



RELATIONSHIP BETWEEN ORGANIZATIONAL CULTURE AND FIRM PERFORMANCE: A CASE STUDY IN VIETNAM

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Abstract. Literature on organizational culture constantly reinforces the notion that organizational culture is necessary for firm performance. Nevertheless, limited studies have been conducted in Vietnam. This study aims to examine the relationship between components of organizational culture and firm performance. Primary data were collected through questionnaires answered by 982 employees in Vietnamese enterprises. Multiple regression was used to test the proposed model. The results show that consistency and involvement are the highest influencing factors of firm performance, while adaptability is the lowest. Thus, managers and leaders are recommended to develop a strong culture in the organization to improve their firm performance.

Keywords: organizational culture, firm performance, Vietnamese enterprises

1 Introduction

Organizational culture plays a crucial role in an organization's daily operations as it is considered one of the key factors for stability and competitive advantage. Further, it can offer numerous advantages, such as cooperation, control, communication, and commitment [12]. Although culture is often conceived as intangible, difficult to understand, there has been significant research in the literature to explore the impact of organizational culture on firm performance [7, 9, 19, 20]. Most of the research has applied Denison's organizational model, and this model includes four dimensions, namely mission, involvement, adaptability, and consistency. This is because each of the four major cultural traits in Denison's model promotes superior firm performance [19], its integrative nature, as well as its emphasis on both internal and external factors [20]. However, the majority of existing studies on organizational culture and performance have concentrated in developed countries. In Vietnam, there has been little research to explore this relationship [8, 16]. A few prior studies are carried out in a specific area, e.g., project management or a specific province, which can lead to the limitation in generalization. Therefore, this study aims to explore the relationship between organizational culture and firm performance in the context of Vietnam.

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2 Literature review

2.1 The concept of culture

According to Schein, organizational culture is defined as “the pattern of basic beliefs and assumptions that a group has invented, discovered, or developed while it learns to cope with its problems of external adaptation and internal integration, and that has functioned so well to be considered valid, and consequently is taught to new members as the correct way of perceiving, thinking and feeling regarding those problems” [9]. Besides, the culture of an organization could be defined as the embodiment of its collective systems, beliefs, norms, ideologies, myths, and rituals [20]. An approach based on work practice defines project organization culture as “the set of behaviors or attitudes observed in perceptions of practices shared by project participants in particular ways that help explain or resolve the problems encountered during the course of a project” [8].

So far, the term ‘organizational culture’ has been proved to be difficult to define, but several researchers agree that organizational culture includes the norms, perspectives, values, assumptions, and beliefs, which are shared by organizational members. Even so, there is a considerable challenge for external researchers who want to assess the organizational culture because it is even difficult for members of an organization to describe their own culture. An organizational culture model developed by Denison [4], which includes four traits of organizational cultures: involvement, consistency, adaptability, and mission, represents underlying beliefs, values, and assumptions and has been used widely in the literature. Denison conceptualizes four major cultural traits as second-order, broader factors, and each of them composes three component indexes. Each of these component indexes is measured with five items. The four traits of organizational culture include:

- Mission – the degree to which the company knows why it exists and what its direction is;
- Involvement – the degree to which individuals at all levels in the company are engaged and kept that direction as their own;
- Adaptability – the ability of the company to know what customers want, and the degree to which it can responded to external forces and demands;
- Consistency – the company’s systems and processes that support efficiency and effectiveness in reaching goals [4].

The Denison’s Organizational Culture Survey is chosen for the current study because of its instrumental capacity to generate a systemic description and direct, comprehensive analysis of the organizational culture by means of the assessment of behavior the patterns associated with performance [9], its integrative nature, as well as its emphasis on both internal and external factors [20]. Denison's measure of organizational culture can be used as diagnostic tools that can

help managers identify the strengths and weaknesses in their culture [5]. In Viet Nam, Cuong et al. [1] used Denison's model in Joint Stock Commercial Bank Import-export Vietnam – Can Tho Branch, and Xuan et al. [18] used Denison's model in enterprises in Thua Thien Hue. Based on these assumptions, Denison's model would work well in the local context of Vietnam.

