

The Impact of Capital Structure on the Firms' Financial Performance (Case Study: Iranian Stock Exchange)

Shahram Abdollahi Veghaslou¹, Mojtaba Mir Louhi^{2*}

¹Department of Financial and Insurance Management, Faculty of Management, Tehran University, Iran

²Phd, Department of Management, Faculty of Industrial Engineering and Management, Shahroud Technology University, Iran

*Corresponding Author Email: mirlohism@gmail.com

Abstract: This study has investigated the impact of capital structure on the financial performance of listed firms in Tehran stock exchange. Accordingly, information of 112 firms listed in Tehran stock exchange during the 10-year period from 2009 to 2018 was analyzed. In order to analyze the data, multiple regression and panel data using EViews9 and STATA13 were utilized. The analysis of data showed that capital structure has a significantly negative impact on return on assets (ROA), return on equity (ROE), and firm value (Tobin's Q). In fact, in the Iranian capital market environment, due to the agency costs and the conflicts of interest resulting from agency costs, cash flows raised by debt levels in the capital structure, create opportunistic behavior for the personal benefit of managers and ultimately decrease firm's financial performance.

Keywords: Financial Performance, Return on Assets (ROA), Return on Equity (ROE), Firm Value (Tobin's Q), and Capital Structure.

Introduction

According to agency theory, individuals seek to maximize their benefits, and given that the benefits of heads and owners of the body may be inconsistent with each other, mechanisms should be considered to monitor and evaluate the operations of bosses. The function of the body should be paid and while the benefits of the two groups should be harmonized, the agency expenses should be reduced. In this way, the theory of representation provides a framework based on which to design mechanisms that encourage the heads of the organ to earn a stable and long-term income from the place of intellectual property of the owners. In the absence of these mechanisms, it is likely that bosses will strive to achieve short-term goals, such as identifying false earnings and receiving compensation for services, and as a result, long-term and sustainable revenue generation is ignored. In addition to the theory of representation, the theory of feedback also raises the issue that the function of the organ leads to the creation of feedback from the intellectual property of the depositors. This means that if the function of the organ is desirable, the support of the intellectual property of the depositors will be attracted and by increasing their trust in the function of the organ, the amount of exchanges of the share of the organ of the organ will be increased. From these two theories, it can be concluded that if the function of the organ is weak, the agency costs will increase due to the conflict of benefits between the bosses and the owners, and due to the decline of trust of intellectual property and the market in the function of the organ, sustainable profitability. The organ will be disrupted (Hosseini et al., 2011).

According to the investigations, various factors inside and outside the body can affect the financial performance of the body. One of the important factors affecting the function of the organ is the composition of the spiritual property of the organ. Deciding on the composition of spiritual property is one of the most challenging and problematic issues facing the organs, but at the same time, it is the most vital decision regarding their survival. With reference to research and academic texts, it is observed that the main reasons for the failure of the organs are the lack or inadequacy of spiritual property and their inadequate and inadequate financing. Referring to research and academic texts, it is observed that the main reasons for the failure of the organs are the lack or inadequacy of spiritual property and their inadequate and inadequate funding. The combination of disproportionate intellectual property for any organization, or especially for small

organizations, affects all areas of an organization's operations and can lead to issues such as ineffectiveness in product marketing, inefficiency and inability, in the appropriate use of manpower and corresponding cases (Jabbari and Nariman Naqdi, 2016).

Considering that the combination of the intellectual property of the organ can directly affect the price and credibility of the organ, it is of special importance in financial matters; In this regard, various theories and suggestions for predicting management behavior in explaining an optimal combination of spiritual properties are presented; A combination that provides the required resources of the organ with the lowest costs and raises the price of the organ (Nabiei and Norouzi, 2014). The rate of adjustment of the composition of intellectual property, depending on the amount of transaction costs associated with the changes required to achieve the composition of the original spiritual property, varies among the organs (Dimitris and Psillaki, 2010).

Empirical evidence on the correlation between the composition of spiritual property and the functioning of the organ presents a different and contradictory result. In addition, while most theories on the composition of intellectual property and the evidence of empirical inquiry conducted in developed countries suggest a direct correlation between the composition of intellectual property and the functioning of the organ, some inquiries into market emerging reports of an inverse correlation between the composition of spiritual possessions and organ function (Zeitun & Tian, 2017).

