IJAAF; Vol. 9, No. 2, Spring 2025, Serial 31

Ferdowsi University of Mashhad

Iranian Journal of
Accounting, Auditing & Finance

Quarterly

RESEARCH ARTICLE

The Effect of Corporate Sustainability Performance on the Speed of Achieving the Optimal Capital Structure: The Generalized Moments Approach

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How to cite this article:
Ahmadi Farsani, F. and Alahyari, A. A. (2025). The Effect of Corporate Sustainability Performance on the Speed of Achieving the Optimal Capital Structure: The Generalized Moments Approach. Iranian Journal of Accounting, Auditing and Finance, 9(2), 43-55. doi: 10.22067/ijaaf.2025.45190.1445
https://ijaaf.um.ac.ir/article_45190.html

ARTICLE INFO

Article History
Received: 2024-01-13
Accepted: 2024-08-12
Published online: 2025-04-15

Keywords:
Capital Structure Adjustment Speed, Corporate Sustainability performance

Abstract

The capital structure adjustment speed indicates the movement of companies towards the optimal capital structure. The optimal financial leverage is said to be a combination that is affected by the correct and targeted use of financial resources and the acquisition of reasonable and suitable returns with the risks of these resources. The present study seeks to track the effect of corporate sustainability performance on the speed of achieving the optimal capital structure. A sample of 136 listed companies on the Tehran stock exchange selected according to the systematic exclusion pattern was collected for 13 years from 2010 to 2022 to achieve the research objectives. A multivariate regression model with the generalized moments approach (GMM) was used to test the research hypotheses. The results showed that the circuits with higher stability performance could quickly cover the distance between the actual capital structure and the target and achieve optimal capital structure. Therefore, it is essential to address the level of corporate sustainability performance in capital structure and its optimization. The current study provided evidence that a company's sustainability performance a comprehensive approach reflecting total effects plays a crucial role, potentially serving as the central pillar of its capital structure. Moreover, access to financing sources should be adequate.

https://doi.org/10.22067/ijaaf.2025.45190.1445

NUMBER OF REFERENCES
38

NUMBER OF FIGURES
-

NUMBER OF TABLES
5

Homepage: https://ijaaf.um.ac.ir
E-Issn: 2717-4131
P-Issn: 2588-6142

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1. Introduction

The most important task for financial managers in achieving companies' goals is optimally combining financial resources in the capital structure (Oino and Ukaegbu, 2015; Rostami et al., 2022). As long as the companies choose an optimal combination of debt and equity in their financing methods to minimize financing costs, this action will maximize the shareholders' interests. Therefore, it is necessary to discuss the speed of adjusting the financial leverage towards the optimal leverage because one of the main reasons for the failure of companies is insufficient investment and inappropriate financing (Salehi et al., 2023). The speed of adjustment of financial leverage is when the company adjusts its capital structure and moves towards the optimal leverage it has already targeted and achieved (Amin and Liu, 2020). Optimal leverage is crucial for the growth and survival of companies, as it directly impacts their risk and expected returns. Studying financing decisions and achieving optimal leverage is essential, as it can influence bankruptcy probability and is related to the company's credit risk (Rostami et al., 2022).

Corporate sustainability performance reflects how a business unit incorporates social efficiency, environmental protection, economic growth, and governance elements. Now, businesses and stakeholders understand that these non-financial indicators were previously ignored, not only from a financial perspective but also in terms of risk avoidance, cost control, market reputation, and customer relationship improvement (Bae et al., 2019; Cao et al., 2019), are closely related to many aspects of the company's strategic development. Sustainability reporting assures shareholders and stakeholders that non-financial risks and opportunities associated with various organization departments' activities are identified according to a basic plan (Ho et al., 2021). The sustainability reporting framework can be analyzed from multiple perspectives, adhering to international guidelines (Asif et al., 2024). The importance of this type of reporting is such that it is explicitly mentioned in the laws of some countries. Therefore, government regulations play a crucial role in the disclosure of sustainability reports. Moreover, rules that mandate sustainability reports help reduce debates regarding their validity (Birkey et al., 2016). The emergence of the concept of sustainability in the last century as one of the most important and interesting topics regarding the activities of companies includes the commitments of the business unit to carry out fundamental reforms to build a just world with prosperity and comfort for everyone, which is It, the surrounding environment, as well as the primary culture of the people, are preserved. The contribution of the next generations will also remain from these resources (Bilbao-Terol et al., 2016). The reflection on creating a uniform system for sustainability reporting has started a critical discussion among researchers, professionals, and policymakers aware of these complications and possibilities arising from this reporting (Beck et al., 2017; De Oliveira et al., 2024). Capital structure is usually a source of financing a company's business to create added value for stakeholders. It encompasses both debt and equity financing, each with its associated costs and benefits. Therefore, lower capital costs increase access to financial resources and ultimately reduce leverage and information asymmetry (Adeneye et al., 2023).

