

ORGANISATIONAL CULTURE OF SOFTWARE COMPANIES IN TECHNOPARK TRIVANDRUM

E. Ebe Robert* Dr. A. A. Ananth**

*Research Scholar (Part time), Manonmaniam Sundaranar University, Tirunelveli.

**Associate Professor, Department of Management Studies, Annamalai University, Chidambaram.

Abstract

Organisational Culture is a pattern of basic assumptions, invented, discovered, or developed by a given group, as it learns to cope with its problems of external adaptation and internal integration, that has worked well enough to be considered valid and therefore, is to be taught to new members as the correct way to perceive, think, and feel in relation to those problems (Schein, 1990). This study was conducted to find out the organisational culture of software companies at Technopark, Trivandrum using Competing Values Framework developed by Cameron and Quinn in current and preferred situation. The competing values framework helps to find out four types of organisational culture namely Adhocracy, Clan, Hierarchy and Market. This is a descriptive study using primary and secondary data. 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. The study reveals that the dominant organisational culture of software companies in current and preferred situation is Clan Culture.

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

I. Introduction

Organisational theorists and corporate leaders have produced voluminous materials on organisational culture and its offsprings symbol, language, ideology, belief, ritual, and myth (Pettigrew, 1979). As Smircich (1983) observes, the concept of culture has been liberally borrowed from anthropology, where there is no consensus on its meaning. In the English language, the term 'culture' is derived from the original Latin word 'cultura' - the 'cultivation of soil'. As human beings, we are continually activating the process of culturing that is, "producing and reproducing social realities in ways that are liberating, inhibiting, puzzling, boring or exciting. Cameron and Quinn (1999) have developed an organizational culture framework based on a theoretical model called the "Competing Values Framework" (Figure 1.1). 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 creativity, entrepreneurship, and dynamism. Finally, the hierarchy culture (mechanistic, internal) is characterised by order, rules and regulations, uniformity and efficiency.

Figure 1.1, CVF Based Model of Organisational Culture Types

Organic Processes (flexibility, spontaneity)	
Type: Clan	Type: Adhocracy
Dominant attributes: Cohesiveness, participation, teamwork, sense of family	Dominant attributes: Entrepreneurship, creativity, adaptability
Bonding: Loyalty, tradition, interpersonal cohesion	Bonding: Entrepreneurship, flexibility, risk
Strategic emphasis: Toward developing human resources, commitment, morale	Strategic emphasis: Toward innovation, growth, new resources
Internal Maintenance	External Positioning
(smoothing activities, integration)	(competition, differentiation)
Type: Hierarchy	Type: Market
Dominant attributes: Order, rules and regulations, uniformity	Dominant attributes: Competitiveness, goal achievement
Bonding: Rules, policies and procedures	Bonding: Goal orientation, production, competition
Strategic emphasis: Toward stability, predictability, smooth operation	Strategic emphasis: Toward competitive advantage and market superiority
Mechanistic Processes (control, order, stability)	

Source: Adapted from Quinn, RE & Rohrbaugh, J 1983.



It is evident from the literature on organisational culture that some occasional attempts are made on the topic. But few attempts are made to study exclusively on organisational culture of software companies. Hence this topic was chosen by the researchers for the study with the following objectives.

1. To understand the dominant current organisational culture of software companies in Technopark, Trivandrum, using competing values framework.
2. To understand the dominant preferred organisational culture of software companies in Technopark, Trivandrum, using competing values framework.
3. To investigate the relationship between demographic variables and organisational culture.

Hypotheses

1. There is no significant difference between the demographic characteristics and current organisation culture.
2. There is no significant difference between the demographic characteristics and preferred organisation culture.

II. Review of Literature

Meek (1988) conducted a critical survey of some theories of organisational culture. He outlines that the theories of culture borrowed from anthropology by social scientists interested in organisations, and locates these theories in an historical debate regarding their proper use. He argues the need for a conceptual distinction between culture and social structure and asserts that the culture of organisational life cannot be analysed in terms of a universal unitary concept. The argument concludes by suggesting 'conceptual tools' for interpreting culture- symbol, ideational systems, myth and ritual- and how they might be used in analysis.

Berrio (2003) described the dominant culture type of Ohio State University (OSU) Extension using the Organizational Culture Assessment Instrument(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)in Rawalpindi/Islamabad using OCAI developed by Cameron and Quinn (1999). It was found out that SMEs exhibited a market- oriented culture focusing on results, competition and achievements. The results also indicated that SME culture lacks creativity, innovation, freedom and risk taking. SMEs are not looking to change in the future, preferring the status quo.

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.

Robert and Ananth (2015) attempted to study the organisational culture of Newsprint firm in Kerala. It was a descriptive study using primary and secondary data.OCTAPACE culture profile questionnaire developed by Pareek (1994) was used to assess eight important values relevant to institution building. These are openness, confrontation, trust, authenticity, proaction, autonomy, collaboration and experimentation. The study revealed that the employees of Newsprint Company has high values of OCTAPACE profile. Factor analysis indicated that the major factors that determine the organization culture were confrontation, trust, authenticity, autonomy and experimenting.

