The Effect of Family Ownership on the Adjustment Speed of Financial Leverage towards Optimal Leverage

Vahab Rostami*, Abdolrasoul Rahmanian Koushkaki, Ali Akbar Alahyari, Hamed Kargar

Department of Accounting, Payame Noor University, Tehran, Iran

Abstract

Purpose– Faster attainment of optimal financial leverage guarantees the company's survival and the growth of shareholders' interests. This paper investigates the effect of family ownership on the speed of adjustment of financial leverage toward optimal leverage.

Design/Methodology–In order to achieve the objectives of the research, the data of 133 companies listed in Tehran Stock Exchange, which selected according to the systematic exclusion pattern, was collected for a period of 10 years from 2012 to 2021 and a multivariate linear regression model was used to test the research hypotheses. In order to measure the speed of adjustment of financial leverage, the partial adjustment pattern model of the Öztekin (2015) has been used, and to evaluate the Family Ownership Chen et al (2008) method was used.

Findings–.The results showed that the speed of adjustment of financial leverage towards optimal leverage in family companies is faster than in non-family companies.

conclusions and Contribution–.Therefore, 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.

keywords: Adjustment Speed of financial leverage, Capital Structure, Family and non-family Ownership, Optimal leverage

JEL Classification: M41 ،H42

1. Introduction

The most important task of financial managers in achieving companies' goals is to optimally combine financial resources in the capital structure (Oino and Ukaegbu, 2015). As much as companies choose an optimal combination of debt and equity in their financing methods to minimize financing costs, according to risk and return, the result of this action will be to maximize the interests of the shareholders. 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. The speed of adjustment of financial leverage is the length of time that the company adjusts its capital structure and moves towards the optimal leverage that has already been targeted and achieved (Amin and Liu, 2020). The importance of optimal leverage is such that the growth and survival of companies depend on this factor and affects the risk and expected returns of companies. The study of financing decisions and achieving the optimal leverage of companies is of great importance because it may affect companies' bankruptcy probability and is somehow related to the company's credit risk (Rostami, Kargar and Samimifard, 2022). On the other hand, the major owners in the companies, in terms of having high voting rights, can influence the managers' decisions, especially in family companies, where the owners themselves are the managers of the companies. The importance of family companies in the economy is such that about 35% (175 companies) of the 500 largest American companies are family companies. For this purpose, several indicators have been presented in many countries to define such companies. Researchers have conducted various studies on these companies in recent years due to their importance (Amin and Liu, 2020). Examining financing decisions and achieving optimal leverage is necessary for family companies because certain conditions that affect their financing decisions prevail in family companies. On the other hand, family owners, to maintain the company's reputation and their conservativeness, fearing the

risk of bankruptcy and liquidation of the company and the loss of all capital and family heritage, have less desire to increase debt in the capital structure of their company and prefer to finance with internal funds is more than borrowing through debt. But on the other hand, combining the capital structure of family companies from the point of view that such companies do not want to lose supervision and control over the performance and decisions of the company through the issuance of new shares and adding new shareholders, this factor may be contradictory to their first request to use less debt in the capital structure and force them to increase the debt in the capital structure. They can ignore this case to the point that it does not endanger their control and authority (Bas, Yaz Gulnur and Phylaktis, 2022). Hence, the non-economic characteristics and the desire to maintain their power and supervisory characteristics may be decisive for the decisions of the managers of such companies to adjust the leverage and achieve optimal leverage (Poletti- Hughes and Martinez Garcia, 2022). On the other hand, companies should seek to achieve the optimal level of leverage that leads to maximum value for shareholders, so this question will play a role in the mind if family ownership affects the company's achievement of the optimal level of leverage and the speed of its adjustment. Is it effective? In the continuation of the structure of the research, firstly, the development of the theoretical foundations, hypotheses, and experimental foundations are presented, then the methodology and operational definitions of the research variables, and finally, the findings and conclusions will be discussed.