Corporate sustainability encompasses numerous studies on hybrid sustainability methods for determining the cost of equity and debt. Still, the impact of sustainability performance on the speed of capital structure adjustment has yet to be investigated. According to the companies that use performance, they have higher stability, higher access to external financing, and, finally, higher speed in achieving optimal capital structure. Thus, this research investigates whether sustainability performance accelerates the adjustment of financial leverage towards optimal capital structure. Because in general, corporate sustainability is an economical and pragmatic approach with the potential to create opportunities and risks for trade and commerce. Corporate sustainability is a broad, complex, and evolving concept that includes diverse attitudes and ideas; this general concept can create a kind of stability in a company and guarantee its movement in the competitive market. Also,

companies should seek to achieve the optimal level of leverage that seeks the maximum value for shareholders and consider the high cost of capital in the country and the need to reduce it, therefore addressing the impact of corporate sustainability performance. It can have a capital structure based on the speed of adjustment; it is essential. The subsequent sections of this research will present the development of the study's theoretical foundations, hypotheses, and empirical framework. Then, the methodology and operational definitions of the research variables are presented, and finally, the findings and conclusions of the research are presented.

2. Development of theoretical principles and research hypothesis

2.1 Speed of adjustment of capital structure

Capital structure adjustment speed reflects how companies progress toward their optimal capital structure. The two primary sources of financing in companies are debt and equity issuance (Arikawa and Huang, 2022). The optimal capital structure is a combination affected by the correct and targeted use of financial resources and the acquisition of reasonable and suitable returns with the risks of these resources. The speed of movement of economic enterprises toward the optimal ratio depends on various factors, and the cost of adjusting the capital structure is one of the most critical factors (Rostami et al., 2022, 2023). Do et al. (2022) found that the effect of product market threats on leverage adjustment is more pronounced for firms with poor governance quality and exposure to product market threats. Achieving the target capital structure is crucial as it enhances the company's value. Arikawa and Huang (2022) stated that the adjustment speed of the capital structure was investigated using a partial adjustment model. The results showed that the speed of adjustment in emerging markets is plodding, and Vietnamese companies need to adjust their capital structure with high flexibility toward optimal value. Also, Vietnamese companies mainly use debt as external financing. The most critical issue in researching the capital structure of economic enterprises is the correct estimation of their movement speed toward the target lever. Vo et al. (2022) found that, on average, companies tend to adjust their capital structure more quickly in the post-COVID-19 period. In addition, companies located in countries where COVID-19 is causing more severe damage adjust their target leverage faster than those in less affected countries. Most economic enterprises deviate from their target capital and often act to adjust their capital structure when the benefits of altering the capital structure will be greater than its costs. Therefore, it is necessary to discuss the speed of changing the financial leverage towards optimal leverage because one of the main reasons for the failure of companies is insufficient investment and inappropriate financing (Abuhommous, 2021). Rostami et al. (2022) stated that in family companies, the speed of adjustment of financial leverage towards optimal leverage is faster than in non-family companies. Therefore, according to the result, family owners in companies with a higher sense of responsibility towards the company's capital can create a safe environment for investors and ensure a return on their investment. The speed of adjustment of financial leverage is when the company adjusts its capital structure and moves toward the optimal leverage it has already targeted and achieved. An et al. (2021) stated a positive relationship exists between foreign institutional ownership and companies' leverage adjustment speed. Foreign institutional investors have an essential regulatory role in reducing agency conflicts between shareholders and managers. According to the theory of dynamic equilibrium, it can be argued that each economic enterprise, considering its characteristics, faces different adjustment costs and, as a result, moves toward its target lever at different speeds. (Salehi et al, 2023 , Choi et al, 2024). Fitzgerald and Ryan (2019) found that small, high-growth, low-dividend-paying companies adjust target leverage faster than large, low-growth, high-dividend-paying companies. Rostami et al. (2022) showed that the short-sightedness of managers has the opposite effect on the speed of adjustment of

financial leverage, so in companies with short-sighted managers, the speed of adjustment of financial leverage decreases towards the optimal lever. Optimal financial leverage is the ratio of debt to assets in which the company's value is at the maximum and the total cost of capital is at the minimum. Therefore, managers continually seek the optimal capital structure to show stakeholders the company's status and performance (Adeneye et al., 2023). Consequently, the optimal capital structure is defined as the target companies' aim to align their capital structure. Based on theoretical concepts, managers should plan the company's optimal capital structure (Rostami et al., 2023; Carvalho et al., 2024).

