

Competing Values of Software Companies in Technopark Trivandrum

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Abstract—

Organizational culture may be defined as the philosophies, ideologies, value, assumption, belief, expectation, attitude and norms that knit an organization together and are shared by its employees. The Competing Values Framework presented by Cameron and Quinn helps to find out four types of organisational culture namely Adhocracy, Clan, Hierarchy and Market. This study was conducted to find out the competing values of software companies at Technopark, Trivandrum. This is a descriptive study using primary and secondary data. Standard questionnaire of Cameron and Quinn (1988) was used in this study. The study reveals that the dominant Organisational Culture of software companies is Clan Culture.

Keywords— Adhocracy, Clan, Hierarchy, Market, Culture, Competing values.

I. INTRODUCTION

Organisations like people have distinct personalities. Robbins (2008) calls this organisations' cultures. Organisational Culture (OC) is the personality of the organization. Every organisation has a culture of its own. Culture comprises the assumptions, values, norms and tangible signs of organization members and their behaviours. Cameron and Quinn (1999) have developed an organizational culture framework based on a theoretical model called the "Competing Values Framework." This framework refers to whether an organization has a predominant internal or external focus and whether it strives for flexibility and individuality or stability and control. The framework is also based on six organizational culture dimensions and four dominant culture types: clan, adhocracy, market, and hierarchy. The clan culture (organic, internal) is characterised by an emphasis on cohesiveness, teamwork and commitment to the organisation whereas the market culture (mechanistic, external) is characterised by competitiveness and goal achievement. The adhocracy culture (organic, external) has its focus on creativity, entrepreneurship, and dynamism. Finally, the hierarchy culture (mechanistic, internal) is characterised by order, rules and regulations, uniformity and efficiency. In the wake of Liberalisation, Privatisation and Globalisation processes, it is hoped that the studies of this nature would help the policy-makers, organisational theorists, corporate executives to have a sound knowledge on emerging and expected cultures among the employees of software companies. Hence this topic was chosen by the researchers for the study with the following objectives.

1. To understand the dominant organisational culture of software companies in Technopark, Trivandrum, using competing values framework.
2. To identify the factors influencing the perception of the employees towards the organisational culture.

II. REVIEW OF LITERATURE

Berrio (2003) described the dominant culture type of Ohio State University (OSU) Extension using the OCAI tool. They concluded that the clan culture classification applied to OSU Extension, portraying the institution as an organization that concentrates on internal maintenance with flexibility, concern for people, and sensitivity towards customers. The cultural profile of the University played an important role in the personnel plan, implementation, and evaluation of the educational programs.

Zaheer, Rehman and Ahmad (2006) analysed organizational culture of Small and Medium Enterprises (SMEs). It primarily focused on four cultural categories: clan, adhocracy, hierarchy and market. These conceptual domains have been examined by the Organizational Culture Assessment Instrument. Results from a sample of 162 SMEs in the Rawalpindi/Islamabad area indicated that SME culture lacks creativity, innovation, freedom and risk taking. SMEs are not looking to change in the future, preferring the status quo. It was also found out that SMEs exhibited a market-oriented culture focusing on results, competition and achievements

Nazir and Lone (2008) investigated the link between organisational culture and effectiveness studies using Denison's Organisational Culture Survey (DOCS) in the Indian context. The results, besides finding a strong support for the DOCS model, indicated that of the four cultural traits studied – involvement, adaptability, mission, and consistency, mission was found to be a single most cultural trait responsible for a number of bottom-line performance indicators.

Rama (2001) held that the culture of an organisation represents the prevailing rules, relationships, beliefs, norms, values, attitudes, skills etc., pertaining to work. Developing a high performance culture, according to him, implies managing change, more specifically developing beliefs, norms, values, attitudes and behaviours that are consistent with the new reality. He also asserted that a high performance culture in an organisation may be brought through an

interaction of the characteristics of the organisation with those of individuals and groups within the organisation. He strongly opined that the organisational and managerial practices such as team work, trust, leadership, communication, rewards and cooperation among the various groups within the organisation would go a long way in developing positive attitudes and commitment which in turn, are likely to exert positive influence on performance and productivity.

Zhang and Liu (2006) conducted a study in the construction industry of China. The research objective was to examine the organisational culture profiles of the construction enterprises in China. The research design comprises two stages. The first stage involves preliminary case studies of selected Chinese construction enterprises with the purpose to test, and choose from, two culture-measuring instruments, i.e., OCI—Organisational Culture Inventory (Cooke and Szumal, 1993, 2000) and OCAI— Organizational Culture Assessment Instrument (Cameron and Quinn, 1999). The second stage comprises a major survey of construction enterprises using OCAI to assess their organisational culture profiles. It was analysed by using cluster analysis and the results show that hierarchy and clan cultures are dominant and the culture profiles of Chinese contractors may vary in different geographical regions.