2. Literature Review and Theoretical Principles

The speed of adjustment of financial leverage indicates the movement of companies toward the optimal capital structure. The two primary sources of financing in companies are debt and equity issuance (Akbari, Salehi and Bagherpour Vlashani,

2019; Arikawa and HOANG, 2022). In a public company, equity is a type of financing that shows the number of shares issued and in the hands of the small and significant shareholders of the company, and this can somehow monitor and control the company owners based on the amount of stock ownership (Ghorbani and Salehi, 2020) because the wide dispersion of shares among shareholders will divide their supervisory power among different groups (Bas, Yaz Gulnur and Phylaktis, 2022). Thus, the owners who are against losing control over the affairs and decisions of the companies, and the composition of their capital structure, will be more affected (Farhangdoust, Salehi and Molavi, 2020). In such companies, as far as possible, the financing needs of the company's operations will be done through debt, which is far from justice. This is due to personal interests and a way to expropriate ownership from minority shareholders. In the case of separation of ownership, the level of control of the company's big owners will decrease (Morresi and Naccarato, 2016; Salehi and Zimon, 2021). In family companies, in general, a large part of the shares is owned by one or more real shareholders, the majority of whom are family members, and family members are employed in managerial and operational positions. According to the conducted studies, it has been determined that if the amount of managers' shares is more than a specific limit, it can motivate them to provide better financial status and performance (Moradi et al., 2020). Also, significant shareholders can influence the company's decisions and activities by controlling the managers' behavior (Sah et al., 2022).

In family companies, due to the specific ownership structure, the protection of the family's interests may be preferable to the protection of the interests of the shareholders (Salehi, Hoshmand and Rezaei Ranjbar, 2020). As a result, since the shareholders have less access to the essential and basic information of the company, there is always a risk that the interests of this group, especially in the long term, be exposed to danger. Family companies have longer-term horizons than non-family companies, and this has led to the creation of long-

term plans in the business unit. This occurs because the owner and manager of these companies are from the same family, consider the company as their own, and try to create value in their long-term goals (Amore, Pelucco and Quarato, 2022; Seifzadeh et al., 2022). Companies controlled by their founding families' founders or heirs are often called family companies. Most private companies are family-owned, but this ownership structure also exists among large publicly traded companies. Family companies are significant from an economic point of view because they are the main drivers of most economies (Amin and Liu, 2020). Family firms place more value on the firm's survival than on maximizing shareholder wealth. Company survival has become a primary goal for family businesses, as it is a legacy to pass on to the next generation. From the long-term perspective of the business, family firms are more concerned about building a good reputation than non-family firms. Company reputation is an intangible asset that is strategic and important for family businesses. Maintaining a low level of debt-to-equity ratio and the effect of family companies on financial performance is a unique feature of such companies. Family-controlled firms use less debt to mitigate risk, generally have a long-term perspective, and are less risk-averse than non-family firms. Family companies often prefer internal financing to prevent the increase of foreign capital and have more liquidity than other companies, with an average difference of 2.3% of total assets (Sah et al., 2022). Another group of researchers believes that family companies may use more debt than non-family companies because they aim to grow the company without reducing ownership, control, and authority over decisions (Salehi et al., 2022). Sometimes, family companies tolerate the loss of financial performance to achieve non-financial goals, such as maintaining family control over the company, which may increase family companies' financial leverage (Morresi and Naccarato, 2016; Shafeeq Nimr Al-Maliki, Salehi and Kardan, 2022). This action of family companies is for two main reasons. First, family owners usually invest their wealth in the business, so they have an emotional

connection to their investment, which makes family members have a longer horizon than other shareholders (for example, institutional investors). Second, family owners act with more compassion and sensitivity at work due to more belonging to the company because managers and owners are often one, which will create more belonging in work and lead the company to higher commitment (Bas, Yaz Gulnur and Phylaktis, 2022).

There are two main conflicting views regarding the choice of capital structure in family companies (Salehi, Moradi and Faysal, 2023). On the one hand, it is expected that family companies tend to increase the financial leverage of the company less than non-family companies. The reason for this is the risk aversion of family members because a large part of their financial and human capital is dependent on the future and performance of this company, and for this reason, family companies tend to maintain a low level of debt to reduce the risks of bankruptcy. It may jeopardize the long-term goal of handing over the company to the heirs (Hoqs and Garcia, 2020). Also, in the second point of view, it is stated that in family companies, compared to non-family companies, it is possible that such companies do not have a great desire to issue a lot of shares. They will probably maintain a balance in this field to minimize the risk of reducing the amount of stock ownership among family members and the controlling role of the family. According to behavioral theory, this tendency to maintain control comes from the entrepreneur's preference for independence, especially in the case of smaller companies, and it is more in companies that do not desire to involve foreign shareholders (Amin and Liu, 2020). According to agency theory, family firms tend to retain control to remain private. However, all these studies seem to ignore the fact that most companies that rely on increased control mechanisms are likely to be controlled by a single family and that the greater use of debt occurs in companies with a higher level of separation between voting rights and cash flow may be related to the family personality of the largest shareholder (Bas, Yaz Gulnur

