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Investigating the Relationship between Ownership Structure and Debt Cost with an Emphasis on the Role of Financial Crisis

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Abstract

Capital structure discusses the composition of company financing sources including short-term debts, bonds, long-term debt, preferred stock, and common stock. Some firms define no predetermined plan for capital structure; rather, the capital structure is determined respecting to financial decisions taken by financial management lacking any specific plan. Despite these firms may succeed in short-term, finally they face major problems for required financing activities. The main objective of the present research is to study the relationship between ownership structure and debt cost focusing on the role of financial crisis in companies listed in Tehran Stock Exchange within 2011-2015 (a five-year period). The results show that there is no significant relationship between the type of ownership and debt cost; in addition, financial crisis may not mediate the relationship between ownership and debt cost. On the other hand, the results also indicate that there is no significant relationship between the proportion of institutional owners and debt cost; further, financial crisis shows no mediating role.

Keywords: Ownership structure, debt cost, financial crisis, institutional ownership.

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Introduction

Considering developed economic activities, financial markets, and investment boom in capital markets, in particular stock exchange by natural and legal persons, access to timely data and detailed, realistic analysis is now the critical tool to take proper decisions, gain the expected profit, as well as to optimally use of financial facilities. At present, data significantly contributes in human life such that the more developed is the community, the better and more data is used. Optimal and effective use of information is of progress reason for developed nations. End product of accounting process is to provide information to various users including inside and outside the company by accounting reporting. The accounting reports provided to meet information requirement of outside users are considered in financial accounting. End result of financial accounting is the reports referred as so-called financial reports. Financial statements are the main core of financial reporting. At present, financial statements include basic financial statements (balance sheet, profit and loss statement, comprehensive income statement, cash flow statement) and notes. Profit is an item of financial statements that significantly influences decision making of financial statement users and draws large attention (Karami, 2008).

Comprehensive studying and analysis of security markets as well as proper conclusion may realize the markets' development. Prestigious exchanges throughout the world revealed funding achievement resulting from shareholders' trust to the capital markets and market efficiency, such that they are ensured no waste of wealth and gaining reasonable profits. Studying different effective issues of stock market may aid in proper decision of shareholders, better optimal allocation of economic resources, and better investment (Qaemi et al, 2003).

Some financial scholars view accounting as an information system and believe that the main objective of accounting is to provide useful information for decision-making. The researchers are obliged to provide the information based on which the decision makers are enabled to adopt proper decisions. The present research tried to seek for the aforementioned objective.

Statement of the problem

Firms ownership structure may vary in different countries. The majority stock of firms, in the U.S and Japan, belongs to financial institutions, stock brokers, investment companies, and other firms. Although, these investors are owners, they are significantly different respecting stock holding time horizon. According to western findings, minority investors (stockholders), stockbrokers, and investing companies own short-term investment horizon; whereas, firm managers, financial institutions, as well as holding companies follow long-term investment horizon. If firm ownership structure consists of the former; then, the management inclines to earning manipulation to attract these groups. Conversely, in latter, the management may not tend toward earning manipulation due to long-term horizon and the tendency to maximize wealth in long-term (Pourheidari and Hemati, 2004).

Firms ownership structure in Iran is often composed of investment companies, government organizations, institutions, and foundations. Since establishing investment companies, in Iran, follows the philosophy of collecting minority savings and applying them in macro projects and regarding % of shares, these companies are less inclined to speculation and short-term buy and sells. State organizations such as industrial development organization, public institutions and organizations including social security and foundations benefit long-term horizon. Different companies have different compositions of shareholders. Firm is partly owned by minority shareholders and natural persons. This group mainly relies upon public available information like released financial statements to monitor management performance. While, the other part of firms' ownership is handled by major professional stakeholders that are provided internal valuable information, unlike the first group of shareholders, about firm future prospects, business strategies, etc. through direct contact to firm managements. Institutional investors are large investors such as banks, insurance companies, and investing firms. It is generally assumed that presence of institutional investors may lead to change in firm behaviors through surveillance activities (Nowravesh and Ibrahimi, 2005).

