THE IMPACT OF ORGANIZATIONAL CULTURE ON THE LEVEL OF ACCOUNTING PRACTICES IN THE PHARMA INDUSTRY COMPANIES LISTED ON TEHRAN STOCK EXCHANGE

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Abstract: Present research examines the relationship between organizational culture and the level of accounting practices adopted by the TSE-listed pharmaceutical companies. The research statistical population and sample included all the senior managers of the above mentioned companies from whomthe required actual data was gathered using standard questionnaires. The questionnaires' validity was verified based on the calculated Cronbach's alphas whichindicated a relatively high reliability of the questionnaires. It is hypothesized that each type of organizational culture (i.e. support-oriented, innovation-oriented, rule-oriented, and goal-oriented) permits certain degree of accounting practices to be adopted. To test the research hypotheses, multiple regression models were applied. The obtained results from test of the hypotheses indicated a positive and significant association between support-oriented and innovation-oriented organizational cultures and the level accounting practices, and no significant relationship between rule-oriented and goal-oriented organizational cultures and the level of accounting practices adopted in the understudy firms.

Key words: organizational culture,support-oriented, innovation-oriented, rule-oriented, and goal-oriented organizational cultures, level of accounting practices

1. INTRODUCTION

Accounting system is one of the major functional areas in all organizations, which has been always influenced by the prevailing politics, economy and culture in the society. Culture is among the key environmental factors which canaffectaccounting practices in different ways, for instance, through formulation process of accounting standards in organizations. Culture is the broad social context which exerts influence over all systems, including management and accounting systems. Culture can be defined as the acquired behaviors by which the members of one group are distinguished from those of another (Hofstede, 1980).Gray describes culture as a set of shared values of a society (Gray, 1988). Among the numerous definitionsoffered so far for the term culturethere is almost complete unanimity on the point that each culture exercises certain influence over social systems, including accounting system as a sub-system within organization. It follows that accounting system in addition to being influenced by culture of the society, is also affected by organizational culture. Organizational culture can be defined as a set of institutionalized and shared characteristics in organization influencing other internal systems. Yet, few studies have empirically addressed the effect of organizational culture on accounting systems and practices across organizations. Hence, the statement suggesting organizational culture as one of the environmental determinants of accounting system and accounting practices needs to be empiricallyin more concrete terms verified and established.

Present research,which is focused on the effect of organizational cultures(i.e.support-oriented, innovation-oriented, rule-oriented, and goal-oriented cultures)on the level of the accounting practices actuallyin use by the listed Iranian pharma companies, by providing further industry-based support for the earlier findings contributes to the existing research literaturemeanwhile it offers practical suggestions for reinforcement of the right type of the organizational culture which corresponds satisfactorily to the level of accounting practices pursued by organization.

2. LITERATURE REVIEW

Hofstede is among the first scientists who defined the topic culture in view of management science. Hofstede defined culture as a set of acquired behaviors based on which members of one group can be distinguished from those of other groups (Hofstede, 1980). Hedescribed cultural differences between various groupsat the hand of such concepts as symbols, emblems, myths, and values. According to Hofstede, these are the cultural values that affect social systems and constructs of every particular country. In his study, Hofstede (1980) specified four general dimensions or aspects of national cultures which differentiate countries from each other. These are: Individualism versus Collectivism, High power distance versus Low power distance, Masculinity versus Femininity, and Uncertainty avoidance.[1]

The theory of cultural relativism suggests that people's culture affects their understanding of accounting and auditing phenomena. This theory is founded on the Hofstede's cultural theory and clearly states that the cultural dimensions proposed by Hofstede (i.e. Individualism vs. Collectivism, High power distance vs. Low power distance, Masculinity vs. Femininity, and Uncertainty avoidance) fully explain the cultural differences existing between people of a society, including accountants and auditors. And every individual, in the position of an accountant or an auditor, given his/her conceived understanding of the phenomenon in question, makes judgment and decision regarding that phenomenon. Hence, culture works out its effect on people's judgment and decision making by shaping first their understanding of accounting phenomena (Belkaoui, 1985).

Choi et al (1985), Gray (1988), Bloom and Naciri (1989), Belkaoui (1994),Violet (1983), Harrison and Mckinnon (1999), Lau and Buckland (2000), and Tsui (2001) are among the prominent figures who have worked on the relationship of organizational culture and accounting whose research has been largely drawn on the findings of Hofstede (1980) who in his study titled 'Culture's Consequences' emphasized on the differentiating role of the culture by defining it as "a set of acquired behaviors based on which members of one group are distinguished from those of another group." He, in addition, proposes four characterizing cultural dimensions – i.e. individualism vs. collectivism; masculinity vs. femininity; high power distance vs. low power distance; and uncertainty avoidance – as the principal sources of cultural divergence among social groups and the world's nations.