After much deliberation on the reviewed literature, it is explicitly clear that little efforts were made to study organisational culture in software companies. The contributions made by various researchers helped to identify the research gaps and proceed for the further study.

III. RESEARCH METHODOLOGY

The present research has been conducted in Technopark, Trivandrum. Technopark is an autonomous society promoted by the Government of Kerala. It is one of the India's largest IT Parks and one of the world's greenest Technopolis as well. The samples were collected from 20 software companies situated in Technopark. The selection of sample employees was made in consultation with the software companies. The sample size of the study is 528. Convenience sampling technique is used for selection of employees of software companies. A pilot study was conducted to validate the questionnaire and to confirm the feasibility of the study. A sample of 63 employees from software companies was used, in the pilot testing, to validate the instrument. The standard questionnaire on organisational culture was distributed to 600 Employees of 20 software companies. Out of 600 self-administered questionnaires, 563 were returned, and 35 of them were found to be incomplete and hence 528 completed questionnaires were found usable. Secondary data were collected from the books, online journals, research articles and websites. Primary data were collected by administering standard questionnaire The Organizational Cultural Assessment Instrument (OCAI) developed by Cameron and Quinn (1999) among the employees on organisational culture on selected parameters. The data collected were scrutinized, edited, and tabulated. Then, the collected data were processed and analysed through the Statistical Package for the Social Sciences (SPSS 16.0.) software package. The following statistical tools are used in the study: Reliability tests, Simple Percentage Analysis, Mean score Analysis and Factor analysis.

IV. ANALYSIS AND INTERPRETATION

4.1. Perception of Organisational Culture Dimensions

The perception of organisational culture dimensions is given in Table 4.1.

Table 4.1 Highest Mean Scores on Organisational Culture Dimensions

DIMENSION	MEAN SCORE	S.D.	CULTURE TYPE
Dominant Characteristics	31.59	19.77	Market
Organizational Leadership	30.23	19.87	Clan
Management of Employees	41.14	23.62	Clan
Organizational Glue	27.95	11.26	Clan
Strategic Emphasis	28.18	18.45	Hierarchy
Criteria for Success	35.00	18.36	Market

Source: Primary Data

The table 4.1 represents the highest mean scores for the six dimensions of organizational culture. The highest mean score exhibited by software personnel was in the management of employees' dimension (41.14) that means the management style in the organization is characterized by teamwork, consensus, and participation. It was followed by the dimension Criteria for Success (35.00), Dominant Characteristics (31.59), Organizational Leadership (30.23) and Strategic Emphasis (28.18). The lowest mean score was recorded in the organizational glue dimension (27.95). The glue that holds the organization together is loyalty and mutual trust.

4.2 Perception of Dominant Organisational Culture

The perception of dominant organisational culture is given in Table 4.2.

Table 4.2 Mean Score Analysis of Dominant Organisational Culture

CULTURE TYPE	MEAN SCORE	STANDARD DEVIATION	RANK
Clan	29.28	12.20	1
Adhocracy	19.39	7.15	4
Market	27.65	9.57	2

Hierarchy	23.45	10.06	3
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Source: Primary Data

The table 4.2 illustrates the perceived dominant organisational culture of software companies. An analysis of the highest mean scores obtained (29.28) shows the dominant OC of software companies at Technopark, Trivandrum is the Clan culture. That means, software companies concentrates on internal maintenance with flexibility, concern for people, and sensitivity for customers. The software companies are family type of organization and represents a friendly place to work. The leaders of the companies are having the role of mentors or facilitators. The glue that maintains the organization together is loyalty and tradition, with a high level of commitment among its members. It was followed by Market culture (27.65), Hierarchy culture (23.45) and Adhocracy culture (19.39).

4.3 Factor Analysis of Organisational Culture

The Kaiser-Meyer-Olkin in measure of sampling adequacy tests whether the partial correlations among variables are small. High values (close to 1.0) generally indicate that a factor analysis may be useful with data. Bartlett's test of sphericity tests the hypothesis that correlation matrix is an identity matrix, which would indicate that variables are unrelated. Small values (less than 0.05) of the significance level indicate that a factor analysis may be useful with data. The table 4.3 indicates that in the present test The Kaiser-Meyer-Olkin (KMO) measure was 0.149. Bartlett's sphericity test indicating Chi-Square =3291, df = 6 with a significance of 0.000.

