

Corporate Culture and Internal Control in Petroleum Firms

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Abstract

A company's perspective, conduct, communication style, and distinctive characteristics make up its corporate culture. Corporate culture is one of the main elements that contributes to a company's success. The purpose of this essay is to ascertain how corporate culture at Vietnam's National Petroleum Group (Petrolimex) affects internal control. The author's primary research methodology combines quantitative and qualitative approaches. Through quantitative research, the model is analyzed, quantified, and tested. We make use of primary data from an employee survey conducted by Petrolimex in Vietnam. Regression models are used to examine the 220 research sample. Research results have determined that corporate culture factors, such as creative culture (sig. = 0.000 < 0.05), affect positive internal control at Petrolimex. Based on the result, we propose governance implications for the business leaders of these firms to improve internal control. Besides, research results provide useful references for research on related issues.

Keywords: Business Administration, Internal Control, Corporate Culture, Creative Culture, Vietnam National Petroleum Group (Petrolimex).

INTRODUCTION

Organizational culture is understood as the values, beliefs, methods of action, etc. that are widely shared by members of the organization and allow the creation of unique features of this organization compared to other organizations (Silerman, 1970).

An organization with a strong culture that is consistent with its long-term goals and strategies will create employee pride in the organization, from which every member will always live and strive hard for the general goals of the organization; a strong culture also makes the organization easier to manage and makes employees more comfortable and engaged at work, improving productivity and efficiency and creating a competitive advantage for the organization (Nguyen & Pham, 2018). The authors further claim that organizational culture is an important and indispensable tool in executive management.

Internal control is crucial for mitigating risk, which helps businesses guarantee the accuracy of their financial statements and adherence to legal and regulatory requirements (Rönkkö et al., 2018). However, Muhtar et al. (2023) claim that there are still serious flaws in the internal control system's implementation that haven't been fixed between 2010 and 2018. The corruption is positively impacted by this deficiency in internal control.

Vietnam National Petroleum Group (Petrolimex) was formed from the equitization and restructuring of Vietnam Petroleum Corporation according to Decision No. 828/QĐ-TTg on May 31, 2011 of the Prime Minister. Vietnam Petroleum Group operates in the form of a joint stock company, in which the state holds the controlling shares, operating under the Enterprise Law. Petrolimex has achieved successes such as promoting the process of accumulation and concentration of resources, enhancing competitiveness, gradually eliminating subjective administrative levels, gradually innovating the governance structure, and improving efficiency in the economy. However, Petrolimex still has some shortcomings, such as: the management organization model at the group has not been clearly defined; multi-sector and multi-field development goals are not yet appropriate; there is no system of indicators to evaluate performance; there is still waste in investment; and the group's economic efficiency is not commensurate with Petrolimex's resources and advantages.

In Vietnam, there have been a number of studies on factors affecting typical internal control, such as Nguyen et al. (2023) and Truong et al. (2024); however, there have been no studies investigating the influence of creative culture on internal control in petroleum firms.

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This study will contribute empirical evidence to clarify the influence of creative culture on internal control at Petrolimex. The clear, measurable results of the study provide additional support for further research. In addition, the research results provide scientific evidence for making policy implications to influence the creative culture at Petrolimex, thereby improving internal control.

LITERATURE REVIEW

Schein's (1985) and Schein's (1992) research models evaluate organizational culture based on the division into three cultural layers: practices, normative values, implicit assumptions in research, and assertions of relationships. Positive system of organizational culture with internal control.

Harrison and McKinnon (1999) studied 20 studies conducted over a 15-year period. The authors emphasized that cultural characteristics are essential in the design of management control systems. It also provides theoretical guidance for future research.

The positive relationship between organizational culture and internal control is confirmed by researchers such as Boon et al. (2008) and Batool (2011).

Based on the theory of competing value frameworks, Cameron and Quinn (2011) compared each business's degree of polarization in terms of flexibility versus control and internal versus external focus. The authors divide organizational culture into four types: (i) collaborative culture, (ii) creative culture, (iii) hierarchical culture, and (iv) competitive culture. In particular, creative culture has characteristics such as: creating elements to promote initiative and difference; creating a creative and dynamic working environment; demonstrating a strong focus on long-term results; and market leadership being a core value. Cameron and Quinn's (2011) approach is both basic and covers the most common characteristics of organizational culture in many different fields.

There have been some previous studies on the relationship between organizational culture and control systems or internal control, such as Chenhall (2003), who said that management control systems need to be designed to be consistent with cultural characteristics; Organizational culture needs to emphasize openness, transparency, and equality, then trust in the control system will increase (Fauzi et al., 2009); Harrison and McKinnon (1999) support the results of research on the relationship between organizational culture and management control systems; Boon et al. (2008); Batool (2011) found that organizational culture affects management control systems. Besides, in Vietnam, Nguyen Thi Phuong Lan (2018) researched factors affecting internal control in Vietnamese joint-stock enterprises. With a survey sample of 289 firms, the author used quantitative research methods through SEM model analysis. Research results show that corporate culture is one of four factors that affect internal control. This study also discovered that organizational cultural factors affect the constituent elements of internal control.