2.2 Corporate sustainable performance

Corporate sustainability performance includes all activities and strategies that meet the needs of today's stakeholders and, at the same time, preserve the human and natural resources needed in the future (Carmine and De Marchi, 2023; Razzaque et al., 2024). This concept is closely related to corporate social responsibility and is a more significant concept than that. Corporate sustainability is an approach that includes all concepts of corporate social responsibility, corporate citizenship, and even corporate governance (Arduini et al., 2024). Taha et al. (2023) stated that this study shows a significant positive relationship between sustainability performance and profitability. Moreover, liquidity and stock price volatility moderate the impact of sustainability performance on a company's profitability. Based on this approach, companies of any size and operating scale should overcome the limitations by considering the economic complexities in the long term and create positive social and environmental impacts by using innovative solutions. This includes integrating environmental considerations into business activities (Klerk and Muir, 2022). Alareeni and Hamdan (2020) showed that sustainability disclosure positively affects company performance measures.

2.3 Corporate sustainable performance And Speed of adjustment of Capital Structure

A sustainable economy requires businesses whose performance differs from today's and can create more value using fewer resources. Considering these issues, traditional accounting and financial reporting cannot adequately meet the needs of measuring these effects, and the need for broader reporting is felt in organizations, a diverse set of stakeholders, and social, environmental, and economic interests. They follow various factors determining the organization's success (Feng et al., 2020). Giese et al. (2019) showed that changes in a company's sustainability characteristics might be suitable for integrating policy criteria and financial analysis. Sustainability is the ability of something to remain stable for a long time or indefinitely based on performance in these four key areas. Systematic sustainability reporting helps organizations measure the impacts they create or experience, set goals, and manage change. Organizations publish sustainability reports detailing their daily activities' economic, environmental, and social effects. According to previous studies in developed countries, Yoon et al. (2018) showed that sustainability performance positively and significantly affects a company's market. Nonetheless, the impact of sustainability performance on stock price may vary based on specific characteristics of the company.

Legitimacy theory plays a decisive explanatory role in explaining the quality of corporate sustainability (Maas et al., 2016). Legitimacy theory assumes that an institution's activities are desirable, appropriate, and worthy within a social structure defined by norms, values, and beliefs. Thus, legitimacy is a fundamental concept upon which organizations depend for survival. This theory assumes that economic, environmental, and social information are closely connected, and in response to the information and factors of corporate sustainability and its activities, they give legitimacy (Daugaard et al., 2024). Kanadlı et al. (2022) stated that boards of directors who have realized independence of perspective focus on maximizing shareholder profits at the expense of corporate

sustainability considerations. Female directors employing a paradoxical framework can encourage boards to address economic, environmental, and social sustainability issues in their decision-making processes. Sustainability performance enables companies to have higher stability and credit image, so companies with higher corporate sustainability performance and protect the rights of the environment, society, and stakeholders will undoubtedly have more increased access and lower costs than competitors. When acquiring debt financing, these companies can swiftly adjust their financial leverage ratio toward optimal levels (Adeneye et al., 2023). Therefore, according to the stated contents, the hypothesis is presented as follows:

H1: Corporate sustainability performance has a positive and significant effect on the speed of adjusting the capital structure towards the target capital structure.

3. Research methodology

Due to the existence of basic theoretical foundations related to the investigated variables, in terms of the purpose of implementation, the current research is among applied research, and in terms of the implementation method, due to not examining the effect of changing one (independent) variable to measure its impact on another (dependent) variable but reading the variables as they are and without manipulating them, are categorized under descriptive-causal research. Also, due to the historical and post-event nature of the data required for the research, the library and archival methods were used to collect the necessary data to test the research hypotheses.

Due to the ease of access and reliability, the statistical population of this research includes all listed companies on the Tehran stock exchange, after excluding the companies with the end of the financial period other than the end of March and the companies whose financial period during the research period, companies with insufficient information to achieve comparability, as well as investment companies and banks and insurance companies, to ensure the homogeneity of the required data due to the different nature of the activities and reports of recent companies, have changed the information of 136 companies according to the screening pattern. The systematic selection and their data were collected to obtain a sufficient sample as in similar studies for 13 years from 2010 to 2022. Combined data, applying time and place dimensions across different periods, has provided the researcher with more comprehensive and reliable information. The generalized method of moments (GMM) has been used to test the research hypotheses. It should be noted that OLS estimators are no longer compatible when the dependent variable appears as an interval on the model's right side. GMM estimation should be based on dynamic panel models. To estimate the model using this method, it is necessary to specify the instrumental variables used first. The consistency of the GMM estimator depends on the validity of the assumption of serial non-correlation of the error sentences and the instruments, which can be done by Arellano and Bond (1991) and Sargan tests, which check the validity of the instruments. Serial correlation test of error sentences tests the existence of second-order serial correlation in first-order differential error sentences. Failure to reject the null hypothesis of both tests (serial correlation of Khata and Sargan sentences) provides evidence for the assumption of no serial correlation and the validity of the tools. The GMM estimator is consistent if there is no second-order serial correlation in the error terms of the first-order differential equation. Hypothesis testing was done using Eviews 12 software and appropriate statistical methods to finalize hypotheses. Table 1 presents the method of screening the statistical population of the research.