In particular, interrogations by Berger and Di Patti (2006), Gamba and Traintis (2016) stated that higher credit ratios would lead to better organ performance. In fact, higher employment than crediting has led to lower agency costs related to the shareholders' equity, and this has led to bosses being encouraged to operate for the greater benefit of the shareholders.

Aghaei et al. (2019) by examining the effect of the frequency of conversion of income forecasting on the performance of the organization showed that the promotion of the frequency of conversion of revenue forecasting has a direct and significant effect on the price of the organization and the cost of intellectual property and has a significant effect on liquidity. In general, the frequency of conversion in terms of revenue prediction has a direct and significant effect on the functioning of the organ. Gamba and Traintis (2016) by examining the effect of management overconfidence on risk and organ performance showed that management overconfidence has no significant effect on risk and organ function.

Zeitun and Tian (2017) by examining the effect of weaknesses of internal controls on the performance and price of the organ among 93 organs listed on the Tehran Stock Exchange in 2015 found that the weaknesses of internal controls on the function and price of the organ market had an inverse effect has it. On the other hand, the weaknesses of internal controls have an inverse effect on the correlation between revenue and organ price.

However, measuring performance in the decision-making process, given the importance of the role of the intellectual property market, is one of the most important issues in the field of financial economics; Therefore, the function of financial criteria is necessary in order to evaluate the function of organs. In recent decades, the importance and impact of financial decisions on growth opportunities as a criterion for the functioning of the organ and ultimately the price of the organ, has become one of the main issues in various interrogations. On the other hand, financing through credit is one of the important factors in the decisions of intellectual property at the micro and macro levels, which in the Iranian intellectual property market, due to the limited intellectual property market, a lot of credit is used.

On the other hand, given the fact that the operating environment of the organs is a changing and repulsive environment, the organs have to adapt to various factors in order to survive and expand their operations through innovative spiritual possessions. Doing these spiritual things requires the provision of financial resources, which can be provided from the company's equity or credit, and each of these resources has advantages and disadvantages. Therefore, the important point is that in order to achieve its main goals, the organs should choose which financial resources and how much of those resources should be used in the composition of their spiritual property. With regard to the performed audits, the choice of financial leverage and the combination of appropriate intellectual property have a great impact on the existing respiratory benefits and is one of the most important financial decisions in the organs to which the heads always pay special attention. Decisions to combine intellectual property within the framework of balance theory require a balance between the toll shield of interest and expense and the lack of success. Accordingly, the combination of optimal spiritual property (goal) is where the ultimate benefits of the toll shield are equal to the costs and the ultimate failure, and deviation from this point is a reduction in the price of the organ. Therefore, choosing the appropriate combination of spiritual property can have a very important effect on the functioning of the organ and ultimately lead to creating added value for the organ and optimizing the welfare of shareholders. With this in mind, the importance of checking the subject of the present interrogation becomes even more apparent.

Considering the above interpretations, it is observed that the combination of the spiritual property of the organ can have a major and significant impact on the financial performance of the organ. Therefore, the question that the present interrogator seeks to answer is: What effect does the combination of intellectual property have on the financial functioning of the organ?

Interrogation approach

The present interrogation is of the type of applied interrogations.

The realm of the subject is interrogated

The subject of the present interrogation is to examine the effect of the combination of intellectual property on the financial performance of the organs listed on the Tehran Stock Exchange.

The realm of time is interrogated

In this interrogation, the time domain used to test the formulated assumptions, the time interval from 2009 to 2018 includes a 10-year period. However, considering that in order to collect data related to the transaction growth variable, it is necessary to refer to the data of the previous year, therefore, the time interval required to collect retrieval data, the time interval from 1387 to 2018, includes a The course is 11 years.

The realm of spatial interrogation

The spatial scope of this audit is the public company shares listed on the Tehran Stock Exchange; the reasons for the selection are as follows:

A) It is easier to access the financial data of the bodies listed on the stock exchange. Especially since some data is available in the form of data banks on compact discs.

B) Considering that the financial data of the bodies listed on the stock exchange are inspected and supervised, it seems that the data contained in the financial statements of these bodies is of a higher quality.

C) Considering the necessity of implementing the rules, regulations and financial accounting standards in preparing the financial statements of the bodies listed on the stock exchange, it seems that the data contained in the financial reports of these bodies are more homogeneous and have a higher comparability.

Screened community (sample)

In the present interrogation, the term screened community is used instead of statistical sample. For this purpose, all organs of the statistical community that have the following conditions are placed in our screened community for statistical tests.