2.2 Concept of performance

Flapper et al. state that the performance could be defined as “the way the organization carries its objectives into effect”, quoted by [11]. Firm performance is the outcome achieved in satisfying the internal and external goals of a firm [15]. On the other hand, performance refers to be the ability (both physical & psychological) to execute a specific task in a specific manner that could be measured as high, medium, or low in the scale. The word ‘performance’ could be used to describe different aspects, such as societal performance, organization performance, employee performance, and individual performance [12]. Overall, researchers tend to identify three dimensions of performance: mixed trends as sales growth, market share growth, ROA, quality improvements, new product development, employee satisfaction, and overall performance [18]; performance measurement methods such as financial performance, business performance, and organization effectiveness [15], sales growth, market share, profitability, quality of products and services, employee satisfaction, and overall performance [9]; nonfinancial trends as customer satisfaction, increased market share, competing effectively at the marketplace, employee satisfaction, increased quality of service, and improved innovation [19]; company's brand name, the trust of employees, the loyalty of employees, the trust of customers, the loyalty of customers [15] and financial trends as (1) ROA and (2) ROE [3]. In summary, there are numerous measurements for firm performance, as mentioned above. Indeed, the accounting-based measurement can reflect the past performance of a company, while the market-based indicators help to anticipate the future performance [2]. Moreover, some prior studies state that it is somehow challenging to find financial records in the public domain [11]. As such, nonfinancial trends are claimed to be a fruitful choice to measure firm performance.

2.3 Organizational culture and firm performance

As discussed earlier, previous studies have identified the importance of organizational culture in terms of firm performance. In Turkey, a growing research stream in organizational culture has focused on the roles of cultural traits. The results indicate that each cultural trait exerts positive effects on overall firm performance and the mission trait is the most prominent factor of the four traits in terms of fostering overall firm performance, sales growth, market share growth, and ROA [19]. Zakari et al. review the similarities and differences present among organizations of higher and lower performance profiles as they have a relation to specific characteristics in cultural profiles [20]. The results of this study clearly signal how the robustness of cultural profiles is associated with better perceptions of performance among the organization members. Uddin et al.

examine the impact of the organizational culture on employee performance and productivity from the perspectives of multinational companies operating especially under the telecommunication sector of Bangladesh [13]. The paper provides that organizational culture significantly affects employee performance and productivity in the dynamic emerging context [13]. Based on 296 respondents from various departments with varied positions from nine banks in Ghana, Zakari et al. reveal that although significant differences exist among the banks in terms of the organizational cultural traits, no significant differences are present with regards to performance [20]. Overall, there is a positive relationship between organizational culture and performance. At the same time, contributing to the debate about Denison's Organizational culture model, Fey and Denison argue that the effect of culture traits on firm performance may be contingent upon the national culture context [6]. To address these issues, we examine the relationship between culture traits and organizational performance in the context of Vietnam. We suggest the following set of hypotheses:

H1: Involvement exerts a significantly positive effect on firm performance.

H2: Consistency exerts a significantly positive effect on firm performance.

H3: Adaptability exerts a significantly positive effect on firm performance.

H4: Mission exerts a significantly positive effect on firm performance.

3 Research methods

3.1 Sampling and data collection

Data were collected via a direct survey with questionnaires. The questionnaires were first prepared in English and then translated into Vietnamese, which necessitated certain changes to the survey due to the classical and modern forms of the Vietnamese language. Data were collected from the employees of 400 enterprises working in different sectors, such as automotive, textiles, leather shoes, packaged consumer goods, ships and boats building, furniture, public and private services, and carriage. In each enterprise, three employees were invited to fill in the questionnaire. All firms within the sampled area have 50 employees or more. A total of 1,200 questionnaires were given out, and 982 usable questionnaires were obtained. Of which, 246 questionnaires were from Hanoi, 303 from Ho Chi Minh, and 433 from Da Nang and Quang Ngai. Table 1 shows the profile of the participants' characteristics.

Table 1. Profile of respondents

Gender	Rate, %	Education Level	Rate, %	Type of business	Rate, %
Male	59	Under university	13.7	State enterprises	14.4
Female	41	University	56.8	Non-state enterprises	75.2
Age		After university	29.4	Enterprises with foreign capital	9.7
<30	30.8	Number of years of work	Rate, %	Other	0.8
31–40	46.6	<5	48		
41–50	20.5	5–10	39.7		
>51	2.1	>10	12.3		

Source: Data collected by authors

3.2 Measures

The measures of cultural traits are adopted from DOCS of Denison. According to [19], this instrument includes 60 items. Denison conceptualizes the four major cultural traits as second-order and broader factors, each of which composes three component indexes. Each of these 12 component indexes is measured with five items. However, later studies [5, 9] use only 12 important items of organizational culture because there is a robust statistical relationship between the components of organizational culture and overall organization performance. Therefore, our study adopts these 12 items, all of which follow the five-point Likert scales with anchors 1 for ‘strongly disagree’ to 5 for ‘strongly agree’.

