

AN OPERATIONAL 'PROJECT MANAGEMENT CULTURE' FRAMEWORK (PART 1)

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ABSTRACT

The aim of this research is to develop an operational 'project management culture' framework, which can be used by project managers and organisations to support project work. One of the main causes of project failure is attributed to a non-supportive project management culture in organisations. A triangulation method is followed inclusive of a thorough literature review, a survey questionnaire and a concept mapping process. A project management culture framework with descriptive elements, based on Deal and Kennedy's (1982) definition of organisational culture, comprising of four dimensions i.e. project process; people in projects; project systems and structure, and project environment was developed.

Key words

Project management culture

The management of projects has become a strategic issue for many companies. Issues such as strategic alliances, rapid movement of labour and capital, and failure of projects are calling for the need of risk assessment and management from a new perspective. An organisation that wants to remain competitive in providing its customers with continually improved products and services has no choice but to use project management concepts and processes (Cleland, 1994).

There is some realisation in organisations that employees, in addition to working on a business process, also need to lead or participate in one or more projects (Martin & Tate, 1998). According to Martin and Tate (1998), there are only two ways in which work gets done in organisations: through business processes or through projects. Business processes are permanent work structures that transform inputs into repetitive outputs. They can be viewed as on-going operations (Kerzner, 1997). Projects, on the other hand, are temporary work structures that transform inputs into unique outputs. Projects start up, produce whatever they have been commissioned to produce, and then shut down.

Organisations that have not traditionally been involved in projects are increasingly turning to project management without fully understanding its underlying philosophy, principles and practices. This 'project management rush' by organisations of all kinds results in a situation where many organisations are faced with the dilemma of not doing as well as they had anticipated.

As organisations are faced with the dilemma of rapid changing markets, transformation, their project organisations are becoming increasingly dynamic. Normal day-to-day administrative and functional skills are now becoming insufficient to deal with the complexities of modern project undertakings. The Human Resource function has increasingly come under the attack of not being able to contribute towards business results. For Human Resources to be true business and strategic partners, they need to assist in leveraging the core ingredients of a business to gain a competitive advantage. They need to understand the new business methodology required for many organisations in the form of project management, how to create a positive environment to manage projects successfully as well as how to integrate and manage the

complex processes and structures as well as the people involved in projects (Ulrich & Brockbank, 2005; Ulrich, 1998; Verma, 1996).

Project failure happens despite of extensive research on the technical-side of project management, theory and methodology that has been written about how to organize and manage new project teams and delivering project success. Many organisations, including certain government departments are not used to project work and do not comply with the principles and practices of typical project management environments thus adding to the high project failure rate. In a typical project environment the scope of the project will be clear to all stakeholders. There will be a feasible project plan, being executed by a competent project team. The principles of time, cost and quality will be managed to ensure results and customer satisfaction. Continuous monitoring and communication during the phases of the project life cycle, as well as management support is essential. Key factors that are associated with project failure are the lack of feasibility studies, ignoring the project environment, over management of project managers and their teams, the lack of post-project reviews, putting political agendas above the objectives of the project, etc (Kendra & Taplin, 2004; Pinto & Kharbanda, 1996; Standish study, 2000).

Project management literature indicates that project culture is important to project success (Cleland, 1994; Lientz & Rea, 1999). Kotter and Heskett (1992) also found a relationship between culture and economic performance in organisations. One of the main causes of project failure is that the organisational culture in which projects have to be delivered is not supportive of projects (Gray & Larson, 2003). The creation of a supportive organisational culture is critical for the success of any project and ultimately the growth of the business. According to Andersen (2003), in many organisations the project culture is often at odds with the organisational culture. Andersen (2003) further differentiates between the organisational culture of the base or parent organisation, their sub-cultures, and the culture within the project to meet its objectives. However justified, "project management should not be used until the leaders of the organisation are committed to its use and are willing to prepare a suitable culture for project management to germinate and grow".

Dinsmore (1999) is of the opinion that “successful organisations will have to change their business processes from being hierarchical, functional organisations to being fast tracking, entrepreneurial enterprises made up of portfolios of projects that are ever changing and renewable. This needs a faster, cheaper, better way of doing business embodied in a project management culture”.

Gray and Larson (2003) stated that there is a strong inter-relationship between project management structure, organisational culture, and project success. Organisations can successfully manage projects within the traditional functional structure, if the organisational culture encourages cross-functional integration.