and Phylaktis, 2022). From a dynamic point of view and assuming the existence of a target leverage, this shows that the debt ratio of family companies converges to the target leverage at a slower speed due to higher adjustment than non-family counterparts. Still, non-family companies have a higher debt level than family companies. Also, in family companies, the use of debt is a tool to gain more control over the company's affairs, and this increases the target leverage in family companies, so the costs of achieving the optimal leverage will be reduced (Morresi and Naccarato, 2016; Zimon, Arianpoor and Salehi, 2022).

Do, Huang and Ouyang (2022) carried out a study on product market threats and leverage adjustment and stated that the effect of product market threats on leverage adjustment is more evident for companies that have weak governance quality and are exposed to product market threats. Finally, to the extent that achieving the target capital structure increases the value of the company.Arikawa and Hoang (2022), in research titled capital structure adjustment in emerging markets, stated that the speed of capital structure adjustment was investigated using a partial adjustment model. The results showed that the speed of adjustment in emerging markets is very slow, and Vietnamese companies do not adjust their capital structure with high flexibility toward optimal value. Also, Vietnamese companies mainly use debt as external financing. Amore, Pelucco and Quarato (2022) assessed the performance of family companies during the Covid-19 era and posited that family companies showed higher market performance and operating profit than other companies during the epidemic period. This result is stronger for firms without related minority investors and with multiple family shareholders. By examining the mechanisms, it was shown that the better performance of family firms is due to the more efficient use of labor and less loss of income. Minh Ha, Do, and Ngo (2022) analyzed the effect of family ownership on the performance of companies and observed that the relationship between family ownership and the performance of Vietnamese companies is negative. Tobin's Q decreases with

family ownership. Firm performance is lowest during family ownership, and similarly, financial performance declines as family ownership increases. Rostami, Kargar and Samimifard (2022) assessed the effect of managers' short-sightedness on the speed of adjustment of financial leverage towards optimal leverage and expressed that managerial myopia has had an opposite effect on the speed of adjustment of financial leverage, so in the companies with myopic managers, the speed of adjusting the financial leverage towards the optimal leverage is lower.Voa, Mazur and Thai (2021) stated that, on average, companies tend to adjust their capital structure more quickly after the outbreak of Covid-19. In addition, countries where Covid-19 is causing more severe damage to adjust their target leverage faster than those in less affected countries. An et al. (2021), in their research titled "Foreign ownership and speed of adjustment of financial leverage", indicate a positive relationship between foreign institutional ownership and the speed of adjustment of leverage of companies. Foreign institutional investors have an essential regulatory role in reducing agency conflicts between shareholders and managers.Murro and Perozzi (2019), in their research entitled family companies and access to credit, stated that the adverse effect of family ownership on credit allocation is more relevant, especially for small companies. This is while this factor decreases in companies with closer lending relationships. Finally, evidence suggests that family firms with high ownership concentration are more likely to be rationed by banks.Bacci et al. (2018), in their research, titled the effect of dispersion of family ownership on the level of debt in private companies stated that the relationship between the level of debt and the dispersion of ownership within the family is moderated by the involvement of the generation that reverses it in the next generations.By focusing on family ownership and capital structure, Ramalho, Rita and da Silva (2018) stated that when the company is large or located in an urban area, family ownership has a positive effect on the financial leverage of companies. For small firms located outside urban areas, no

effect was found. On the other hand, the proportion of debt held by leveraged family firms decreased for micro and small firms but increased for large firms. In general, the financial crisis affects small and large family companies in terms of financial leverage. Fitzgerald and Ryan (2019) stated that small companies with high growth and low-paid dividends adjust the target leverage faster than large companies with low growth and high-paid dividends. According to the stated content and because in family companies, due to the presence of owners in management positions and their sense of belonging and responsibility more than the managers of non-family companies, the speed of adjustment of the financial leverage towards the optimal leverage will be more. So, the research hypothesis is presented as follows:

Research hypothesis: In family companies, compared to non-family companies, the financial leverage moves faster towards the optimal leverage.