After much deliberation on the reviewed literature, it is explicitly clear that little efforts were made to study organisational culture in software companies. Although this sector is increasing in economic significance, it continues to be neglected in research settings.It is for these reasons, this study has been undertaken in software companies.

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 from a sample of 63 employees from software companies to validate the questionnaire and to confirm the feasibility of the study. Secondary data were collected from the books, online journals, research articles and websites. Primary data were collected by administering Organizational Cultural Assessment Instrument (OCAI) developed by Cameron and Quinn (1999) among the employees on organisational culture on

selected parameters. The questionnaire 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. 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 Relationship analysis.

IV. Analysis and Interpretation

4.1 Perception of Dominant Current Organisational Culture (COC)

The perception of dominant current organisational culture is given in Table 4.1.

Table 4.1, Mean Score Analysis of Dominant COC

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

Source: Primary Data

The table 4.1 illustrates the perceived dominant current organisational culture of software companies. An analysis of the highest mean scores obtained (29.28) shows the dominant COC 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).

4.2 Perception of Dominant Preferred Organisational Culture (POC)

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

Table 4.2, Mean Score Analysis of Dominant POC

Dimension	Mean Score	Standard Deviation	Rank
Clan	30.64	10.75	1
Adhocracy	24.58	8.19	2
Market	21.63	8.46	4
Hierarchy	22.65	9.02	3

Source: Primary Data

The Table 4.2 illustrates the dominant POC of software companies is the *clan* culture(30.64). That means software companies concentrates on internal maintenance with flexibility, concern for people, and sensitivity for customers. The companies are a friendly place to work. The companies have a high level of commitment among its employees. It was followed by *adhocracy* culture (24.58), *hierarchy* culture (22.65) and *market* culture (21.63).

4.3 Strength of Dominant Organization Culture(DOC)

The strength of dominant OC in both current and preferred situations is given in Table 4.3.

Table 4.3, Mean Score Analysis of the strength of DOC

Culture Type	COC		POC	
	Mean Score	Standard Deviation	Mean Score	Standard Deviation
Clan	29.28	12.20	30.64	10.75
Adhocracy	19.39	7.15	24.58	8.19
Market	27.65	9.57	21.63	8.46
Hierarchy	23.45	10.06	22.65	9.02

Source: Primary Data

The Table 4.3 describes the strength of the dominant OC exhibited by software companies in the current and preferred situations is *Clan* culture with a mean score of 29.28 and 30.64. *Adhocracy* culture is weak with mean score 19.39 in the current situation. In the preferred situation, market culture is weak with mean score 21.63.

4.4 Relationship between Demographic Variables and Organisational Culture

Hypothesis 1: There is no significant difference between the demographic characteristics and current organisation culture.

Table 4.4, Relationship between Demographic Characteristics and COC

Demographic Variable	Source of variance	df	Sum square	Mean square	F	Remarks
Department	Between Group	10	25529.65	2552.96	34.13	Significant
	Within group	517	38661.83	74.78		
Designation	Between Group	14	39403.98	2814.57	58.25	Significant
	Within group	513	24787.50	48.318		
Experience in Present Designation	Between Group	4	6825.45	1706.36	15.55	Significant
	Within group	523	57366.03	109.69		
Experience in Present Organization	Between Group	3	14452.26	4817.42	50.75	Significant
	Within group	524	49739.22	94.92		
Job Status	Between Group	2	5735.23	2867.61	25.75	Significant
	Within group	525	58456.25	111.35		
Age	Between Group	2	1841.78	920.89	7.75	Significant
	Within group	525	62349.70	118.76		
Gender	Between Group	1	4186.03	4186.03	36.69	Significant
	Within group	526	60005.45	114.08		
Educational Qualification	Between Group	1	1183.26	1183.26	9.88	Significant
	Within group	526	63008.21	119.78		

Source: Primary Data

Following Inferences Can Be Drawn From Table 4.4

1. The calculated value of department “F” (34.13) is greater than the table value of “F” (0.05) which holds 3.03, the Null hypothesis is rejected. Hence there is a significant difference towards department in their mean score of COC.
2. The calculated value of designation “F” (58.25) is greater than the table value of “F” (0.05) which holds 3.03, the Null hypothesis is rejected. Hence there is a significant difference towards designation in their mean score of COC.
3. The calculated value of experience in present designation “F” (15.55) is greater than the table value of “F” (0.05) which holds 3.03, the Null hypothesis is rejected. Hence there is a significant difference towards present designation in their mean score of COC.
4. The calculated value of experience in present organization “F” (50.75) is greater than the table value of “F” (0.05) which holds 3.03, the Null hypothesis is rejected. Hence there is a significant difference towards experience in present organization in their mean score of COC.
5. The calculated value of job status “F” (25.75) is greater than the table value of “F” (0.05) which holds 3.03, the Null hypothesis is rejected. Hence there is a significant difference towards job status in their mean score of COC.
6. The calculated value of age “F” (7.75) is greater than the table value of “F” (0.05) which holds 3.03, the Null hypothesis is rejected. Hence there is a significant difference towards Age group in their mean score of COC.
7. The calculated value of gender “F” (36.69) is greater than the table value of “F” (0.05) which holds 3.03, the Null hypothesis is rejected. Hence there is a significant difference towards Gender in their mean score of COC.
8. The calculated value of educational qualification “F” (9.88) is greater than the table value of “F” (0.05) which holds 3.03, the Null hypothesis is rejected. Hence there is a significant difference towards Educational Qualification in their mean score of COC.