It was found that the concept of “project management culture” is not clearly defined (Du Plessis, 2001; Henrie, 2004; Wang, 2001). Project management culture has been described by various authors, including Cleland (1982), Firth and Krut (1991), Graham and Englund (1997), Gray and Larson (2003), Harrison (1992), Hobbs and Menard (1993), Kerzner (2000) and Wang (2001) each with a different focus point. None of these authors have clearly defined the concept 'project management culture' as a holistic, systemic phenomenon. To some degree, several of them, regard project management culture as the culture of the project management profession or the project team. Duncan (2001) developed a project management culture model to assess how “project friendly” an organisation is. Kerzner (2000) views project management culture as the “corporate culture” for project management. Wang (2001) defined project management culture as “a set of work related values and benefits shared by project management professionals”. Hobbs and Menard (1993) refer to a 'project management culture as a system of attitudes and behavior patterns'. Cleland (1982) states: 'Taken in its cultural context, project management is a complex whole that includes knowledge, beliefs, skills, attitudes, and other capabilities and habits acquired by people who are members of some project society'.

However, most of the above authors use the term 'project management culture' or other similar terms in the sense of a sub-culture in an organisation instead of the operational culture of the organisation. It is not used to support the successful management of projects as a holistic phenomenon.

Few studies investigated the operational side of project management culture, how it manifests itself in organisations and how it theoretically can be defined (Du Plessis, 2001; Wang, 2001). Deal and Kennedy (1982) highlighted the operational dimension of organisational culture by defining it as “the way we do things around here”. According to Chell (1994), this operational dimension of culture comprises of three categories of beliefs i.e. beliefs about **how** employees should be treated; beliefs about professionalism and support of **efforts** of doing a good job; and beliefs about how the organisation **interfaces** with the environment and strives to accomplish its mission.

For the purpose of this paper Deal and Kennedy's (1982) definition of organisational culture was adopted, since it highlights the operational dimension of organisational culture.

The aim of this research is to answer the question: *What are the dimensions and supportive elements that constitute a valid project management culture framework as an operational culture in organisations?*

LITERATURE STUDY

A thorough literature study was conducted to describe organisational culture and project management.

Organisational culture and project management

Understanding the underlying principles of project management and organisational culture will facilitate the identification of project management culture elements. Authors in project management literature use organisational culture and project management culture as synonymous, without defining the exact meaning. These two concepts are not the same thing, although they do share some underlying dimensions. Hofstede (1997) defines organisational culture as “holistic... a whole which is more than the sum of its parts ... historically determined ... reflecting the history of the organisation”. Baba, Falkenburg and Hill (1996) differentiated between three interrelated forms of culture existing in organisations namely national, corporate and work culture.

Organisational culture in its most basic form refers to a system of shared norms, beliefs, values and assumptions that bind people together (Ball & Asbury, 1989; Schein, 1984).

In addition, each type of organisational culture reflects a socially constructed, stable sense of what an organisation is and should be. Each represents what certain groups of people think when they hear the word “organisation,” or when they consider which organisations are “good.” Culture is a characteristic of the organisation, not of individuals, but it is manifested in and measured from the verbal and/or non-verbal behaviour of individuals - aggregated to the level of their organisational unit. People who hold a common conception of what the organisation should be and how work should be organised will tend to create an organisation that realises that conception. And an individual who joins that organisation will tend to become socialised to that conception and come to perceive the way work is conducted as appropriate and natural (Deal & Kennedy, 1982).

Culture is part of the overall organisational design to enable widespread information flow (Cummings & Worley, 1997). Frohman (1998) alludes to the fact that the relationship that exists between management and employees forms technology companies' cultures. Gray and Larson (2003) identified 10 primary characteristics which capture the essence of an organisation's culture i.e. member identity, team emphasis, management focus, unit integration, control, risk tolerance, reward criteria, conflict tolerance, means versus end orientation and open-system orientation.

These perspectives are far from exhaustive. One should accept that the one perspective is not necessarily more correct than the other, it all depends on the purpose and context in which the dimensions are used. What is important is that the purpose and context are clearly stated. The general message that all these perspectives have in common is that culture influences who, what and how to perform work in our organisations.

