

¹Marcela do Carmo SILVA, ²Carlos Francisco SIMÕES GOMES

ALIGNED PROJECT MANAGEMENT PRACTICES TO ORGANIZATIONAL CULTURE TYPOLOGIES

¹ Universidade Federal Fluminense, Rua Passos da Pátria 156 sala 309 bloco D, São Domingos, Niterói, BRAZIL

Abstract: This research address practices in projects management application related to Charles Handy's organizational culture typologies. The methodology was conducted via survey best practices in project management uses; being sent electronically. The study is orientated by a literature review regarding the American pragmatic school of organizational culture and the project management practices commonly used by project managers. This study presents as a result, in almost all culture typologies observed, a tendency to concentration using the practice PMBOK project management; although there are strong trend and perceived use about project management practices.

Keywords: Charles Handy; organizational culture; project management; typologies

1. INTRODUCTION

Project management is a practice in which companies invest in order to obtain a better strategic option for the development of their company's core activity and the optimization of their support activities; applying to the company objective and subjective quality.

Maturity in project management is the position in which the company finds itself regarding the project management processes. Based on this, maturity models seek to quantify the ability of a company to manage projects successfully; every organization wants to achieve excellence in projects. Using project management, even if for an extended period of time, is not a sufficient condition for reaching excellence. The basis for achieving excellence in project management is best described by maturity models in project management, which are composed of stages that describe the difference in levels of maturity in project management (Souza and Gomes, 2015).

The need to identify the organizational culture of a locus where a project is carried out is crucial in order to obtain a good management of the best project management practice chosen for the project, since the success of project knowledge management depends on the company culture (Castro and Farias Filho, 2013).

In this regard, it is necessary to carry out a survey of how companies have conducted their projects, which are the most applied project management practices, and whether or not there is success in executing them, restricting the analysis of the academy regarding organizational culture; the pragmatic hard core American school in the author Charles Handy (2003). Despite the existence of several authors who work in the pragmatic organizational culture line, Charles Handy (2003) identifies in a practical way four types of organizational cultures, named typologies, easily found in the companies – being able to be a more dominant type than the others, standing out and generalizing the company culture, for example. The understanding and development of the study is carried out between organizational cultures and the management of projects raised through research sent to the respondents in electronic means and such questioning of the study is to be answered, in the context of this research, continuing a research commenced at 2014 (Silva and Gomes, 2015); being concluded at last.

This present section shows an introduction to this paper proposal: to align project management practices to organizational cultures typologies, for understanding specificities from these typologies have better use result if the practice in project management is recognized as the best practice to work together with the cultural and subcultural typology observed. The second section has the organizational culture in a pragmatic analysis. The third section shows the methodology used for obtaining answers in the search for identification project practices to typologies profiles. Section four has results and final considerations ends the analysis.

2. ORGANIZATIONAL CULTURE IN A PRAGMATIC PERSPECTIVE FOR PROJECT MANAGEMENT

— Pragmatic perspective to organizational culture

Companies increasingly use methods and tools, such as project management, to stay in the market, and goals are achieved, if the perception of the project becomes multidimensional, because people have different views in the projects phases. To that end, defining the management of projects in its scope of communication in an efficient and transparent way becomes a critical success factor (Vezzoni et al, 2013). Thus, from the perspective of both research and practice, it is critical to examine the extent to which culture-related factors may influence individuals' willingness (Wang et al, 2017).

The project management studies began in 1960 at the humanistic part perspective, with the concern of human resources management and project leadership, and its elementals and headings in an initial timid approach. It should be pointed out until 2004, project management was still lacking in the improvement of the approach to conceptual fundamentals in

the area of human resources, although in the 1990s began to publish behavioural works in projects focused on project management (Palácios et al, 2013).