METHODOLOGY

Method Research and Sample Selection

We designed a mixed method, both quantitative and qualitative, to explain the influence of creative culture on internal control at the National Petroleum Group (Petrolimex) in Vietnam.

To begin with the qualitative method, we looked at previous studies and conducted interviews to identify one determinant that affected internal control at the National Petroleum Group (Petrolimex) in Vietnam. However, since their studies were based on foreign experience, we try to propose an enhanced framework by synthesizing their insights, adjusting them, adding observation variables to the questionnaires, and applying them to the context of the National Petroleum Group.

Then, we use the quantitative component, which includes the use of questionnaires as inputs for EFA analysis and regression models, to investigate the influences of each variable on internal control at the National Petroleum Group in Vietnam.

The selective sampling involves participants in interviews and surveys. The selection was based on the number of observation variables in which participants were involved in their daily work at National Petroleum Group. Therefore, in our sample, 100% of the of the participants are employees of the National Petroleum Group in Vietnam. The employee's knowledge and skills made the survey results more reliable.

We conducted a questionnaire survey of 29 observation variables on a 5-point Likert scale. Independent variables are measured from 1 "without effect" to 5 "strongly," and dependent variables are measured from 1 "without agree" to 5 "strongly agree".

Research Models

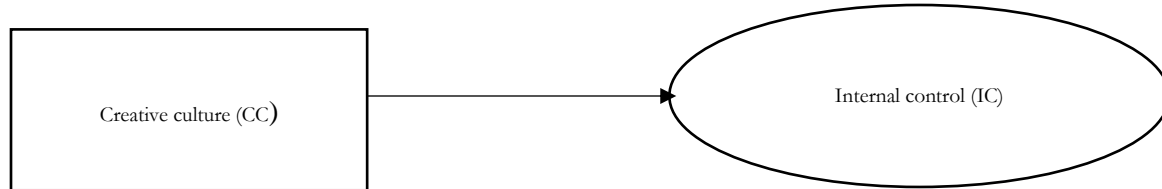


Figure 1: Research model

Creative culture (CC) includes four observations inherited from the results of previous research and expert interview results: CC1: The enterprise is a very dynamic business place, and all employees of the enterprise are ready to take on new challenges. invest and take risks; CC2: The business director is also a businessman, creative, and willing to take risks; CC3: All members of the enterprise commit to innovation and development together; CC4: Enterprises are ready to confront new challenges to emphasize growth and seek new resources.

Internal control (IC): Includes 5 observed variables (IC1, IC2, IC3, and IC4) inherited from the research results of Nguyen (2023).

RESULTS

Descriptive Statistics

Statistical results from Table 1 show that the survey subjects agreed and rated the independent variable quite highly. Creative culture (CC) consists of four component attributes; all four attributes are rated on average at 4.08 or higher.

Table 1: Statistical results describing creative culture interpretation

	N	Minimum	Maximum	Mean	Std. Deviation
Creative culture (CC)					
CC1	220	2	5	4.10	0.764
CC2	220	2	5	4.12	0.745
CC3	220	2	5	4.22	0.739
CC4	220	2	5	4.08	0.729
Valid N (listwise)	220			4.13	

Source: Prepared by the authors (2024) and SPSS software.

Cronbach’s Alpha

By using scale analysis, it can eliminate inconsonant variables and reduce errors in the research model. Therefore, only variables with total correlation coefficients (Corrected Item-Total Correlation) greater than 0.3 and Cronbach’s alpha coefficients equal to or greater than 0.6 are accepted (Hoang & Nguyen, 2008; Hair et al., 2010). By analyzing Cronbach’s alpha analysis of determinants that have an influence on the internal control of National Petroleum Group (Petrolimex) in Vietnam (1 determinant with 4 observed variables), the result is presented in Table 2. The result shows that all Cronbach’s alpha coefficients are above 0.6; all corrected items—the total correlation of observed variables—are above 0.3. Thus, all variables of the research model are suitable for the next analyses (Hair et al., 2009, Hair et al., 2014).

Table 2: Results of analysis of Determinants Confidence of Scales in the Model

Internal control (IC)			
Description	N	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Control Environment	5	0.801	0.927
Risk Assessment	5	0.711	0.906
Control Activities	5	0.748	0.908
Information and Communication	6	0.733	0.916

Monitoring	4	0.764	0.902
Creative culture (CC)			
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation
Creative culture (CC): 0.868, N = 4			
CC1	12.42	3.615	0.741
CC2	12.40	3.848	0.666
CC3	12.30	3.692	0.744
CC4	12.44	3.764	0.726
			Cronbach's Alpha if Item Deleted
			0.822
			0.852
			0.821
			0.828

Source: Prepared by the authors (2024) and SPSS software.