The measures of the performance are adopted from [14]. The scale can be used fully or partially (selected dimensions), depending on the nature of each investigation [10]. In fact, the accounting-based measures can reflect the past performance of the company, while the market-based indicators help to anticipate future performance [2]. Moreover, non-financial measurements are worth to be incorporated [7, 11]. Therefore, in this study, from the suggestion by [9], business performance and the organization’s effectiveness are used to measure performance. Each question uses the five-point Likert scale to score from “very disagreeable” to “very agreeable”.

Each questionnaire response is captured onto a computer software program for analysis and control. Descriptive analysis, factor analysis, and regression analysis were used to determine the causal relationship between organizational culture and firm performance.

4 Results

Reliability analysis

Table 2 shows Cronbach’s alpha coefficients for all constructs. Overall, the constructs achieve high reliability because the coefficients are above 0.7.

EFA analysis

The results of the factor analysis are depicted in Table 3. The factor loadings of culture, calculated by using the Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy and Bartlett’s test, show that the data are suitable for factor analysis. The KMO value is 0.905, which is above the suggested threshold of 0.6. The low significance of Bartlett’s test also satisfies the requirements (Chi-square = 5286.911). The factor loadings with the threshold greater than 0.5 are considered. The final factor loading matrix shows that the four culture components, which are initially extracted, account for 73.135% of the total variance in the 12 cultural artifacts, with the eigenvalues greater than 1.0, which indicates that those extracted artifacts can help to explain the organizational culture.

The factor analysis for firm performance indicates two factors solution with the eigenvalues greater than 1.0, and the two factor component explains 73.763% of the total variance. The KMO measure of sampling adequacy is 0.833, which is considered as sufficient inter-correlation while the Bartlett’s test of sphericity is significant with Chi-square at 2454.519. After factor analysis, all items remain. The items are grouped together in the intended theoretical manner. Table 4 illustrates the details of the factors.

Table 2. Constructs Cronbach's alpha coefficients

Construct	Number of items	Cronbach's alpha
Organizational culture (12 items)		
Involvement	3	0.826
Consistency	3	0.804
Adaptability	3	0.804
Mission	3	0.801
Firm performance (6 items)		
Business performance	3	0.827
Organization effectiveness	3	0.797

Table 3. Factor loading of culture

Variables	Factor 1	Factor 2	Factor 3	Factor 4
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	Invol	Consi	Miss	Adap
1. Decisions made where the best information.	0.792			
2. Relationship between job and the goals.	0.765			
3. Investment in the skills of employees.	0.789			
4. The leaders and managers “practice what they preach		0.738		
5. Agreement about the right way and the wrong way to do things.		0.813		
6. Alignment of goals across levels.		0.777		
7. Different parts cooperate to create change.				0.756
8. Customer influences our decisions.				0.823
9. The “right hand knows what the left hand is doing.”				0.760
10. Strategy leads organizations to change the way compete			0.755	
11. Understand what needs to be done.			0.769	
12. Vision creates excitement and motivation.			0.811	
Approx. Chi-Square	5286.911			
KMO	0.905			
Bartlett's Test of Sphericity df	66			
Total Variance Explained	73.135%,			

Table 4. Factor loading of performance

Variables	Factor1	Factor2
	Business performance	Organization effectiveness
1. Image is better than that of the competitors.	0.842	
2. Attraction to professionals was higher than competitors.	0.867	
3. Employee morale is higher than competitors.	0.755	
4. Innovative degree is higher than competitors		0.778
5. Market share is higher than competitors.		0.736
6. Staff turnover was lower than competitors		0.885
Approx. Chi-Square		2454.519
KMO		0.833
Bartlett's Test of Sphericity df		15

Regression analysis

Regression analysis between organizational culture and business performance

The adjusted R^2 is 0.424, which means that the predictor variables account for 42.4% of the variance in business performance. Further, F statistic is significant at 0.000, which shows the fitness of the model. The result of regression analysis is presented in Table 5.

