Dimensions of Culture: A Project Perspective

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Abstract

This research in progress explores organizational culture from a project context. The paper takes the form of a case study with two projects, one from an oil company and the other from a bank, presented and analysed using Hofstede's [10] Six Dimensions of Organizational Culture. Data collection was Qualitative using the methods of reflective observation and informal discussion with project team members. The results show that for the bank project the culture of the project and the organization were along similar paths whereas for the oil company project the culture of the project and the organization were dissimilar in a number of dimensions. This research has also developed and pilot tested a questionnaire in relation to organisational culture in the context of projects, however this is not the focus of this paper.

Introduction

The human aspect of Information Technology (IT) projects very important [11, 14], as all projects are managed by, worked on, and implemented by people so without them a project would not exist. However, the human side is often overlooked as most research investigates project or project management processes and performance as key success areas (for example Cooke-Davies [3] and Hartman & Ashrafi [7]). Little attention appears to be paid to the effect of culture on projects given the importance of people to a project.

This paper reports on research in progress which explores the role of organizational culture in relation to IT projects. In particular the research aims to investigate whether a project's culture can be considered a criterion for assessing the potential success of a project.

The focus of this paper is a case study of two IT projects. Both projects were analysed using the Six Dimensions of Organizational Culture [10]. Previous work by the authors [2] undertook an analysis of the case study projects using the Cultural Web [12]. Following the analysis of both projects a questionnaire was developed to investigate the impact of organizational culture on project success. A pilot test of the questionnaire was also undertaken within the case study organizations. However, word limit restrictions prevent the questionnaire and pilot test being discussed in this paper

The paper is divided into the following components. Firstly project success and organizational culture models are presented. The research approach is then discussed followed by the case study projects. The next section presents the case study findings using the Six Dimensions of Organizational Culture. Lastly conclusions are drawn and future research discussed.

Project Success

A project's three main objectives - scope, time and cost, are the common measures for project success [11, 14]. Project management texts suggest that project success revolves around planning, defined goals and objectives, top management support and financial support, that is project management processes and performance (for example see Marchewka [14]; Hughes & Cotterell [11]). However as all project is different, success criteria must be determined for each project rather than just using a standard set of success criteria.

An area not to be overlooked is the human side of projects. Cooke-Davies [3] defines 12 "real" factors of project success, and while not explicitly identifying the human aspect as a critical factor, notes that people are a part of each success factor. People are the backbone of any IT project as the key players in any project include the project manager and the project team members. Many aspects of project teams have been studied, including project manager characteristics, project team structures, and team member roles, all of which play their part in the success of an IT project [11, 14].

Managing a team can be difficult and stressful as team members have different characteristics, abilities and personalities. Smith [19] considers the different types of roles which people may adopt, how they interact with each other, and how for successful project implementation requires a well balanced project team. Bellefeuille and Kuhl [1] also discuss different personal styles within project teams such as the leader; the manager; the coach; the hands-off observer; the follower; the doer and the tracker.

Different leadership styles can also affect the efficiency of a project team and the ability to successfully deliver a project [19]. Wang et al [21] found that a charismatic leader ultimately influences overall project team operation. Smith [19] identified three leadership styles within project management: the laissez-faire managers, who are laidback, relaxed and are open to creativity without the structure of solid business processes; the transactional managers, who are usually risk averse, process orientated and goal focussed; and the transformational style managers who are usually risk taking and focus more on leading rather than managing.

As organizations increasingly implement global projects, distributed or virtual project teams are nearly impossible to avoid. This makes project management more complex and possibly makes it more difficult for project managers to deliver successful projects [11, 18]. Understanding the organizational environment project teams work in and understanding the backgrounds and working philosophies of the project team members can provide an insight into how a project may operate during its lifecycle. Therefore understanding the organization and project team culture may give some indication of the project team "fit" within the organization and hence another element to consider when determining the potential success criteria of a project.

