International Journal of Business Quantitative Economics and Applied Management Research
Volume-5, Issue-5, October-2018 ISSN No: 2349-5677

EVALUATE THE EFFECTS OF ORGANIZATIONAL CULTURE ON FINANCIAL PERFORMANCE OF TEHRAN STOCK EXCHANGE

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Abstract

This study aimed to evaluate the effects of organizational culture on financial performance of companies listed on Tehran Stock Exchange. Cameron and Quinn 2006 questionnaires were used in order to measure the organizational culture and Return on assets Index as well as data contained in Company's financial statements during 2009-2013 1392-1388 was used in order to measure the financial performance. The research method is applied and descriptive; statistical sample of 68 companies was selected among companies that had the most primary capital in industry groups' classification. The relationship between components of organizational culture and financial performance of companies was analyzed using Pearson's correlation coefficient. Finally, appropriate regression model was fitted. The results showed that there is no significant relationship between hierarchical, tribal and market cultures and financial performance, except positive relationship between democratic culture and financial performance.
Key words: democratic culture, hierarchical culture, tribal culture, market culture, financial performance

I. INTRODUCTION

Organizations have characters like people; the character format of organization is called organizational culture (Qadami and Azeri, 2010). The presence of cultural identity, common beliefs, values and behavioral norms of organizational members lead to integration of efforts, internal commitment to organization and a clear understanding of existential philosophy and actions orientation and finally lead to success of organizations. In other words, the enormous success of organizations lies in powerful intangible factors of organizational culture, values and beliefs of employees. Culture plays different roles in an organization; firstly, culture determines the boundaries of organization. Secondly, it

injects identity in members of organization. Thirdly, culture makes a commitment in members to something that is much more important than personal interests (Arabi, 2007).
Organizational culture may not be defined in specified format; there is no generally acceptable definition (Sharif Zadeh and Kazemi, 2006). Denison (2000) considers organizational culture as very powerful force which determines the state of operations. He believes that organizational culture is referred to fundamental values, beliefs and principles which will serve as a solid foundation of management system. Moreover, values, beliefs and management system strengthen primary basics. These principles and values are persistent because they contain specific meanings for members of organization. He believes that message of organizational culture is closely related to organizational strategies and has more effects on people who work in organization. Denison says that culture is not easily visible; but organization members know it importantly and culture law is stronger than any other law. In many organizations, it is the most important message of culture (Iran Zadeh and Mahmoudi, 2010). All of these messages and views can affect the performance of organization. Organization's norms and values within people affect the performance of organization in different areas and this effect can be seen in financial performance of an organization. This research tests empirically the effect of organizational culture on financial performance of companies listed on Tehran Stock Exchange?

II. THEORETICAL FOUNDATIONS AND LITERATURE

Organizational Culture

Organizational culture is a subject that is entered into management knowledge and organizational behavior realm. Today, organizational culture becomes increasingly important and forms one of the main topics of management. Organizational culture is a unique pattern of common assumptions, values and norms that form activities of socialization, language, symbols and organization operations. It means a system of common realization that members of an organization have and this feature separates two organizations from each other. Knowledge of culture is important for managers because they can benefit from this knowledge and understand the easy ways of dealing with cultural changes by greater awareness of cultural elements. The distinction between cultures is common and considering this distinction will help us to better understand the organization. In addition, this distinction leads to cultures categorization. One of the most important benefits of culture categorization increases their comparison. Our country having ancient culture and historical legacies has not given sufficient importance to this issue and studies have not been conducted in this field. Managers and leaders of organization must try to create effective cultural values which are followed by committed members. So managers do not only follow the culture, but one of their effective roles is to ratify cultural values that are very important stresses given the importance of dealing with environment changes. Flexible organizational culture that supports the changes and keeps organization in competition mode seems essential in order to explore, understand and create the required knowledge of organization and disseminate it among staff. Organizational culture is each human being identity and personality and unconscious people act accordingly. Static and inflexible organizational culture can create irreparable mistakes; as inattention to new knowledge can deprive the organization form competitive advantages.