- ✓ Their fiscal year should end on March 20 of each year.
- ✓ During the time-earned audit, change your fiscal year to Nita.
- ✓ All required audit data is available for the audited bodies.
- ✓ Do not belong to financial intermediation bodies (banks, intellectual property and leasing).
- ✓ Due to these limitations, the investigative community reached 112 organs. Table 1 shows how to apply the restrictions and select the organs.

Table 1. How to select a statistical sample

Description	Number of organs
Number of organs listed on the Tehran Stock Exchange in 2018	584
Number of intellectual property bodies, banks and financial intermediation, holdings, leasing and insurance	69
Number of bodies whose fiscal year does not end on 12/29/x13.	157
The number of organs that were interrogated during the time period changed the fiscal year.	150
Number of organs whose financial data were not available during the time interval.	96
Number of organs removed from the sample	472
Number of organs inspected in the investigation	112

Data collection approach

Library approach: This approach was used to collect data in the field of literature and retrieval history. However, by reading books and articles and searching Internet sites, the required data was collected.

Document mining approach: This approach was used to perform the retrieval and collection of data required to test the assumptions. Data collection has been done by using modern Rahvard software and Internet sites of Management of Accounting, Development and Investigations Islamic Securities Exchange Organization, Securities Exchange Organization, Cadal Network and Iran Financial Data Processing Center.

On the other hand, spreadsheet (Excel) software will be used to prepare the necessary variables to be used in the models related to testing the hypotheses. First, the data is collected, entered in the worksheets created in the environment of this software, and then the necessary measurements will be performed to obtain the variables of this research. After measuring all the variables necessary for application in the patterns of this research, these variables will be combined in a single worksheet to be electronically transferred to the application software in the final analysis. In this study, version 9 of EViews software and version 13 of STATA software were used for final analysis.

$$ROA_{i,t} = \beta_0 + \beta_1 CS_{i,t} + \beta_2 GROW_{i,t} + \beta_3 TAN_{i,t} + \beta_4 PROF_{i,t} + \beta_5 LIQ_{i,t} + \beta_6 TAX_{i,t} + \varepsilon_{i,t}$$

Patterns used to test interrogative assumptions

After the variables have been measured, the following procedure will be performed to test the hypotheses. In order to test the first hypothesized test, the regression model in correlation (3-1) will be used.

In this correlation:

ROA_{i,t}:The income of the properties of organ i is for year t.

CS_{i,t}:The composition of the spiritual property of organ i for year t.

GROW_{i,t}:The growth of organ i transaction is for year t.

TAN_{i,t}:Tangible fixed assets of organ i for year t.

PROF_{i,t}: The profitability of organ i is for year t.

LIQ_{i,t}:Liquidity of organ i is for year t.

TAX_{i,t}:The effective rate of organ complications is for year t.

ε_{i,t}:Is the remaining value of the template.

In the above model, the coefficient β₁ will be checked for the first hypothesized test.

If this coefficient is significant at the 95% confidence level, the assumption will not be rejected.

In order to test the second hypothesis, the regression model in correlation 2 will be used.

$$ROE_{i,t} = \beta_0 + \beta_1 CS_{i,t} + \beta_2 GROW_{i,t} + \beta_3 TAN_{i,t} + \beta_4 PROF_{i,t} + \beta_5 LIQ_{i,t} + \beta_6 TAX_{i,t} + \varepsilon_{i,t}$$

In this correlation

ROE_{i,t}:The income of the shareholders of the company is the body of organ i for the year t.

In the above model, for the second hypothesized test, the coefficient β₁ will be checked. If this coefficient is significant at the 95% confidence level, the assumption will not be rejected.

In order to test the third hypothesized test, the regression model in correlation 3 will be used.

$$Q_{i,t} = \beta_0 + \beta_1 CS_{i,t} + \beta_2 GROW_{i,t} + \beta_3 TAN_{i,t} + \beta_4 PROF_{i,t} + \beta_5 LIQ_{i,t} + \beta_6 TAX_{i,t} + \varepsilon_{i,t}$$

In this correlation:

Q_{i,t}:The price of organ i is for year t.

In the above model, for the third hypothesized test, the coefficient β₁ will be checked. If this coefficient is significant at the 95% confidence level, the assumption will not be rejected.