3. Research Methodology, Model and Variables, Population and Sample:

In order to achieve the objectives of the research similar to previous research, the mathematical model of the research was developed and presented as follows:

$$\begin{aligned}\text{Actual Leverage}_{it} &= (\lambda\beta) + \beta_1 \text{BTM Ratio}_{it} + \beta_2 \text{Profitability}_{it} \\ &+ \beta_3 SIZE_{it} + \beta_4 \text{TANG}_{it} \\ &+ \beta_5 \text{ Selling Expenses}_{it} + \beta_6 \text{AGE}_{it} \\ &+ \beta_7 [(1-\lambda) Actual\ Leverage_{i,t-1}] \\ &+ \beta_8 [(1-\lambda) Actual\ Leverage_{i,t-1}] \times \text{Family} \\ &+ \varepsilon_{it}\end{aligned}$$

Model (1)

Family ownership: To identify family companies, as a independent variable, according to researchers such as Sah et al.

(2022) and Amore, Pelucco and Quarato (2022), family ownership is considered according to the following condition:

The real shareholder is the owner of at least 20% of the company's ordinary shares, or one of the members of the board of directors alone owns at least 5% of the ordinary shares, or the total shares of the real member of the board of directors and his family members are at least 5% of the total of the company's ordinary shares. Finally, the companies that meet the above conditions will be assigned as family companies with code (1), and the rest will be assigned code (0).

The speed of adjustment of financial leverage (SL): To measure the speed of adjustment of financial leverage as a dependent variable, In many capital structure types of research, the partial adjustment model is used to measure the speed of adjustment (Flannery and Rangan, 2006; Öztekin, 2015). In the partial adjustment model, actual and optimal leverage should be measured in the first step. Still, since optimal leverage 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 and considered as the error of the estimator. The optimal leverage is estimated using the following model:

Model (2) $$L^*_{it} = \beta' x_{it} + u_{it}$$

Where:

L^*_{it} optimal leverage; $x_{it}$is a vector of characteristics of the ith company at time t, which is related to the benefits and costs of the activity under different leverage ratios, β' is the estimated coefficient of this vector and $u_{it}$is the model error component.

To select the characteristics of the company, the most used variables are used in the research of the company's capital structure.

To select the characteristics of the company, the most used variables are used in the researches of the company's capital structure.

1. **Growth opportunities (BTM Ratio):** divided by the market value of equity divided by the book value of the company's total assets.

2. **Company profitability(profitability):** the ratio of annual profit before interest and taxes to its total assets at the end of the year.

3. **Company size (SIZE):** natural logarithm of assets.

4. **Fixed Assets (TANG):** dividing fixed assets by total assets.

5. **Sales Growth:** Sales minus the sales of the previous period divided by the sales of the previous period.

6. **Life of the company(AGE):** the natural logarithm of the year of establishment of the company to the year of the research time horizon.

The current research is applied, and from the methodological point of view, correlation is causal type (retrospective). The statistical population under investigation includes all the companies listed on the Tehran Stock Exchange, and the period under investigation is from 2012 to 2021. The listed companies on the Tehran Stock Exchange with the following conditions have been selected as samples. To make the information comparable, the end of the financial year of the companies should be the end of March. They have not changed the financial period under review during the (10-year) period. Information about the selected variables in this research should be available. Do not affiliate with banks, insurance companies, and investment companies. Finally, 133 companies have been selected as the study's final sample. Data analysis has been done with the data panel approach, Eviews 10 software, and the powerful standard tool to test the hypotheses.

4. Findings:

In order to provide an overview of the statistical population and to better understand the research data, Table 1 of the research shows the statistics related to the central indicators and dispersion.

Insert Table 1

The main centrality index is the mean, which indicates the distribution's balance point and center of gravity and is a good indicator to show the centrality of the data. For example, the average value for the financial leverage variable is equal to (0.54), which shows that most data are concentrated around this point. In general, dispersion parameters are a measure to determine the degree of dispersion from each other or their degree of dispersion compared to the average. One of the most important dispersion parameters is the standard deviation. The value of this parameter is Growth opportunities (3.87) and profitability (0.15), which shows that these two variables have the highest and lowest standard deviation, respectively.