Hypothesis 2: There is no significant difference between the demographic characteristics and preferred organisation culture.

Table 4.5, Relationship between Demographic Characteristics and POC

Demographic Variable	Source of variance	df	Sum square	Mean square	F	Remarks
Department	Between Group	10	44604.36	4460.44	101.53	Significant
	Within group	517	22710.27	43.93		
Designation	Between Group	14	51274.01	3662.43	117.12	Significant
	Within group	513	16040.63	31.27		
Experience in Present Designation	Between Group	4	21752	5437.99	62.42	Significant
	Within group	523	45562.63	87.12		
Experience in Present Organization	Between Group	3	8592.52	2864.17	25.56	Significant
	Within group	524	58722.12	112.07		
Job Status	Between Group	2	5417.37	2708.68	22.97	Significant
	Within group	525	61897.27	117.90		
Age	Between Group	2	907.09	453.54	3.58	Significant
	Within group	525	66407.54	126.49		
Gender	Between Group	1	5627.29	5627.29	47.98	Significant
	Within group	526	61687.34	117.28		
Educational Qualification	Between Group	1	683.56	683.56	5.39	Significant
	Within group	526	66631.07	126.67		

Source: Primary Data

Following Inferences Can Be Drawn From Table 4.5

1. The calculated value of department “F” (101.53) is greater than the table value of “F” (0.05) which holds 3.03, the Null hypothesis is rejected. Hence there is a significant difference towards department in their mean score of POC.
2. The calculated value of designation “F” (117.12) is greater than the table value of “F” (0.05) which holds 3.03, the Null hypothesis is rejected. Hence there is a significant difference towards designation in their mean score of POC.
3. The calculated value of experience in present designation “F” (62.42) is greater than the table value of “F” (0.05) which holds 3.03, the Null hypothesis is rejected. Hence there is a significant difference towards experience in present designation in their mean score of POC.
4. The calculated value of experience in present organization “F” (25.56) is greater than the table value of “F” (0.05) which holds 3.03, the Null hypothesis is rejected. Hence there is a significant difference towards experience in present organization in their mean score of POC.
5. The calculated value of job status “F” (22.97) is greater than the table value of “F” (0.05) which holds 3.03, the Null hypothesis is rejected. Hence there is a significant difference towards job status in their mean score of POC.
6. The calculated value of age of “F” (3.58) is greater than the table value of “F” (0.05) which holds 3.03, the Null hypothesis is rejected. Hence there is a significant difference towards Age group in their mean score of POC.
7. The calculated value of gender “F” (47.98) is greater than the table value of “F” (0.05) which holds 3.03, the Null hypothesis is rejected. Hence there is a significant difference towards Gender in their mean score of POC.
8. The calculated value of educational qualification of “F” (5.39) is greater than the table value of “F” (0.05) which holds 3.03, the Null hypothesis is rejected. Hence there is a significant difference towards Educational Qualification in their mean score of POC.

V. Findings and Suggestions

The major findings of the study is given below.

1. The dominant current 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.

2. The dominant preferred organisation culture of software companies at Technopark, Trivandrum is *clan* (30.64) followed by *adhocracy* culture (24.58), *hierarchy* culture (22.65) and *market* culture (21.63). This shows that software personnel does not need for a change in culture. They prefer cohesiveness, teamwork and a sense of family, which emphasizes individual development, morale, teamwork, participation, and consensus.
3. *Clan* culture is strong both in current (29.28) and preferred (30.64) situation. This shows that software personnel does not need for a change in culture. *Adhocracy* culture (19.39) is weak in the current situation and *market* culture (21.63) is weak in the preferred situation.
4. There is a significant difference towards department, current position, experience in current position, experience in current organization, job status, age group, gender, educational qualification and Current Organisational Culture.
5. There is a significant difference towards demographic characteristics and Preferred Organisational Culture.

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

1. 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.
2. 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.
3. The relationship between demographic variables and organisational culture shall be maintained by software companies by developing a conducive organisational culture.

VI. Conclusion

This main objective of the study was to understand the current and preferred dominant organizational culture of software companies at Technopark, Trivandrum. It was found out in the study that, the current and preferred dominant organisation culture of software companies at Technopark, Trivandrum is *clan*. There is a significant difference towards demographic characteristics in current and preferred organisational culture. A significant implication from the result is that, Top management shall use OC as a glue that holds organisation together by which members communicate and co-ordinate their efforts. It enhances team spirit among its employees, provides employees with confidence and pride towards their jobs, guide management in decision making and tide over difficulties or emergencies. Future studies should focus on the role of other important variables like technology, organisational design and organisational structure.

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