Organizational Culture

Henrie and Sousa-Poza [8] undertook a review of culture in the project management literature and found that it has not been heavily studied due to the following broad reasons:
- Measuring culture is not easy
- A deficiency exists in the research on leadership of multinational teams
- There is confusion over the definition of culture

Organizational culture is a collection of the beliefs, values and norms that exist in an organization. They are expressed in various ways such as symbols, ceremonies, myths, rituals, language and stories, which influence the behavior of employees [12, 17]. This culture, showing the correct way to think, act and do things within the organization, is passed on to new employees [15, 20].

Although organizational culture has been widely researched shows there are gaps in regards to culture within project teams and project management. Project management texts often discuss culture from the organizational perspective rather than from the project perspective [11, 14].

The following models for assessing organization culture will be briefly discussed:

- Six Dimensions of Organizational Culture [10]
- Manifestations of Culture [9]
- The Cultural Web [12]
- Levels of Culture [17]

Six Dimensions of Organizational Culture
The six dimensions of organizational culture are listed in table 1 and were the result of a study measuring organizational culture in Denmark and Holland [9, 10].

Table 1 Six Dimensions of Organisational Culture

Dimension 1	Process Oriented vs. Results Oriented
Dimension 2	Employee Oriented vs Job Oriented
Dimension 3	Parochial vs. Professional
Dimension 4	Open System vs. Closed System
Dimension 5	Loose Control vs. Tight Control
Dimension 6	Normative vs. Pragmatic

A brief interpretation of each dimension is provided below based on the original definitions [10].
- A Process Oriented organization is one where each day is just as the one before, risks are avoided and not much effort is put into the job. Results Oriented on the other hand is where each day is new with great challenges, maximum effort is put in and people are comfortable with working in a challenging, changing environment.
- An Employee Oriented organization is one which cares for its employees and is concerned about their work-life balance and personal life whereas the Job Oriented organization is one which cares only for getting the job done and not about the happiness of its employees.
- The Parochial dimension is where employees possess a personal culture matching that of the organization. This culture is predominant in organizations which retain employees for long terms as opposed to short term contractor types. The Professional dimension is usually held by contractors whose personal cultures do not match any organizations culture.
- The Open and Closed System dimensions relates to the ease in which new members fit in, the availability of information and the ease of its accessibility. Open systems, to an extent, have freedom of information, have open employees and new members can fit in painlessly, while Closed Systems usually have secretive management, information is hard to obtain and new members are slowly inducted.
- A Loosely Controlled organization is seen as a relaxed environment where meeting times and budgets are loosely kept and management is easy-going. A Tightly Controlled organization is seen to be a strict environment with stringent rules, tight meeting times and budgets and harsh inflexible rules.

- A Normative environment views following procedures as more important than producing results, whereas in a Pragmatic environment producing results is more important than following processes and procedures.

Manifestations of Culture
Hofstede et al [9] developed the manifestations of culture which contains the following components:
- Symbols represent the objects or language within the culture.
- Heroes are the role models for the culture
- Rituals are the processes and procedures carried out on a daily basis.
- Values relate to the core feelings that underlie the culture.

Symbols, Heroes and Rituals are practices and form the building blocks for an organization's culture. Hofstede et al [9] classify these as what the person feels is the culture. Values are what the person feels the culture should be [9] and are the foundations upon which the Symbols, Heroes and Rituals lay.

The Cultural Web
The Cultural Web was developed as a "representation of the taken-for-granted assumptions or paradigm, of an organization and the physical manifestations of organizational culture" [12:p73] and identifies seven areas of organizational culture:

- Organizational Structure outlines important relationships and emphasises what is important in the organization.
- Control Systems are the reward systems and measurement system which help uncover the organization's areas of importance and focus.
- Power Structures aim to uncover the sources of power within an organization.
- Stories include gossip, rumours and the grapevine and are typically based on heroes, villains, successes and failures.
- Rituals and Routines are formal or informal things that are done in the organization.
- Symbols include the type of language used, corporate logos, office location, company cars and job titles.
- The Paradigm is the underlying theory or concept of the organization and provides a general perception of the organization.

Levels of Culture
Organizational culture is simplified to three levels by Schein [19].
- Artifacts are the highest level and include items which are visible and able to be seen.
- Espoused values are usually about how things are done. Once accepted by individuals espoused

values become the overall values for the organization.
- Basic underlying assumptions are the actions, opinions, and unquestioned basis on which people behave and are usually automatic and done without thought.