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[1] To these dimensions, later on, Hofstede added a fifth dimension, Long-term orientation versus Short-term orientation (Hofstede, 1990), and a sixth dimension, Indulgence versus Self-restraint (Hofstede et al, 2010). However, this study is primarily focused on the original four dimensions.

Mckinnon (1986), based on the theory of social systems, suggests a theoretical model referred to as the Modified Exogenous Frameworkto study(the changes of) the accounting system in a historical context. At the hand of this framework, he explains how the accounting system is surrounded by legal, financial, and cultural systems, and culture as one of the comprehensive social systems not only affects the accounting system but also all the other systems in the society.

In his work, Culture and Accounting Values,Gray (1988) defines culture as a value system shared by performance, where organizational culture assumed a modifying role. Their findings indicated that presence of organizational culture did make a difference in the relationship ofleadership style and organizational culture. Tsui et al (2006) examined the relationship between leadership strengthening and cultural strengthening. Their findings indicated a closely direct relationship between the two variables.

3. RESEARCH METHODOLOGY

This is an applied research in that its results are going to be used by awide range of users, conducted based on a correlational, descriptive design.

3.1. Measurement of the variables

Present research involves 4 independent variables (i.e. the four types of organizational culture) and one dependent variable (i.e. the level of accounting practices) which are measured based on the scoring scales observed in the Kader and Luther's Managerial Accounting Questionnaire (Abdel-Kader and Luther,

3.2. Research hypotheses

In this study, the relationship of different types of culture with the level of accounting practices in use by the understudy firms is examined in view of four hypotheses (each pertaining to one of the four types of organizational culture).

The first hypothesis: there is significant relationship between support-oriented organizational culture and the accounting practices in use in the Pharma Industry companies.

Main Hypothesis: there is a significant relationship between the organizational culture on the whole and the level of accounting practices in the Pharma Industry companies.

most of the society's groups. Belkaoui (1994), in his study,Cognitive Relativism and Accounting,investigated the relationship of culture with accounting system and concluded that culture as a fundamental variable lets its impact on the accounting system be felt by influencing accountants and auditors' understanding and judgment. Ogbonna and Harris (2000) examined the relationship between leadership styles (i.e. supportive, collaborative, and instrumental)and organizational

2008) and the Focus Questionnaire of Organizational Culture developed by Van Muijen et al (1999). Both questionnaires are validated using Cronbach's alpha.In table 1, thevariables, their measurement tools, and the validation criteria for the measurement tools are summarized.

Table 1: Research variables and their measurement

Variable	Var. measurement tool	Validation criterion	Cronbach's alpha
Level of Acc. Practices	Kader and Luther's Questionnaire (2008)	Cronbach's alpha	0.892
Support-oriented culture	Focus Questionnaire, Van Muijen et al (1999)	Cronbach's alpha	0.876
Innovation-oriented culture	Focus Questionnaire, Van Muijen et al (1999)	Cronbach's alpha	0.877
Rule-oriented culture	Focus Questionnaire, Van Muijen et al (1999)	Cronbach's alpha	0.868
Goal-oriented culture	Focus Questionnaire, Van Muijen et al (1999)	Cronbach's alpha	0.885
Org. culture	Focus Questionnaire, Van Muijen et al (1999)	Cronbach's alpha	0.836

The calculated Cronbach's alpha, which is greater than 0.7 for all variables, confirms that the questionnaires can be applied with adequate reliability.

First hypothesis: there is significant relationship between support-oriented organizational culture and the accounting practices in use in the Pharma Industry companies.

Second hypothesis:there is significant relationship between innovation-oriented organizational culture and the accounting practices in use in the Pharma Industry companies.

Third hypothesis:there is significant relationship between rule-oriented organizational culture and the accounting practices in use in the Pharma Industry companies.

Fourth hypothesis:there is significant relationship between goal-oriented organizational culture and the accounting practices in use in the Pharma Industry companies.

4. DESCRIPTIVE STATISTICS

In tables 2 and 3, demographic attributes of the participants (in terms of frequencies and percentages thereof) and descriptive statistics of the variables (in terms of measures of central tendency and variation), respectively, are presented.