According to paragraph 27 of article 1 of the Securities Market Act in Iran (approved by September 19, 2007), an institutional investor is defined as:

1. Banks and insurances,
2. Holdings, investment companies, pension fund, investment bank, and investment funds listed in stock exchange,
3. Any natural or legal person that purchases over 5% or 5 billion of par value of under issuing securities,
4. Government and public institutions and organizations,
5. Public companies,
6. Board members and issuer managers or the people with the same function.

Management is distinguished from ownership not because of the issue of agency between shareholders and managers; rather, it is separated by shareholder distribution in several small stakeholders. According to Roe (1990), in a widespread ownership composition, none of minor shareholders are inclined toward management monitoring. Because the one tending to monitoring must pay all relevant costs; whereas, all other shareholders are also benefited. Therefore, the extent and nature of agency directly depends on ownership structure. Diversity of ownership structure, around the world, is followed by diverse types, results, as well as solutions of agency problem between management and shareholders. In nations where ownership is authorized by major shareholders, the issue of ownership agency may not be as common (Ibrahimi kordlor, 2007).

Many scholars including Admati et al (1993), Huddart (1993), Maug (1998), and Noe (2002) believe that inclusion of major shareholders in monitoring activities may

potentially lead to constrained agency. They also express that since all shareholders enjoy the benefits of supervisor shareholder supervision activities by no cost; hence, all major shareholders are adequately interested in supervision and monitoring (Ibrahimi kordlor, 2007).

As none of minor shareholders, in a widespread ownership composition, are concerned in monitoring firm management, presence of major shareholders, particularly institutional shareholders, in firm ownership structure may limit the issue of agency. Institutional investors closely monitor firm management performances and put pressure on the firm and its management through share buying and selling, and or control over management. These investors usually tend to provide proper and timely information about firm. If institutional investors own a firm's major share, the sale of shares would be more difficult and their supervisory role would be more highlighted. Institutional investors try to obtain direct communication with senior managers of the companies listed in share portfolio and participate in supervisory activities "behind closed doors" (Sheri and Marfou, 2008). Debt financing is more preferred for financing to expected returns on shareholders due to tax saving and lower rate. But what creditors consider about loan and credit granting is the ability to return loan, interest, and credit by borrower (Amiri, Mohamamdi khourzoghi, 2012).

On the other side, cost of debt indicates the pressure of financial status of debt representative and shows representative conflict between managers and investors and creditors or among different groups of investors. Once investors are making investment decisions in companies and institutions, the creditors evaluate firm risk curve. The risk curve specifies creditors' expected return, which is the very interest payment (Ahmadpour, Kashanipour, and Shojaei, 2010).

According to the aforementioned, this research intends to study the relationship between ownership structure and debt cost focused on the role of financial crisis in companies listed in Tehran Stock Exchange.

Literature review

Lio et al (2006) tested the effect of voluntary disclosure on the relationship among annual current yield, annual earnings, and future earnings, and the effect of ownership structure and debt cost on this relationship. The results demonstrated that there is a positive relationship between the extent of voluntary exposure and news of future earnings. Further, in companies where management ownership is high, there is a poor relationship between stock current returns and future earnings. They found out that there is a weak relationship seen between stock current returns and future earnings, when debt cost is high.

Zhang and ding (2006) investigated the relationship between exposure and cost of capital in China's capital market firms. The findings revealed that there is an inverse (indirect) relationship between exposure and cost of capital.

Espinosa and Trombetta (2007), examining Spanish companies, deduced that the relationship between exposure and debt cost is influenced by the chosen accounting policy.

Champers and Payne (2009), in a second study on auditing quality and accruals' reliability, concluded that high-quality auditor as well as applying Sarbanes–Oxley Act may result in increased reliability of accruals.

Yhan Peng (2012), in "integration of institutional shareholders and accruals' quality", dealt with the relationship between integration of institutional shareholders and accruals' quality. It assumed that companies with large short-term institutional shareholders own accrual of poor quality; whereas, the firms with long-term institutional shareholders enjoy accrual of high quality. Research results showed that accrual quality is negatively related to short-term institutional shareholders and positively related to long-term institutional shareholders.