Summary
The cultural models all identify a number of facets to explore when examining organizational culture such as, the way we do things, the way we should do things and the surroundings we work in.

All models illustrate organizational culture as a number of important elements however, the Cultural Web goes further to illustrate that these elements are intertwined. It could be argued that some models are solely focussed on the organization (the Six Dimensions) whereas others - the Manifestations of Culture and the Cultural Web include elements which could be construed as an individual's culture. Also the Six Dimensions and the Cultural Web consist of elements which are easily identified within an organizational setting while the Manifestations of Culture and the Levels of Culture have elements which are less visible (e.g., values and basic underlying assumptions).

Research Approach
This research takes the form of a dual case study and follows an interpretive and qualitative approach. Case study was chosen as the research attempts to understand the actual context of the area under study from the point of view of the participants [4, 16]. The two cases are a Sarbanes-Oxley (SOX) Act (2002) Compliance Project within an Oil company and an Anti-Money Laundering/Counter-Terrorist Financing (AML/CTF) Project within a Bank.

Hamel et al [6:p45] defines a case study as an 'in-depth investigation using different methods to collect information and to make observations. These empirical materials help to understand the object of the study'. McNeill & Chapman [13:p120] offer a similar definition by stating a case study is an 'in-depth study on a single example using a range of research methods'.

Data collection used the qualitative techniques of reflective observations and informal conversations with people in the field [6, 13, 16] as one of the researchers had worked on both projects. Therefore reflection on past observations, for information relating to the studied project teams was the primary source of information for the SOX Compliance Project while on-site observation was the primary source of information for the AML/CTF Project. The literature review also provided a basis for comparing and contrasting observations identified.

The Six Dimensions of Organizational Culture [9, 10] has been selected to analyse the two cases. The main reason behind this selection was that this cultural model is focused on the organizational level and therefore can be easily translated to a project level for analysis purposes.

The Projects
The Oil Company
The Oil Company, with a workforce in excess of 109,000, operates in 140 countries through a number of operating companies in areas such as exploration and production, oil products, gas and power, chemicals, and trading.

This case study is based on a Sarbanes-Oxley Act 2002 (SOX) compliance project within the Trading Company subsidiary. The Trading Company has two head offices, in Texas, managing the North America (NA) and in England managing the rest of the world (ROW). The following Trading Company business units played an important part in the project:
• Global Commercial Operations covering general trading activities
• Finance Management including tax, treasury, trade finance, and credit and debtor management
• Finance Services and Accounting, incorporating best practice initiatives (the project owner)
• Risk Control and Compliance covering risk management and measurement and compliance
• IT covering the development, implementation and support of business applications and tools

An outline the phases and the key activities involved in the SOX Compliance Project are listed in table 2.

Table 2 - SOX Project Phases

Process Documentation Phase
• Document 'as-is' Business processes & financial controls
• Document 'as-is' IT processes & financial controls
• Identify gaps or deficiencies within the documented processes & controls
Remediation Phase
• Remediate Phase 1 gaps / deficiencies
Testing Phase
• Design Effectiveness walkthrough testing
• Design & conduct Operation Effectiveness testing

The SOX Compliance Project Team structure consisted of two main streams – Business and IT divided by region, (NA and ROW). At the beginning of the project, each region and stream of work had its own Project Manager. Each Project Manager reported to the Business Implementation Manager (BIM). The project steering committee was made up of the BIM and the business unit managers within the Trading Company all of whom were located in England.

The Bank
The Bank, with a workforce in excess of 27,000, is headquartered in Sydney and operates throughout the Australasia and Pacific regions in areas such as Business and Consumer banking, Wealth Management, Institutional banking, and a recently acquired Adelaide based Financial Institution.

Australian Government along with the Australian Banking Industry worked together to create the Anti-Money Laundering and Counter-Terrorist Financing (AML/CTF) Legislation as Money Laundering and Terrorist Financing has become a significant area of interest in today's global business environment. By understanding the basic requirements of the AML/CTF Act and to comply with these legislative requirements, the Bank initiated five sub-projects as follows: 1) a Customer Information Program; 2) a Transaction Information Program; 3) a Detection Services Program; 4) a Case Management Program; and 5) a Reporting Program.

