Journal of Accounting, Financial and Economic Sciences. Vol., 3(3), 93-99, 2023
Available online at http://www.jafesjournal.com
ISSN 2149-7346 ©2023
DOI: 10.61186/jafes.3.3.93

The Relationship between Large Firms and the Stickiness of Political Costs in Companies Admitted To the Tehran Stock Exchange

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Abstract: The basic assumption in cost accounting and management is that the cost behavior is symmetric to increase and decrease the volume of activity. However, recent research suggests that costs are asymmetric, that is, the growths in costs when sales are higher than the cost reductions at the same rate of sales decline. Because companies with different sizes of funding limits, the amount of investment in funds, the cost of adjusting the removal of resources are different in relation to each other. Therefore, the size of companies is one of the factors that can affect cost effectiveness. The main objective of this research is to investigate the effect of the companies' political affiliation costs on affiliated companies in Tehran Stock Exchange. This research is based on solidarity. On the other hand, the present study is a post-event type. In this research, to test the existence of a relationship between independent variables and dependent variables, as well as the significance of the proposed model, regression analysis has been used. The data from the sample companies of the research company from 2010 to 2015 were extracted from the sources such as Tadbirzer, Rah Avard Novin, and Stock Exchange. After finishing necessary measures for research variables, necessary statistics tests have been done by EVIEWS. The results of this research in the main hypothesis: there is a significant correlation between the size of the company and the concentration of political costs in the accepted companies in the securities portfolio of Tehran.

Keywords: Cost Stickiness, Company Size, Political Expenses.

Introduction

Awareness of how costs behavior toward changes in the level of activity or level of sales are important information for decision makers about planning and budgeting, product pricing, point-to-head and other items.

In traditional cost behavior models in management accounting, variable costs increase or decrease proportionally to changes in volume of activity. Some researchers, such as Anderson and colleagues, suggest that the increase in costs, when increasing at activity level, exceeds the reduction in costs, when reducing the volume of activity. This behavior is called cost, cost stickiness, or asymmetric cost behavior. In Iran, studies have been done on the cost-stickiness phenomenon, according to which the existence of cost-stickiness has been confirmed in Iranian companies. Among these, we can mention the research of Namazi and Dhani-Poor (2010), Kurdistan and Mortazavi (2012).

The cost stickiness phenomenon has several determinants. Previous studies have tried to identify the causes of this phenomenon, and for that, they have mentioned several causes. According to Caljee et al (2006), Bancer and Chen (2013) and Chen et al (2014), one of the possible reasons for costs sticking up is the personal reasons for executives arising from the agency relationship. The agency relationship is a kind of contract by which one or more non-authorized persons or other owners (someone else) are appointed by the director or agent to execute the operation and, in that regard, also authorizes him to make certain decisions. By establishing an agency relationship, each side of the relationship seeks to maximize its own personal interests. Since the utility function of managers is not the same with the owners, there is a conflict of interest between them. This opportunistic behavior of executives increases agency relationship problems and agency costs, and the establishment of corporate governance systems is in place to control and reduce these problems and costs.

According to Chen et al (2014), since public, administrative, and sales costs form an important part of corporate operating expenses, opportunistic managers, at the time of sales growth, are interested in a rapid increase in public, administrative and sales costs, and in time reduced sales are keen to slow down these costs. This behavior will change the cost-stickiness of the desired level. This phenomenon is likely to lead to a positive relationship between the cost of agency relationship and the cost of stickiness, and since corporate governance systems are designed and implemented to reduce agency costs, corporate governance systems are expected to be more robust, with a positive relationship between agency costs and the cost of stickiness will be diminished.

Theoretical foundations and overview of the research background

The history of historical developments suggests that accounting knowledge has entered into categories beyond the numbers and political and social issues have also entered the accounting process. Thus, companies operating in the political environment will necessarily incur costs through the political process.

The hypothesis of political spending was first put forward by Watts and Zimmermann in 1978, and according to the results of the assertion, it was found that larger companies are spending more on political spending than smaller companies. The political concept states that companies that are more scrutinized include costs they are more likely to suffer in comparison with other companies, and thus, they are more inclined to provide lower profits and lower profit management (Watts & Zimmerman, 1986).