In 2004, the PMI – the Project Management Institute – retained the PMBOK – the Guide to the Project Management Body of Knowledge – the observation that organizational culture is one of the areas whose knowledge of the project manager should focus for the interactions between projects and the organization might be successful, hence the cultural influence also immerse inside the relationships, expectations and interests from several stakeholders who be present at the project conduction (Rocha Neto et al, 2009).

In project management practices, besides pragmatic and humanistic approaches encompassing them, practices are also divided by performance criteria in operational performance; whose external projects definitions are the organizational environment, what is intrinsic in the project into operational performance – where there are archetypes of costs, time and quality – however there is also the strategic performance criterion that lies external definitions for conducting projects (e.g. the organizational environment in what is inserted the project) (Patah et al, 2012). Therefore, it is important to observe if manager's alterations in the organisations are considered in high importance and difficulty because it demands from managers' effective strategies for achieving goals (Vasconcelos Neto, Oliveira & Leite, 2013).

The evolution of how organizational culture is positioning itself as a strategic analysis item in companies, over decades, mainly in Latin America, where major transformations occur either by market positioning, or by transnational strategy either by organizational culture variables decomposition with individual or collective particularities. The heading of organizational culture should be studied and related to other lines that culminate in organizational strategy (Vertel, 2013). In order to successfully program changes in companies (e.g. introducing a new working method), multiple faces (or dimensions) of organizational culture should be considered; because culture is a condition for the success of intended innovation (Tolfo and Wazlawick, 2008).

The evolution thought regarding the element of organizational culture in which, with some reluctance, in the 1960s it was perceived as an instrument of improvement in organizations – but still with resistance in understanding it as a competitive advantage – to which in the 1980s it was observed the discussion of organizational culture as a variable of managerial strategy and competitiveness, that led to new models in organizational theory, and in the 1990s organizational cultures typologies entered pragmatically in the company' strategic analysis, exemplifying Charles Handy's typologies – in identifying four types of categories of organizational cultures – in which organizational and character ideologies affect and compromise the organization and its objectives. (Russo et al, 2012).

The statement in organizational culture has conducted academic works for years: Geert Hofstede presents different views between Frederic Taylor and Henry Fayol, discussing that cultural contexts determine the approaches that are relative to where the organization fits (Lacerda, 2011).

In contrast to the American academy – and even before American academic production – French academic production had already addressed the imaginary dimension in organizations, the existence of a project to achieve collective membership of its members, and the way in which unconscious individual processes are captured for responding to these organizational demands. Therefore, this resource to psychoanalysis allowed understanding imaginary and symbolic aspects installed in the unconscious; until then neglected, in the context of clinical sociology. In this chain, Eugène Enriquez – French academy – observes organizations trying to construct systems to shape thoughts and thus to induce indispensable behaviours to its dynamics aiming to replace the identification of the individual in a civil form by the Nation and State with an identification for the organization (Freitas, 2005).

In this way, the expression organizational culture for the French academy – in particular for Eugène Enriquez – is not used because it sees the organization as a system integrates the cultural, the symbolic and the imaginary, being able to analyse them from seven instances: mythical, socio–historical, institutional, organizational, group, individual and pulsional. Other French authors who touched the clinical sociology current hard core (such as Max Pagès, Vincent De Gaulejac, Michel Bonetti and Daniel Descendre in their book *The Power of Organizations* (Atlas, 1987)); who see the organization as a system of mediation of contradictions of various orders, in which it takes the place of the mother and tries to capture the ego ideal of its members (Freitas, 2005).

Handy used Roger Harrison's works classified cultures in: bureaucratic, task, power and democratic; with alignment in ideology and organizational character, to elaborate a cultural typology considers as channels of power reflected in the organizations in certain cultural categories affecting employee's behaviour and their interactions with the environment (Russo et al, 2012).