This case study is based on the Customer Information Program sub-project which covered all business units of the bank which had a primary focus of determining the work required to be undertaken to comply with the minimum AML/CTF requirements. The phases and the key activities involved in the AML/CTF Project are listed in table 3.

Table 3 - AML/CTF Project Phases

Discovery Phase
• Identify 'as-is' processes in selected systems for:
o Data collection, storage & propagation
o Customer identification & matching
• Assess data quality in the selected systems
• Identify notification sources for changes of organization details
• Determine minimum organizational data formatting requirements
Analysis & Solution Development Phase
• Document 'as-is':
o Customer establishment data and process deficiencies
o Front-end system process flows
• Assess data management & governance needs
• Assess impact on nominated systems, processes & data
• Recommend & develop solutions to remedy the deficiencies
Final Report & Implementation Roadmap Phase
• Prepare final report & recommendations

> • Prepare high-level implementation plan

The project team consisted of two bank staff with one being the overall project manager for the AML/CTF initiative and five on-site staff (3 part-time and 2 full-time) and one full-time off-site staff member provided by a small consultancy firm.

Findings
For each project a comparison of the cultures of the groups involved has been undertaken using the Six Dimensions of Organization Culture [9, 10].

The Oil Company
The SOX Project had an IT Project Team, a Business Project Team, the IT Department and the Business Department who all played large roles in the project. These comparisons and contrasts can be seen in Table 4 below shows each team and department's culture according to the six dimensions. It can be noted that the culture differed between the Project Team and the Organization, but was generally the same across the IT and Business Project Teams and again across the two organizational departments.

The differences between the Project Team and Organization were apparent during the project. In the case where the Business and IT Project Teams were faced with the task to communicate and get input from the Organizational departments, they were confronted with a defensive and process oriented culture in which little effort was made. This resulted in poor quality documentation and later led to much rework in order to rectify problems encountered.

Because the Project Teams were made up of a majority of contactors, and only the leaders were permanent, they were job focused and professional. They had the attitude of just getting the work done

and getting out of there. Due to the flexibility of contracting they never associated themselves with any particular organization. However the Organization itself was very active in its Human Resources initiatives such as organised sports events, team lunches and counselling facilities, and consequently, very good at retaining staff. Some employee's within the organization had been there for 30 years and still planning to stay on, which makes for a very parochial culture. It also makes for a closed system culture where new employees were not easily nor quickly inducted. The Project Team also displayed signs of a closed system culture with a very secretive management team.

Inherently, the Organization ran a tight ship, budgets were kept strictly and extra work, such as the work required for the SOX Project, was not taken onboard lightly. The Project Team on the other hand had almost a blank cheque since it was such a high priority project. The Project Team also had very loose meeting times, where internal meetings were called spontaneously and never stuck to their allocated time. Agendas were rarely followed, minutes rarely taken and actions rarely completed.

The main difference that can be highlighted is the Normative vs. Pragmatic styles of the IT Project Team and the Business Project Team. The Global IT Project Manager was a very procedural man and found it necessary to impose these procedures on his team. For example, he introduced a new convention for email subject lines, and any email which didn't follow the new format was not looked at. The Business Project Team was more worried about the results of the work, rather than the way it was done. The Organization was similar to the IT Project Team in that work was not undertaken unless the right procedure was followed.

Table 4 - SOX Project Cultural Dimensions

Cultural Dimension	The Project Team		The Organization	
	IT Team	**Business Team**	**IT Department**	**Rest of Business**
Process Oriented vs. Results Oriented	Results Oriented	Results Oriented	Process Oriented	Process Oriented
Employee Oriented vs. Job Oriented	Job Oriented	Job Oriented	Employee Oriented	Employee Oriented
Parochial vs. Professional	Professional	Professional	Parochial	Parochial
Open System vs. Closed System	Closed System	Closed System	Closed System	Closed System
Loose Control vs. Tight Control	Loose Control	Loose Control	Tight Control	Tight Control
Normative vs. Pragmatic	Pragmatic	Normative	Normative	Normative

The Bank
The AML/CTF Project had the Consulting firm's Project Team, the Bank's Project Team, the IT Department and the Business Department who all had

roles in the project. Table 5 below compares and contrasts each team and department's culture according to the six dimensions. The cultural dimensions of the AML/CTF Project remain, for the

most part, consistent within the Project and Organization Teams individually, but differ from each other.