Political costs are a newly emerging issue in the field of accounting that has been neglected in Iran. This area of research, unfortunately, does not have rich literature in our country. Given Iran's different economic environment with Western countries, this issue needs further research in Iran. The results of research in Iran about some of the variables of political costs such as the size of the company are totally opposed to Western research, and this necessitates the research group more than ever in Iran.

In this research, the relationship between company size and the stickiness of political costs in companies accepted in the Tehran Stock Exchange, which is the study period from fiscal years 2010 to 2015, is extracted in special transmission tables, and then analyzed with statistical tools.

Political groups have incurred costs to influence the political process, which can include the cost of campaigning and support for policy makers, who typically incur some of these costs in time-consuming companies, so familiarizing them with the effect of process and political decisions on flows. Cash companies have a special need and they are the vital and vital resources of every business unit. On the basis of the hypothesis of political spending provided by Watts and Zimmermann (1978), politicians have the power to influence companies by using distribution policies about wealth of companies' recourses. Also, cash rewards are key factors affecting the wealth of managers. Changes in flow Cash can be affected by taxes, special regulations and information on political costs. Therefore, managers must consider the laws and regulations that affect them and, if possible, control them.

Based on the hypothesis of political spending tightness, the larger the company is, the more managers are more inclined to transfer reported earnings from current to future periods in order to reduce the political costs imposed by the company due to political participation.

According to Watts and Zimmerman (1978), the relationship between political costs and the size of larger companies suffers more political costs and concluded that tax rates are not the same over time and between all companies and industries.

Awareness of cost management is important for accountants, researchers, and all those who are related to management and who value changes in costs through changes in earnings. The inference of management from this analysis is that the stickiness of the scales is recognizable and controllable. Managers should evaluate their cost-dependency through consideration of the sensitivity of cost variations to volume reduction, and increase the capacity of the company's response to reduce demand for goods or services. This contributes to improving the organization's accountability process. By identifying the cost behavior, the owners of the company can analyze whether the managers impose costly business (Pamplona et al., 2016).

Managers should evaluate their reason for costly stickiness, taking into account the sensitivity of cost variations to the volume reduction, and increase the capacity of the company's response to reduce demand for goods or services. This will help improve the accountability process. By identifying cost-stickiness, the owners of the company can analyze whether the managers will incur costs for the firm. According to the traditional study, the disproportionate increase in distribution, sales, and administrative costs is attributable to the sale of a control weakness of management that this analysis may mislead. Since, if these costs are stickiness, they could move in proportion to the increase in sales, while they will not decrease with cheaper sales.

However, auditors assume in a similar way when conducting analytical reviews that costs vary with sales volatility. Therefore, it would be better than auditors to improve the implementation of analytical procedures, rather than how the costs change compared to the volatility of the seller. Considering the above considerations and studying more about the cost-stickiness, it seems necessary.

On the other hand, by increasing the cost of the products and services companies are the factors that reduce the competitive ability of companies. Political costs are the cost of companies, and the detection and control of this cost can be useful in increasing the competitive ability of companies on the domestic and international markets. Thus, by recognizing the nature and degree of controllability of these costs, it is possible to control the profitability and competitiveness of the company.

Innovation of the concept of political costs in Iran and more familiarity with these costs can be the foundation of future research in this area by senior executives of companies and activists in the stock market and professionals.

Considering the importance of examining the costs and costs of the company and the size of the company, for future programs of companies in this research, we are looking for the answer that:

Is there a significant relationship between the size of the company and the stickiness of the political costs of the listed companies in the Tehran Stock Exchange?

