prior investigations are different and resulted from testing both developed and developing countries. [El-Sayed Ebaid \(2009\)](#) and [Sheikh and Wang \(2012\)](#) found a negative relationship between capital structure and firm performance, while [Ayalew and McMillan \(2021\)](#), [Al-Kayed et al. \(2014\)](#), and [Jouida \(2018\)](#) illustrated that capital structure is positively linked with financial performance.

## **2. The Relationship between Capital Structure and Firm Performance**

### **2.1. Theoretical Approach**

The first theory that attempted to clarify the issue of capital structure was the irrelevance hypothesis by [Modigliani and Miller \(1958\)](#). MM theory claims that a corporate capital structure has no effect on firm value and that the value of the firm will be decided by their assets rather than the proportion of equity or debt granted. In other words, the value of the firm is unaffected by any combination of debt and equity. However, the proposal of MM depends on a number of assumptions regarding a perfect efficient market, which include no bankruptcy risk; no taxes; no information asymmetry; no transaction costs; and maximization being a goal embraced by all managers.

Further, to consider a capital market imperfectly, other theories have been proposed as a replacement to MM theory, namely, agency theory; tradeoff theory; and pecking-order theory. Agency theory, developed by ([Berle and Means 1932](#); [Jensen 1986](#); [Jensen and Meckling 1976](#)), asserts that there are conflicts of interest among management, stockholders, and bondholders. The proper capital structure for maximizing corporate value is one that substantially reduces agency costs. [Jensen and Meckling \(1976\)](#) also argue that agency costs have two main types: "agency cost of equity", which is driven by the conflict between agents and principals, and "agency cost of debt", which is brought about by the conflict between bondholders and equity holders. The conflict between agents (managers) and principals (shareholders) suggests that agents prioritize achieving their own goals over maximizing the value of the company and returns for stockholders. For instance, when there is extra free cash flow, managers might engage in unprofitable projects to promote their own interests ([Le and Phan 2017](#)). However, [Jensen \(1986\)](#) claimed that when there is a significant amount of debt, managers are under stress to participate in productive projects to generate free cash flow. Therefore, it is obvious that to minimize the agency costs, debt may have an influence on firm performance.

Elaborated by ([Kraus and Litzenberger 1973](#); [Modigliani and Miller 1963](#)), tradeoff theory argues that firm leverage is measured by comparing the benefits of tax reduction in debt against the bankruptcy costs. The company will trade off the expenses and advantages of debt related to tax savings and establish the ideal capital structure for maximizing firm value in confronting economic crisis. Debt gains are mostly achieved due to tax shelters ([Modigliani and Miller 1963](#)). This is because the firm can minimize tax obligation by reducing income through interest payment ([Adair et al. 2015](#); [Le and Phan 2017](#); [Sdiq and Abdullah 2022](#)). Previous studies showed mixed results regarding the connection between capital structure and corporate performance ([Abdullah and Tursoy 2021](#); [Ayalew and McMillan 2021](#); [Mansyur et al. 2020](#)), and according to them, some circumstances, such as the size of the firm, industry dynamics, and market conditions, have an influence on building this relationship.

Elucidated by ([Myers 1977](#); [Myers and Majluf 1984](#)), pecking-order theory claims that firms prioritize their funding in order to satisfy their capital needs. The internal finances are represented by operational earnings and should be used first. Then, debt is generated, and once there is no more debt that can be acquired, finally, equity can be offered instead. In fact, when the internal financing improves, firms rely less on financing from the external market. Hence, firms' financial performance is inversely affected by leverage ([Myers and Majluf 1984](#)).

### **2.2. Hypothesis Development**

Most of these theories claimed debt may impact firm performance or value of the firm in an imperfect market. Nonetheless, the correlation between capital structure and corporate performance has still been controversial, and the empirical data support different interpretations of this relationship.