Chan and Hsu (2013) studied the relationship between organizational hierarchy and conservatism with debt cost in Taiwanese companies. The results indicated a positive relationship between the number of investment layers and debt cost. Research results also showed inverse relationship between conservatism and debt cost.

Hedley (2013) carried a study on the relationship between accounting conservatism levels and firm debt costs. The findings presented that the conservatism level adopted in the company may temporarily influence debt costs. Different conservatism levels may differently influence debt costs; therefore, accounting conservatism must be ensured such that the adopted level may not increase profit and benefit accepted limits.

According to evidences, state ownership may largely contribute in reducing debt costs of Chinese firms. It may aid in explaining that why the state in China frequently interfere in business companies following decades of economic reforms.

Badertscher et al (2015) studied the relationship between private ownership and debt cost. This research investigated public or private ownership companies and the relationship with the created debt cost for understudied company. The results demonstrated that private ownership, in understudied companies, is significantly related to decreased debt cost.

Borisova et al (2013) analyzed the relationship between state ownership and debt cost. Research findings, using a sample of 215 companies within 1990-2010 in 43 countries, revealed a direct relationship between state ownership and debt cost.

Francis et al (2016), in a paper entitled "studying the effect of auditor changes and debt cost", exhibited that in high-quality reporting companies, information risk may modify by auditor changing; thus, it leads to increased financing cost and debt cost.

Setayesh and Zolfaghari (2011) examined the effect of exposure quality on the liquidity and current and future cost of equity in the companies listed in Tehran Stock Exchange. In this regard, liquidity was also measured using stock turnover rate, number

of traded shares, and monetary transactions in Rial. Findings of examining 105 firms from 2004-2008 revealed a positive, significant relationship between firm size and current and future liquidity; while, there is seen no significant relationship exposure quality and firm's current and future liquidity. Moreover, exposure quality and firm's current and future cost of equity showed a negative, significant relationship. Therefore, no evidence demonstrated the significant relationship between firm size and current and future cost of equity.

Ahmadpour et al (2012) investigated the effect of corporate governance and auditing quality on debt financing. The article experimentally referred to the effect of corporate governance and auditing quality on cost of credit of companies listed in Tehran Stock Exchange. Financing system, in Iran, mostly inclines to bank credit; however, banks and financial institutions negligibly contribute in firms' corporate governance structure. Hence, they may consider qualitative control practices applied within the company and the quality of financial reporting. So, an inverse relationship between financing debt cost and the quality of corporate governance is anticipated, which is obtained through monitoring performances of the board and major institutional shareholders, with firms' auditing quality.

Experimental findings of 119 companies listed in Tehran Stock Exchange within 2003-2010 as well as regression analysis of panel data using Eviews demonstrated that presence of major institutional shareholders significantly reduce debt costs of sample listed companies; whereas, auditing quality showed no effect.

Hajiha and Maghami (2014), in a paper entitled "the effect of corporate diversification strategy on debt cost in companies listed in Tehran Stock Exchange", investigated financial data of 87 companies listed in Tehran Stock Exchange from 2008-2012 and discovered a significant, inverse relationship between geographical diversification and debt cost. In addition, research results also show that the companies with higher growth may experience less debt cost. No significant relationship was seen between other control variables and debt cost. In general, corporate diversification causes increased growth; and geographical diversification may result in decreased debt costs of companies listed in Tehran Stock Exchange.

Rezaei and Afroozi (2015) analyzed the relationship between debt costs and corporate governance in companies with political connections" using financial data of 140 companies over 2002-2013. According to research findings, there is a significant, negative relationship between debt cost and firms' political connections. Moreover, CEO dual role may not influence debt cost in companies with political connections; while, the board independence significantly and negatively influenced debt cost in companies with political connections.