- Ebrahimi and Shahriari (2008) examined the relationship between some agency relationship of political costs and accounting conservatism in Iranian companies. They concluded that there was a negative correlation between the size of firms and the intensity of investment with work conscientiousness, and between the degrees of industry competition and there is a positive relationship between state ownership and conservatism. Also, the results of the research show that there is no significant relationship between the effective tax rate and risk with conservatism.
- Namazi and Domanipour (2010) examined the cost-sticking behavior of the Tehran Stock Exchange. The results of this study showed that administrative, general and stickiness sales are higher, and the cost- stickiness intensity was higher in periods that had previously been lowered in income, and for companies with a larger proportion of total assets. Nemazi et al (2010) confirmed the existence of stickiness behavior in general and sales costs, cost and total costs, and general administrative and sales costs. Their findings show that public and administrative costs for changing over 30% in sales revenue, the cost of changes of less than 10%, and more than 30% in sales revenue, show self-adhesive behavior.
- Kurdistan and Mortazavi (2012) believe that the expectation of future sales growth by management will reduce the stickiness of the cost of sales, and as optimism as possible, the stickiness of the cost of sales will decrease further. However, management optimism increases the stickiness of sales, public and administrative costs, and the stickiness of these costs in the case of optimism in management is more than optimistic, with strong evidence that the hypothesis of judicious decision on sales, public, and administrative costs is verified.
- Namazi and Davanipour (2010) examined the empirical study of cost- stickiness behavior between 1998 and 2007. Their research results show that the cost-stickiness intensity is lower in the periods that occurred in the period before it was reduced. Also, the cost-stickiness intensity is higher for companies with a larger share of total assets.

Watts and Zimmermann (1978) examined the relationship between corporate income tax rates, with the size of the company, examining the relationship between corporate income tax rates and political costs. They concluded that the relationship between corporate size and the rate of taxation over time and it's not the same among all industries.

Materials and Methods

Statistic population and sample

The statistical population of the study is the companies accepted in the Tehran Stock Exchange.

Due to some inconsistencies among members of the community, the following conditions are considered for choosing companies:

1. The fiscal year ends at the end of Esafand each year.
2. The company did not change the fiscal year during 2009-2014.
3. The company has been admitted to the Tehran Stock Exchange by the end of fiscal year 2014.

4. It should not be among investment companies and financial intermediation.

According to the above restrictions, from 2010 to 2015, 108 companies are eligible for membership in the statistical sample.

Variables and their measuring method

Independent variable

Company size: Managers of larger companies, with the constancy of other conditions, are more likely to choose accounting methods to transfer profits from the current period to the subsequent period. The size hypothesis is based on the fact that large corporations are politically more sensitive and their transfer of wealth (political costs) is higher than that of other companies. Watson and Zimmerman (1986) tested this assumption. The most immediate method for transferring corporate assets through the tax system, and income taxes are part of the political costs borne by the company. Watts and Zimmerman (1986) examined the empirical relationship between tax rates and company size. The non-tax components of political costs, as well as political benefits (profitable government contracts, import restrictions, etc.) that might neutralize the opposite effect were not considered in this review. To measure the size of companies, we can use the asset values and the amount of sales and the value of the stock market. In this research, we use the logarithm of annual sales revenue for company size for the firm size. SIZE=log (REV).

Dependent variables

Stickiness political costs: This means that the amount of cost reductions once selling sales is lower than the proportion of rising costs once sales are increasing (asymmetric cost behavior).

Total cost: The total costs in the above relationship are total administrative, general and sales costs.

Income: The income statement in the above relationship is net sales income.

Control variables

Total Return on Equity (ROD): The return on debt is calculated by dividing the profit before deduction of corporate taxes on their total debt.

Financial leverage (LEV): The total debt ratio of the company divided by the total assets of the company (Ebrahimi & Shahriari, 2008).

Total Return on Equity (ROA): Another variable for controlling the return on assets is the profit before income tax deduction on the total assets. In other words, it says how much the company has been able to profit from each asset rally. This indicator is one of the best indicators of company valuation and its profitability in the literature on corporate valuation (Industrial Management Organization, 2011).

1. Number of employees: The total number of employees in the company, which are employed according to the company's goals and application, is a criterion for calculating the size of the company.

Staff (Staff): All employees are official, contract, insurance and part-time employees.

The total cost of staff: All costs incurred in the form of profit and loss are listed as personnel costs (financial, administrative, and productivity).

2. Political cost stickiness variables: The implications of the political cost variables are taxes, environmental costs, retirement insurance costs, customs duties, sports assistance costs, and the creation of educational spaces.