#### **2.2.1. The Relationship between Capital Structure and Financial Performance**

A study by [Miller \(1977\)](#) examined the relationship between capital structure and corporate performance by employing different theories, such as agency theory, tradeoff theory, pecking-order theory, and MM theory. The study indicated that capital structure and firm value had a favorable relationship and revealed evidence to support agency theory. [Berger and Udell \(1994\)](#) utilized data from the US banking sector and clearly highlighted that a greater debt ratio is associated with better corporate performance, as measured by profitability. Particularly, a raise of 1% in the debt-to-equity ratio leads to an improvement of 6% in firm profitability. Within a different context, other investigations also found financial performance is positively affected by capital structure ([Abdullah 2020](#); [Abdullah and Tursoy 2021](#); [Jouida 2018](#); [Ngatno et al. 2021](#)). However, by concentrating on developing countries, some investigations, specifically those performed in transitioning or emerging economies have proven that the capital structure and firm value or firm performance are negatively correlated ([Abor 2007](#); [Sheikh and Wang 2013](#); [Al-Imam and Hassan 2019](#); [Alexander 2016](#); [Dawar 2014](#); [Ibhagui and Olokoyo 2018](#); [Li et al. 2019](#); [Sadeghian et al. 2012](#); [Siddik et al. 2017](#); [Zeitun and Tian 2007](#)).

Some other studies found a nonlinear connection between capital structure and corporate performance, which means capital structure has an impact on firm financial performance in ways both positive and negative ([Hasan et al. 2014](#); [Ngatno et al. 2021](#); [Sdiq and Abdullah 2022](#); [Tretiakova et al. 2021](#)). Regarding non-existing relationship, few studies reported that capital structure has no or weak influence on corporate performance ([Al-Taani 2013](#); [El-Sayed Ebaid 2009](#)). In the outline of capital structure theory, the most critical factor is obtaining capital, one measure of which is debt. The higher the ratio of debt to assets, the greater the expectation of maximizing productive debt in developing a business that can generate company profit as an essential factor in company performance ([Al-Gamrh et al. 2020](#)). In MM theory, the right debt can improve company performance, and any debt that is not utilized optimally will only add to the debt interest burden ([Al-Gamrh et al. 2020](#)).

### **2.2.2. The Relationship between Agency Cost and Firm Performance**

The agency cost theory was first elucidated by ([Berle and Means 1932](#)) and later by ([Jensen 1986](#); [Jensen and Meckling 1976](#)). It claims that when management and ownership of a corporation are separated, the manager (agent) who leads the firm will be inspired and given the chance to carry out operations that promote their own benefits rather than increasing the wealth of the owners. Agency costs arise as a result of insufficient legal agreement between the agents, who are the managers, and the principals, who are the owners. They include the expenses spent by the owners to supervise and control manager activities, bonding costs to establish a system to guarantee that the owners will receive enough return, and finally, residual loss, which comprises the relevant costs involved because of the conflict of interest between managers and owners ([Jensen and Meckling 1976](#)).

Conflicts of interest can be seen as a main ingredient of agency theory ([Shrestha 2020](#)), and the theory engages with finding solutions for issues that appear due to conflict of interest between agents and principals ([Nidumolu 2018](#)). [Ang et al. \(2000\)](#) computed the agency costs by operating expenses ratio and asset utilization ratio, and the first ratio displays how corporate managers control operating expenses. They found that when the ratio of operating expenses is high, the agency costs will be high, too. The asset utilization ratio estimates how the firm assets are used effectively by the managers. When the asset utilization ratio is high, this means that the assets are utilized efficiently, and this is oppositely linked with the agency costs. Numerous scholars have investigated how agency expenses affect corporate performance, but the results are mixed. [Chi \(2005\)](#) studied the relationship between firm value and shareholder rights, and the results indicated that giving shareholders more rights might be a useful technique to minimize agency costs and improve firm performance. [Mehmood \(2021\)](#) has also found a positive association between agency costs and organizational performance. However, some other studies found firm performance has been impacted by agency costs negatively ([Jabbary et al. 2013](#); [Wang 2010](#); [Xiao and Zhao 2014](#)), and [Kontuš \(2021\)](#) found a weak correlation between firm performance and agency costs in some European countries. Many companies try to maximize asset utilization in order to obtain benefits from utilizing more resources. As a result, maximum sales can be achieved, and this leads to an increase in corporate profit, which is considered one of the main factors in measuring a firm's performance (ROA, TQ, and EPS) ([Pham and Tran 2020](#); [Seth et al. 2020](#)).

