



The Impact of behavioral Financial and Political Connections on Investment Efficiency with the Mediating Role of Growth Opportunities

Afshin shalchi

Department of Accounting, Sirjan Branch, Islamic Azad University, Sirjan, Iran
shalchi@marandiau.ac.ir

Zadollah Fathi

2. Department of Accounting, Central Tehran Branch, Islamic Azad University, Tehran, Iran
(Corresponding Author)
Zad_fathi@iauctb.ac.ir

Hossein Shafii

3. Department of Accounting, Sirjan Branch, Islamic Azad University, Sirjan, Iran
hossein.shafii@gmail.com

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ABSTRACT

Evidences suggested that investors do not use of quantitative methods to determine stock value and judgements are made on mental imagery, non-scientific information and psychological conditions. According to limit literature, in other hand, increased investment efficiency is one of the most important problems in addition to investment development. Therefore, this study aimed to the mediation role of growth opportunities on the impact of sentiment tendencies of investors as a behavioral financial criteria and political connections on investment efficiency. This study is a causal, applied and post-event one. To end, sample were selected including 149 firms at Tehran Stock Exchange 2009-2019. According to composed data analysis method and multivariate-linear regression and logistic regression, results showed that investors' sentiments as a behavioral financial criteria and political connections directly impacted on investment efficiency. In addition, growth opportunities play mediating role on the impact of investors' sentiments and political connections on investment efficiency.

Keywords:

Behavioral Financial, Political Connections, Growth Opportunities, Investment Efficiency.

1. Introduction

New theories are based on two principles: (1) Perfect Rationality and (2) maximizing utility. Such theories propose that all individuals consider all used information in their decision-makings. This theory is acceptable considering market efficiency. However, it is not rational with lack of transparency, ambiguity and uncertainty. During recent decade, financial scientists tried to explain special cases using other sciences including psychology, social sciences and physic. Hence, interdisciplinary areas were formed including financial economy, financial econometric, financial mathematic etc. (Bolo & Hasani Elghar, 2015). One of speed extended areas which could explain used phenomena is the merge of economic theories with psychological ones which has been known as behavioral financial. Daniel Kahneman, the known psychologist, is the founders of such area of financial knowledge, who was awarded Nobel Prize in economic area because of providing some models to explain investors' behavior under uncertainty conditions (Arab Salehi & Hashemi, 2015). Evidences suggested that investors do not use of quantitative methods to determinate stock value. Judgements are made on mental imagery, non-scientific information and psychological conditions. Sentiment variables formed based on cognitive constraints consider mental conditions of Stock market actors. Behavioral financial is of growing studies considering decision-making of investors and their reaction to different conditions of financial markets. It emphasized more on the impact of sentiments, personality, culture and investors' judgments on investment efficiency. Afterword, there are some doubts related to several stockholders with conflict interests in Iran economic setting. In other words, government is the strongest player in Iran economy which raises doubts about distinguishing of management from ownership. Government and quasi-government institutions play an important role in ownership structure and managing of firms in Iran. Ownership structure in Iran has been to a large extent limited to government and quasi-government institutions. Therefore, political economic theories are suitable ones to explain behavior of economic and financial variables (Burkhard et.al, 2018). Our study aimed to consider the mediating role of growth opportunities on the impact of investors' sentiments as a behavioral finance criteria and political connections on investment efficiency.

2. Review of Related Literature

the ethical behavior of firms is effective for low- and middle-income countries with low and high levels of investor protection and low-efficacy corporate boards; however, ethical behavior and auditing standards are mutually effective for high-income countries and countries with middle level investor protection and middle- and high-efficacy corporate boards. (Ramzi Benkraiem et.al, 2021).