Taxes (TX): Taxes are a kind of cost that people pay for their government to utilize the facilities, resources, public and emergency services, security and public defense, and the development and development of a country. In fact, the transfer of part of the revenues of society to the state or it is part of the profit of the economic activities that the government gets, because the government has provided them with the means and means to achieve income and benefits for them. Taxes on income earnings are divided into four sources of income tax, tax, capital duty, and service taxes. According to Article 105 of the Law on Direct Taxes, adopted in 2001, the Government's share is 25% of the profits of legal persons, which should be paid to the state.

Taxes are important and fundamental items, as well as part of political costs, and are considered as compulsory political costs.

Environmental costs: This is a form of compulsory political expenditure and costs related to environmental considerations, and this cost is also included in Watts & Zimmermann's (1986) study, such as a tax on political spending.

Pension insurance costs: According to the labor law, as well as the pressures from the trade unions of the company, they must insure their employees and also pay the company (as the employer) 23% of the cost of the insurance, so it can be said that This fee is a charge imposed on companies under the laws and the company also has to pay for it, so it is possible to consider the cost of insurance as a political expense.

Price duties: According to the laws of different countries, they receive various percentages of customs duties from companies for foreign business operations. These amounts are a kind of cost to companies. Price duties are a form of compulsory political expense because companies are forced to pay for their normal operations, such as purchasing raw materials or selling their products or preparing their parts and spare parts.

Helping to exercise costs and helping create educational spaces: These types of costs are usually optional and are not subject to company laws and regulations. In some cases, these costs are due to the decisions of managers for the company. For example, the cost of helping exercise is an optional fee, and no company laws require it to be paid, but the director of the company will pay this kind of expenses for help or support from the sports team, as well as helping to develop or create training spaces, except for this Type of expenses.

Statistical Analysis

Descriptive statistics

One of the most important benefits of using descriptive statistics is to summarize a huge amount of information. Using descriptive statistics methods and indicators used in it including central indexes and dispersion, there is good information about the variables used, which can be used to determine the distribution of that variable.

In the table of central indices such as mean and median and dispersion indices such as standard deviation, skewness coefficient and Kurtosis coefficient for different variables have been calculated. The larger mean of the mean shows the large points in the data, since the mean is affected by these values; in these cases, the distribution of data is Kurtosis to the right. In cases where the mean value is greater than the mean value, there is a distribution in the Kurtosis variable to the left. In the distribution of some variables, the mean and middle values are close together, in which case the distribution of variables is symmetric. The symmetry as well as the skewness rate of the normal distribution characteristics is considered in the normal test section of the dependent variable and the remainders are discussed.

Table 1. Descriptive statistics.

	Political Stickiness Costs	Firm Size	Total Debts Return	Financial Leverage	Total Assets Returns
Average	0.165123	5.985417	0.379568	0.585864	0.163117
Mean	0.000000	5.925000	0.230000	0.600000	0.140000
Maximum	1.000000	8.220000	3.310000	0.960000	0.670000
Minimum	0.000000	4.480000	-0.390000	0.150000	-0.240000
Standard Devition	0.371579	0.624384	0.477843	0.174635	0.139679
Skewness	1.803845	0.824846	2.566944	-0.293338	0.854799
Kurtosis	4.253857	4.373022	11.52900	2.436821	3.763574
Number Of Observing	648	648	648	648	648

In above table central indices including average and distribution indices including standard deviation, Kurtosis and skewness are presented for various variables. Given the fact that symmetry is a normal distribution feature and the normality of the dependent variable is one of the main hypotheses of regression analysis, the symmetry of the dependent variable is important in the research.

Test hypotheses and research results

In this section, we use a logistic regression test to analyze the relationship between company size and the cost of political stickiness in companies admitted to the Tehran Stock Exchange.

The model used to measure the relationship between company size and the Stickiness of political costs in companies admitted to Tehran Stock Exchange:

The following model is used to measure the relationship between firm size and the Stickiness of political costs in listed companies in Tehran Stock Exchange:

$Stickiness=\beta_0+\beta_1\ Size+\beta_2\ ROD+\beta_3\ ROA+\beta_4 Lev+$ €

Given the fact that the dependent variable (political expenditure tangency) selects 0 and 1, which indicates a dual state, for testing the hypothesis, the "Logit Model Estimation" test was used in the Eviews software, which displays the test output.