Table 1. The screening of the statistical population

The statistical population in 2022		**577**
Deductible: inactive companies	-193	
Deductible: Companies that have stock trading suspension	-33	
Deductible: Companies that have changed the financial period	-67	
Deductible: Companies that entered the stock market during the research period	-99	
Deductible: investment companies, banks and holdings	-49	
The final sample of the research		136

3.1 Regression model

Following Abuhommous (2021), the following mathematical model has been used to investigate the impact of sustainability performance on the speed of capital structure adjustment.

$$\mathrm{LEV}_{it} = \alpha + (1 - \lambda)\mathrm{LEV}_{it-1} + \emptyset_1 CSP_{it} + \emptyset_2 CSP_{\ it} \times \mathrm{LEV}_{it-1} + (\lambda\psi)\mathrm{Zit} + v_{it}$$

3.2 How research variables are operationalized

3.2.1 Dependent variable: speed of adjustment of Capital Structure

In many studies measuring the speed of adjustment, the partial adjustment model is used to measure the speed of lever adjustment (Öztekin, 2015; Flannery, Rengan, 2006). In the partial adjustment model, actual and optimal leverage should be measured in the first step. However, since optimal commercial credit cannot be measured directly, its value must be obtained by replacing other variables. In this research, those apparent characteristics of the company that influence financing decisions are considered, and other characteristics, such as the economic situation and unobservable (uncontrollable) effects that affect financing decisions and are not easily measured, are considered errors. The estimator is considered. The optimal commercial credit is estimated with the help of the following model. According to the research of Abuhommous (2021), the phenomenon of reversion to the mean regarding the leverage ratio of companies has been investigated by calculating the following model.

$$\mathrm{LEV}_{i,t} - \mathrm{LEV}_{i,t-1} = \lambda(LEV^*_{i,t} - \mathrm{LEV}_{i,t-1}) + u_{it}$$

LEV ∗ i,t is the firm's target capital structure in year t. (λ) the unobserved adjustment speed toward the target is the gap between the target and the current lever. The target leverage (LEV∗ i,t) is unobservable but can be estimated with the following model:

$$LEV^*_{i,t} = \beta' x_{it-1} + u_{it}$$

Where Xi,t-1 is the vector of explanatory variables determining the target's capital structure. According to previous studies, the determining factors include:

1. Company value (Q): equivalent to the ratio of the total market value of shares and the book value of liabilities to the book value of assets.
2. Fixed assets ratio (TANG): equivalent to the ratio of fixed assets to total assets.
3. Profitability (PROF): equivalent to the net profit ratio to total assets.
4. Firm size (SIZE): the natural logarithm of total assets at the end of the period.
5. Firm age: the natural logarithm of the difference between the year of establishment and the desired year.

The optimal capital structure can be calculated using the second model by placing the company's characteristics in the first model.

By placing the target capital structure ratio LEV*i,t in equation (2) and some algebraic calculations, equation (5) is obtained, which is used in practice to measure the speed of lever adjustment:

$$\mathrm{LEV}_{i,t} = (1-\lambda)\mathrm{LEV}_{i,t-1} + (\lambda\beta)x_{it-1} + \alpha i + \delta t + u_{it}$$

3.2.2 The dependent variable of the research: corporate sustainability performance (CSP)

According to Ng & Rezaee (2015), to measure corporate sustainability performance through a set of strengths and weaknesses or concerns using a social rating checklist for all seven dimensions, including social, governance, environment, employee relations, quality Product, human rights, and diversification are classified based on the five dimensions of corporate sustainability, including economic, governance, social, ethical, and environmental domains. In each area, criteria were determined as strengths and weaknesses; if the company under investigation has strengths, the code is (1). Otherwise, it is (0); if the company has weaknesses, the code is (1). Otherwise, it will be (0). The subsets of these dimensions and the checklist, according to Ng & Rezaee (2015), Table 2 are as follows:

Table 2. Different aspects of the company's sustainability performance, along with its strengths and weaknesses

Aspects		Strengths	Weaknesses
Social (SOC)	Social communications	1) Aid to charities, 2) Aid to charities outside Iran, 3) Housing support program, 4) Education support program.	1) negative economic effects, 2) tax problems.
	Diversity	1) The use of female or minority executive directors; 2) The use of women, minorities and disabled people as members of the board of directors; 3) Benefits outside the company for children, the elderly or leisure time; 4) Female and minority employees, 5) The employment of employees' veteran and disabled	1) court problems, 2) not having women on the board of directors.
Governance (GOV)		1) granting bonuses to senior managers, 2) the company owns 20 to 50% of another company's shares, and 3) high transparency.	1) conditional audit opinion, 2) transparency problems.
Ethical	Staffs' relations	1) consideration of non-cash benefits, 2) cash distribution of income, 3) employee engagement, 4) retirement benefits, 5) a strong health and safety program.	1) reduction of the workforce, 2) payment of health and safety violations, and 3) weakness in retirement benefits.
	Human rights	1) friendly relations with local people, 2) proper disclosure of the rights of employees and workers.	N/A
Environment (INV)		) useful products and services, 2) preventing pollution, 3) Using recyclable materials in the production process, 4) Saving energy, 5) Receiving an award and commendation in the field of environment, 6) Maintaining property, machinery and equipment, 7) Obtaining the ISO 14001 certificate by the company for the company's management systems.	1) creation of hazardous wastes, 2) legal issues, 3) ozone-depleting chemicals, 4) producer of agricultural chemicals, 5) climate change.
Economics (ECO)	Product quality	1) long-term quality of products and services, 2) research and development/innovation, and 3) benefits of tough economic conditions.	1) Fines related to product safety, 2) Payment of crimes or lawsuits related to contracts, marketing, advertising methods, etc.