Table 2: Summary statistics of the respondents

Gender	Freq.	Percent	Educ.	Freq.	Percent	Age	Freq.	Percent
Woman	14	16.7	Jnr. Cg.	23	27.4	25-30	16	19.0
Man	70	83.3	Bachelor	40	47.6	30-35	58	69.0
Woman	-	-	Master's	21	25.0	35-40	8	9.5
Man	-	-	-	-	-	+40	2	2.4
Total	84	100	Total	84	100.0	Total	84	100.0

Table 3 – Summary statistics of the variables

Variables	Sample size	Range	Mean	St. Dev.	Var.
Level of Acc. Practices	84	3	3.09	0.520	0.270
Support-oriented culture	84	2.80	3.1262	0.67469	0.455
Innovation-oriented culture	84	3.10	3.1476	0.71228	0.507
Rule-oriented culture	84	2.90	3.1631	0.64543	0.417
Goal-oriented culture	84	2.64	3.1374	0.67139	0.451
Org. culture	84	2.46	3.1436	0.54522	0.297

1. The mean, standard deviation, and variance for the variable *accounting practices* were 3.09, 0.52, and 0.27, respectively. Hence, the level of accounting practices in use among the respondents was considered to be an average degree and above, given the 5-point Likert scale.

2. The variable *support-oriented culture* with a mean, standard deviation, and variance of 3.12, 0.67, and 0.45, respectively, was evaluated to be at an average level and above by the respondents, given the 5-point Likert scale.

3. The variable *innovation-oriented culture* with amean, standard deviation, and variance of 3.14, 0.71, and 0.50, respectively, appeared to be at an average level and above, according to the respondents and given the 5-point Likert scale.

4. A mean, standard deviation,and variance of 3.16, 0.64, and 0.41, respectively, for the variable *rule-oriented culture*indicate that the respondents consideredthis culture to have a somewhat above average presence in their organization, given the 5-point Likert scale.

5. The variable *goal-oriented culture* with an average, standard deviation, and variance of 3.13, 0.67, and 0.45, respectively, likewise appeared to be at an average level and above, according to the respondents and given the 5-point Likert scale.

4.1. Test of hypotheses

4.1.1. The normality test for the dependent variable

In this section, the research hypotheses are tested and for this purpose, the correlation test and regression analysis are performed. The necessary condition to make sure that a regression analysis can be used for test of the hypotheses is normal distribution of the research variables. Thus, before actually starting with test of the hypotheses, using Kolmogorov-Smirnov (K-S) test the data regarding the research variables are checked to see if they are normally distributed or not the result of which is presented in table 4.

threshold of 0.05 hence the regression analysis is applicable to test of the hypotheses.

Table 4 – The result of Kolmogorov-Smirnov test

Dependent variable	Test	Z-statistic	Asymp. Sig.	Result
Level of Acc. Practices	K-S test	0.069	0.20	Normal

As is seen in table 4, the obtained significance level (0.20) is greater than the predefined significance

4.1.2. Test of the sub-hypothesis 1

Table 5 presents the obtained results from test of the first sub-hypothesis.

there is a direct relationship between the support-oriented organizational culture and the level of accounting practices.

Table 5 – The result on test of sub-hypothesis 1

Sample size	Sig. level	Correlation coefficient	Result
84	0.000	0.414	Confirmed

The obtained significance level from the correlation test which is smaller than 0.05 (0.000 < 0.05)indicatesthat at 95 percent confidence interval

4.1.3. Test of the sub-hypothesis 2

Table 6 summarizes the obtained results from test of the second sub-hypothesis.

Table 6 – The result on test of sub-hypothesis 2

Sample size	Sig. level	Correlation coefficient	Result
84	0.000	0.413	Confirmed

The obtained significance level from the correlation test is smaller than 0.05 (0.000 < 0.05) which indicatesthat at 95 percent confidence there is a direct

Table 7 – The result on test of sub-hypothesis 3

Sample size	Sig. level	Correlation coefficient	Result
84	0.07	0.490	Not confirmed

The obtained significance level from the correlation test is greater than 0.05 (0.05 <0.07) whichat 95 percent confidence refuses presence of any relationship between the rule-oriented organizational

Table 8 – The result on test of sub-hypothesis 4

Sample size	Sig. level	Correlation coefficient	Result
84	0.315	-0.11	Not confirmed

The obtained significance level from the correlation test is greater than 0.05 (0.05 <0.315) whichat 95 percent confidence refuses presence of anysignificant relationship between the goal-oriented organizational culture and the level accounting practices.

4.1.6. Test of the main hypothesis

The results on test of the main hypothesis which states that there is a significant relationship between organizational culture and the level of accounting practices in use are summarized in table 9.