Financial performance

Initial searches for many of performance evaluation criteria led to use of accounting numbers and information in this field. Many performance evaluation criteria are based on accounting models, especially reported earnings or earnings per share accounting. Over time, managers considered earnings management through falsification of accounting numbers in order to maintain earning level and improve it. This has led some companies to face with financial crises such as lack of liquidity despite their good financial situation in terms of accounting numbers and performance evaluation criteria based on accounting model. Therefore, performance evaluation criteria based on accounting models and bonus plan could not move towards interests of shareholders and other external groups and moderate conflict of interests (Hayes and Van, 1991). Researchers such as "W. W. Suojanen", "G. B. Stewart", "J. M. Bacidore" and "A. E. Bacusch, W. Barbara and M. Blome" searched for new criteria of performance evaluation in order to address these deficiencies. Models were proposed in order to calculate the economic benefit with the advent of theories in economic benefit or residual income area (Stewart, 1991). In these models, net operating profit is defined as economic profit after tax deduction and capital cost. The main aim of institutions is to maintain and increase shareholder wealth and profit or value creation for firms is deemed as the only way of achieving this aim (Bacidore and Bquist, 1997). Thus, profit creation or economic value added which increase the value of shares in market and improve shareholder wealth, can be considered as refined economic value added factor. Market value added and economic profit consider the complexity of managers behavior, evaluate their performance and conflicts of interest balance and explain the information of price and stock return during their evolution (Bacusch,et al, 2003).

III. LITERATURE

Iran Zadeh and Mahmoudi (2010) in a study concluded that norms and values of an organization that appear within people affect the performance of organization in different areas including financial area.

Qadami and Azeri (2010) found that education is the main infrastructure of wealth, value and communication technology creation and consequently cultural diplomacy and engagement and enables social and cultural changes.

Moradi et al (2011) in their study concluded that group culture is very important among organizational culture components.

Siferi and Tondnevis (2012) concluded that there is positive and significant relationship between management support and reward system and organizational culture among components of entrepreneurship, structure, objectives and strategies but there is no significant relationship between education system, information and organizational culture. Kucheki Siyah Khalesar et al (2012) found that there is significant and positive relationship between organizational culture and feasibility of implementing knowledge management.

Omidi et al (2012) in their study concluded that organizational culture has positive, significant direct and indirect effects on organizational effectiveness and effectiveness of knowledge management is significant and positive on organizational effectiveness and finally, organizational culture has significant and positive effects on effectiveness of knowledge management.

Mac Oily and Chakravarsy (2005) found that knowledge creation and share lead to increased organizational performance through strengthening creativity and innovation power of people in organizations. In recent research, knowledge management systems effective participation role has been confirmed on overall success of organization.

Fung (2007) stated in a study if we accept that modern man cannot live apart from institutions and organizations including their fellow human beings, we will admit that much of his behaviors are originated from these organizations. If existing laws and regulations of organization form the official behavior of employees, organizational culture will dictate informal behavior of employees.

Yesil and Kaya (2012) found that organizational culture does not have any effect on financial performance of companies and it must be evaluated carefully due to the limitations of this study.

In a study, Denison (2005) created a model which includes four main features of organization such as involvement, adaptability, stability (integrity) and mission and he believed that four characteristics of organizational culture are related and are originated from beliefs, values and assumptions of organization and are strengthened by them. These management activities are measured using twelve indicators that form the model.

IV. RESEARCH HYPOTHESES

Research hypotheses have been developed based on raised theoretical bases and literature as follows.

First hypothesis: there is a significant relationship between financial performance of organization and tribal culture.

The second hypothesis: there is a significant relationship between financial performance of organization and hierarchical culture.

The third hypothesis: there is a significant relationship between financial performance of organization and democratic culture.

The third hypothesis: there is a significant relationship between financial performance of organization and market culture.

Spatial and temporal scope of research

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Spatial territory of this research includes companies listed on Tehran Stock Exchange whose shares were traded during years 2009-2013 and its temporal territory started from April until September of 2014.

V. RESEARCH VARIABLES

Two variables of organizational culture and financial performance are examined in this study. Organizational culture is a variable that is divided by four tribal culture, hierarchical culture, democratic culture and market culture.