### **2.2.3. The Relationship between Agency Cost, Capital Structure, and Firm Performance**

In assessing the relationship between capital structure and firm performance through the moderating effect of agency cost, [Sdiq and Abdullah \(2022\)](#) found that agency cost as a moderator has an influence on the association between capital structure and firm performance in ways both positive and negative. Other studies argued that when the leverage is low, firms can increase their capital through debt financing. Then, the agency conflicts and their costs can be reduced, and hence, firm performance will be improved ([Abdullah et al. 2021](#); [Abdullah and Tursoy 2021](#); [Grossman and Hart 1982](#); [Hoang et al. 2019](#); [Jensen 1986](#); [Li and Cui 2003](#); [Jensen and Meckling 1976](#); [Williams 1987](#)). This means that managers have lower ability to focus on their personal interest, which reduces conflict of interest.

On the other hand, Dawar (2014) and Pandey and Sahu (2019) investigated the connection between agency costs, debt financing, and Indian firm performance. The results implied that debt has a significant and negative impact on corporate performance, while the size of debt has a favorable impact on reducing agency costs. Similarly, Booth et al. (2001) conducted a study of ten emerging economies, namely Pakistan, Turkey, Mexico, Malaysia, India, Korea, Brazil, Jordan, Thailand, and Zimbabwe. The results demonstrated that agency costs of debt are much higher in developing economies than in developed markets. Tran Thi Phuong and Nguyen (2019) have also tested the Vietnamese firms for the same purpose and found that firm performance is negatively correlated with capital structure.