To calculate the sustainability performance of each company, the weak points are subtracted from the strong points, and the score of five dimensions (social, governance, ethical, environmental, and economic performance) is calculated. To calculate the total corporate sustainability score, the following relationship is used:

$$CSP = \sum(\text{strengths - weaknesses})$$

4. Research findings

The research findings include descriptive and inferential statistics, which are first presented in Table 3 descriptive statistics.

Table 3. The descriptive statistics of quantitative research variables

Variable	Sign	Mean	Max.	Min.	Standard deviation	Skewness	Longines
Financial leverage	LEV	0.550	0.990	0.094	0.200	-0.031	2.510
Corporate sustainability performance	CSP	6.440	20.000	-4.000	2.650	0.920	6.930
Company value	Q	2.490	15.030	0.910	2.310	3.330	16.180
Fixed asset ratio	TANG	0.260	0.770	0.024	0.180	0.850	3.060
Profitability	PROF	0.140	0.600	-0.230	0.140	0.530	3.620
Firm size	SIZE	14.690	20.220	10.220	1.730	0.690	3.580
Firm age	Age	3.600	4.260	2.070	0.390	-0.740	2.900

Table (3) shows the descriptive statistics of the research variables. Descriptive statistics shows the amount of data dispersion, and mean and standard deviation are two important factors in descriptive statistics. In the above table, the cumulative average of the companies' capital structure with the value (0.55) shows that most of the data is around this point, and on average, half of the companies' assets are debt. The average value of profitability is about (0.14), which indicates that companies have experienced profitability in this range on average, and the minimum value of this group shows that with the value of (-0.23), some companies have losses. There have been ten. The highest standard deviation belongs to the sustainability performance of companies with a value of (2.65), and the lowest belongs to the fixed assets ratio (0.18).

4.1 The result of the research hypothesis test

Table 4. The results of the research hypothesis test

$$LEV_{it} = \alpha + (1 - \lambda)LEV_{it-1} + \emptyset_1 CSP_{it} + \emptyset_2 CSP_{it} \times LEV_{it-1} + (\lambda\psi)Zit + v_{it}$$

The dependent variable: financial leverage adjustment speed

Variables	Sign	Coefficients	Standard error	t statistic	Significance
Financial leverage of the previous period	LEV_{t-1}	0.400	0.025	16.140	0.000
Corporate sustainability performance	CSP	-0.004	0.004	-1.110	0.260
Interactive coefficient	$LEV_{t-1} \times CSP$	-0.058	0.020	-2.880	0.004
Company value	Q	2.490	15.030	0.910	2.310
Fixed asset ratio	TANG	0.260	0.770	0.024	0.180
Firm age	Age	-0.140	0.600	-0.230	0.140
Profitability	PROF	0.007	0.002	2.920	0.003
Firm size	SIZE	0.019	0.010	1.900	0.056

The estimation results of the model in Table (4) show that the speed of adjustment of capital structure in the sample companies is about 60%, which indicates that the companies, on average, try

to reduce about 60% of the capital structure deviation every year. Financial coverage of optimal leverage. Additionally, the interaction coefficient (-0.058) indicates that corporate sustainability performance enhances capital structure adjustment speed at a significance level of less than 5% (p-value = 0.004). Therefore, the research hypothesis is not rejected at the 5% error level. According to the results, companies with higher sustainability performance can achieve optimal financial leverage faster than others. Company size (0.056) and profitability (0.003) significantly affect the dependent variable of the research at a significance level of 5 and 10 percent, respectively.

Table 5. The results of Arellano Bond and Sargan-Hansen tests

Tests	Test types	Test statistic	Significance
Validity of tools	Sargan-Hansen statistic	35.021	0.130
Autocorrelation level (first interval)	Arellano-Bond statistic	-16.430	0.000
Autocorrelation level (second interval)	Arellano-Bond statistic	0.406	0.680

Table (5) presents the results of the supplementary analyses. The generalized moments (GMM) method has been used to test the research hypotheses. It is important to note that OLS estimators are no longer appropriate when the dependent variable is specified as an interval on the right-hand side of the model. GMM estimation should be based on dynamic panel models. To estimate the model using this method, it is necessary to specify the instrumental variables used first. Estimator compatibility (GMM) depends on the validity of the assumption of serial non-correlation of error sentences and instruments, which can be done by Arellano and Bond (1991) and Sargan tests, which check the validity of the instruments. Serial correlation test of error sentences tests the existence of second-order serial correlation in first-order differential error sentences. Failure to reject the null hypothesis of both tests (serial correlation of Khata and Sargan sentences) provides evidence for the assumption of no serial correlation and the validity of the tools. The GMM estimator is consistent if there is no second-order serial correlation in the error terms of the first-order differential equation.