Table 9 – The results on test of the main hypothesis

Variable	Variable coefficient	St. Dev.	t-statistic	p-value (Sig. level)	Result
Intercept	3.090	0.47	66.42	0.000	Has effect
Support-oriented	0.215	0.47	4,595	0.000	Has effect
Innovation-oriented	0.215	0.47	4,591	0.000	Has effect
Rule-oriented	0.039	0.47	0.833	0.407	No effect
Goal-oriented	-0.058	0.47	-1.233	0.221	No effect
D-W statistic	2.2 → The error terms in the model are not correlated, since 1.5 < 2.2 < 2.5				
R^2	0.36 → 36 percent of changes in the dependent variable are explained by the independent variable.				
Fisher statistic	At this level, the model significance is confirmed.				
Significance level	The model is significant, because Fisher statistic is smaller than 5 percent.				

Considering table 9:

1. Since the significance level of t-statistic regarding the support-oriented organizational culture is smaller than 0.05,the first sub-hypothesis is accepted, which signifies presence of a significant relationship

relationship between the innovation-oriented organizational culture and the level of accounting practices.

4.1.4. Test of the sub-hypothesis 3

Table 7 summarizes the obtained results from test of the second sub-hypothesis.

culture and the level accounting practices. That is to say, the rule-oriented organizational culture has no effect on the level of accounting practices.

4.1.5. Test of the sub-hypothesis 4

Table 8 summarizes the obtained results from test of the second sub-hypothesis.

between the support-oriented organizational culture and the level of accounting practices in use. And given the positive sign of the correlation coefficient for the two variables, it can be inferred that the greater the prevalence of a support-oriented culture is, the higher the level of accounting practices in use will be.

2. Since the significance level of t-statistic regarding theinnovation-oriented organizational culture is smaller than 0.05, the second sub-hypothesis is accepted, which signifies presence of a significant relationship between the support-oriented organizational culture and the level of accounting practices in use. And given the positive sign of the correlation coefficient for the two variables, it can be inferred that the greater the prevalence of aninnovation-oriented culture is, the higher the level of accounting practices in use will be.

3. Since the significance level of t-statistic regarding therule-oriented organizational culture is greater than 0.05, the third sub-hypothesis is rejected, which implieslack of any significant relationship between the rule-oriented organizational culture and the level of accounting practices in use. That is to say, the rule-oriented organizational culture has no significant effect on the level of accounting practices.

4. Since the significance level of t-statistic regarding the goal-oriented organizational culture is greater than 0.05, the fourth sub-hypothesis is rejected, which implies lack of any significant relationship between the goal-oriented organizational culture and the level of accounting practices in use. That is to say, the rule-oriented organizational culture has no significant effect on the level of accounting practices.

The obtained results from the multiple regression model goodness of fit test, which was performed for test of the main hypothesis, indicate partially significant effect of organizational culture as a whole on the level of accounting practices,because the variables support-oriented and innovation-oriented cultures, as part of the overall organizational culture, with significance levels ofbelow 0.05, were found to be significantly correlated with the level of accounting practices in use. In addition, the coefficient of determination from the regression model (0.36) indicates that 36 percent of changes in the dependent variable (i.e. the level of accounting practices) can be explained by the significant independent variables support-oriented and innovation-oriented organizational cultures, and given the significance of the Fisher statistic which is smaller than 0.05, these results can be held as fairly reliable.

5. DISCUSSION AND CONCLUSION

In the present research, the relationship between support-oriented, innovation-oriented, rule-oriented organizational cultures and the level of accounting practices in organization was examined. The obtained results from test of the first and second sub-hypotheses indicated presence of a direct and significant relationship between support-oriented and innovation-oriented organizational cultures and the level of accounting practices in the understudied organizations. The results, however, did not support the third and fourth sub-hypotheses stating existence of a significant relationship between rule-oriented and goal-oriented organizational cultures and the level of accounting practices. In addition, the obtained results from test of the main hypothesis indicated that organizational culture in aggregate had a fairly significant impact on the level of accounting practices.

The results of the present research are consistent with the findings of Hofstede (1980), Gray (1988), and Riahi Belkaoui (1994), as they suggested the broad-ranging influence of culture on the existing systems in the society and their embedded sub-systems, including accounting.

Considering the effect of support-oriented and innovation-oriented organizational cultures on the level of accounting practices, the Iranian companies are expected by further strengthening the two above mentioned organizational cultures to improve the level of accounting practices in their organizations.

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