A) The independent variable

In this study, tribal culture, hierarchical culture, democratic culture and market culture are considered as independent variables and their relationship with financial performance is examined.

B) The dependent variable

The dependent variable of this research is financial performance that is calculated based on mean rate of assets return and in accordance with following formula for years of 2009-2013.

$$\text{Rate of assets return} = \frac{\text{Net profit}}{\text{Total assets}}$$

VI. DATA COLLECTION METHOD

Generally, data collection methods are divided into library and field methods. In this research, library studies are used in order to determine indices; these studies include evaluate theses and researches related to topic, related articles and books in Latin and Farsi. Also, standard Quinn and Cameron questionnaire (2006) was used in order to obtain initial data of analysis. The questionnaire distribution method was so that questionnaire was distributed by researcher among all companies through coordination with respective directors and researchers guided respondents during fill out a questionnaire in order to demystify the respondents. According to sample, 68 questionnaires were distributed among respondents and 50 acceptable questionnaires were returned. This study examines the effects of organizational culture on financial performance of companies listed on Tehran Stock Exchange; therefore, the study is applied in terms aim and is survey-descriptive in terms of nature and method.

VI. RESEARCH METHODOLOGY

The questionnaire reliability and validity

Validity and reliability are features that each questionnaire must include.

VII. QUESTIONNAIRE VALIDITY

Validity means whether tools content or questions of questionnaire measure accurately variables and subject matter or not?

In this study, a standardized questionnaire was used. Articles, scientific interviews of theorizers about organizational learning capabilities were studied accurately in order to validate questionnaire and three factors were identified as intellectual capital indicators after reviewing the sources; these dimensions include: human capital, structural capital, capital and relationship

Reliability of questionnaire

The aim of measurement tool credibility is if the measurement is repeated under the same conditions, to what extent the results will be similar and reliable?

The comments of experts and professors proficient in subject and questionnaire are used in order to estimate validity of questionnaire and its questions. Comments and corrections of experts and professors assure researcher on questionnaire validity and subject compliance with questions and usability and timeliness of questions and determine how questions will explain model and test hypotheses.

There are different methods in order to calculate reliability including: retest method, parallel or peer method, two halves method and Cronbach's alpha coefficient method. Theoretical and experimental studies showed that Cronbach's alpha method has higher power and accuracy among above methods. Cronbach's alpha method using SPSS software was used in this study in order to determine the reliability of questionnaire.

The variables of this study include organizational culture and financial performance that were collected and calculated through questionnaires and using Rah Award Novin software; organizational culture effects on financial performance was determined by regression and then SPSS software was used in order to test the hypotheses and extend results of statistics calculation to total statistical population.

VIII. RESEARCH FINDINGS

It is required to implement Cronbach's alpha for each hypothesis before evaluating the effects of organizational culture on financial performance; because we need to fit a separate model in order to check each of these hypotheses. The results of Cronbach's alpha test are presented in Table 1 for each of main and sub- hypotheses.

Cronbach's alpha coefficient is used in order to calculate the internal consistency of measurement tools such as questionnaires or tests that measure different features. In these tools, each question answer can have different numerical values. Firstly, variance of each sub-questions and total variance must be calculated in order to calculate Cronbach's alpha. Lf Cronbach's alpha is greater than 0.7 and its amount is closer to number 1, the questionnaire will have higher reliability.

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Table 1: reliability of questionnaire

Cronbach's alpha coefficient	Number of items	Dimensions
81/8	6	Tribal culture
93/1	6	Group culture
90/4	6	Market culture
80/7	6	Hierarchical culture

Normal observation is one of the terms for using regression analysis. So, we must examine this term for changes percentage variable at first step. Assuming normality of observations, we will continue to work with original observations. But if normality of observations has error for any reason we must use appropriate conversion in order to normalize observations and use converted variable for analysis. Since the number of observations is less than 100, we use Climograph test. Results of different variables are as Table (2).

Table 2: Results of Kolmogorov – Smirnov test

Variable	Statistics	Degrees of freedom	Significance level
Financial performance	0/092	50	0/2
Tribal culture	0/431	50	0/612
Group culture	0/467	50	0/625
Market culture	0/428	50	0/502
Hierarchical culture	0/396	50	0/42

Since this test was performed at confidence level of 95% and significance level of all variables is more than 0.05, and it can be concluded there is no evidence of variables non-normality; in other words, variables are normal.