When organisational culture is viewed from a project management perspective it reflects the way projects are conducted as work by interdependent project team members in an organisational setting that supports project principles and practices to ensure focused delivery of results within a set time frame, budget constraints and with customer satisfaction.

Project management culture and project success

The importance of organisational culture for business success has also been investigated to establish the role of culture as success factor.

Gray and Larson (2003) described the relationship between organisational culture and successful projects by means of a riverboat metaphor where culture is the river and the project is the boat. If the culture of the organisation is supporting projects successfully it is like paddling down stream. In such an environment teamwork and cross-functional operation are the norm, conflict is recognized and dealt with and excellence is the

driver. In an opposite environment, where effective project management is inhibited, it is like paddling up stream. Such a non-supportive project environment requires more effort, more time and more attention. Teamwork would be discouraged, conflict would be rife or ignored, risk is avoided and projects would face several obstacles.

However, Gray and Larson (2003) stated that the ideal culture is not at any extreme of the dimensions they identified. An optimal culture would balance concern with output and processes to achieve those outcomes.

Graham and Englund (1997) have designed a tool called "PEAT" (Project Environment Assessment Tool) for measuring and determining the environment that supports project success. It has not been developed to measure project success, but to determine how well organisations support project management. They have identified eight factors that directly influence project success. These include: strategic emphasis of projects, upper management support, project planning support, customer/end-user input, project team development, project execution support, communication and information systems and organisational systems support. They have not indicated how these factors are linked in creating a project management culture for project success. These factors have been taken into consideration in developing the project management culture framework of this study.

Kendra and Taplin (2004) developed a four-dimensional success model to highlight the roles that the project manager, project team, processes and measurement systems play in project success. Their model consisted of four dimensions namely a micro-social dimension – looking at project manager's skills and competencies, leadership qualities and subject areas such as planning and managing tasks; a macro-social dimension – looking at organisational structures at the project level, e.g. matrix structures, cross-functional teams, participative work environment; a micro-technical dimension – looking at performance measurement systems and individual metrics such as time, cost and quality, business objectives, team performance, financial performance and user satisfaction; and lastly a macro-technical dimension – looking at supporting management practices, grouping of structured business processes or frameworks. It includes factors such as general project management processes, software development frameworks, strategic management processes and vendor management. The authors further iterated that the four dimensions are interdependent and linked by project management cultural values that relate to the dimensions and success factors.

Literature also indicates other elements to be present in a project environment that establish and foster the desired project culture i.e. business sponsorship (Hall, 1999; Saia, 1997; Zimmer, 1999), senior management involvement (Cleland, 1994), middle management involvement (Glaser, Zamanou & Hacker, 1987), team based and participatory approach (Cleland, 1996; Martin & Tate, 1998; Sweeney & Lee, 1999), project orientation and control (Hall, 1999), project management methodology (Martin & Tate, 1998; Zimmer, 1999), Communication and information systems (Hall, 1999; Graham & Englund, 1997; Saia, 1997) and project review and learning (Bohn, 1994; Kotnour, 1999; Peters & Homer, 1996).

From the above mentioned it can be concluded that there is no "ideal" organisational culture, but that there are certain dimensions which can be utilised to underpin a culture that will lead to improved project success and that there are certain success factors that should be part of such a project management culture. If the associated descriptive elements of a successful project, project management and organisational culture are taken into consideration it is possible to identify the cultural elements in an organisation that can contribute successfully to a project.

The literature studied provided clarification on the dimensions of organisational culture with specific emphasis on how it pertains to an organisation having to implement projects, in whatever form, successfully.

The project management culture descriptive elements identified from the literature can be divided into four dimensions, i.e. people in projects, systems and structures in projects, processes within projects, and the project environment. The people related dimension refers to the people and their subsequent behaviour involved in the projects and include elements such as interpersonal relationships; management and stakeholder commitment; interdependence; discipline of delivery; risk propensity; conflict tolerance; learning affinity; results orientation; open communication; open system focus and team orientation. The system and structure dimension refer to the systems and structural elements that have to be created and applied to ensure project success. Elements included in this dimension are team approach; interdependence; flexible boundaries; customer orientation; project methodology and a supportive environment with regards to structure, procedures and resources. The associated descriptive elements included in the process dimension include the understanding of project life-cycle phases; results and speed of delivery; controlled/disciplined procedures; learning and continuous improvement, customer orientation and systems thinking. The environment dimension relates to elements such as strategic emphasis; upper management support; project planning support; customer/end-user support and buy-in; project team development opportunities; project execution support; communication and information systems availability and organisational support.