Thus, Charles Handy's association (Handy, 2003) came from the personality profile of Greek gods: Zeus, Apollo, Athena, and Dionysius for possessing striking personalities who would be the pillars of wisdom and would be the basis for describing organizational cultures. Charles Handy also made it clear no culture is better than another, various cultures can be in the same work environment – with one of them standing out as the "leader" culture – and there is no good or bad culture among the four analysed.

The Zeus culture, the first culture studied – also called the culture of power or club culture – is represented by a spider's web where power is concentrated in the centre, in Zeus. This culture has no rules – or if it owns, changes at all times according to the orders of Zeus – and the decisions are based on the logic of Zeus, without procedures, without respect to norms and laws. Employee appreciation is concentrated around Zeus to the centre of the spider's web. Projects made with Zeus do not conclude, or, become programs, since Zeus suffers from inconstancy of decision-making and predilection of team.

Temple culture, culture of roles or Apollo's culture is represented by a Greek temple where the operational staff is concentrated in the bases, and at the top is the direction of the company stoned. It is a stagnant culture in processes and without mobility, but it is deceived who thinks that the operative stands firm in the base, because if there is need of change, the bases of the temple shake and ruin the dome. In this culture, it is important to note that communication needs to be implanted, because a noise crumbles the temple, and, that communication with other departments or divisions of the company is necessary, so that the flow of the value chain of this culture is understood as that receives, both to the one that delivers to the next department of the company.

The Athena's culture or work culture is represented by fishing net where the links between the departments or sections in the organizations are at their interstices. It is an entrepreneurial culture, because the team is communicative, strategist and competitive, where always your product or service has to stand out to the other projects and products developed in the company. It is a culture with control that needs to observe the autonomy of those involved, without the development of negative vanity on competitiveness, so that individuality does not stand out from the collective.

The existential culture or Dionysius/Dionysus' culture is represented by an extremely brilliant star before a constellation, which characterizes the individual who takes value to the company and not the company that defines values to the individual. It is a culture that assumes individualism above collectivism and shows that the reward will be given to those who stand out – without any importance and judgment of the values of individuals. In this way, the company shines while the star of the individual shines on it. When the individual leaves, the organization urgently depends on replacing this star, by the job market, or by internal recruitment for conducting and maintaining its strategy.

Figure 1 represents these organizational cultures in order to observe the low and high concentration of power with the interaction of cultures among individuals in the companies, through their schematic representations proposed by Charles Handy.

— Project Management

Project management is the science deals with the project planning and control; that is, planning the execution before starting a project, and follow up with monitoring and evaluation of the planned in addition to the established goals, tasks and control in the necessary and available resources, and corrective actions when necessary (Prado, 1998). Singularity is an important characteristic in project delivery, since even if there are repetitive elements, the fundamental project's singularity is not changed in having its particular requirement met (Barros, 2011).

In the twentieth century last half, project management area was strongly influenced by administrative theories, incorporating tools and technologies used in this area, however, maintaining the managerial approach to the project, with the objective of improving its conduction and in fact, ending of the managed project. This movement of approaching the tools and technologies of administrative theories with project management occurs at a time when there is a perception, both in the scientific academy and in the professional market, the project management process can no longer be unlinked; but in fact, actively participating in the corporate strategy and other business processes necessary for the company's success (Buzzetto, 2008).

As this study is restricted to the field of project management in Brazil, the analysis will be restricted to the practices are widely used by the Brazilian market organizations: agile methods such as the dissemination of the scrum in the 2010s decade intensively, the PMBOK – which was disseminated with the guidance of US companies in their project practices – and FEL – Front End Loading – used by Brazilian transnational companies in numerous projects such as Petrobras, Vale and Samarco (Marques Junior et al, 2011; Querubina, 2013).