One of the major differences within the Project Team was that the Consultants Team was process driven whereas the Bank's Project Team was results driven. One of the major influencing factors of this difference was the smaller size of the Bank's Team when compared to the Consultants Team so they were more willing to take risks, face challenges and involve themselves in changing environments. The Consultants Team in contrast had a view that it's 'just another day on the job' and tried to get through the work as systematically as possible. The Organizational Departments remain consistent in their shared view with the Consulting team of getting this done as systematically as possible.

The Organizational Departments were significantly different in the job vs. employee orientation dimension. The IT Department showed concerns toward getting the work down and were focused on this. However the Business Department was more concerned with the wellbeing of their staff and keeping a low stress environment.

In the same way the contractors in the SOX Project Team were professional, so were the Consultants Team in the AML/CTF Project. Being external consultants their top priority was getting the job done, not being part of the client's patriarchal system. The Bank's Project on the other hand, patriotisms were enhanced due to working so closely with external consultants. Of course the Organizational departments were also patriotic and thus classified as parochial.

Unlike the SOX Project, all parts of the AML/CTF project showed open systems where new members were welcomed and information was freely available via the Intranet and other forums. Again all parts of the AML/CTF project ran tight controls, meeting times were always respected and budgets were largely adhered to.

A further difference within the Project Team was the pragmatic style of the Consultants Team compared to the normative style of the Bank's Team. The Consultants were concerned with producing the right results and achieve the works tasks according to the expectations of their client, whereas the Bank's Project Team and the Organizational departments were more focused on following the right procedures. One example of this was when a Consultant was detained in a conference room for not following the correct security procedures imposed by the Adelaide office of the Financial Institution.

Table 5 - AML/CTF Project Cultural Dimensions

Cultural Dimensions	The Project Team		The Organization	
	Consultants	Bank Team	IT Department	Rest of Business
Process Oriented vs. Results Oriented	Process Oriented	Results Oriented	Process Oriented	Process Oriented
Employee Oriented vs. Job Oriented	Job Oriented	Job Oriented	Job Oriented	Employee Oriented
Parochial vs. Professional	Professional	Parochial	Parochial	Parochial
Open System vs. Closed System	Open System	Open System	Open System	Open System
Loose Control vs. Tight Control	Tight Control	Tight Control	Tight Control	Tight Control
Normative vs. Pragmatic	Pragmatic	Normative	Normative	Normative

Conclusions

Through the use of Hofstedes's [10] Six Dimensions of Organizational Culture two IT projects were assessed to show the alignment (or not) of the project's culture with that of the particular organization. The SOX project showed that for most of the six dimensions the project's culture was different to the organization's culture whereas for the Bank's project the cultural dimensions of the project and the organization were along a similar path.

While this research is based on two projects and is ongoing the results of the cultural assessment suggest organizational culture can have an impact on the outcome of an IT project. When project team members are employees of the organization, the initial culture of the project team will be based on that of the organization. Hence an assessment of the organization's culture can be used to determine if an environment exists to help promote project success.

As mentioned in the introduction section of the paper this is research in progress. Currently the research position stands at a questionnaire on project culture having been developed and subjected to a preliminary pilot test courtesy of members of both project teams. Further work is needed on the questionnaire and a further pilot test must be conducted on a random

sample of project managers and project team members. Following this the questionnaire can be amended as required and then distributed to a wide range of project staff and potentially project stakeholders. This research would aim to understand, on a wide scale or perhaps within a specific industry sector, the impact of organisational culture on IT project success. The next step is to document the creation of the questionnaire and the various pilot test results to ensure that a valid and reliable instrument has been developed.

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