Although one could theoretically assign the various elements to certain dimensions, the complex nature of the theoretical construct must allow for a high degree of flux on the one hand, and at the same time a seemingly low degree of correlation among some of the items.

From the literature and the adopted definition of Deal and Kennedy (1982) on organisational culture it is envisaged that an operational project management culture would consist of four main dimensions: project process (the way), people (we), project methodology (system and structure elements- do things), and the project environment (around here- meaning the organisation in context). Each main dimension represents a number of associative descriptive elements as identified from the literature. The degree to which an organisation supports these dimensions will contribute towards its project successes.

RESEARCH DESIGN

An exploratory and descriptive research design was followed inclusive of multiple research methods designed to tap the range of project management culture elements and ensuring a valid and reliable research processes called a triangulation approach.

Research approach

The interpretative approach is relevant in this study, since the perceptions and understanding of project management culture of practising project managers were determined, which contend that organisations are cultures because their existence is based on human interaction. The multiple methods used were a literature study as theoretical base, a qualitative dimension-questionnaire to verify the theory and concept mapping to broaden the base.

Research methodology

Participants

Participants in this study comprised of two groups. The participants involved in completing the questionnaire and the participants involved in the concept mapping exercise.

The participants who completed the questionnaire were selected out of a population of 150 practising project managers,

attending post-graduate studies in Project Management at the University of Pretoria in 2001, as well as members of the Project Management Institute of South Africa (PMISA). The participants who successfully completed the questionnaire were 50. They represented various organisations (Technical and Non-Technical) in South Africa (see Table 1).

TABLE 1
INDUSTRY INFORMATION ON THE PROJECT MANAGEMENT EXPERT
SAMPLE GROUP FOR QUESTIONNAIRE (N = 50)

Type of industry	1. Service (e.g. Banking, Education, Government)	N = 21		
	2. Technical (e.g) Engineering/Manufacturing)	N = 29		
Type of projects	a. Technical ('hard-side' e.g. production, manufacturing)	N = 30		
	b. Non-technical ('soft-side' e.g. processes, service delivery)	N = 20		
Years of projects work experience	5-10 yrs	11-15 yrs	16-20 yrs	21+ yrs
	12	24	14	0
Qualification	Bachelor's degree	Honour's degree	Master's degree	Doctoral degree
	8	26	15	1

The participants for the concept mapping exercise were selected from experienced project managers who can contribute freely and not be influenced by the researcher/facilitator. A convenience sample of 30 practising project managers (different from the previous sample), who are post-graduate students in project management at the University of Pretoria (2001) and who represent a cross section of organisations in South Africa, dealing with all types of projects were selected. Since they are experienced and come from a varied background with regard to projects it was felt that they would be able to make a valuable contribution to the study outcome.

Measuring instrument

A *qualitative dimension-questionnaire* was developed from the key dimensions and associated elements identified in the literature study. A summary of the identified elements, from the literature study, of a project management culture (although the list is not exhaustive) is given in Table 2.

TABLE 2
SUMMARY OF IDENTIFIED ELEMENTS FROM LITERATURE INCLUDED IN A PROJECT MANAGEMENT CULTURE

1. Interpersonal Relationships
The degree to which relationships (understanding each other) between team members, customers and suppliers are playing an important role in the success of the project.
2. Team emphasis
The degree to which people participate in the management of the project and work activities are organised around groups rather than individuals.
3. Management/stakeholder commitment
The degree to which each stakeholder including management commits, by means of active participation and support, to the successful completion of the project.
4. Interdependence
The degree to which units within the organisation are encouraged to operate in a co-ordinated or interdependent manner.
5. Control/Discipline
The degree to which rules, policies, and direct supervision are used to oversee and control employee behaviour.
6. Risk orientation
The degree to which the project environment encourages participants to be aggressive, innovative, and risk-seeking for success.
7. Learning
The degree to which projects are viewed as learning interventions and processes of continuous improvement.
8. Conflict tolerance
The degree to which employees are encouraged to air conflicts and criticisms openly and deal with it responsibly.