Insert Table 2

Table (2) shows that the family ownership variable is two-valued qualitative variable (0 and 1), with descriptive statistics presented in the frequency distribution. The total number of surveyed companies is 1330 cases, of which 220 cases, equivalent to 16.54% of the companies, are family companies, and 1110 cases, equivalent to 83.46% of the companies, are non-family companies.

Insert Table 3

According to the results of Table (3), it can be seen that the significance level of the Chow (F-Limer) test and Hausman test is below 5%, which confirms the pattern of panel data with fixed effects. Also, White's test with a significance level below 5% indicates the existence of serial autocorrelation in model disruption sentences. Finally, Godfrey's test with a significance

level below 5% shows that variance heterogeneity also exists in model disruption sentences. Finally, to solve the heterogeneity of the variance, the command (gls) and to solve the serial autocorrelation, the features of the standard instrument have been used in Econometric software, and in the first stage, it was observed that the level of the Durbin-Watson is between 1.50 and 2.50, and the autocorrelation in the model has been lifted.

Research hypothesis: In family companies, compared to non-family companies, the financial leverage moves faster towards the optimal leverage.

Insert Table 4

The results of table (4) show that the interaction of the leverage of the previous period with family companies with a positive coefficient (0.001) and a significance level below 5% (0.021) has a direct and significant relationship with the financial leverage of the current period. In fact, family companies are able to increase the speed of adjusting the leverage towards the optimal leverage by a factor of (0.99). Or somehow, in family companies, the speed of adjusting the financial leverage towards the optimal leverage is faster than in non-family companies; Therefore, the hypothesis of the research is accepted at the error level of 5%. The coefficient of determination is equal to 91%, which shows that the independent and control variables in the model have been able to cover 91% of the changes in the dependent variable. Also, the Durbin-Watson value is equal to 1.62, which shows that there is no serial autocorrelation between the sentences of the disruption model. The test statistic with a significance level below 5% shows that the research model has a good fit.

5. Conclusion and suggestions:

The movement of the companies' capital structure towards the targeted or the same optimal lever is one of the basic and important requirements to reach the highest value and corporate benefit and a guarantee for the company's survival in the future.

Since in family companies, the goal of the owners and managers is to preserve and survive the company, in these companies, achieving the optimal leverage faster is of special importance. Because family companies have special conditions compared to non-family companies due to the type and structure, and arrangement of shares between owners and the distribution of corporate officials to owners and family members and their sensitivity to their human and emotional capital, such that these conditions are specific to family companies. There are two general theories in family companies; firstly, these companies are not interested in increasing the company's debt level because this factor may cause the risk of liquidation and bankruptcy for the company in the future. And this can take their personal and family wealth out of their hands. On the other hand, theories state that in family companies, by increasing the level of debt in their capital structure, they try to focus more on the equity sector and not disperse ownership among minority shareholders to maintain their supervisory power. Therefore, in the present study, by examining this case, the speed of adjustment of financial leverage towards optimal leverage is higher in family companies than in non-family companies. In the final hypothesis test results, it was observed that the speed of adjusting the leverage towards the optimal leverage is faster in family companies. This is in line with the second theory, which states that from a dynamic point of view and assuming the existence of a target lever, the debt ratio of family companies converges on the target lever at a slower speed as a result of higher adjustment compared to non-family counterparts. But non-family companies have a higher level of debt than family companies, also, in family companies, the use of debt is a tool to control the company's affairs more, and this increases the target leverage in family companies and, therefore, the cost. The achievement of the optimal leverage will decrease, it corresponds. Therefore, financial leverage is a tool in the hands of the family owners to maintain their level of power over the affairs of the company. On the other hand, the company's debt will not increase because achieving the optimal

leverage will happen faster due to the higher actual and target leverage. The obtained results are somehow in line with the studies of Poletti- Hughes and Martinez Garcia (2022), Bas, Yaz Gulnur and Phylaktis (2022), and Morresi and Naccarato (2016) and can complement the studies done in this field. These studies stated that family companies have a higher level of financial leverage and debt than non-family companies, which can reduce adjustment costs. According to the obtained results, family companies are a suitable place for investors to invest due to the managers' sensitivity to maintaining the principal capital and the company's reputation. Also, financial institutions have provided financial support to such companies. With the cooperation of the stock exchange organization, they have provided a wider field of activity for such companies in the stock exchange so that investors can benefit from the benefits of these companies in the capital market. Moreover, according to the capabilities of these companies, it can cause growth and competition with other companies in the capital market of Iran. It is suggested that future researchers investigate the impact of the quality of corporate governance on the relationship between family ownership and the speed of financial leverage adjustment.