We turn to correlation analysis of data after normalization analysis. We want to do H0:ρ=0 test against H1:ρ≠0 for all correlation coefficients. Admission of H1 tells us that x and y are interdependent. If x and y are interdependent, we can fit regression line and determine its effect. In Table 3, correlation analysis of data is provided.

Table 3: correlation matrix between variables

	Financial performance	Hierarchical variable	Market culture	Democratic culture	Tribal culture
Financial performance	1				
Hierarchical variable	0/18 (0/211)	1			
Market culture	0/034 (0/816)	0/760 (0/000)	1		

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Democratic culture	0/383 (0/006)	0/744 (0/000)	0/347 (0/014)	1	
Tribal culture	0/133 (/357)	0/913 (0/000)	0/782 (0/000)	0/679 (0/000)	1

We enter all variables into regression model at the same time in order to test the hypotheses.

Table 4: Results for Financial Performance Model

Standard deviation	Adjusted coefficient of determination	Coefficient of determination	Correlation coefficient	Model
9/8472	0/110	0/182	0/472	1

According to Table 4, determination coefficient shows that 18.2 percent of changes in financial performance are related to company's organizational culture and 81.8 percent depends on other factors.

Table 5: Results of regression analysis based on all variables

Significance level	F statistics	Mean squares	Degrees of freedom	Sum of squares	Model
0/004	2/508	243/189	4	972/756	Regression
		96/967	45	4363/526	Residual values
			49	5336/283	Total

Since the significance level (0.004) is less than 0.05, then null hypothesis of line slope is rejected with 95 percent confidence level, so, according to table (6) model ac be written as follows:

Table6: total model coefficients

Co-linearity between variables		Significance level	T statistics	Standardized coefficient	Non-standardized coefficient		Model
				β	Standard deviation	β	
Variance Inflation	Tolerance	0/397	-0/855		19/544	-16/715	Constant value
7/051	0/242	0/479	-0/714	-0/256	11/310	-8/077	Tribal variable
8/778	0/314	0/708	-0/376	-0/150	12/565	-4/728	Hierarchical variable
3/125	0/32	0/012	2/614	0/623	6/149	16/076	Democratic variable

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3/711	0/27	0/614	0/508	0/132	4/408	4/268	Market variable

Y=-16.715-8.077x1-4.728 X2+16.76 X3+4.268X4

In the above equation, Y is financial performance function, X1 is tribal culture, X2 is hierarchical culture, X3 is democratic culture and X4 is market culture. In this table, t value of regression coefficients was calculated. Significance level of democratic variable that is less than 0.05 indicates that the variable has important effect on prediction of dependent variable (financial performance) and other variables have poor effects on prediction of financial performance variable. Tolerance is more than 0.2 in the case of independent variables and the inflation variance is less than 10, which indicates variables don't have co-linearity.

Then we enter all variables stepwise into regression model.

Table 7: Results for Financial Performance Model

ted standard deviation	Adjusted coefficient of determination	Coefficient of determination	Correlation coefficient	Model
9/73789	0/129	0/147	0/383	1

According to Table 7, determination coefficient shows that 14.7 percent of changes in financial performance are related to Company's organizational culture and 85.3 percent depends on other factors.

Table 7: Results of regression analysis based o all variables

Significance level	F statistics	Mean squares	Degrees of freedom	Sum of squares	Model
0/006	8/274	784/607	4	784/607	Regression
		94/827	48	4551/676	Residual values
			49	5336/283	Total

Since the significance level (0.006) is less than 0.05, the null hypothesis of line slope is rejected with confidence level of 95 percent, so, the model can be written due to table (8) as below:

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Table (8): Total model coefficients

Co-linearity between variables		Significance level	T statistics	Standardized coefficient	Non-standardized coefficient		Model
				β	Standard deviation	β	
Variance Inflation	Tolerance	0/048	-2/033		13/701	-27/856	Constant value
1	1	0/006	2/876	0/383	3/439	9/893	Democratic variable