9. Results orientation

The degree to which management and team members focus on achievement of results and outcomes, rather on the means. The degree to which status in the organisation becomes less dependent on the organisational role held and more on the results one is able to accomplish, both individually and as a team.

10. Open-system focus

The degree to which the organisation and people involved monitor and respond to changes in the external environment.


11. Open communication

The degree to which shareholders communicate openly and share information about the project, its problems, opportunities, successes and failures.

This questionnaire has a closed section consisting of eleven (11) elements of a project management culture as displayed in Table 3, which had to be evaluated, as well as an open section where additional key dimension or elements could be mentioned by the participant.

TABLE 3
QUESTIONNAIRE OF VERIFYING KEY ELEMENTS DEFINING A PROJECT MANAGEMENT CULTURE




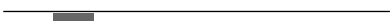

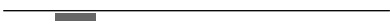

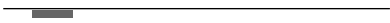

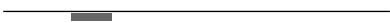
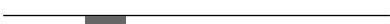
Complete the questionnaire of eleven (11) key elements/dimensions included in a project management culture i.e. "the way we do projects", identified from literature, according to your perception. Indicate each dimension's contribution to the definition of a project management culture, in an organisation using projects of any type, by drawing a 1cm line on the scale between high and low.

Eg. High	Negotiation	Low
		
Questionnaire : KEY ELEMENTS DEFINING a PROJECT MANAGEMENT CULTURE		
	1. Interpersonal Relationships	
High	_____	Low
	2. Team emphasis	
High	_____	Low
	3. Management/stakeholder commitment	
High	_____	Low
	4. Interdependence	
High	_____	Low
	5. Control/Discipline	
High	_____	Low
	6. Risk orientation	
High	_____	Low
	7. Learning	
High	_____	Low
	8. Conflict tolerance	
High	_____	Low
	9. Results orientation	
High	_____	Low
	10. Open-system focus	
High	_____	Low
	11. Open communication	
High	_____	Low

Procedure

The research process followed included the completion of a questionnaire and a concept mapping exercise. The participants of the questionnaire were requested to complete the closed-section of the questionnaire, (Table 2) according to their perception of the eleven (11) elements in a project management culture, identified from the literature, by indicating with a line drawn on the dimensions-scale between high and low. An example of how to conduct this evaluation was provided. They were also requested to add any relevant key elements according to their experience in the open-section of the questionnaire. The results can be seen in Table 4.

TABLE 4
RESULTS OF KEY DIMENSIONS DEFINING A PROJECT MANAGEMENT CULTURE

Questionnaire:		
	1. Interpersonal Relationships	
High		Low
	2. Team emphasis	
High		Low
	3. Management/stakeholder commitment	
High		Low
	4. Interdependence	
High		Low
	5. Control/Discipline	
High		Low
	6. Risk orientation	
High		Low
	7. Learning	
High		Low
	8. Conflict tolerance	
High		Low
	9. Results orientation	
High		Low
	10. Open-system focus	
High		Low
	11. Open communication	
High		Low

To further explore and clarify the concept of project management culture, concept mapping was used. Concept mapping is a general method with which people's ideas about some topic in a graphical form can be clarified and described. By mapping out concepts in pictorial form, a better understanding of the relationships among the concepts can be drawn. Concept mapping is especially a useful method for developing a conceptual framework, as is the case in this study (<http://trochim.human.cornell.edu/kb/kbhome.htm>, 2001).

Concept mapping encourages the participant group (research sample) to stay on task, and the conceptual framework is expressed in the language of the participants rather than in that of the planner/evaluator/researcher. With its pictorial representation and its participant-oriented features concept mapping can be a powerful method to organise complex problems and ideas.

The timing and venue of the event should be suitable and convenient for participants to fully participate. Participants were gathered during a lecture session week, that all attended. They were asked to participate in an early morning session (all were enthusiastic and energetic) and saw this as an added learning event, since they are interested in project management themselves. An initial two-hour session was scheduled to generate ideas, with an additional two-hour session the next day to sort and prioritize ideas. The elements generated by the participants were structured in a logical combination of elements and evaluated in terms of their relevance to project management culture, as per definition of Deal and Kennedy (1982). The elements were integrated in terms of meaning and mutuality during a clarification and numbering session. The elements were subsequently rated according to importance and visually illustrated using cluster analysis and concept maps.