The standardized coefficients are positive and statistically significant at different levels (Invol (t (977) = 7.858, p = 0.000); Consi (t (977) = 7.058, p = 0.000); Adap (t (977) = 5.673, p = 0.000); and Miss (t (977) = 6.179, p = 0.000)). These four dimensions of organizational culture affect business performance. Of which involvement has the highest impact, and adaptability has the lowest impact on business performance. Further, the variance inflation factor (VIF) and the tolerance coefficient of the independent variables are less than 3 and greater than 0.1. This shows that the model does not contain multicollinearity.

Regression analysis between organizational culture and organizational effectiveness

The adjusted R^2 is 0.34, which indicates that the predictor variables account for 34% of the variance in organizational effectiveness. Further, the model fits well since F statistic is significant (p < 0.001). Table 6 presents result of regression analysis.

Table 5. Influence of organizational culture traits on business performance

Model	Unstandardized coefficients		Standardized coefficients	t	Sig.	Collinearity statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	0.977	0.353		2.770	0.006		
Invol	0.223	0.028	0.242	7.858	0.000	0.618	1.617
Consi	0.247	0.035	0.218	7.058	0.000	0.617	1.620
Adap	0.196	0.035	0.173	5.673	0.000	0.634	1.577
Miss	0.213	0.034	0.191	6.179	0.000	0.612	1.634

Table 6. Influence of organizational culture traits on organization effectiveness

Model	Unstandardized coefficients		Standardized coefficients	t	Sig.	Collinearity statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	2.885	0.323		80.938	0.000		
Invol	0.146	0.026	0.186	5.622	0.000	0.618	1.617
Consi	0.212	0.032	0.219	6.620	0.000	0.617	1.620
Adap	0.136	0.032	0.140	4.291	0.000	0.634	1.577
Miss	0.179	0.032	0.189	5.674	0.000	0.612	1.634

The standardized coefficients are positive and statistically significant at different levels. The four dimensions of organizational culture affect organization effectiveness. Of which consistency has the highest impact, and adaptability has the lowest impact on organizational

effectiveness. Further, the variance inflation factor and the tolerance coefficient of the independent variables are less than 3 and greater than 0.1. This shows that the model does not contain multicollinearity.

In summary, the results in both Table 5 and Table 6 show that all relationships are statistically significant, and all the hypotheses are accepted. These results mean that organizational cultural dimensions have a significant influence on firm performance.

5 Discussion and conclusion

This study aims to identify the relationship between organizational culture and firm performance in the context of Vietnam. The paper demonstrates that all the four cultural traits adopted in the study have a significant positive influence on firm performance. Consistency and involvement are the most prominent of the four traits in terms of fostering firm performance. This result is consistent with that of the study of [8] that an effective organization should include the four organizational culture traits: involvement, consistency, adaptability, and mission. The analysis of these traits and their sub-dimensions can direct managers towards the appropriate actions necessary to create, develop, and change the culture [5]. This study further confirms the usefulness of Denison's model in measuring organizational culture. DOCS is a systemic description and a direct, comprehensive analysis of the organizational culture by means of the assessment of the behavior patterns associated with performance [9].

Based on the results, we recommend that managers should consider developing a conducive organizational culture that requires a culture of consistency, involvement, mission, and adaptability. Firstly, consistency can provide everyone with a clear direction for their work. In particular, in the context of the 4.0 industrial revolution, businesses need to apply technology to build operational processes to ensure that work is coordinated and integrated to serve the organization as a whole and to achieve common goals. This issue helps to engender internal consistency. In addition, the organizations with clear missions emphasizing internal consistency are stable. Moreover, the involvement – the degree to which individuals at all levels in the company are engaged and committed to their organizational goals, has important implications in relation to day-to-day operations in enterprises. Employee involvement helps to serve the clients and continually seeks to meet the clients' future needs and improve ways to satisfy clients' expectations. Regarding this factor, the study recommends that the organizational culture in today's context cannot be created unconsciously, based on the values of leaders and managers. The organizational culture needs to be managed by leaders and managers according to its relationship with employees and firm performance. To this end, the adaptability–ability of the company to know what customers want and the degree to which the company can respond to

external forces and demands are also important. Managers should build an adaptability culture to improve satisfaction and firm performance [16].

Although this research has successfully explored the relationship between the traits of organizational culture and firm performance, some limitations still exist. First, the sampling technique used is convenience sampling, so the generalization of research results is limited. Second, the scope of the study is limited to the employees. Future studies may also include all employees and management to avoid bias in the perceptions of each subject.

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