Tightening monetary policy exacerbates "underinvestment" behavior, including inefficient investment, while improving comparability of accounting information can effectively reduce the negative impact of tightening monetary policy tightening on "underinvestment." , So that the company's investment efficiency improves. Further results show that in a period of tightening monetary policy control, companies with high agency costs and high financial constraints can significantly reduce underinvestment by improving the comparability of accounting information. As a result, the investment efficiency of companies improves. After separating the type of ownership of the company (state-owned versus private companies), we found that firms could reduce the effect of insufficient investment during a period of tightening monetary policy control by improving the comparability of accounting information. The decrease is more significant in the case of private companies (PE) (Zhonghai Yang et.al, 2021). At least, two factors are determinant for investment efficiency. Firstly, since firms need to increase their capital to be able to finance their investment opportunities and it is necessary to finance all net projects with positive current value in a perfect capital market, if firms are faced with financial constraints and managers could not finance their potential projects, they withdraw from projects with positive current value because of high costs of increased capital, leading to underinvestment. The second factor of investment efficiency suggest that even if the firm decide to increase capital, we could not guarantee that the right investment will be made in the future (He et.al, 2019). Literature, in this regard, showed that if the firm does not select a good project, it will overinvest in the future (He et.al, 2019). Overconfidence is a personality trait could be defined as a behavioral deviance with unreal believes (positive) toward to aspects of a phenomena in uncertainty conditions which lead to overestimates of means (Goel & Thakor, 2008).

Evidences showed that individuals overestimate their abilities and competencies. Overconfidence help persons to be able to retain their motivations in hard and competitive conditions. According to Malmendier and Tate (2008), individuals attribute their abilities and competencies to their good lucky and their failures to bad lucky external factors. This behavior could be come from self-deception which is a cognitive deviance. According to such theory, individuals overestimate their IQ and power which is a cause of the such managers' more risky investment decisions impacting on investment efficiency (He et.al, 2019). In other hand, He et.al. (2019) state that growing and start-up firms underinvest because of uncertainty and risk. In contrast, mature firms with less growth opportunities have overinvestment. However, firms with high growth opportunities and financial constraints more likely will appoint overconfidence managers impacting on investment efficiency. Although, agency problems and overconfidence managers could justify the tendency to avoid efficient investment, but unlike agency problems theory stating inefficient investment is made because of opportunistic behaviors, overconfident managers believed that they work best in the shareholders' interests and therefore they have inefficient investment. Such condition is different in firms with and without growth opportunities. So that, overconfidence managers of firms with growth opportunities show more aggressive behaviors related to investment decisions. Bad Avar Nahandi and Taqizadeh Khanqah (2018) studied the impact of political connections on overinvestment and firm performance and showed that political connections positively impacted on overinvestment and negatively impacted on firms' performance. Yeghaneh et.al. (2017) consider the relationship between accuracy of profit forecasting with investment efficiency and resulted that accuracy of profit forecasting positively related to investment efficiency and negatively related to over-underinvestment. In a study, Bad Avar Nahandi and Taqizadeh Khanqah (2016) studied the relationship between working capital management and investment inefficiency at Tehran Stock Exchange and showed that inefficient investment negatively related to receivable period, debt payment period and cash conversion cycle efficiency. However, they found no relationship between inventory turnover period with investment inefficiency. In addition, evidences showed that cash

conversion cycle, cash holding and current ratio significantly and positively related to investment inefficiency. Totally, we could stay that efficient working capital management could reduce the amount of deviance of desired level of investment. Hassani and Zighami (2015) provide some experimental evidences about the relationship between overconfidence and overinvestment and showed that overconfidence significantly and positively related to overinvestment meaning that overconfident managers will overinvest in the process if investment decision makings.

3. Hypotheses

- H1. Investors sentiments impact on Growth opportunities.
- H2. Political connections impact on Growth opportunities.
- H3. Investors sentiments impact on investment efficiency.
- H4. . Political connections impact on investment efficiency.
- H5. Growth opportunities play mediating role on the impact of investors sentiments on investment efficiency.
- H6. Growth opportunities play a mediating role on the impact of political connections on investment efficiency.

4. Method

Our study is an applied objectively, a correlation one methodologically and a post-event study. Raw data of financial statements are gathered using Rahavard Novin software and publisher information system (Codal). Stata 15 software was used to estimate the research model.