RESULTS

All the dimensions and descriptive elements identified during the concept mapping session were perceived as important by the participants. The results can be seen in Table 5:

TABLE 5
IDENTIFIED PROJECT MANAGEMENT CULTURE ELEMENTS THROUGH CONCEPT MAPPING (16 ELEMENTS)

- Utilising project methodology/tools**
The methodology, tools and specific project approach, utilised in projects ensures the delivery of results. e.g. work breakdown structure (WBS), specifications, deadlines, milestones, project plan
- Open communication**
Communication is seen as the "glue" that binds the parts together that makes the project succeeds. Open communication ensures interdependence and breakdown of "silo's".
- Quick response**
Projects do not have unlimited time to deliver, therefore the competence of members and utilisation of processes should enable a quick response, without sacrificing quality
- Commitment by all stakeholders**
Involvement and commitment by all the parties who have a vested interest in the project is necessary.
- Integrated with organisational strategy**
If the project is not seen as contributing towards the strategic priorities of the organisation, it is likely not going to have the necessary resource allocation and support from management.
- Flexibility**
Flexibility in structure and mindsets of people to ensure creativity and optimisation of resources.
- Delivering unique outcomes**
Projects are unique and deliver unique outcomes according to user specifications and requirements.
- Uncertainty and risk**
The unique nature of projects creates change and with change comes uncertainty and risk.
- Discipline and control**
Discipline with time, quality and costs are necessary for project performance. Thus deadlines, quality specifications and costs should be controlled.
- Clear project goals**
Clear project goals should be developed that focus all the parties to ensure a shared vision for successful delivery.
- Keeping Focus**
Focusing the efforts of diverse individuals on the project goal is vital, especially during major projects that can stretch over several years.
- Team effort**
A project is a team effort, due to the complexities and varied activities and expertise that might be necessary.
- Integration/coordination of activities and roles**
Every member in the project process should have clear activities and roles, which should be integrated at the right time to ensure completion of planned deliverables.
- Interdependence**
Interdependence amongst and between interested parties is vital, due to resource and information sharing. Since a project follows an integrated process (systems-approach); any missing link can cause project failure.

15. Limited life-span/life cycle

A project has a life cycle, comprising of various stages, with a definite start and ending. If the project does not deliver within a specific time-span, trade-offs between time, cost and quality will be necessary. This could lead to project failure.

16. Environment of project support

The organisation should support the project from start to end with organisational practices and systems. The necessary resources should be available. Rewards and recognition should be in line with project performance.

In comparing the results of the qualitative dimension questionnaire and the concept mapping process, support was found for the suggested project management culture assessment framework. The sixteen (16) elements mentioned in the concept mapping process (see Table 5) correlate with the elements found to be relevant in the literature study and qualitative questionnaire – see Table 6.

TABLE 6

COMPARISON BETWEEN FINDINGS ON PROJECT MANAGEMENT CULTURE ELEMENTS IDENTIFIED FROM LITERATURE AND QUESTIONNAIRE WITH ELEMENTS FROM CONCEPT MAPPING

Project management culture elements (11) identified from Literature and Questionnaire	Concept mapping elements (16)
1. Interpersonal Relations	14. Interdependence
2. Team emphasis	12. Team effort
3. Management/stakeholder commitment and support	4. Commitment by all stakeholders 16. Environment of project support
4. Interdependence	14. Interdependence
5. Control/Discipline	3. Quick response 7. Delivering unique outcomes 9. Discipline and control
6. Risk orientation	8. Uncertainty and risk
7. Learning	<i>*Learning was not mentioned by project Managers, maybe their paradigm does not include this as part of their experience in South African projects</i>
8. Conflict tolerance	13. Integration/coordination of activities and roles
9. Results orientation	5. Integrated with organisational strategy 7. Delivering unique outcomes
10. Open-system focus	6. Flexibility 11. Keeping Focus
11. Open communication	2. Open communication
12. Project methodology and process <i>This element was added in the open section of the questionnaire</i>	1. Utilising project methodology/tools 10. Clear project goals 15. Limited life-span/life-cycle

The literature researched indicated that a project management culture is important for project success and projects are key building blocks in the design and execution of business strategies. Gray and Larson (2003) acknowledged that, “project managers must shape a project culture that stimulates teamwork and high levels of personal motivation as well as a capacity to quickly identify and resolve problems that threaten project work”.