Research methodology

This is an applied study in term of purpose, and a correlation research in term of data connection. The study follows an ex post facto correlation research design. The collected

data were processed; then, were statistically analyzed using EVIEWS software. Research hypotheses were analyzed relying on model panel data estimation results.

Research participants

Research statistical population included all companies listed in Tehran Stock Exchange with the following inclusion requirements:

1. No change in financial period over studying.
2. Investment companies, financial intermediaries, banks, and leasing are excluded.
3. Considered data are unavailable.

According to the aforementioned exclusions, 510 companies were finally selected to test research hypotheses over a five-year period from 2011 to 2015.

Research hypotheses

- There is a significant relationship between ownership structure and debt cost.
- There is a significant relationship between the ratio of institutional owners and debt cost.
- Financial crisis may mediate the relationship between ownership structure and debt cost.
- Financial crisis may mediate the relationship between the ratio of institutional owners and debt cost.

Statistical model

$$Debt_{it} = \beta_0 + \beta_1 Government_{it} + \beta 2\ Government_{it}*ST_{it} + \beta_3 Asset\ turnover_{it} + \beta 4 ROA_{it} + \beta 5\ Sales\ growth_{it} + \beta 6 MB_{it} + \beta 7 Size_{it} + e_{it}$$

$$Debtit = \beta 0 + \beta 1 IO + \beta 2\ IOit*STit + \beta 3 Asset\ turnoverit + \beta 4 ROAit + \beta 5\ Sales\ growth\ it + \beta 6 MBit + \beta 7 Sizeit + eit$$

Table 1 shows the Summary of research variables.

Table 1: Summary of research variables

Variable name	Variable type	Measurement	Variable in the model
Debt cost	Dependent variable	Financial costs divided by mean short- and long-term debts	Debt
Ownership structure	Independent variable	If it is a government company, it uses a dummy variable of 1; otherwise, the dummy variable 0	Government
Institutional owners	Independent variable	The shares belong to the major shareholders (over 5%)	IO
Asset turnover ratio	Control variable	Net sale ratio to total assets	Asset turnover
Return on assets	Control variable	Net income to total asset	ROA
Sales growth	Control variable	$\frac{\text{Sale t} - \text{ sale t} - 1}{\text{sale t} - 1}$	Sales growth
The ratio of market value to book value	Control variable	Natural log of a firm's market value to the equity's book value	MB
Firm size	Control variable	Natural log of total assets' book value	Size
Financial crisis	Moderator variable	The companies underwent losses in the past year, use dummy variable 1; otherwise, zero	ST

Reults

Descriptive Statistics

Table 2: Descriptive Statistics of understudied variables

Variable	Mean	Median	Standard deviation	Maximum	Minimum	Coefficient of variation
Debt cost	0.07	0.06	0.12	2.67	0.00	1.82
Ratio of institutional owners	71.69	77.81	21.96	100.00	0.00	0.31
Asset turnover	6.22	0.84	28.41	522.85	0.00	4.57
Return on asset	0.12	0.10	0.18	2.10	- 0.55	1.49
Sale growth	0.31	0.16	1.59	28.40	- 0.99	5.12
Market to book value ratio	2.84	2.33	6.98	95.33	- 60.06	2.46
Firm size	6.02	5.92	0.84	8.26	0.00	0.14

Table 2 indicates the descriptive statistics of research variables.

Table 3: Descriptive statistics of research variables

Variable	Number	%
Government ownership		
Yes	150	29.4
No	360	70.6
Financial crisis		
Yes	84	16.5
No	426	83.5

Respecting to qualitative variables, frequency index and frequency percentage were used as descriptive factors (Table 3). Most studied companies were private (70.6%); further, many firms did not undergo financial crisis (83.5 %).