Exploratory Factor Analysis

Exploratory Factor Analysis (EFA) was conducted through component analysis and variance, and the results yielded four attributes of an independent variable.

The results of factor analysis in Table 3 show that $0.5 < KMO = 0.822 < 1$. Bartlett's testimony shows $sig. = 0.000 < 0.05$, which means variables in the whole are interrelated (Hair et al., 2010).

After implementing the rotation matrix, 1 determinant with a factor load factor greater than 0.5, Eigenvalues greater than 1, and the variance explained is 71.672% (see table 4). These statistics demonstrate that research data analysis for factor discovery is appropriate. Through the quality assurance of the scale and the test of the EFA model, we have identified one determinant influencing the internal control of National Petroleum Group (Petrolimex) in Vietnam (Hair et al., 2009, Hair et al., 2014).

Table 3: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.822
Bartlett's Test of Sphericity	Approx. Chi-Square	414.646
	Df	36
	Sig.	0.000

Source: Prepared by the authors (2024) and SPSS software.

Table 4: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.867	71.672	71.672	2.867	71.672	71.672
2	0.458	11.447	83.119			
3	0.376	9.389	92.508			
4	0.300	7.492	100.000			

Source: Prepared by the authors (2024) and SPSS software.

Correlation Analysis

The results of the correlation matrix are indicated in Table 5. The correlation coefficients of creative culture with one dependent variable are greater than 0, reflecting a positive relationship. In addition, the values of sig. are less than 0.05, which means that all variables are interrelated (Hair et al., 2009, Hair et al., 2014). Thus, it can be confirmed that creative culture has an influence on the internal control of the National Petroleum Group.

Table 5: Correlations

		Control Environment	Risk Assessment	Control Activities	Information & Communication	Monitoring	Creative culture
Control Environment	Pearson Correlation	1	.636**	.575**	.613**	.669**	.616**
	Sig. (2-tailed)		0.000	0.000	0.000	0.000	0.000
	N	220	220	220	220	220	220
Risk Assessment	Pearson Correlation	.636**	1	.696**	.693**	.664**	.644**

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	Sig. (2-tailed)	0.000		0.000	0.000	0.000	0.000
	N	220	220	220	220	220	220
Control Activities	Pearson Correlation	.575**	.696**	1	.719**	.672**	.673**
	Sig. (2-tailed)	0.000	0.000		0.000	0.000	0.000
	N	220	220	220	220	220	220
Information and Communication	Pearson Correlation	.613**	.693**	.719**	1	.683**	.652**
	Sig. (2-tailed)	0.000	0.000	0.000		0.000	0.000
	N	220	220	220	220	220	220
Monitoring	Pearson Correlation	.669**	.664**	.672**	.683**	1	.711**
	Sig. (2-tailed)	0.000	0.000	0.000	0.000		0.000
	N	220	220	220	220	220	220
Creative culture	Pearson Correlation	.616**	.644**	.673**	.652**	.711**	1
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	
	N	220	220	220	220	220	220

Source: Prepared by the authors (2024) and SPSS software.

DISCUSSION AND IMPLICATIONS

It is very important for an organization to determine how its current organizational culture is operating and determine the desired organizational culture criteria in the future to build appropriate strategies and change the culture of the organization.

Creative culture nurtures creativity and new resources. A creative culture contributes to a company's employees' ideal vision and encourages creativity. Every member of the dynamic organization is committed to innovation and development, and together they are ready to face new challenges and accept risks. This helps firms become dynamic, contributing to growth, diversity, and autonomy. Besides, creative culture also shows that a control environment exists within it. An extroverted creative culture supplemented with a flexible internal control component in the direction of information and communication to connect all members will bring efficiency to the organization.

Petrolimex should choose a flexible culture in the business process that brings the best to the internal control component. Therefore, in the coming time, business administrators should focus on improving corporate culture solutions, specifically promoting dynamism, creativity, and autonomy to emphasize diversity and growth. Therefore, every member is always ready to face and dare to accept risks at work. Special emphasis is placed on the enterprise director as a pioneer in innovation and risk-taking. Creative culture itself also creates a working environment with dynamism, autonomy, and commitment to innovation and development together. However, a creative culture that emphasizes autonomy at work leads to a tendency to share less work information. Therefore, administrators need to limit the secrecy of professional information and the work experience of individuals and need a mechanism to encourage rewards and increase praise for the achievements of individuals. individuals and departments to share information. That way, firms, instead of encouraging individuals to work in groups, shift from independence and competition to cooperation and information sharing within groups and departments to develop together.

Enterprises should do a good job of communicating internally and externally at all levels of management and business networks to enhance the exchange and dissemination of information to relevant parties and bring members together to innovate. Creativity and development of the petroleum business. Creativity always carries potential risks in business, so businesses need to proactively and regularly assess risks in a timely manner to

warn administrators early in petroleum business activities. Therefore, creative culture itself also creates a flexible control environment, enhanced information and communication, and risk assessment.

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