X_1= -27/856-9/893Y

Table (9): Omitted variables

Variance Inflation	Tolerance	Partial derivatives	Significance level	T statistics	β	Model
1/854	0/539	-0/187	0/197	-1/308	-0/236	Tribal variable
2/240	0/446	-0/171	0/241	-1/187	-0/236	Hierarchical variable
1/137	0/880	-0/114	0/434	-./790	-0/113	Market variable

According to table (9), variables of tribal, hierarchical and market cultures were removed from model using stepwise method and variable of democratic culture remained as the effective variable of model; according to Table 4-14, Y is financial performance function and X1 is democratic culture. In this table, t value of regression coefficient was calculated; the significance level of democratic culture that is less than 0.05 indicates that the variable has significant effect on prediction of dependent variable (financial performance). Tolerance is more than 0.2 in the case of independent variables linearity and the inflation variance is less than 10, which indicates variables don't have co-linearity.

IX. RESEARCH FINDINGS

The first hypothesis: there is a significant relationship between financial performance of organization and tribal culture. According to results of correlation coefficient between tribal culture and financial performance, Pearson correlation coefficient was 3.13% and significance level was 0.357; since the significance level (0.357) was more than 0.01, the result of first hypothesis was not accepted on relationship between tribal culture and financial performance of companies with confidence of 99%. In other words, there is no significant relationship between tribal culture and financial performance of companies due to managers' views.

The second hypothesis: there is a significant relationship between financial performance of organization and hierarchical culture. According to results of correlation coefficient between hierarchical culture and financial performance, Pearson correlation coefficient was 0.18% and significance level was 0.211; since the significance level (0.211) was more than 0.01, the result of second hypothesis was not accepted on relationship between hierarchical culture and financial performance of companies with confidence of 99%. In other words, there is no significant relationship between hierarchical culture and financial performance of companies due to managers' views.

The third hypothesis: there is a significant relationship between financial performance of organization and democratic culture. According to results of correlation coefficient between democratic culture and financial performance, Pearson correlation coefficient was 3.38% and significance level was 0.006; since the significance level (0.006) was more than 0.01, the result of second hypothesis was accepted on relationship between democratic culture and financial performance of companies with confidence of 99%. In other words, there is significant relationship between democratic culture and financial performance of companies due to managers' views.

According to the significant relationship between democratic culture and financial performance, regression model can be fitted. According to results, 148.77 percent of changes in financial performance are explained by democratic culture. Their significance level is less than 0.05 and indicates its effect on prediction of dependent variable (financial performance).

The fourth hypothesis: there is significant relationship between market culture and financial performance of companies. According to the results of correlation coefficient between market culture and financial performance, Pearson correlation coefficient was 4.3% and significance level was 0.816; since the significance level (0.816) is more than 0.01, consequently, fourth hypothesis result is not accepted with confidence level of 99% on the relationship between market culture and financial performance of companies. In other words, according to managers there is no significant relationship between market culture and financial performance of companies.

The results of this study are consistent with results of Yesil and Kaya study (2012), who stated:(Organizational culture does not have any effects on financial performance of company and findings must be carefully evaluated due to the limitations of study); Moradi et al (2011) who stated: (group culture is very important among organizational culture componets); Iran Zade and Mahmoudi (2010) who stated: (organization norms and values that appear within people affects the performance of organization in different areas and it can be observed in financial performance of an organization).

V. SUGGESTIONS

Functional suggestions

Given the positive relationship between democratic culture and financial performance, managers are suggested to strengthen democratic culture.

Suggestions for future research

Evaluate the effects and relationship of organizational culture on companies' financial performance using other methods such as Denison, Robbins.
Identify and introduce factors affecting and strengthening democratic culture.
Provide a model of organizational culture and financial performance of other companies, including public companies.
Study the relationship between organizational culture and companies' financial performance due to the types of companies industry listed in Stock Exchange and compare them with each other.

Limitations of study

Novelty of research in the field of financial performance and particularly lack of organizational culture and supportive internal investigations.
Distribution of questionnaires and returning them led to longer research process due to the scattered locations of companies listed in Tehran and other parts of country.

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