Statistical approaches used

Multiple linear regression has been used to test the retrospective assumptions. To ensure the interpretation of regression relationships, the underlying regression assumptions used in this interrogation were examined. On the other hand, before performing the multiple linear regression test, a series of assumptions (classical assumptions) must be tested. In the following, the statistical approaches used to analyze the data are summarized and then each of the steps is explained in detail.

- 1) Check whether the data are normal or abnormal using the Jarkbra test in EViews9 software
- 2) Spearman / Pearson correlation test and VIF to prove the absence of strong correlation between variables using EViews9 and STATA13 software
- 3) Perform variance heterogeneity (LR) test to select the OLS or EGLS approach using STATA13 software
- 4) Checking the correlation of retrieval patterns with the use of camera-Watson (D-W) values obtained from estimating the final modes and on the other hand using the Woldridge test in STATA13 software
- 5) Performing F-Limer test to check whether the assumptions are Pooled or Panel using EViews9 software
- 6) Perform the Hausman test to check whether the assumptions are Fix or Ran using EViews9
- 7) Estimation of Assumption Test Patterns in OLS (EGLS) Modes.

Normal or abnormal data

In order to check whether it is normal or abnormal, there are various tests of the data set, which are checked in the present interrogation using the Jark test, which is presented in the descriptive statistics section. Hypothesis H₀ This test indicates that the data is normal and Hypothesis H₁ indicates that the data is abnormal. The result of this test is based on normal or abnormal. The data can also be used to explain the type of correlation test (Spearman and Pearson).

Alignment test (correlation)

Another assumption of the classical linear regression model is that there is no composite alignment between the explanatory variables in the model. Coherence basically means the existence of a complete or exact linear correlation

between all or some of the explanatory variables of a regression model. Provided that there is a line between the independent variables, the regression coefficients of the independent variables and on the other hand their standard deviation are larger, so the coefficients cannot be estimated with great accuracy (Hojbar Kiani, 1998). By using the following items, we can find the existence of alignment in the pattern:

- ✓ The coefficient of explanation (R²) is small but a small number of t-ratios are significant.
- ✓ High correlation between two independent variables
- ✓ False sign regression coefficients compared to theory
- ✓ Application of VIF test in STATA software

Several empirical rules can eliminate the dependence resulting from the alignment problem. These rules are:

- ✓ Combination of cross-sectional data and time series
- ✓ Delete a variable that has a high correlation with other variables
- ✓ Application of natural logarithms of variables
- ✓ Upgrade the number of samples
- ✓ Linear regression pattern design with a lower number of independent variables.

Regression analysis

Regression is the main tool and cornerstone of econometrics. In regression analysis, the study of the dependence of one variable (dependent variable) on one or more other variables (independent variable) is basically paid. In general, regression patterns are divided into two groups: single-equation patterns and peer-to-peer equations. In single-equation models, a dependent variable is expressed as a function of one or more other independent variables, assuming that the causal relationship between the dependent and independent variables is one-way. In contrast, in peer-to-peer equations, there is a two-way or peer-to-peer correlation between these variables. Considering that the models used in this interrogation are single equation models, the next section describes the most commonly used approaches for estimating these models.

Conventional Least Squares (OLS) approach

For linear regression models, the ordinary least squares (OLS) approach is the simplest and most common estimation approach. The rationale for the ordinary least squares approach is that the pattern coefficients assume value in which the sample regression pattern is closest to the observations, in other words, shows the lowest deviation from the observations. The OLS approach to estimating coefficients does not require any condition on the sentence, but in order for the estimated coefficients to be non-biased and statistical inference is possible through them, it is necessary to establish the classical linear regression assumptions. Provided that after the OLS, statistical tests confirm the violation of one of the classical hypotheses, the use of the OLS approach to estimating values will no longer be allowed. In this case, the pattern or approach of estimating data change should be (Gujarati, 2014).

Generalized least squares (GLS) approach

Provided that the post-OLS statistical tests confirm the violation of one of the classical hypotheses, it can no longer be estimated using the OLS approach. In this case, either the pattern or the estimation approach must be changed, which in cross-sectional data expects variance heterogeneity and in time-series data expectation itself. If self-correlation or heterogeneity of variance is observed, the generalized least squares (GLS) approach can be used to estimate the coefficients. Of course, the application of this approach requires conjectures about the variance-covariance matrix of perturbation sentences. In this case, the application of the variance-covariance matrix of perturbation sentences of the OLS model estimated as a starting point and the application of repetitive approaches can be helpful (Gujarati, 2014).