5. Population and Sample Size

Population of this study include firms at Tehran Stock Exchange 2009-2019 (a 11 years' period). Sample size was selected based on some conditions: (1) Their financial year was ended to March 2 every year, (2) There is no financial period (Year) change during research period, (3) required data for our study variables are available during research period, (4) The firms of investment groups, credit and financial institutions, banks, insurances and holdings firms are

removed from the study. At last, 149 firms are selected as sample size considering above conditions.

6. Research Model

We estimate four models to test our hypotheses. Afterwards, we use of Baron and Kenny's (1986) method to test mediating effect of growth opportunities on the relationship between independent and dependent variables.

Model (1)

$$\text{Growth}_{it} = \beta_0 + \beta_1 \text{Sentiment}_{it} + \beta_2 \Delta \text{Sales}_{it} + \beta_3 \text{SIZE}_{it} + \beta_4 \text{LEV}_{it} + \beta_5 \text{CASH}_{it} + \beta_6 \text{BM}_{i,t} + \beta_7 \text{ROA}_{i,t} + \beta_8 \text{TANG}_{i,t} + \epsilon_{i,t}$$

Model (2)

$$\text{Growth}_{it} = \beta_0 + \beta_1 \text{PCON}_{it} + \beta_2 \Delta \text{Sales}_{it} + \beta_3 \text{SIZE}_{it} + \beta_4 \text{LEV}_{it} + \beta_5 \text{CASH}_{it} + \beta_6 \text{BM}_{i,t} + \beta_7 \text{ROA}_{i,t} + \beta_8 \text{TANG}_{i,t} + \epsilon_{i,t}$$

Model (3)

$$\text{INVESTMENT EFF}_{it} = \beta_0 + \beta_1 \text{Sentiment}_{it} + \beta_2 \Delta \text{Sales}_{it} + \beta_3 \text{SIZE}_{it} + \beta_4 \text{LEV}_{it} + \beta_5 \text{CASH}_{it} + \beta_6 \text{BM}_{i,t} + \beta_7 \text{ROA}_{i,t} + \beta_8 \text{TANG}_{i,t} + \epsilon_{i,t}$$

Model (4)

$$\text{INVESTMENT EFF}_{it} = \beta_0 + \beta_1 \text{PCON}_{it} + \beta_2 \Delta \text{Sales}_{it} + \beta_3 \text{SIZE}_{it} + \beta_4 \text{LEV}_{it} + \beta_5 \text{CASH}_{it} + \beta_6 \text{BM}_{i,t} + \beta_7 \text{ROA}_{i,t} + \beta_8 \text{TANG}_{i,t} + \epsilon_{i,t}$$

Model (5)

$$\text{INVESTMENT EFF}_{it} = \beta_0 + \beta_1 \text{Sentiment}_{it} + \beta_2 \text{Growth}_{it} + \beta_3 \Delta \text{Sales}_{it} + \beta_4 \text{SIZE}_{it} + \beta_5 \text{LEV}_{it} + \beta_6 \text{CASH}_{it} + \beta_7 \text{BM}_{i,t} + \beta_8 \text{ROA}_{i,t} + \beta_9 \text{TANG}_{i,t} + \epsilon_{i,t}$$

Model (6)

$$\text{INVESTMENT EFF}_{it} = \beta_0 + \beta_1 \text{PCON}_{it} + \beta_2 \text{Growth}_{it} + \beta_3 \Delta \text{Sales}_{it} + \beta_4 \text{SIZE}_{it} + \beta_5 \text{LEV}_{it} + \beta_6 \text{CFO}_{it} + \beta_7 \text{BM}_{i,t} + \beta_8 \text{ROA}_{i,t} + \beta_9 \text{TANG}_{i,t} + \epsilon_{i,t}$$

7. Research Variables

7.1. First Independent Variable

Investors sentiments as a behavioral financial criterion: Capital Market sentiments index extended by Jones (2005) and modified by Persaud (1996) is calculated as:

$$\text{investment Sentiment}_{it} = \frac{\sum (R_{it} - \bar{R}_r) (R_{iv} - \bar{R}_v)}{(\sum (R_{it} - \bar{R}_r)^2 \sum (R_{iv} - \bar{R}_v)^2)^{\frac{1}{2}}} \times 100, -100 \leq \text{InSe} \leq +100$$

In which:

R_{it} denotes on monthly return rate of firm i in month t (monthly stock return, it is calculated by price difference at the end and beginning of each month divided by beginning price of each month. Such data and others related to investors sentiments index are extracted by information banks in Iran).