Figure 1: Debt cost

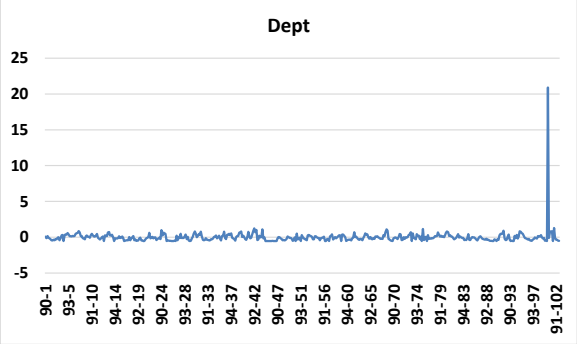

Figure 2: Ratio of institutional owners

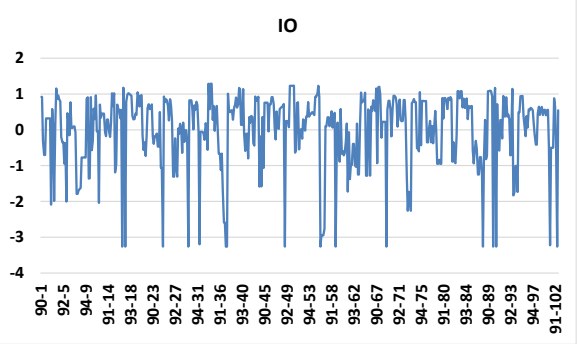

Figure 3: Assets turnover

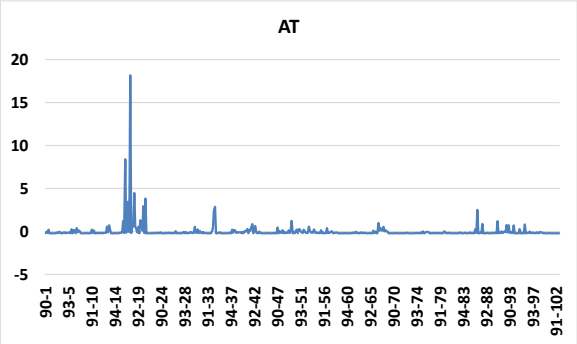

Figure 4: Return on asset

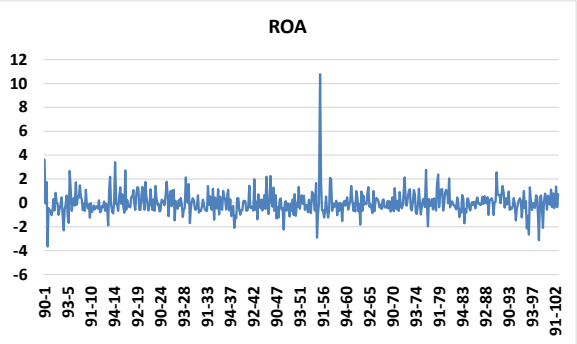

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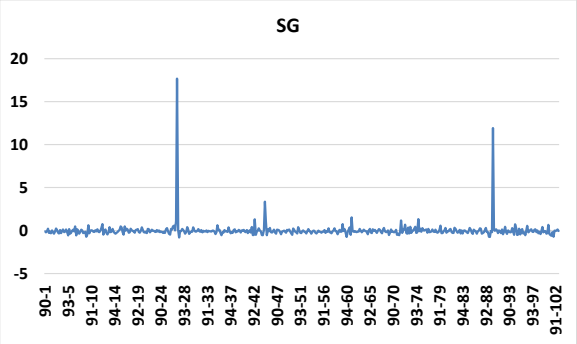
Figure 5: Sale growth Figure 6: Market to book value ratio