---

## References

1. Hoang, Le Duc, Tran Minh Tuan, Pham Van Tue Nha, and Ta Thu Phuong. 2019. Impact of agency costs on firm performance: Evidence from Vietnam. *Organizations and Markets in Emerging Economies* 10: 294–309.
2. Demsetz, H., and K. Lehn. 1985. The Structure of Corporate Ownership: Causes and Consequences. *Journal of Political Econom* 93: 1155–77.
3. Sdiq, Shirwan Rafiq, and Hariem A. Abdullah. 2022. Examining the effect of agency cost on capital structure-financial performance nexus: Empirical evidence for emerging market. *Cogent Economics and Finance* 10: 1–16.
4. Thomsen, Steen, and Torben Pedersen. 2000. Ownership structure and economic performance in the largest European companies. *Strategic Management Journal* 21: 689–705.
5. Abdullah, Hariem, and Turgut Tursoy. 2023. The Effect of Corporate Governance on Financial Performance: Evidence from a Shareholder-Oriented System. *Iranian Journal of Management Studies* 16: 79–95.
6. Baykara, Sule, and Betul Baykara. 2021. The impact of agency costs on firm performance: An analysis on BIST SME firms. *Pressacademia* 14: 28–32.
7. Kalash, İsmail. 2019. Firm leverage, agency costs and firm performance: An empirical research on service firms in Turkey. *Journal of the Human and Social Sciences Researches* 8: 624–36.
8. Jensen, Michael C., and William H. Meckling. 1976. Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics* 3: 305–60.
9. Jensen, Michael C. 1986. Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers. *The American Economic Review* 76: 323–29. Available online: <http://www.jstor.org/stable/1818789> (accessed on 1 March 2023).
10. Ali, Muhammad Nawzad, and Amanj Mohamed Ahmed. 2021. The Effect of Capital Structure on Financial Performance “Applied study in Turkish Stock Exchange”. *Eurasian Journal of Management & Social Sciences* 2: 43–57.
11. Ngatno, Apriatni, P. Endang, and Arief Youlianto. 2021. Moderating effects of corporate governance mechanism on the relation between capital structure and firm performance. *Cogent Business and Management* 8: 1.
12. Abdullah, Hariem. 2021. Profitability and Leverage as Determinants of Dividend Policy: Evidence of Turkish Financial Firms. *Eurasian Journal of Management & Social Sciences* 2: 15–30.
13. Dawar, Varun. 2014. Agency Theory, Capital Structure and Firm Performance. *Managerial Finance* 40: 1190–206.
14. Ayalew, Zemenu Amare, and David McMillan. 2021. Capital structure and profitability: Panel data evidence of private banks in Ethiopia. *Cogent Economics and Finance* 9: 1.
15. Bae, John, Sang-Joon Kim, and Hannah Oh. 2017. Taming polysemous signals: The role of marketing intensity on the relationship between financial leverage and firm performance. *Review of Financial Economics* 33, 29–40.
16. Diantimala, Yossi, Sofyan Syahnur, Ratna Mulyany, and Faisal Faisal. 2021. Firm size sensitivity on the correlation between financing choice and firm value. *Cogent Business and Management* 8: 1–19.
17. Myers, Stewart C. 1984. The Capital Structure Puzzle. *The Journal of Finance* 39: 575–92.
18. Modigliani, Franco, and Merton H. Miller. 1958. The cost of capital, corporation finance and the theory of investment. *The American Economic Review* 48: 261–97. Available online: <https://www.jstor.org/stable/1809766> (accessed on 2 February 2023).
19. Le, Thi Phuong Vy, and Thi Bich Nguyet Phan. 2017. Capital structure and firm performance: Empirical evidence from a small transition country. *Research in International Business and Finance* 42: 710–26.
20. Modigliani, Franco, and Merton H. Miller. 1963. Corporate Income Taxes and the Cost of Capital: A Correction. *The American Economic Review* 53: 433–43. Available online: <https://www.jstor.org/stable/1809167> (accessed on 4 March 2023).