PMSURVEY–Brazil data (2013) shows scrum is the most used agile practice in Brazil. In world terms, too, when adopting the agile project management practice, scrum also becomes the first choice, only in distinct participation percentages: in the range of companies with revenues between five hundred million dollars and one billion dollars, the maximum participation of the scrum reaches 26%. When revenue is in the range of below one million dollars up to 11 million dollars,

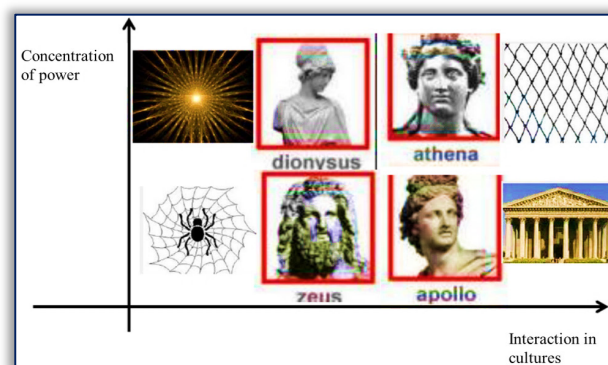


Figure 1 – Charles Handy's organizational cultures schematization

the use of the scrum is 44% falling to 24%, respectively; being the fall factor in companies with revenues in the range of eleven million, why they do not use agile methodology in their projects: as the company's revenue increases, the need for control over the investment, and maintenance of the return on the investment must be extremely controlled, therefore, the search for other practices that allow financial control over the investment.

FEL has been better applied to the processing, mining, energy, petrochemical and refining industries, for example, because they are industries whose economic production chains have high costs to change projects, and also in companies with a sunk cost; because it is a complex investment, needs to be aligned with the business strategy (Prado, 2009). It occurs because it is a practice in project management where phases of your life cycle evolve when project requirements are known, ensuring cost planning and deadlines. Such control is carried out by the gates between the phases in which an approval of the interested parties is required – mainly the directive board of the company – to decide if the projects continue or will be interrupted, or to inform the project with decision-making taking phase mitigation – positive or negative (Silva Neto, 2011).

Established in 1969 in the city of Philadelphia, Pennsylvania (USA) the PMI – Project Management Institute – is an association with the objective of disseminating project management with ways of improving the performance of professionals in the field of projects, occupying a position of world leadership in project management, mainly because its well-known PMBOK Guide – A Guide to the Project Management Body of Knowledge – is revised every four years, according to the ANSI – American National Standard Institute – through the American National Standard – ANS: American National Standard –. The PMBOK became standard by the Institute of Electrical and Electronics Engineers (IEEE) in 1996, assisting in the dissemination of the PMBOK including in Europe, where ITIL and other project management practices held leadership prior to the continental PMBOK, reinforced even more in 1999, when PMI became the first worldwide association to have the ISO 9001 Certification Program (Nakano et al, 2006).

PMBOK methodically describes areas of knowledge and practice in project management, with inputs, tools to be used, and outputs from each area of knowledge. PMBOK has several tools to be adapted to the project and what it requires, and nothing more than that for the planning and execution of the project. The PMBOK brings the phases of the project and the areas and their processes well defined, as well as the flow of integration between the items in each area and their sequenced processes, in order to better conduct the project management practice to be adapted. It has documentary and communicative character, mainly with the reinforcement of the area of stakeholders in its last update in 2012, when items are dispersed within the old scheme of the PMBOK for a consolidated area intensifies stakeholder's communication.

Concluding the survey of practices in projects used in Brazil, it is important to consider some may interact with others, or have points converge or diverge, such as PMBOK and FEL: FEL methodology is inserted in the initial phase of the life cycle of the project, thus having an interface with the PMBOK initiation and planning processes. The implementation phase (FEL) is directly related to the intermediate stage of the project life cycle and to the execution and control processes (PMBOK) and the start-up phase (FEL) is related to the final stage and to the closure process group (PMBOK). The FEL 1 stage, when exploring the project opportunity, has a strong relationship with the items proposed in the group of PMBOK initiation processes. FEL 2 is observed with congruence in this step regarding the items defined by PMBOK in the planning process group. The FEL 3 stage is also related to this group of processes since it is the moment in which the project plan is consolidated, encompassing the consolidation of engineering studies, the material purchase plan, schedules etc. (Santiago et al, 2008).