5. Conclusion

This study investigates the effect of corporate sustainability performance on the speed of capital structure adjustment. Since the capital structure serves as the foundation for a company's continued operations regarding its capital supply, it is crucial to address the factors influencing it. Determining the optimal capital structure is one of the primary responsibilities of company managers. The optimality of financial leverage is critical because it influences the company's expected risk and return. While optimal leverage is shaped by company-specific and market risks, both over-leverage and under-leverage can expose the company to significant risks. Optimum leverage can bring maximum value to shareholders, so companies should approach the level of their leverage to the optimal leverage as quickly as possible. Therefore, companies will consider the costs of adjusting the capital structure and whether it is aligned with the company's interests. Sometimes, this needs to be included due to the high costs. Over-leveraged companies have advantages such as a tax shield. Over-leveraged companies benefit from advantages such as tax shields but face an increased risk of financial distress. Conversely, under-leveraged companies miss these benefits but reduce their financial risk. According to the trade-off theory, optimal leverage balances these extremes, maximizing the company's value.

Corporate sustainability performance is measured across three dimensions—economic, social, and environmental—which reflect a company's responsibilities toward society and stakeholders. Companies with better sustainability performance perform better than their stock market competitors and accounting performance in the long term. These companies are less vulnerable to external shocks

that impact value creation and experience lower levels of risk. Therefore, increasing sustainability performance is of great importance. The statistical results showed that corporate sustainability performance directly affects the speed of lever adjustment. Sustainability is a broad concept encompassing various ideas, including companies' responsibilities toward stakeholders and society. It can be analyzed through sustainable competition, sustainability reporting, and social sustainability. Currently, the company's sustainability performance is measured in three economic, social, and environmental dimensions, which refer to the responsibility of companies towards society and stakeholders. Companies with better sustainability performance will perform better than their competitors in the stock market and accounting performance in the long term, and their access to financing sources will be easier. Therefore, increasing sustainability performance is essential because this factor can significantly impact the company's access to financing sources and ultimately lower capital costs. When companies bind themselves to various dimensions of corporate sustainability performance from social, economic, governance, and other aspects, and because this is an essential overall combination of managers' responsibility towards stakeholders and society, companies with More access to financing at a lower cost due to high stability in performance and obtaining a higher credit rating, so they can adjust their leverage ratio as quickly as possible towards the optimal capital structure and use its benefits. The results obtained complement the results of studies such as Adeneye et al. (2023), Abuhommous (2021), and Rostami et al. (2022).

6. Practical implications

- Since corporate sustainability has been the focus of managers in the last decade, it is suggested that the stock exchange organization, taking into account the mechanism, emphasizes the importance of this matter by requiring companies to disclose matters related to corporate sustainability in such a way. It shows that every year, a point is assigned to the performance of corporate sustainability, which leads to the motivation of the managers to improve the factors related to this factor.

- Since the results showed that corporate sustainability performance impacts the central pillar of capital decisions (financial leverage) and its adjustment, it is suggested that the managers and significant shareholders adopt a mechanism to improve corporate sustainability performance to grow the image. Companies can avoid financial crises by adjusting the lever towards the target lever.

- To invest in the company, the shareholders can understand the importance of the interests of the shareholders and the company managers by examining the issues related to the level of corporate sustainability performance disclosure and experience a safer investment with less risk.

Future researchers are suggested to examine the research topic in various industries to determine the multiple aspects, and they can also investigate the performance level of corporate sustainability and the level of shareholder loyalty.

References

1. Abuhommous, A. A. A. (2021). Trade credit and the speed of leverage adjustment. *Management Decision*, 59(8), pp. 1915-1928. https://doi.org/10.1108/MD-04-2019-0530
2. Adeneye, Y. B., Kammoun, I., & Ab Wahab, S. N. A. (2023). Capital structure and speed of adjustment: the impact of environmental, social and governance (ESG) performance. *Sustainability Accounting, Management and Policy Journal*, 14(5), pp. 945-977. https://doi.org/10.1108/SAMPJ-01-2022-0060
3. Alareeni, B. A. and Hamdan, A. (2020). ESG impact on performance of US S&P 500-listed firms. *Corporate Governance: The International Journal of Business in Society*, 20(7), pp. 1409-1428. https://doi.org/10.1108/CG-06-2020-0258
4. Amin, Q. A. and Liu, J. (2020). Shareholders' control rights, family ownership and the firm's

leverage decisions. *International Review of Financial Analysis*, 72(30), A. 101591. https://doi.org/10.1016/j.irfa.2020.101591