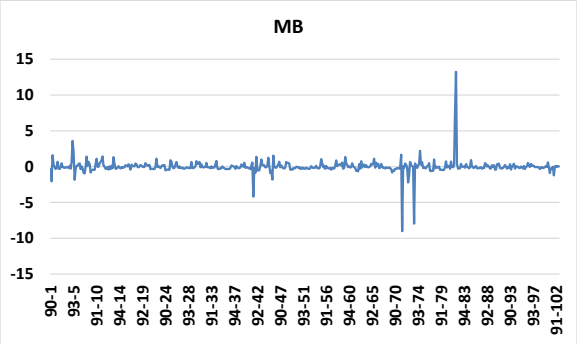
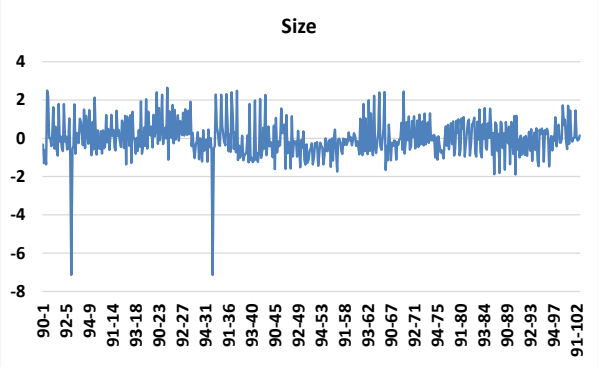


Figure 7: Firm size



Inferential statistics

VIF test (co-linearity between independent and control variables)

According to Table 4, Variance factor of all research independent and control variables is less than 5, which indicates lack of co-linearity between research independent variables.

Table 4: VIF test (Co-linearity between independent and control variables)

Variable	Tolerance	Variance inflation factor
Ownership structure	0.788	1.270
Ratio of institutional owners	0.908	1.101
Asset turnover	0.954	1.048
Return on asset	0.988	1.012
Sales growth	0.994	1.006
Market to book value ratio	0.997	1.003
Firm size	0.956	1.046
Ownership structure × financial crisis	0.576	1.737
Ratio of institutional owners × financial crisis	0.642	1.558

Correlation coefficient

As indicated in table 5, it presents the relationship type and extent within the range of 1 and -1. It equals zero if the two variables are not correlated.

Table 5: Correlation coefficient test

Variable	Ratio of IO	Ratio of IO	Ratio of IO	Ratio of IO	Ratio of IO	Ratio of IO
Ratio of institutional owners	1.000					
Asset turnover	0.097	1.000				
Return on asset	-0.007	-0.005	1.000			
Sales growth	-0.024	-0.008	-0.005	1.000		
Market to book value ratio	0.012	-0.003	-0.034	0.033	1.000	
Firm size	-0.037	-0.188	0.074	0.030	-0.015	1.000

The correlation between independent variables is not as much high correlation; hence, it may be disregarded. The research proposed model is estimated by all the aforementioned variables.

Reliability unit root test

It is necessary to test the variables' collective static. Therefore, Levin, Lee and Chu test is used (Taheri, 2005).

Table 6: Reliability unit root test of research variables

Variable	Difference	Statistics	Probability level
Ownership structure	Surface	-659.7	<0.001
Ratio of institutional owners	Surface	-507.7	<0.001
Asset turnover	Surface	-35.9	<0.001
Return on asset	Surface	-15.1	<0.001
Sales growth	Surface	-42.2	<0.001
Market to book value ratio	Surface	-360.0	<0.001
Firm size	Surface	-4.8	<0.001
Ownership structure × financial crisis	Surface	-8.6	<0.001

As shown in Table 6, All variables were used according to Levin method; null hypothesis of unit root is rejected; and then, all research variables are reliable at surface. It is worth to notify that as the variables are reliable at surface; thus, cointegration test may not be required.

Heteroscedasticity

The nature of panel data requires the issue of heteroscedasticity is emerged in many heteroscedastic data-based studies. Regarding the critical effect of heteroscedasticity on estimation, standard deviation, and statistical inference, it is necessary to realize that whether heteroscedasticity exists or not prior to any estimation.

Table 7: Results variance heteroscedasticity

Regression model	White Statistics	Probability	Test result
$Dept_{it}=\alpha_0+\alpha_1 Gov_{it}ST_{it}+\alpha_2 AT_{it}+\alpha_3 ROA_{it}+\alpha_4 SG_{it}+\alpha_5 MB_{it}+\alpha_6 Size_{it}+\varepsilon_{it}$	38.9	0.188	Homogeneity
Deptit=α0+α1IOit+α2IOitSTit+α3ATit+α4ROAit+α5SGit+α6MBit +α7Sizeit+εit	18.3	0.987	Homogeneity

Based on Table 7, Test Statistic of the first and second model are larger than 0.05; hence, the aforementioned models show no heteroscedasticity.