Otherwise, a comparison between scrum, FEL and PMBOK would show that in the transition stage of each project phase there is a "boundary", so to speak, and this "boundary" leads to the realization that in FEL, progress is only made in the project when the decision making allows such advance, otherwise the project will be cancelled or if it will be returned – from that point – to the moment when there was a need to rectify the project at its "gates". When a superficial comparison is made with scrum, it is noticed there is a parallelism of phases regarding the need for speed of execution of the project without damage to its execution, however, this parallelism or the simultaneous execution of the activities by the human resources may uncontrolled the project progress if there is no documentary control of what is being done and well defined sprint meetings. The PMBOK also allows parallelism, has firm documentation and a sequential one allows the return to a point to be rectified through the monitoring and control phase is cyclical within its sequential, but the care with communication and interaction between the human resources needs jump to the eyes of the project manager.

— CMMI, ITIL and COBIT

The Capability Maturity Model Integration (CMMI) project was developed in 1986 by Software Engineering Institute (SEI) in order to integrate the various CMM models. CMMI, which sought to improve software development processes, was published in 1993, focusing on the fields of systems and software engineering (Souza and Gomes, 2015). The theme that grouped the largest number of articles was Information Technology. As a result, a large concentration of studies on the CMMI model could be observed, given that the focus of this model lies on technology and related areas (Ibid).

Such service levels can be achieved through an effective relationship and communication between the IT and business structures. In response to these demands of the business, IT organizations are adopting initiatives to improve their services,

such as the IT Infrastructure Library (Barros et al, 2015). ITIL as Information Technology Services Management (ITSM) based on a collection of best practices for the management of IT services. ITIL was developed in England in the late 1980's by the Central Computer and Telecommunications Agency (CCTA), which is currently recognized as the Office of Government Commerce (OGC); being a body of the British government. The main objective of ITIL is to align IT management with the needs of the business, maintaining the focus on the quality of services and ensuring the established service levels (Barros et al, 2015; Gehrman, 2012).

COBIT (Control Objectives for Information and related Technology) was created by ISACA (Information Systems Audit and Control Association) through the ITGI (IT Governance Institute); its objective is to provide good practice through a structured international standardization process of IT. The implementation of the GTI through the COBIT standards helps to relate the IT strategy to the business requirements, to organize the activities of IT accepted process and standardized models; to identify the key IT capabilities and the leveraging of the results and the defining of control objectives to be considered by the GTI. COBIT's mission includes research, development, dissemination and promotion of authority, update and the international acceptance of GTI control accepted by organizations, which is increasingly used by the management in their businesses, IT professionals and professional guarantee (Gehrman, 2012).

COBIT has a method to calculate maturity model. Cobit is process oriented and works on management level (Ferrivan and Istivanto, 2015). The mission of COBIT includes research, development, dissemination and promotion of authority, update and the international acceptance of GTI control accepted by organizations, which is increasingly used by the management in their businesses, IT professionals and professional guarantee (Gehrman, 2012).

Through the literature review it became apparent that ITIL is presented as a management model based on best market practices, used by IT executives to manage their demand processes, being the most common IT management model (Barros et al, 2015). One can also see that if the organization adopts the best practices of ITIL, then this means that it is concerned with continuous improvement, preparing itself to offer better services and care to its customers (Ibid).

— Aligning project management to organizational cultures

This article proposal is to align the typologies of organizational culture developed by Charles Handy with the most used project management practices in Brazil. Thus, one has the pragmatism in the typologies, which, with their defined behavioural can be aligned to project management practices, being this a verification in which it was observed by the professional experience in project management area in works of projects resolution with probability of failure by cultural issues of the parties involved. In this sense, work began on the companies with dominant organizational culture behavioural and the "subcultures" – always with the hard core in Charles Handy – and began to modify the project management practice, returning those involved to the practice that most satisfied the need for communication, interaction and integration.