5. An, Z., Chen, C., Li, D. and Yin, C. (2021). Foreign institutional ownership and the speed of leverage adjustment: International evidence. *Journal of Corporate Finance*, 68(31), A. 101966. https://doi.org/10.1016/j.jcorpfin.2021.101966
6. Arduini, S., Manzo, M. and Beck, T. (2024). Corporate reputation and culture: the link between knowledge management and sustainability. *Journal of Knowledge Management*, 28(4), pp. 1020-1041. https://doi.org/10.1108/JKM-02-2023-0139
7. Arellano, M. and Bond, S. (1991). Some tests of specification for panel data: monte Carlo evidence and an application to employment equations. *The Review of Economic Studies*, 58(2), pp. 277-297. https://doi.org/10.2307/2297968
8. Arikawa, Y. and Hoang, H. N. (2022). Capital structure adjustment in emerging markets: evidence from Vietnam. Available at SSRN 4009437.Working paper, Tokyo, Japan.
9. Asif, M., Yang, L. and Hashim, M. (2024). The role of digital transformation, corporate culture, and leadership in enhancing corporate sustainable performance in the manufacturing sector of China. *Sustainability*, 16(7), p. 2651. https://doi.org/10.3390/su16072651
10. Bae, K. H., El Ghoul, S., Guedhami, O., Kwok, C. C. and Zheng, Y. (2019). Does corporate social responsibility reduce the costs of high leverage? Evidence from capital structure and product market interactions. *Journal of Banking & Finance*, 100(9), pp. 135-150. https://doi.org/10.1016/j.jbankfin.2018.11.007
11. Beck, C., Dumay, J. and Frost, G. (2017). In pursuit of a 'single source of truth': from threatened legitimacy to integrated reporting. *Journal of Business Ethics*, 141(1), pp. 191-205. https://doi.org/10.1007/s10551-014-2423-1
12. Bilbao-Terol, A., Cañal-Fernández, V. and Mar, A. P. (2016). A model based on copula theory for sustainable and social responsible investments: Un modelo basado en la teoría de cópulas para la inversión sostenible y socialmente responsable. *Revista de Contabilidad-Spanish Accounting Review*, 19(1), pp. 55-76. https://doi.org/10.1016/j.rcsar.2015.01.003
13. Birkey, R. N., Michelon, G., Patten, D. M. and Sankara, J. (2016). Does assurance on CSR reporting enhance environmental reputation? An examination in the US context. *Accounting Forum*, 40(3), pp. 143-152. https://doi.org/10.1016/j.accfor.2016.07.001
14. Cao, J., Liang, H. and Zhan, X. (2019). Peer effects of corporate social responsibility. *Management Science*, 65(12), pp. 5487-5503. https://doi.org/10.1287/mnsc.2018.3100
15. Carmine, S. and De Marchi, V. (2023). Reviewing paradox theory in corporate sustainability toward a systems perspective. *Journal of Business Ethics*, 184(1), pp. 139-158. https://doi.org/10.1007/s10551-022-05112-2
16. Carvalho, A., Pacheco, L. M., Sardo, F. and Serrasqueiro, Z. (2024). Does managerial overconfidence affect capital structure rebalancing for entrepreneurial firms? *Journal of Small Business and Enterprise Development*, 31(1), pp. 152-173. https://doi.org/10.1108/JSBED-07-2023-0319
17. Choi, S. B., Sauka, K. and Lee, M. (2024). Dynamic capital structure adjustment: an integrated analysis of firm-specific and macroeconomic factors in Korean firms. *International Journal of Financial Studies*, 12(1), p. 26. https://doi.org/10.3390/ijfs12010026
18. Daugaard, D., Jia, J. and Li, Z. (2024). Implementing corporate sustainability information in socially responsible investing: a systematic review of empirical research. *Journal of Accounting Literature*, 46(2), pp. 238-276. https://doi.org/10.1108/JAL-12-2022-0127
19. De Oliveira, U. R., Menezes, R. P. and Fernandes, V. A. (2024). A systematic literature review

on corporate sustainability: contributions, barriers, innovations and future possibilities. *Environment, development and sustainability*, 26(2), pp. 3045-3079. https://doi.org/10.1007/s10668-023-02933-7