21. El-Sayed Ebaid, Ibrahim. 2009. The impact of capital-structure choice on firm performance: Empirical evidence from Egypt. *Journal of Risk Finance* 10: 477–87.
22. Sheikh, Nadeem Ahmed, and Zongjun Wang. 2012. Effects of corporate governance on capital structure: Empirical evidence from Pakistan. *Corporate Governance (Bingley)* 12: 629–41.
23. Al-Kayed, Lama Tarek, Sharifah Raihan Syed Mohd Zain, and Jarita Duasa. 2014. The relationship between capital structure and performance of Islamic banks. *Journal of Islamic Accounting and Business Research* 5: 158–81.
24. Jouda, Sameh. 2018. Diversification, capital structure and profitability: A panel VAR approach. *Research in International Business and Finance* 45: 243–56.
25. Berle, Adolf A., Jr., and Gardiner Coit Means. 1932. *The Modern Corporation and Private Property*. New York: The Mcmillan Company.
26. Kraus, Alan, and Robert Litzenberger. 1973. A State-Preference Model of Optimal financial leverage. *Journal of Finance* 28: 911–22.
27. Adair, Philippe, Mohamed Adaskou, and David McMillan. 2015. Trade-off theory vs. Pecking order theory and the determinants of corporate leverage: Evidence from a panel data analysis upon french SMEs (2002–2010). *Cogent Economics and Finance* 3: 1–12.
28. Abdullah, Hariem, and Turgut Tursoy. 2021. Capital structure and firm performance: Evidence of Germany under IFRS adoption. *Review of Managerial Science* 15: 379–98.
29. Mansyur, Andi, Abd. Rahman Mus, Zainuddin Rahman, and Suriyanti Suriyanti. 2020. Financial Performance as Mediator on the Impact of Capital Structure, Wealth Structure, Financial Structure on Stock Price: The Case of The Indonesian Banking Sector. *European Journal of Business and Management Research* 5: 1–10.
30. Myers, Stewart C. 1977. Determinants of corporate borrowing. *Journal of Financial Economics* 5: 147–75.
31. Myers, Stewart C., and Nicholas S. Majluf. 1984. Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics* 13: 187–221.
32. Miller, Merton H. 1977. Debt and Taxes. *The Journal of Finance* 32: 261–75.
33. Berger, Allen N., and Emilia Bonaccorsi di Patti. 2006. Capital structure and firm performance: A new approach to testing agency theory and an application to the banking industry. *Journal of Banking and Finance* 30: 1065–102.
34. Abdullah, Hariem. 2020. Capital Structure, Corporate Governance and Firm Performance Under IFRS Implementation. Ph.D. thesis, Near East University, Mersin, Turkey. (In Germany)
35. Abor, Joshua. 2007. Debt policy and performance of SMEs: Evidence from Ghanaian and South African firms. *Journal of Risk Finance* 8: 364–79.
36. Sheikh, Nadeem Ahmed, and Zongjun Wang. 2013. The impact of capital structure on performance: An empirical study of non-financial listed firms in Pakistan. *International Journal of Commerce and Management* 23: 354–68.
37. Al-Imam, Salahadin, and Mesa Hassan. 2019. The effect of capital structure on financial performance. *Journal of AL\_Turath University College* 27: 189–212. Available online: <https://www.iasj.net/iasj/article/201851> (accessed on 2 February 2023).
38. Alexander, Onyango Allen. 2016. Effect of Capital Strucuture on Financial Performance: The Case of Banks Listed at The Nairobi Securities Exchange. Bachelor's thesis, Strathmore University, Nairobi, Kenya. Available online: <http://hdl.handle.net/11071/5061> (accessed on 5 January 2023).
39. Ibhagui, Oyakhilome W., and Felicia O. Olokoyo. 2018. Leverage and firm performance: New evidence on the role of firm size. *North American Journal of Economics and Finance* 45: 57–82.
40. Li, Kang, Jyrki Niskanen, and Mervi Niskanen. 2019. Capital structure and firm performance in European SMEs: Does credit risk make a difference? *Managerial Finance* 45: 582–601.
41. Sadeghian, Nima Sepehr, Mohammad Mehdi Latifi, Saeed Soroush, and Zeinab Talebipour Aghabagher. 2012. Debt Policy and Corporate Performance: Empirical Evidence from Tehran Stock Exchange Companies. *International Journal of Economics and Finance* 4: 217–24.
42. Siddik, Md Nur Alam, Sajal Kabiraj, and Shanmugan Joghee. 2017. Impacts of capital structure on performance of banks in a developing economy: Evidence from Bangladesh. *International Journal of Financial Studies* 5: 13.
43. Zeitun, Rami, and Gary Gang Tian. 2007. Capital Structure and Corporate Performance: Evidence from Jordan. *The Australasian Accounting Business & Finance Journal* 1: 40–61.
44. Hasan, Bokhtiar, A. F. M. Mainul Ahsan, Afzalur Rahaman, and Nurul Alam. 2014. Influence of Capital Structure on Firm Performance: Evidence from Bangladesh. *International Journal of Business and Management* 9: 184–94.