Model estimation

The research used panel data. To obtain a proper model for testing the hypotheses, Chio tests (F-Limer Test) were used. Research hypotheses are tested through two regression model. Furthermore, it is worth to notify that government ownership is excluded as it was highly correlated to the coefficient in financial crisis.

F-Limer test

Table 8: F-Limer Test

Regression model	F Statistic	Probability	Test result
$Dept_{it}=\alpha_0+\alpha_1 Gov_{it}ST_{it}+\alpha_2 AT_{it}+\alpha_3 ROA_{it}+\alpha_4 SG_{it}+\alpha_5 MB_{it}+\alpha_6 Size_{it}+\varepsilon_{it}$	1.2	0.110	Pooling model
Deptit=α0+α1IOit+α2IOitSTit+α3ATit+α4ROAit+α5SGit+α6MBit+α7Sizeit+εit	1.2	0.121	Pooling model

Since the probability measured for research hypotheses is larger than 0.05 (Table 8); thus, the null hypothesis of pooling model is maintained; and pooling model is prioritized over panel model.

Research model estimations

According to the tests carried out, and regarding variance heteroscedasticity of research model, the model is estimated and research hypotheses are tested.

Results of first model estimation

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Table 9: Estimation results of the first model

$Dept_{it}=\alpha_0+\alpha_1 Gov_{it}ST_{it}+\alpha_2 AT_{it}+\alpha_3 ROA_{it}+\alpha_4 SG_{it}+\alpha_5 MB_{it}+\alpha_6 Size_{it}+\varepsilon_{it}$

Variable	Coefficient	Standard deviation	T-statistic	P-value
Financial crisis × ownership structure	-0.01	0.02	-0.59	0.557
Asset turnover	0.00	0.00	-0.52	0.604
Return on asset	-0.02	0.03	-0.63	0.528
Sales growth	0.00	0.00	-1.13	0.258
Market to book value ratio	0.00	0.00	-0.05	0.962
Firm size	0.01	0.00	10.06	<0.001
R2	0.012			
R2 Adjusted	0.002			
Durbin-Watson statistic	2.34			

First model estimation results

In this model, according to Table 9, no understudied variables were significant excluding firm size. Furthermore, Durbin-Watson statistic (2.34) showed no autocorrelation among model components. Coefficient of determination and adjusted coefficient of determination are 1 and 0.2%, respectively. Hence, the effect of understudied variables on debt cost may not be maintained.

Second model estimation results

Table 10: Second model results

$Dept_{it}=\alpha_0+\alpha_1 IO_{it+}\alpha_2 IO_{it}ST_{it}+\alpha_3 AT_{it}+\alpha_4 ROA_{it}+\alpha_5 SG_{it}+\alpha_6 MB_{it}+\alpha_7 Size_{it}+\varepsilon_{it}$

Variable	Coefficient	Standard deviation	T-statistic	P-value
Ratio of institutional owners	0.00	0.00	-0.08	0.938
Ratio of institutional owners × ownership structure	0.00	0.00	-1.07	0.286
Asset turnover	0.00	0.00	-0.50	0.616
Return on asset	-0.02	0.03	-0.68	0.496
Sales growth	0.00	0.00	-1.17	0.241
Market to book value ratio	0.00	0.00	-0.04	0.969
Firm size	0.01	0.00	4.35	<0.001
R2	0.014			
Adjusted R2	0.002			
Durbin-Watson statistic	2.35			

Second model estimation results

Of the understudied variables, firm size is significant; and Durbin-Watson statistic of 2.35 indicates no autocorrelation in model components. Coefficient of determination and adjusted coefficient of determination are 1% and 0.2%, respectively (Table 10). Thus, the effect of understudied variables on debt cost is not maintained.

Discussion and conclusion

First hypothesis: There is a significant relationship between ownership structure and debt cost.