References

Akbari, F., Salehi, M. and Bagherpour Vlashani, M.A. (2019), "The relationship between tax avoidance and firm value with income smoothing: A comparison between classical and Bayesian econometric in multilevel models*", International Journal of Organizational Analysis*, Vol. 27 No. 1, pp. 125-148. https://doi.org/10.1108/IJOA-09-2017-1235

Amin, Q. A. and Liu, J. (2020), "Shareholders' control rights, family ownership and the firm's leverage decisions". *International Review of Financial Analysis*, Vol. 72 No. 31, A. 101591. https://doi.org/10.1016/j.irfa.2020.101591

Amore, M. D., Pelucco, V. and Quarato, F. (2022), "Family ownership during the COVID-19 pandemic". *Journal of*

Banking & Finance, Vol. 135 No. 10, A. 106385. https://doi.org/10.1016/j.jbankfin.2021.106385

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*, Vol. 68 No. 31, A. 101966. https://doi.org/10.1016/j.jcorpfin.2021.101966

Arikawa, Y. and HOANG, H. N. (2022), "Capital Structure Adjustment in Emerging Markets: Evidence from Vietnam". Working paper. Tokyo, Japan. Available at SSRN 4009437. https://dx.doi.org/10.2139/ssrn.4009437

Bacci, S., Cirillo, A., Mussolino, D. and Terzani, S. (2018), "The influence of family ownership dispersion on debt level in privately held firms". *Small Business Economics*, Vol. 51 No. 3, pp. 557-576. https://doi.org/10.1007/s11187-017-9930-2

Bas, T., Yaz Gulnur, M. and Phylaktis, K. (2022), "Capital Structures of Small Family Firms in Developing Countries". Review of Corporate Finance, , Vol. 2 No. 4, pp. 745-790. https://doi.org/10.1561/114.00000029

Chen, Shuping; Chen, Xia and Qiang Cheng (2008). "Do Family Firms Provide More or Less Voluntary Disclosure?" Journal of Accounting Research, Vol. 46, No. 3, pp. 499-536.

Do, T. K., Huang, H. H. and Ouyang, P. (2022), "Product market threats and leverage adjustments". *Journal of Banking & Finance*, Vol. 135 No. 13, pp. 106365. https://doi.org/10.1016/j.jbankfin.2021.106365

Fama, E. F. and French, K. R. (2002), "Testing trade-off and pecking order predictions about dividends and debt". *Review of financial studies*, Vol. 15 No. 1, pp. 1-33.

Farhangdoust, S., Salehi, M. and Molavi, H. (2020), "Management stock ownership and corporate debt: evidence from an emerging market", *Management Research Review*, Vol. 43 No. 10, pp. 1221-1239. https://doi.org/10.1108/MRR-12-2018-0475

Fitzgerald, J. and Ryan, J. (2019), "The impact of firm characteristics on speed of adjustment to target leverage: a UK

study". *Applied Economics*, Vol. 51 No. 3, pp. 315-327. https://doi.org/10.1080/00036846.2018.1495822

Flannery, M.J, Rangan, K.P. (2006), "Partial adjustment toward target capital structures". *Journal of Financial Economics*, Vol. 79 No. 3, pp. pp. 469-506. https://doi.org/10.1016/j.jfineco.2005.03.004

Ghorbani, A. and Salehi, M. (2020), "Earnings management and the informational and disciplining role of debt: evidence from Iran", *Journal of Asia Business Studies*, Vol. 15 No. 1, pp. 72-87. https://doi.org/10.1108/JABS-11-2019-0336

Minh Ha, N., Do, B. N. and Ngo, T. T. (2022), "The impact of family ownership on firm performance: A study on Vietnam". *Cogent Economics & Finance*, Vol. 10 No. 1, A. 2038417. https://doi.org/10.1080/23322039.2022.2038417

Moradi, M., Salehi, M., Tarighi, H. and Saravani, M. (2020), "Audit adjustments and corporate financing: evidence from Iran", Journal of Accounting in Emerging Economies, Vol. 10 No. 4, pp. 521-543. https://doi.org/10.1108/JAEE-07-2019-0145