45. Tretiakova, V. V., M. S. Shalneva, and A. S. Lvov. 2021. The Relationship between Capital Structure and Financial Performance of the Company. *SHS Web of Conferences* 91: 01002.
46. Al-Taani, Khalaf. 2013. The Relationship between Capital Structure and Firm Performance: Evidence from Jordan. *Journal of Finance and Accounting* 1: 41.
47. Al-Gamrh, Bakr, Ku Nor Izah Ku Ismail, Tanveer Ahsan, and Abdulsalam Alquhaif. 2020. Investment opportunities, corporate governance quality, and firm performance in the UAE. *Journal of Accounting in Emerging Economies* 10: 261–76.
48. Shrestha, Ashish. 2020. Analysis of Capital Structure in Power Companies in Asian Economies: Analysis of Capital Structure in Power Companies in Asian Economies. MBA thesis, Kathmandu University, Dhulikhel, Nepal.
49. Nidumolu, Radhika. 2018. Exploring the Effects of Agency Theory on Ownership Structures and Firm Performance. In *Law and Economics: Breaking New Grounds*. Working Paper. Lucknow: Eastern Book Company. Available online: <https://ssrn.com/abstract=3809607> (accessed on 10 March 2023).
50. Ang, James S., Rebel A. Cole, and James Wuh Lin. 2000. Agency Costs and Ownership Structure. *The Journal of Finance* 55: 81–106.
51. Chi, Jianxin (Daniel). 2005. Understanding the endogeneity between firm value and shareholder rights. *Financial Management* 34: 65–76.
52. Mehmood, Mudassar. 2021. Agency Costs and Performance of UK Universities. *Public Organization Review* 21: 187–204.
53. Jabbary, Hossein, Zohreh Hajiha, and Roghaieh Hassanpour Labeshka. 2013. Investigation of the effect of agency costs on firm performance of listed firms in Tehran Stock Exchange. *European Online Journal of Natural and Social Science* 2: 771–76.
54. Wang, George. Yungchih. 2010. The Impacts of Free Cash Flows and Agency Costs on Firm Performance. *Journal of Service Science and Management* 3: 408–18.
55. Xiao, Sheng, and Shan Zhao. 2014. How do agency problems affect firm value? - Evidence from China. *European Journal of Finance* 20: 803–28.
56. Kontuš, Eleonora. 2021. Agency costs, capital structure and corporate performance. *Ekonomski Vjesnik* 34: 73–85.
57. Pham, Hanh Song Thi, and Hien Thi Tran. 2020. CSR disclosure and firm performance: The mediating role of corporate reputation and moderating role of CEO integrity. *Journal of Business Research* 120: 127–36.
58. Seth, Himanshu, Saurabh Chadha, Satyendra Kumar Sharma, and Namita Ruparel. 2020. Exploring predictors of working capital management efficiency and their influence on firm performance: An integrated DEA-SEM approach. *Benchmarking* 28: 1120–45.
59. Abdullah, Hariem A., Heshoo G. Awrahman, and Hardi A. Omer. 2021. Effect of Working Capital Management on The Financial Performance of Banks (An Empirical Analysis for Banks Listed on The Iraq Stock Exchange). *Qalaai Zanist Journal* 6: 429–56.
60. Grossman, Sanford J., and Oliver D. Hart. 1982. Corporate Financial Structure and Managerial Incentives. In *The Economics of Information and Uncertainty*. Edited by John J. McCall. Chicago: University of Chicago Press, pp. 107–40. Available online: <http://www.nber.org/chapters/c4434> (accessed on 25 February 2023).
61. Li, Hongxia, and Liming Cui. 2003. Empirical Study of Capital Structure on Agency Costs in Chinese Listed Firms. *Nature and Science* 1: 12–20.
62. Williams, Joseph. 1987. Perquisites, Risk, and Capital Structure. *The Journal of Finance* 42: 29–48.
63. Pandey, Krishna Dayal, and Tarak Nath Sahu. 2019. Debt Financing, Agency Cost and Firm Performance: Evidence from India. *Vision* 23: 267–74.
64. Booth, Laurence, Varouj A. Aivazian, Asli Demircug-Kunt, and Vojislav Maksimovic. 2001. Capital structures in developing countries. *Journal of Finance* 56: 87–130.
65. Phuong, Thao Tran Thi, and Anh Thuy Nguyen. 2019. The Impact of Capital Structure on Firm Performance of Vietnamese Non-financial Listed Companies Based on Agency Cost Theory. *VNU Journal of Science: Economics and Business* 35: 24–33.