Check the correlation between research variables

Table 2 shows the matrix of correlation coefficients of the interrogative variables for all observations together. Pearson correlation test is used to check the correlation between parametric variables and Spearman correlation test is used for non-parametric variables. In parametric statistics, the variables have a small scale (continuous) and the observations follow the normal distribution, but in higher nonparametric statistics, the variables have a qualitative scale and because they are not accurately measurable, they do not follow any statistical distribution. Considering the abnormality of the variables, which was identified in the descriptive statistics section by Jark test, Spearman correlation is used to check the correlation between the variables.

Table 2. Spearman correlation between research variables

Variables	CS	GROW	LIQ	PROF	TAN	TAX
CS	1					
GROW	-0.103	1				
LIQ	-0.284	0.163	1			
PROF	-0.631	0.265	0.259	1		
TAN	-0.148	-0.004	-0.098	-0.075	1	
TAX	-0.261	0.157	0.103	0.488	-0.017	1

The result shown in Table 4 shows that the highest correlation coefficient belongs to the correlation between profitability variables (PROF) and the combination of intellectual property (CS) with a coefficient of -0.631. On the other hand, the lowest correlation coefficient belongs to the correlation between transaction growth variables (GROW) and tangible fixed assets (TAN) with a coefficient of -0.004.

In general, considering the probability coefficients and the degree of correlation between interrogative variables in Table (2-4), it can be concluded that there is no significant correlation (above 70%) between independent interrogative variables. Therefore, it can also indicate the absence of an alignment problem between the independent variables of the interrogation.

In the following, patterns analysis and interrogation of test hypotheses are presented. In this regard, first, the results of classical hypothesis tests and F-Leimer and Hausmann F tests to select the type of pattern and select the appropriate pattern are presented, then the result of estimating the patterns is presented.

Analysis of the main patterns and testing of research hypotheses

The following is the model used to test the interrogation hypotheses and the results of the hypothesis test.

Heterogeneity test of variances

In order to check the variance heterogeneity, the variance heterogeneity test (LR) was used, the result of which is presented in Table 3.

Table 3. Outcome of variance heterogeneity (LR) test

Pattern	Statistics value	Sig.	Result
The first assumed regression pattern is retested	44.769	0.000	Inconsistent
The second hypothesized regression pattern is retested	71.1568	0.000	Inconsistent
hypothesized regression model is retested	49.559	0.000	Inconsistent

Considering that the result of variance heterogeneity test indicated the problem of variance heterogeneity, so the generalized least squares (EGLS) approach is used in the final regression models to solve the problem.

Autocorrelation test

The Wooldridge test was used to examine the autocorrelation problem between the model residues. The result of this test is presented in Table 4.

Table 4. Wooldridge test result

Pattern	Statistics value	Sig.	Result
assumed regression pattern is retested	6.525	0.012	Existence of self-solidarity
The second hypothesized regression pattern is retested	1.719	0.192	Lack of self-solidarity
hypothesized regression model is retested	40.657	0.000	Existence of self-solidarity

Considering the statistical value and significance of Wooldridge test, the result indicates the absence of autocorrelation problem in the second hypothetical regression model and also the existence of autocorrelation problem in the first and third hypothetical regression patterns. Therefore, to solve this problem in the first and third assumed regression patterns, the sentence AR (1) is added to the above patterns.

Selection of the type of pattern and the appropriate pattern through F-Lemmer and Hausman test

To explain the type of composite data (panel or combined) from the F-Limer test and on the other hand to explain the fixed or random effects of panel data is also used Hausman test. The results of these tests are presented in Table 5.

Table 5. Outcome of F-Lemmer and Hausmann test

Test	HASMAN			F Limer		Result
	Statistics value	Sig.	Result	Statistics value	Sig	
The first assumed regression pattern is retested	41.27	0.000	Panel	6.409	0.000	Fixed effects
The second hypothetical regression model is retested	31.596	0.000	Panel	1.745	0.000	Fixed effects
The third hypothesized regression pattern is retested	52.984	0.000	Panel	5.329	0.000	Fixed effects

Considering the result of F-Limer test, it is clear that the data are of panel type and on the other hand, considering the result of Hausman test, it is observed that the pattern of panel data is of fixed effects type.