R_{iv} denotes on historical volatility rating of firm i in month t (we used of standard deviation mean of monthly stock return belonged to previous five months to calculate historical volatility. So that, we calculated standard deviation of five months before month t and then we divided it on five months).

\bar{R}_r denotes on monthly stock return rating mean of portfolio firms (in this study, sample firms are arranged based on size (assets natural log) and are grouped according 5 portfolios from small to big firms. So that, No 1 include the firms with the lowest criterion and No 5 include the firms with the most criterion in that year).

\bar{R}_v denotes on historical volatility rating of portfolios firms' stock (we used of standard deviation mean of monthly stock return belonged to previous five months to calculate historical volatility. So that, we calculated standard deviation of five months before month t and then we divided it on five months).

7.2. Political Connections (POLCON_{i,t})

we determine political firms using multi-criteria decision models by TOPSIS and weighing by Entropy. Also, we used of political cost variables to distinguish political and non-political firms (Phachio et.al, 2006) which are:

Stock market value: the more stock market value, the more likely political connections.

Income tax: According to political cost theory, the higher the income tax, the more political connections (relations with economy ministry).

Total export sales: the higher the export sale, the more likely of political connections (relation with industry, mine and trade ministry).

The higher ratings of firms in above factors suggesting extended political connections of firms.

7.3. Dependent variable: Investment Efficiency

Since investment efficiency is defined as difference between existing level of investment and its desired level, we used of Richardson (2006) model:

$$\text{Investment}_{i,t} = \beta_0 + \beta_1 \text{SalesGrowth}_{i,t-1} + \varepsilon_{i,t}$$

This model shows the relationship between investment and sales growth.

Investment is the total investment of company i in year t , which is the sum of tangible and intangible assets as a whole of the previous year.

Sales Growth The company's year-to-year sales minus year-to-year sales are defined as the year-to-year sales of $t-2$.

According to this approach, investment is a function of growth opportunities measured by sales. This pattern is based on the argument that the company's sales volume shows the expectation of the company's investment in an efficient market. By placing the calculated figure for the total investment in the regression relation, the residuals of this relation are calculated. Positive waste (positive deviation from expected investment (indicates the selection of projects with a negative net present value or the same over-investment ($0 < \varepsilon_{i,t}$) and negative waste (negative deviation from expected investment)) The passing of investment opportunities with a net positive present value or in fact a lower investment ($0 > \varepsilon_{i,t}$) will be. In this study, all the errors obtained from the model for investment inefficiency are absolute and then the relationship is multiplied by -1 to obtain the investment efficiency index.

7.4. The Mediating Variable

(Q) is firms' growth opportunities. We used of Tobins' Q to measure the mediating role which is calculated

using sum of stock equity market value with debt book value divided by assets book value.

The mediating role is measured using Baron and Kenny' (1986) method which should meet three conditions:

First condition: The independent variable or variables should impact on mediating variable

Second condition: Independent variable or variables should impact on dependent variable in a regression of independent variable on dependent variable

Third condition: The mediating variable should impact on dependent variable in a regression of independent variable and mediating variable on dependent variable.

7.5. Control Variables

SALES : denotes on sale to total assets ratio.

Size : is the firm size is calculated using total assets natural log.

LEV :denotes on financial leverage (total debts to total assets ratio).

BM : denotes on book value to stock market value ratio.

ROA : indicates assets return (profit or loss to total assets ratio).

TANG : denotes on tangible fix assets to total assets ratio.

CASH : Indicates the ratio of operating cash flow to total assets in year $t-1$.