Third hypothesis: Financial crisis mediates the relationship between ownership structure and debt cost.

Due to high correlation between ownership structure and financial crisis, and since it was impossible to have both variables in the model, ownership structure was also examined in another regression model disregarding financial crisis; the result showed no significant coefficient (P=0.117). Therefore, first hypothesis was rejected. Regarding to insignificant coefficient of ownership structure × financial crisis (P=0.557), the third hypothesis is also rejected.

Ownership structure, in Iran, is mainly composed of investment firms, foundations, institutions, and government organizations. According to the philosophy of establishing investment companies in Iran that collects minor savings and applies them in macro plans, and regarding to their share percentage, these companies are less inclined to speculation and short-term buy and sells.

State organizations such as industrial development organization, public institutions and organizations including social security and foundations benefit long-term horizon. Shailer and Wang (2015) in a paper, entitled “ownership structure and debt cost”, showed that state-controlled firms have no decreased debt cost comparing private companies; so, this relationship presents more serious traces of financial crisis. Results of research first and third hypotheses are inconsistent to Shailer and Wang (2015).

Table 11: Test results of the first and third hypotheses

Variable	Coefficient	P-value	Result
Ownership structure × Financial crisis	-0.01	0.557	No significant relationship
Asset turnover	0.00	0.604	No significant relationship
Return on asset	-0.02	0.528	No significant relationship
Sales growth	0.00	0.258	No significant relationship
Market to book value ratio	0.00	0.962	No significant relationship
Firm size	0.01	<0.001	Significant relationship

Results of the second and fourth hypotheses

Second hypothesis: There is a significant relationship between the ratio of institutional ownership and debt cost.

Fourth hypothesis: Financial crisis mediates the relationship between the ratio of institutional ownership and debt cost.

Due to insignificant coefficient of ratio of institutional ownership × financial crisis (P=0.286) and institutional ownership coefficient of (P=0.938), Table 12, the two aforementioned hypotheses are rejected. Institutional investors may cause a complex ownership structure, which results in decreased mutual trust between managers and shareholders; hence, institutional shareholders are committed to fill the gap occurred among stakeholders. According to significant contribution shareholders play in corporate governance mechanisms, different compositions may differently influence firm performances as well as how firm data are reflected in the market.

Financing system, in Iran, mostly inclines to bank credit; however, banks and financial institutions negligibly contribute in firms' corporate governance structure. Therefore, they may consider qualitative control practices applied within the company and the quality of financial reporting. So, an inverse relationship between financing debt cost and the quality of corporate governance is anticipated, which is obtained through monitoring performances of the board and major institutional shareholders, with firms' auditing quality. Ahmadpour et al (2012) indicated that major institutional shareholders may significantly reduce debt cost of sample companies. Testing results of the second and fourth hypotheses are inconsistent to Ahamdpour et al (2012).

Table 12: Test results of the second and fourth hypotheses

Variable	Coefficient	P-value	Result
The ratio of institutional ownership	0.00	0.938	No significant relationship
The ratio of institutional ownership × Financial crisis	0.00	0.286	No significant relationship
Asset turnover	0.00	0.616	No significant relationship
Return on asset	-0.02	0.496	No significant relationship
Sales growth	0.00	0.241	No significant relationship
Market to book value ratio	0.00	0.969	Significant relationship
Firm size	0.01	<0.001	No significant relationship

Practical suggestions

1. According to research results of insignificant relationship between ownership structure and debt cost in Iranian companies due to governmental structure of most companies, it is recommended that firms improve their political connections through

profitable contracts, available public exchange, decreased custom tariffs, as well as tax refund such that they are enabled to decrease firm debt cost.

2. It is suggested that by extending corporate governance literature, stock brokers, board members, shareholders, and creditors, etc. are more familiarized to corporate governance system to play a proper role and to finally influence added corporate value.

Further recommendations

1. Study the effect of other corporate governance mechanisms on debt cost

2. Consider financial distress as financial crisis criterion and compare the results with the present research

3. Conduct a study regarding industry variable as a control variable

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