The first hypothetical test of the research

The first hypothesis of the interrogation examines the effect of the combination of spiritual possessions on the income of the possessions.

$$ROA_{i,t} = \beta_0 + \beta_1 CS_{i,t} + Controls_{i,t} + \varepsilon_{i,t}$$

In this correlation, the coefficient β_1 will be checked for the first hypothesized test. If this coefficient is significant at the 95% confidence level, the assumption will not be rejected.

The final result of the first hypothesis of the first interrogation test is presented in Table 6 as follows.

Table 6. The effect of the combination of intellectual property on the income of property

ROA	Template dependent variable: Property Income			
Variables	VIF value	Relevant probability	Variables	Coefficient
	-	0.000	5.701	0.152
CS	2.20	0.000	-5.748	-0.140
GROW	1.10	0.000	4.617	0.026
LIQ	1.16	0.265	1.113	0.018
PROF	2.42	0.000	4.242	0.083
TAN	1.11	0.000	-7.505	-0.086
TAX	1.22	0.717	-0.362	-0.002
AR(1)	-	0.000	4.441	0.368
F	15.008 (0.000)			
Explanation coefficient	0.825			
Adjusted explanation coefficient	0.816			
Camera Statistics - Watson	948/1			

The result of estimating the pattern related to the first assumption of the investigation based on the effect of the combination of intellectual property on the income of the property using generalized least squares regression, shows that the pattern was significant at 95% confidence level (P-0.000). And the value of adjusted R2 is equal to 0.816 and shows that about 81% of the changes in the dependent variable are expressed by explanatory variables. The estimated coefficient in this model is β_1 (CS), which indicates that for one unit of upgrade in the amount of spiritual property (upgrade financial leverage), the income of the property will decrease by -0.140. On the other hand, this variable is significant at the desired level of confidence (P-Value = 0.000) and the inverse coefficient of this variable indicates that the combination of intellectual property (financial leverage), leads to a decrease in property income. As a result, the first assumption of re-examination is not rejected. On the other hand, the value of VIF test statistics for all explanatory variables is less than 5 and indicates that there is no strong correlation between interrogative variables. On the other hand, among the control variables, it is observed that the variables of transaction growth (GROW) and profitability (PROF) have a direct and

significant effect on property income and the variable of tangible fixed assets (TAN) has a significant inverse effect on It has the income of the properties.

The second hypothetical test of the research

The second hypothesis of the audit examines the effect of the combination of intellectual property on the income of the shareholders of the company.

$$ROE_{i,t} = \beta_0 + \beta_1 CS_{i,t} + Controls_{i,t} + \varepsilon_{i,t}$$

In this correlation, the coefficient β_1 will be checked for the second hypothesized test. If this coefficient is significant at the 95% confidence level, the assumption will not be rejected.

The final result of the second hypothesized interrogation test is presented in Table (4-7) as follows

Table 7. The effect of the combination of intellectual property on the income of the shareholders of the company

ROE	Model dependent variable: corporate share equity income			
	VIF value	Relevant probability	Variables	Coefficient
CS	-	0.001	-3.163	-0.064
GROW	2.20	0.000	-4.504	-0.297
LIQ	1.10	0.000	5.083	0.100
PROF	1.16	068/0	1.821	0.093
TAN	2.42	0.000	3.936	0.182
TAX	1.11	0.000	-6.361	-0.141
F (Sig.)	1.22	0.000	4.497	0.267
Explanation coefficient	24.719 (0.000)			
Adjusted explanation coefficient	0.850			
Camera Statistics - Watson	0.833			
Explanation coefficient	1.537			

The result of estimating the pattern related to the second assumption of the audit based on the effect of the combination of intellectual property on the shareholders' equity income using generalized least squares regression, shows that the pattern was significant at 95% confidence level (P-Value 0.000). And the adjusted value of R2 is equal to 0.833 and shows that about 83% of the changes in the dependent variable are expressed by explanatory variables. The estimated coefficient in this model is β_1 (CS), which indicates that for one unit of upgrade in the amount of intellectual property (upgrade financial leverage), the company's shareholder earnings will be reduced to -297. On the other hand, this variable is significant at the desired level of confidence (P-Value = 0.000) and the inverse coefficient of this variable indicates that the combination of intellectual property (financial leverage), leads to a decline in corporate earnings Becomes. As a result, the second hypothesis is not rejected. On the other hand, the value of VIF test statistics for all explanatory variables is less than 5 and indicates that there is no strong correlation between interrogative variables. On the other hand, among the control variables, it is observed that the variables of transaction growth (GROW), profitability (PROF) and effective rate of toll (TAX), have a direct and significant effect on the income of properties and the variable of tangible fixed assets (TAN) It also has a significant and inverse effect on property income.