DISCUSSION

Findings from the research conducted provided no one definition of “project management culture”. It was found that the concepts “project culture”, “project management culture”, “project climate” and “project environment” are interrelated and often used in the same context.

Sufficient qualitative information was gathered from this research to develop a framework with guiding elements of the concept “project management culture”.

The authors of this study are of the opinion that the definition of organisational culture by Deal and Kennedy (1982), “the way we do things around here”, can be superimposed onto projects and project management. Adding to this the definition of organisational culture by Schein (1984), “the pattern of basic assumptions that a given group has invented, discovered, or developed in learning to cope with its problems of external adaptation and internal integration, and that have worked well enough to be considered valid, and therefore to be taught to new members as the correct way to perceive, think, and feel in relation to those problems”, provides enough information to adequately define the concept.

An illustration of how project management culture is defined, together with the descriptive elements belonging to each dimension can be seen in Table 7:

TABLE 7

SUMMARY OF PROJECT MANAGEMENT CULTURE FRAMEWORK AND DESCRIPTIVE ELEMENTS

*Organisational culture defined by Deal and Kennedy, 1982

* PROJECT MANAGEMENT CULTURE FRAMEWORK	DESCRIPTIVE ELEMENTS PER DIMENSION IN FRAMEWORK
The way We do things around here	<p>Process elements:</p> <ul style="list-style-type: none"> • Integrated process, Systemic in nature • Project life cycle • Disciplined and controlled • Customer oriented delivery • Results oriented with beneficial change • Continuous improvement and learning
People in the project: The Project Team and stakeholders (WHO and for WHOM)	<p>People elements:</p> <ul style="list-style-type: none"> • Mindset • Results and risk oriented • Disciplined and Flexible paradigm • Team-player • Change readiness and • Learning affinity • Competent • Committed and Ethical • Interdependence • Trusting and trustworthy • Sound interpersonal relations <ul style="list-style-type: none"> • Open communication • Conflict management • Emotional Intelligence
Project Management Methodology (WHAT) Structure and System	<p>Structure and Systems elements:</p> <ul style="list-style-type: none"> • Clear Project plan • Communication plan • Work breakdown structure (WBS) • Clear roles and responsibilities/ Responsibility Attainment Matrix • Team approach/networking • Risk management • Flexible boundaries/Temporary structure • Specifications, Deadlines, Milestones • Measurement and Control • Learning
Project environment (WHERE) <ul style="list-style-type: none"> • Internal (in project team) • External (Organisation and wider) 	<p>Environmental elements:</p> <ul style="list-style-type: none"> • Strategic emphasis • Upper management support • Project planning support • Customer/end-user input • Project execution support • Organisational support (adapted from Graham & Englund, 1997)

If the definition of organisational culture as being “the way we do things around here” (Deal & Kennedy, 1982), is taken and superimposed onto a project, the following can be said about project management culture:

- The way = refers to the project process (how)
- We = refer to the people in the project, i.e. project team and stakeholders (who and for whom)
- Do things = refer to the Project Management methodology (what)
- Around here = refers to the project environment (where).

The proposed framework is much in line with the four-dimension success model developed by Kendra and Taplin (2004). The model of Kendra and Taplin (2004) focuses on the relationships and impact of the dimensions on success, whereas the framework developed by this study attempted to develop an operational definition of project management culture and its descriptive elements, which can be used as a conceptual framework.

The results obtained from this study are twofold: the framework can be used to further develop an assessment tool for measuring the operational project management culture of organisations to enhance project success or it can be used as an organisational development process to create a project management culture in the organisation. The degree to which an organisation supports the elements in the framework and how they will measure against the project management culture framework, will determine how successful organisations will be in utilizing projects as a mean of achieving business goals.

The framework and descriptive elements derived from this study are going to be deployed as theoretical constructs in the development of an operational project management culture assessment tool, which will be presented in a separate article.

The value of this study to the field of Human Resources Management is fundamental as it indicates the ability of the “softer sciences” to contribute meaningfully in what is often seen as the domain of the “harder sciences”. Human Resources Management is a strategic partner in business improvement and project management success. This study has successfully contributed to the multi-disciplinary environment where Human Resources Management is often neglected due to ignorance or a silo mentality.

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