Morresi, O. and Naccarato, A. (2016), "Are family firms different in choosing and adjusting their capital structure? An empirical analysis through the lens of agency theory". *International Journal of Economics and Finance*, Vol. 8 No. 7, pp. 1-17. http://dx.doi.org/10.5539/ijef.v8n7p216

Murro, P. and Peruzzi, V. (2019), "Family firms and access to credit. Is family ownership beneficial?". *Journal of Banking & Finance*, Vol. 101 No. 13, pp. 173-187. https://doi.org/10.1016/j.jbankfin.2019.02.006

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*, Vol. 35 No. 8, pp. 111-121. https://doi.org/10.1016/j.ribaf.2015.03.004

Öztekin, Ö. (2015), "Capital structure decisions around the world: Which factors are reliably important?". *Journal of*

Financial and Quantitative Analysis, Vol. 50 No. 3, pp. 301-323. https://doi.org/10.1017/S0022109014000660

Poletti-Hughes, J. and Martinez Garcia, B. (2022), "Leverage in family firms: The moderating role of female directors and board quality". *International Journal of Finance & Economics*, Vol. 27 No. 1, pp. 207-223. https://doi.org/10.1002/ijfe.2147

Ramalho, J. J., Rita, R. M., & da Silva, J. V. (2018), "The impact of family ownership on capital structure of firms: Exploring the role of zero-leverage, size, location and the global financial crisis". *International Small Business Journal*, Vol. 36 No. 5, pp. 574-604.

Rostami, V., Kargar, H. and *Samimifard*, M. (2022), "The Effect of Managerial Myopia on the Adjustment Speed of the Company's Financial Leverage towards the Optimal Leverage". *Journal of Risk and Financial Management*, Vol. 15 No. 12, p.581. https://doi.org/10.3390/jrfm15120581

Sah, N. B., Banerjee, A., Malm, J. and Rahman, A. (2022), "A good name is better than riches: Family firms and working capital management". *Journal of Behavioral and Experimental Finance*, Vol. 33 No. 4, pp. 100599. https://doi.org/10.1016/j.jbef.2021.100599

Salehi, M. and Zimon, G. (2021), "The effect of intellectual capital and board characteristics on value creation and growth". *Sustainability*, Vol. 13 No. 13, A. 7436. https://doi.org/10.3390/su13137436

Salehi, M., Hoshmand, M. and Rezaei Ranjbar, H. (2020), "The effect of earnings management on the reputation of family and non-family firms", *Journal of Family Business Management*, Vol. 10 No. 2, pp. 128-143. https://doi.org/10.1108/JFBM-12-2018-0060

Salehi, M., Moradi, M. and Faysal, S. (2023), "The relationship between corporate governance and cost of equity: evidence from the ISIS era in Iraq", *International Journal of Emerging Markets*, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/IJOEM-07-2020-0739

Salehi, M., Zimon, G., Arianpoor, A. and Gholezoo, F. E. (2022), "The Impact of Investment Efficiency on Firm Value and Moderating Role of Institutional Ownership and Board Independence". *Journal of Risk and Financial Management*, Vol. 15 No. 4, pp. 170. https://doi.org/10.3390/jrfm15040170

Seifzadeh, M., Salehi, M., Khanmohammadi, M. and Abedini, B. (2022), "The relationship between management attributes and accounting comparability", *Journal of Facilities Management*, Vol. 20 No. 1, pp. 1-18. https://doi.org/10.1108/JFM-08-2020-0058

Shafeeq Nimr Al-Maliki, H., Salehi, M. and Kardan, B. (2022), "The relationship between board characteristics and social responsibility with firm innovation*", European Journal of Management and Business Economics*, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/EJMBE-04-2020-0094

Vo, T. A., Mazur, M. and Thai, A. (2021), "The impact of COVID-19 economic crisis on the speed of adjustment toward target leverage ratio: An international analysis". *Finance Research Letters*, Vol. 45 No. 22, A. 102157. https://doi.org/10.1016/j.frl.2021.102157

Zimon, G., Arianpoor, A. and Salehi, M. (2022), "Sustainability reporting and corporate reputation: the moderating effect of CEO opportunistic behavior". *Sustainability*, Vol. 14 No. 3, A. 1257. https://doi.org/10.3390/su14031257