The third hypothetical test is interrogation

The third hypothesis of the interrogation examines the effect of the combination of spiritual properties on the price of the organ.

$$Q_{i,t} = \beta_0 + \beta_1 CS_{i,t} + Controls_{i,t} + \varepsilon_{i,t}$$

In this correlation, the coefficient β_1 will be checked for the third hypothesized test. If this coefficient is significant at the 95% confidence level, the assumption will not be rejected.

The final result of the third supposed interrogation test is presented in Table (4-8) as follows.

Table 8 .The effect of the combination of intellectual property on the price of the organ

Q				
Pattern dependent variable: Organ price				
Variables	VIF value	Relevant probability	T	Coefficient
	-	0.000	5.893	0.464
CS	2.20	0.000	-4.539	-0.232
GROW	1.10	0.000	4.574	0.228
LIQ	1.16	0.001	3.279	0.153
PROF	2.42	0.741	-0.330	-0.041
TAN	1.11	0.412	-0.819	-0.189
TAX	1.22	0.899	0.126	0.025
AR(1)	-	0.005	2.795	0.562
F	12.162 (0.000)			
Explanation coefficient	0.689			
Adjusted explanation coefficient	0.671			
Camera Statistics - Watson	1.781			

The result of estimating the pattern related to the third assumption of the investigation based on the effect of the combination of intellectual property on the price of the organ using generalized least squares regression, shows that the pattern was significant at 95% confidence level (P-0.000 value) and The value of adjusted R2 is equal to 0.671 and shows that about 67% of the changes in the dependent variable are expressed by explanatory variables. The estimated coefficient in this model is β_1 (CS), which indicates that for one unit of upgrade in the amount of spiritual property (upgrade financial leverage), the price of the organ will decrease by -0.223. On the other hand, this variable is significant at the desired confidence level (P-Value = 0.000) and the inverse coefficient of this variable indicates that the combination of intellectual property (financial leverage) leads to a decrease in the price of the organ. As a result, the third hypothesis is not rejected. On the other hand, the value of VIF test statistics for all explanatory variables is less than 5 and indicates that there is no strong correlation between interrogative variables. On the other hand, among the control variables, it can be seen that the variables of transaction growth (GROW) and property liquidity (LIQ) have a direct and significant effect on property income.

Summary of the results of testing research hypotheses

A summary of the research hypotheses test is provided in Table 9.

Table 9. Summarizes the results of testing the research hypotheses

Supposed	Supposed topic	Result
First	The combination of spiritual possessions affects the income of the possessions.	No rejection
Second	The combination of intellectual property affects the earnings of the company's shareholders.	No rejection
Third	The combination of spiritual possessions affects the price of the organ.	No rejection

Discussion

The first assumption of the audit was stated that the combination of spiritual property has an effect on the income of the property. The results of statistical analysis showed that at the level of 95% confidence, the combination of intellectual property has a significant inverse effect on the income of property. In fact, it can be said that among the organs active in the Iranian intellectual property market, due to the high level of agency costs, which originated from the data asymmetry between internal and external persons (shareholders) The function of the bosses is higher in order to provide

personal benefits and benefits, and by increasing the amount of cash obtained from financing from the creditor, the said persons (bosses) do not have the optimal use of the mentioned financial resources, and this leads to a decline in financial performance. As a result, it causes damage to the organs. The result will be a decline in the effectiveness and efficiency of the organ's assets in generating revenue. The result of this interrogation is consistent with the results obtained from the interrogation of Chathoth and Olsen (2017).

The second assumption of the audit was stated that the combination of intellectual property has an effect on the income of the shareholders of the company. The result of statistical analysis showed that at the level of 95% confidence, the combination of intellectual property has a significant and adverse effect on the shareholders' equity. In line with the analyzes related to the first hypothesis of the investigation, regarding the result of the second hypothesis, it can be stated that poor data environments resulting from poor effectiveness in the Iranian intellectual property market, led to behavioral biases of bosses and their financial resources obtained from Reverse the higher the place of credit spent only on projects of intellectual property with net current price, so that only in this way, they can seek compensation for their services. At the same time, they are making a lower effort to generate revenue or revenue for their shareholders. In fact, the promotion of credit leads to the personal benefit of the bosses and reduces the shareholder income. The result of this interrogation is consistent with the result obtained from the interrogation of Gamba and Traintis (2016). The result of this interrogation is consistent with the results obtained from the interrogation of Chathoth and Olsen (2017).