Table 4.3 KMO and Bartlett's Test of Organisational Culture

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.149
Bartlett's Test of Sphericity	Approx. Chi-Square	3291
	df	6
	Sig.	0.000

Here the Kaiser-Meyer-Olkin Measure of Sampling Adequacy value 0.149 is less than 0.50, the results of the factor analysis probably would not be very useful. The significance value is 0.000 which is less than 0.05 of the significance level which indicates that a factor analysis may be useful with the data collected.

Table 4.4 Communalities of Organisational Culture

Factors	Initial	Extraction
Clan	1.000	0.968
Adhocracy	1.000	0.778
Market	1.000	0.788
Hierarchy	1.000	0.786

Extraction communalities are estimates of the variance in each variable accounted for by the components. The Communalities table 4.4 reveals that, communalities are ranging from 0.778 to 0.968, which indicates that the extracted components represent the variables well. The Communalities table 4.4 suggests that clan is the most important factor which loading score is quite closer to (1.000)

Table 4.5 Total Variance of Organisational Culture

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings ^a
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	1.891	47.285	47.285	1.891	47.285	47.285	1.882
2	1.428	35.707	82.993	1.428	35.707	82.993	1.442
3	0.679	16.982	99.974				
4	0.001	0.026	100.000				
Extraction Method: Principal Component Analysis.							
a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.							

The Table 4.5 shows that only two factors in the initial solution have eigenvalues greater than 1. Together, they account for almost 83% of the variability in the original variables. This suggests that two latent influences are associated with service usage, but there remains room for a lot of unexplained variation. The second section of the table 4.40 shows the variance explained by the extracted factors before rotation. The cumulative variability explained by these two factors in the extracted solution is about 83%, without any difference in percentage from the initial solution. Thus, no lost in the

variation from the initial solution. The rightmost section of the table 4.5 shows the variance explained by the extracted factors after rotation. The rotated factor model makes some small adjustments to factor 2.

Table 4.6 Rotated Component Matrix of Organisational Culture

	Component	
	1	2
Clan	-0.977	-0.112
Adhocracy	0.090	0.877
Market	0.876	0.147
Hierarchy	0.402	-0.790
Extraction Method: Principal Component Analysis.		
a. 2 components extracted.		

The Table 4.6 Rotated Component Matrix indicates that the first component is most highly correlated with Market culture and medium correlated with Hierarchy culture. Market culture is a better representative, however, because it is less correlated with the second component. The second component is highly correlated with Adhocracy culture. This suggests to focus on Adhocracy culture and Market culture in future analyses.

V. FINDINGS AND SUGGESTIONS

The major findings of the study is given below.

The dominant organisation culture of software companies at Technopark, Trivandrum is clan (29.28) followed by market culture (27.65), hierarchy culture (23.45) and adhocracy culture (19.39). The study reveals that software companies concentrates on internal maintenance with flexibility, concern for people, and sensitivity for those it serves. The companies value cohesiveness, participation and teamwork. Employee commitment is achieved through participation. Personal satisfaction is more important than financial goals.

The Factor analysis of organisational culture indicates to concentrates on adhocracy and market culture.

Management of employees is the highest competing value exhibited by software personnel in OC dimension. This shows that the management style in software companies is characterized by teamwork, consensus, and participation. The lowest competing value exhibited by software personnel was in the organizational glue dimension, which means that the commitment of employees to their organization is low.

For better organisational culture software companies may implement the following suggestions.

The software companies can maintain dominant clan culture by concentrating on internal maintenance with flexibility, concern for people, and sensitivity for customers with strategic emphasis towards developing human resources, commitment and morale.

The software companies shall also focus on adhocracy culture by focusing creativity, entrepreneurship, dynamism and long- term emphasis on growth and acquiring new resources; market culture by way competitive actions and achievement of measurable goals and targets; and hierarchy culture by order, rules and regulations, uniformity and efficiency in future for better organisational culture.

VI. CONCLUSIONS

This study was conducted to understand the dominant organizational culture of software companies at Technopark, Trivandrum. It was found out in the study that, the dominant organisation culture of software companies at Technopark, Trivandrum is ‘clan’. Factor analysis suggests that software companies can place more focus on Adhocracy and Market culture in the current situation

The results of the study have important implications for the organisations that participated in the study as well as for other organisations. A significant implication from the result is that, Top management of software companies should assess their existing culture of their employees before attempting to implement any change. Culture gives identity to the employees by defining the vision of what the organisation is. It helps to avoid uncertainty and maintaining stability in the short-run, while retaining the character of flexibility in long run.

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