20. Do, T. K., Huang, H. H. and Ouyang, P. (2022). Product market threats and leverage adjustments. *Journal of Banking & Finance*, 135(10), A. 106365. https://doi.org/10.1016/j.jbankfin.2021.106365
21. Feng, Y., Hassan, A. and Elamer, A. A. (2020). Corporate governance, ownership structure and capital structure: evidence from Chinese real estate listed companies. *International Journal of Accounting & Information Management*, 28(4), pp. 759-783. https://doi.org/10.1108/IJAIM-04-2020-0042
22. Fitzgerald, J. and Ryan, J. (2019). The impact of firm characteristics on speed of adjustment to target leverage: a UK study. *Applied Economics*, 51(3), pp. 315-327. https://doi.org/10.1080/00036846.2018.1495822
23. Flannery, M. J. and Rangan, K. P. (2006). Partial adjustment toward target capital structures. *Journal of Financial Economics*, 79(3), pp. 469-506. https://doi.org/10.1016/j.jfineco.2005.03.004
24. Giese, G., Lee, L. E., Melas, D., Nagy, Z. and Nishikawa, L. (2019). Foundations of ESG investing: how ESG affects equity valuation, risk, and performance. *Journal of Portfolio Management*, 45(5), pp. 69-83.
25. Ho, L., Bai, M., Lu, Y. and Qin, Y. (2021). The effect of corporate sustainability performance on leverage adjustments. *The British Accounting Review*, 53(5), A. 100989. https://doi.org/10.1016/j.bar.2021.100989
26. Kanadlı, S. B., Alawadi, A., Kakabadse, N. and Zhang, P. (2022). Do independent boards pay attention to corporate sustainability? Gender diversity can make a difference. *Corporate Governance: The International Journal of Business in Society*, 22(7), pp. 1390-1404. https://doi.org/10.1108/CG-09-2021-0352
27. Klerk, N. O. D. and Muir, C. (2022). Corporate brand reputation and ethics, sustainability and inclusion. The shift in post pandemic corporate narrative: from corporate brand reputation to corporate sustainability. In The Emerald Handbook of Multi-Stakeholder Communication: *Emerging Issues for Corporate Identity, Branding and Reputation*, pp. 365-391. Emerald Publishing Limited. https://doi.org/10.1108/978-1-80071-897-520221031
28. Maas, K., Schaltegger, S. and Crutzen, N. (2016). Integrating corporate sustainability assessment, management accounting, control, and reporting. *Journal of Cleaner Production*, 136, pp. 237-248. https://doi.org/10.1016/j.jclepro.2016.05.008
29. Ng, A. C. and Rezaee, Z. (2015). Business sustainability performance and cost of equity capital. *Journal of Corporate Finance*, 34, pp. 128-149. https://doi.org/10.1016/j.jcorpfin.2015.08.003
30. Oino, I. and Ukaegbu, B. (2015). The impact of profitability on capital structure and speed of adjustment: An empirical examination of selected firms in Nigerian Stock Exchange. *Research in International Business and Finance*, 35(7), pp. 111-121. https://doi.org/10.1016/j.ribaf.2015.03.004
31. Öztekin, Ö. (2015). Capital structure decisions around the world: which factors are reliably important? *Journal of Financial and Quantitative Analysis*, 50(3), pp. 301-323. https://doi.org/10.1017/S0022109014000660
32. Razzaque, A., Lee, I. and Mangalaraj, G. (2024). The effect of entrepreneurial leadership traits on corporate sustainable development and firm performance: a resource-based view. *European Business Review*, 36(2), pp. 177-200. https://doi.org/10.1108/EBR-03-2023-0076
33. Rostami, V., Mehravar, M. and Kargar, H. (2022). The effect of risk management on the speed

of adjusting financial leverage in the life cycle stages of companies. *Journal of Accounting Advances*, 14(1), pp. 59-88 (In Persian). https://doi.org/10.22099/jaa.2022.44253.2256

34. Rostami, V., Rahmanian Koushkaki, A., Alahyari, A. A. and Kargar, H. (2023). The effect of family ownership on the adjustment speed of financial leverage towards optimal leverage. *Iranian Journal of Accounting, Auditing and Finance*, (Available Online from 29 July 2023) (In Persian). https://doi.org/10.22067/ijaaf.2023.81806.1314
35. Salehi, M., Rostami, V. and Kargar, H. (2023). The effect of investors' divergence of opinions on the speed of adjusting the financial leverage towards the optimal leverage. *Journal of Accounting Advances*, 15(1), pp. 209-226. https://doi.org/10.22099/jaa.2023.46960.2312
36. Taha, R., Al-Omush, A. and Al-Nimer, M. (2023). Corporate sustainability performance and profitability: The moderating role of liquidity and stock price volatility-evidence from Jordan. *Cogent Business & Management*, 10(1), A. 2162685. https://doi.org/10.1080/23311975.2022.2162685
37. Vo, T. A., Mazur, M. and Thai, A. (2022). The impact of COVID-19 economic crisis on the speed of adjustment toward target leverage ratio: An international analysis. *Finance Research Letters*, 45, A. 102157. https://doi.org/10.1016/j.frl.2021.102157
38. Yoon, B., Lee, J. H. and Byun, R. (2018). Does ESG performance enhance firm value? Evidence from Korea. *Sustainability*, 10(10), A. 3635. https://doi.org/10.3390/su10103635