8. Results

8.1. Descriptive Findings

Table 1 includes descriptive statistic in which the minimum, maximum, mean, standard deviation and all observations of variables are provided and table 2 includes frequency distribution of dummy variable.

Table 1 Descriptive Statistic related to Research Variables

Variable	Observations	Mean	SD	Minimum	Maximum
Investment Efficiency	1639	0.323	0.204	-0.830	-0.0001
Sentiments		0.058	0.235	-0.972	0.987
Growth Opportunities		2.01	1.217	0.296	8.523
Sale Growth		0.185	0.337	-0.931	1.703
Firm Size		14.015	1.452	10.086	19.773
Financial Leverage		0.579	0.214	0.012	2.077
Operational Cash Flow		0.124	0.131	-0.460	0.820

Variable	Observations	Mean	SD	Minimum	Maximum
Book value to market value ratio		0.789	0.397	-0.901	2.657
Assets Return		0.147	0.137	-0.325	0.846
Tangible fixed assets		0.258	0.180	0.012	0.932

Table 2 Frequency Distribution of Political Connection Variable

Description	Frequency	Frequency Percent
Firms without political connections	181	11.04
Firms with political connections	1458	88.96
Total	1639	100

8.2. Hypotheses Test

8.2.1. First Hypothesis Test

H0: Investors sentiments does not impact on growth opportunities.

H1: Investors sentiments impacts on growth opportunities.

According to table 5, investors sentiments have positive coefficient and sig level less than 0.05. Therefore, independent variable (investors sentiments) significantly and directly impacts on the mediating variable (growth opportunities).

Table 3 Final Estimation of First Sub-Hypothesis

Variables	Coefficients	SD	Z	Sig	Linearity
Sentiments	0.211	0.049	4.28	0.000	2.13
Sale Growth	-0.025	0.063	-0.40	0.691	1.66
Firm Size	-0.041	0.010	-3.84	0.000	1.34
Financial Leverage	-1.328	0.096	-13.77	0.000	1.14
Operational Cash Flow	0.285	0.159	1.79	0.074	1.12
Book to market value	-1.646	0.047	-34.93	0.000	1.08
Assets Return	0.470	0.187	2.50	0.012	1.04
Tangible Fixed Assets	-0.268	0.090	-2.97	0.003	1
Intercept	3.935	0.181	21.67	0.000	
Other informational statistics					
F Limer	2.09 (0.000)				
Hausman	81.70 (0.000)				
Serial autocorrelation	25.448 (0.000)				
Variance Inequality	1825.15 (0.000)				
Adjusted Coefficient	0.5176				
Parent statistic	929.49				
Parent Significance	0.000				

8.2.2 Second Hypothesis Test

H0: political connections does not impact on growth opportunities.

H1: political connections impacts on growth opportunities.

political connections have positive coefficient and sig level less than 0.05. So, we could explain that independent variable (political connections)

significantly and directly impact on the mediating variable (growth opportunities).

Table 4 Final Estimation of Second sub-hypothesis

Variables	Coefficients	SD	Z	Sig	Linearity
Political connections	0.165	0.052	3.13	0.002	1.93
Sale Growth	-0.003	0.040	-0.08	0.935	1.75
Firm Size	-0.046	0.012	-3.67	0.000	1.68
Financial Leverage	-0.695	0.087	-7.98	0.000	1.63
Operational Cash Flow	0.161	0.103	1.56	0.120	1.37
Book to market value	-1.107	0.038	-28.75	0.000	1.11
Assets Return	0.532	0.145	3.65	0.000	1.08
Tangible Fixed Assets	0.058	0.082	0.70	0.482	1
Intercept	3.152	0.230	13.69	0.000	
Other informational statistics					
F Limer	2.14 (0.000)				
Hausman	104.39 (0.000)				
Serial autocorrelation	26.474 (0.000)				
Variance Inequality	2026.91 (0.000)				
Adjusted Coefficient	0.5099				
Parent statistic	900.45				
Parent Significance	0.000				

8.2.3. Third Hypothesis Test

H0: Investors sentiments does not impact on investment efficiency.