The third assumption of the interrogation was stated that the combination of spiritual property has an effect on the price of the organ. The results of statistical analysis showed that at the level of 95% confidence, the combination of intellectual property has a significant inverse effect on the price of the organ. Consistent with the analysis of the first and second hypotheses, it can be said that the function of senior heads of the body will have a significant impact on creating a resilient advantage for the body, creating value for the body and ultimately, creating, maintaining and improving welfare for shareholders. . If the heads are not able to adopt appropriate strategies based on the analysis of the internal and external environment of the organ for different times, taking into account the available financial resources, naturally, the respiratory advantage of the organ is jeopardized and this can reduce the price. Organ and weaken the welfare of the shareholders. The result of this interrogation is consistent with the results obtained from the interrogation of Chathoth and Olsen (2017).

Research suggestions

Based on the results obtained in the present interrogation, the importance of paying attention to the composition of the spiritual property of the organs is determined. However, considering the important role of the composition of spiritual properties, it is suggested to the property owners to pay special attention to the component of the composition of spiritual properties in the decisions of spiritual properties and especially the crediting ratios of the organs; Because the existence of high leverage ratios in the organs, based on the result of this re-examination, has led to a decrease in the respiratory state of the organ, and this can prevent price creation for the shareholders.

On the other hand, legislators are advised to consider future arrangements in order to prevent the loss of intellectual property in order to carry out spiritual property in various organs, by creating transparent data environments through standards related to disclosure. And transparency is the function of the heads in order to promote the welfare of the shareholders and as a result to improve and improve the effectiveness of exchanges in the market of intellectual property.

Research limitations

The current investigation does not take into account the economic and political conditions.

The present interrogation has been carried out in the realm of time from 2009 to 2018 and also by using the data of 112 active organs in the Tehran Stock Exchange. As a result, caution should be exercised in generalizing the outcome to all stock exchange bodies and the years before 1388 and after 2018.

This re-examination was performed only among the organs listed on the Tehran Stock Exchange and its results cannot be generalized to other types of organs not listed on the stock exchange. Considering that the approach of eliminating the IDF system has been used to select the statistical sample of this interrogation, caution should be exercised in generalizing the sample results to the community.

References

- Berger, N.A., and Di Patti, E.B. (2006). Capital structure and firm performance: A new approach to testing agency theory and an application to the banking industry, *Journal of Banking & Finance*, 30(4), 1065-1102.
- Chathoth, P.K., and Olsen, M.D. (2017). The Effect of Environment Risk, Corporate strategy, and capital structure on firm performance: an Empirical investigation of restaurant firms. *Hospitality Management*, 26, 502–516.
- Dimitris, M., and Psillaki, M. (2010). Capital structure, equity ownership and firm performance. *Journal of Banking & Finance*, 34(3), 621-632.
- Gamba, A., and Traintis, A. (2016). The Value of Financial Flexibility. *Journal of Finance*, 63(5), 2264-2296.
- Hojbar Kiani, K. (1998). *Econometrics and its application*. Phoenix Publications.

- Jabbari, Hossein and Naqdi, N. (2015). Correlation between the composition of spiritual possessions and the life cycle of the organ, *Financial Accounting and Auditing Audits*, 8(30), 155-162.
- Hosseini, S.A., Karami, G., Shafipour, S. M. (2010). Checking the correlation between the performance of the organs and the liquidity of the company's share market. *Stock Exchange*, 3(11), 42-25.
- Kohher, M., and Rahul, B. (2017). Strategic Assets, Capital Structure, and Firm Performance. *Journal of Financial and Strategic Decisions*, 3, 23-36.
- Nabiei Borujeni, H., Norouzi, M. (2015). Examining the explanatory factors of the representative of the composition of the intellectual property of the organs listed on the Tehran Stock exchange with emphasis on the hierarchical theory. *Accounting Audit*, 5(1), 65-84.
- Majumdar, S. K., and Chhibber, P. (1999). Capital structure and performance: Evidence from a transition economy on an aspect of corporate governance, *Public Choice*, 98(3-4), 287-305.
- Zeitun, R., and Tian, G.G. (2017). Capital structure and corporate performance: evidence from Jordan, *Australasian Accounting, Business and Finance Journal*, 1(4), 40-61.