The test of the correlation between the size of the company (large firms) and the stickiness of political costs in the companies admitted to the Tehran Stock Exchange

Table 2

Question	Is there a significant relationship between company size(large firms) and the Stickiness of political costs in companies admitted to Tehran Stock Exchange?
Research Hypotheses	Zero hypothesis there is not a significant relationship between company size(large firms) and the Stickiness of political costs in companies admitted to Tehran Stock Exchange One hypothesis Is there a significant relationship between company size(large firms) and the Stickiness of political costs in companies admitted to Tehran Stock Exchange
Statistic Hypotheses	Zero hypothesis H_1: $\rho = 0$ One hypothesis H_0: $\rho \neq 0$

The model used to measure the relationship between company size (large firms) and the Stickiness of political costs in companies admitted to Tehran Stock Exchange:

The following model is used to measure the relationship between firm size (large firms) and the Stickiness of political costs in listed companies in Tehran Stock Exchange:

$$\text{Stickiness}=\beta_0+\beta_1 \text{ Size (Large Company)} +\beta_2 \text{ ROD} + \beta_3 \text{ ROA} + \beta_4\text{Lev} + €$$

Note: What the Central Bank Statistics Bureau considers as the classification of industrial units is that units with fewer than 10 employees, "small", 10 to 49 "medium" employees, 50 to 99 employees, "medium" and more than 100 employees, are called "big" workers.

Given the fact that the dependent variable (political costs stickiness) selects 0 and 1, which indicates a dual state, for testing the hypothesis, the "Logit Model Estimation" test was used in the Eviews software, which displays the test output in the following table like this:

Table 3. Logit model estimation; hypothesis.

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-1.333822	1.095806	-1.217207	0.2235
SIZE	0.475334	0.175514	2.708242	0.0068
ROD	-2.170473	1.281524	-1.693665	0.0903
LEV	-3.641414	0.979466	-3.717753	0.0002
ROA	-2.896403	2.739462	-1.057289	0.2904
McFadden R-squared	0.089535	Mean dependent var		0.162461
S.D. dependent var	0.369164	S.E. of regression		0.356407
Akaike info criterion	0.823770	Sum squared resid		79.89938
Schwarz criterion	0.858881	Log likelihood		-256.1350
Hannan-Quinn criter.	0.837404	Deviance		512.2701
Restr. Deviance	562.6466	Restr. log likelihood		-281.3233
LR statistic	50.37656	Avg. log likelihood		-0.403998
Prob(LR statistic)	0.000000			
Obs with Dep=0	531	Total obs		634
Obs with Dep=1	103			

The LR model shows that an independent variable or independent variables affects the dependent variable. The LR model in the first step is 50.37656, with a significant level (Prob (LR statistic)) of less than 5%, so independent variables have an impact on the dependent variable and show a suitable relationship.

Note: In the Logit model estimation, the Likelihood Ratio (LR) performs the same as the F statistic in normal regressions, and both are used to test the significance of the regression.

The output also shows the variables entered in the model and the test results. According to the test statistic and its significant level, the company size and financial leverage variables have a positive and significant relationship with the political costs of stickiness to the 5 % error rate, while the total returns of debt and total returns of assets with a significant relationship of political costs do not have significant relationship.

Conclusion

The present study investigated the effect of large firm on stickiness of costs behavior in Tehran Stock Exchange (TSE). Therefore, costs were divided into two parts of CGS and SG&A costs. The size of companies was one group of large firms using the above criteria. The basic assumption in cost accounting and management is that the cost behavior is symmetric to increase and decrease the volume of activity. However, recent research suggests that costs are asymmetric, that is, the growths in costs when sales are higher than the cost reductions at the same rate of sales decline. Because companies with different sizes of funding limits, the amount of investment in funds, the cost of adjusting the removal of resources are different in relation to each other. Therefore, the size of companies is one of the factors that can affect cost effectiveness.

The results of hypothesis indicate that stickiness of political costs decreases in large firms with an increase in debt. These results indicate that large firms have a high level of debt and reduce their debt at the period of sales decline in order to reassure the creditors. So they can obtain their financing requirements with lower costs at the time of returned demand.

Conflict of interest

The authors declare no conflict of interest

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