H1: Investors sentiments impacts on investment efficiency.

It is observed that sentiments have positive coefficient and sig less than 0.05, therefore, we could state that sentiments as a behavioral financial criterion significantly and directly impacts on investment efficiency.

Table 5 Final Estimation of Third regression model

Variables	Coefficients	SD	Z	Sig	Linearity
Sentiments	0.013	0.002	5.07	0.000	1.16
Sale Growth	0.074	0.007	9.66	0.000	1.12
Firm Size	0.011	0.002	4.47	0.000	1.11
Financial Leverage	-0.223	0.016	-13.49	0.000	1.04
Operational Cash Flow	-0.223	0.016	-13.49	0.000	1.04
Book to market value	0.264	0.031	8.31	0.000	1.03
Assets Return	-0.016	0.009	-1.62	0.105	1.03
Tangible Fixed Assets	-0.124	0.020	-6.03	0.000	1
Intercept	0.090	0.042	2.12	0.034	
Other informational statistics					
Adjusted coefficient	0.5462				
Parent statistic	866.89				
Parent Significance	0.000				

8.2.4. Fourth Hypothesis Test

H0: Political Connections does not impact on investment efficiency.

H1: Political Connections impacts on investment efficiency.

It is observed that political connections have positive coefficient and sig level less than 0.05. Therefore, we could conclude that political connections significantly and directly impact on investment efficiency.

Table 6. Final Estimation of Fourth Regression Model

Variables	Coefficients	SD	Z	Sig	Linearity
Political Connections	0.025	0.008	2.90	0.004	2.13
Sale Growth	0.078	0.008	9.20	0.000	1.76
Firm Size	0.007	0.002	2.62	0.009	1.71
Financial Leverage	-0.237	0.016	-14.28	0.000	1.64
Operational Cash Flow	0.309	0.035	8.71	0.000	1.37
Book to market value	-0.021	0.010	-2.04	0.041	1.14
Assets Return	0.002	0.008	0.26	0.796	1.12
Tangible Fixed Assets	-0.100	0.019	-5.08	0.000	1.08
Intercept	0.178	0.047	3.73	0.000	
Other informational statistics					
Adjusted coefficient	0.5425				
Parent statistic	813.39				
Parent Significance	0.000				

8.2.5. Fifth Hypothesis Test

H0: Growth opportunities does not play a mediating role on the impact of investors sentiments on investment efficiency.

H1: Growth opportunities play a mediating role on the impact of investors sentiments on investment efficiency.

Growth opportunities have positive coefficient and sig level less than 0.05. So, we could explain that growth opportunities play the mediating role on the impact of investors sentiments on investment efficiency.

Table 7 Final Estimation of Fifth Regression Model

Variables	Coefficients	SD	Z	Sig	Linearity
Sentiments	0.013	0.002	5.15	0.000	1.22
Growth opportunities (Mediating)	0.007	0.002	3.75	0.000	1.21
Sale Growth	0.074	0.005	13.39	0.000	1.17
Firm Size	0.008	0.002	4.11	0.000	1.16
Financial Leverage	-0.195	0.014	-13.78	0.000	1.15
Operational Cash Flow	0.308	0.019	16.23	0.000	1.14
Book to market value	-0.019	0.006	-3.10	0.002	1.08
Assets Return	-0.003	0.010	-0.37	0.714	1.06
Tangible Fixed Assets	-0.100	0.015	-6.33	0.000	1
Intercept	0.100	0.032	3.11	0.002	
Other informational statistics					
Adjusted Coefficient	0.5743				
Parent statistic	1301.78				
Parent Significance	0.000				

8.2.6. Sixth Hypothesis Test

H0: Growth Hypothesis does not play mediating role on the impact of political connections on investment efficiency.

H1: Growth Hypothesis play mediating role on the impact of political connections on investment efficiency.

Growth opportunities have positive coefficient and sig level less than 0.05. So, we could explain that Growth opportunities play a full mediating role on the impact of political connections on investment efficiency.

Table 8 Final Estimation of Six Regression Model

Variables	Coefficients	SD	Z	Sig	Linearity
Political connections	0.003	0.005	0.65	0.514	1.77
Growth opportunities (Mediating)	0.008	0.002	4.13	0.000	1.71
Sale Growth	0.077	0.005	13.61	0.000	1.22
Firm Size	0.009	0.002	4.37	0.000	1.21
Financial Leverage	-0.226	0.013	-16.16	0.000	1.14
Operational Cash Flow	0.315	0.019	16.20	0.000	1.13
Book to market value	-0.018	0.006	-2.76	0.006	1.09
Assets Return	-0.003	0.010	-0.32	0.746	1.06
Tangible Fixed Assets	-0.105	0.016	-6.38	0.000	1
Intercept	0.104	0.034	3.07	0.002	
Other informational statistics					
Adjusted Coefficient	0.5404				
Parent statistic	1159.99				
Parent Significance	0.000				

8.3. Conclusion and Suggestions

Given to literature, increased investment efficiency is one of the most important issues in addition to investment development. Investment efficiency require that resource consumption is limited in some activities which invest on them is too desirable in one hand. Afterwards, resources direct to activities that need to more investment, in other hand. As well, efficient investment means to finance and perform the projects with current positive net value and to reject the projects with current negative net value. However, managers might do not tend to invest on projects with current positive net value due to ethical problems comes from agency costs and high costs of their financing. Government and quasi-government institutions in Iran play an important role in ownership structure and firms' management. Government and quasi-government institutions in Iran play an important role in ownership structure and firms' management. Ownership structure in Iran is to some extent limited to government and quasi-government institutions because of their having financial resources and political influence. Therefore, usage of political economic theory to explain the behavior of economic and financial variables is sufficiently justifiable (Burkhard et.al, 2018). Results of hypothesis showed that sentiments as a behavioral financial criterion significantly and directly impacted on investment efficiency which is consistent with theoretical literature. Agency problem theory state that investment decisions might be influenced by investors' tendencies

and consequently maximizing the firm value would be ignored (Chen et.al, 2006). Results of hypothesis showed that political connections significantly and directly impacted on investment efficiency which is consistent with theoretical literature. Trade units in relational capitalist system tend to connect to government, because they obtain many interests including access to market, tax discounts, easy access to credits, government subsidies, profitable contracts, decreased customs' tariff and etc. In contrast, trade units might share their profits with the government. Therefore, political connections creates value in some extent for the firm. Results of third hypothesis showed that according to Sobel, Baron and Kenny tests, growth opportunities play full mediating role on the impact of investors' sentiments on investment efficiency. Results of fourth hypothesis showed that based on Sobel, Baron and Kenny (1986) tests, growth opportunities play a full mediating role on the impact of political connection on investment efficiency.

It could be argued that in spite of growth opportunities, political connections could significantly and directly impact on investment efficiency. Because, whatever growth opportunities and the firm performance and value is higher, the political connections could better impact on firms' goals leading to increased investment efficiency.

Suggestions

Investors and managers should take more attention to sentiments as an important factor in market.

Because, investors sentiments will impact on market. It is suggested to investors and analysts that take attention to growth opportunities in their evaluations. It is recommended to government and Stock Exchange organization that take attention to political connections related to increased firms' inefficiency. It is suggested to investors to take more attention to the firms with political connections in their investments. Because such firms have desirable return than others. It is recommended to Stock Exchange organization to disclosure accuracy and correct information to be able to control investors' decisions caused by audit decisions. It is suggested to investors to take more attention to variables such as investment-based overconfidence in their analysis. Because, it lead to increase deviance of stock return.

It is suggested to future researchers to study mediating role of inflation ambiguity on the relationship between political connections and investment efficiency. Furthermore, it is suggested them to consider the impact of managers' personality traits on the relationship between investment efficiency and stock return. Also, study of non-linear relationship between investors' sentiments and investment efficiency could be a good and new research area.

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