The pilot enterprises in which these behavioural elements were observed for conducting such survey presented in this paper are large, located in the city of Rio de Janeiro in distinct neighbourhoods, with distinct segments. The observation was a direct analysis about the events, focusing on project management everyday situations (Flick, 2013). The observed period was from six months to one year in each of the companies. It is worth noting the observation was not revealed to the members of the companies observed, considering the work was to solve projects with a high degree of sabotage and possibility of cancellation.

In the aforementioned works conducting observations, in the context of an event leasing company had the Zeus Culture typology, the projects were conducted by the scrum practice, to which they had the failure to never finish, and the owner of the company – who was also a client and sponsor of the project – would have altered some of the requirements of the project, hampering its conclusion. The PMBOK's practice was applied, documenting all the initial requirements and confronting them with change impacts and with this, there was the reduction of requirements changes – once the client and the sponsor began to realize the time and cost spent in the project – and in this way the projects were completed.

When there was a need to work with the Apollo culture, where intra and inter-department communication and sections of a shopping mall management company were engulfed, the association between PMBOK and scrum helped to increase communication among stakeholders, reducing project planning and execution time, with the allocation of human resources to other necessary projects needed to be developed concurrently with previous projects. The PMBOK was maintained, whose documentation respected the levels of corporate governance and its requirements regarding the controls in the project phases, due to the need to report on project expenditures to shareholders and the scrum allowed the communication to be transparent; where human resource involved was pending some activity or task in the project, resolved the pending to continue their responsibilities.

The Athena culture – which was observed as a shopping centre administrator's subculture – had the tasks activities optimized, when it was suggested to implement the FEL in that department with this subculture, since the individualism in the conduction of the projects was high, making the sequencing of the project phases was disordered and unreasonable. Thus, with FEL and with the presence of the decision maker, which approved or not the continuity for the

next phase, there was a balance of resource allocation, and it should be noted there was no impediment to parallelism or multiplicity of resource leasing; however, there was no longer the imbalance in the sequencing of the project.

The culture of Dionysus as well as the culture of Zeus also had the application of the PMBOK in a business process management consulting firm: the project was without documentary coordination of its sequential, with no schedule among other important documents in the conduct even though it was losing contact between the consultants and the assignments and activities, passing on to the client perceptions of positive and negative images from projects conducting, causing predilection and repulsion by the consultants who mapped the processes in the areas. With the design of the project by the PMBOK, with the definition and management of processes involved in the process mapping project, the sequencing was aligned and documented in a standardized way, and visible to all involved in a base directory accessible to all, with transparency in the discussion and continuity of the project, nullifying the perception of repulsion that was being observed in the meetings with the client, sponsor and project team, and thus, concluding the project without resistance of its continuity and execution.

Concluding this section, obviously, these observations with their demand investigation's applicability follows in this paper with the methodological discussion of the research carried out to have a practical result on the presented proposal.

3. METHOD

The method discourse in this study has its hard core in Charles Handy so that its typologies in organizational culture, when identified, have the application of a practice in project management. There is the maieutic in this study (i.e., the formulation of simple questions with their concepts, to be answered in order to be born the idea, to have the idea created and defined)

regarding organizational culture pragmatism, whose the area of human psychology belongs to the scientific academy, where its archetypes and social elementals built over the years – corporately or otherwise. The method of this study departs from the general mainstream–psychological of concepts and definitions about organizational culture; hence there is the restriction in the bibliographic review of research adherence in method discourse, schematized at Figure 2.

The hermeneutics occurs when applied electronically to project managers in the Brazilian geographic area, with 29 project managers who were interviewed by electronic means with anonymous questionnaire and closed to the study contained in this research proposal, however this method is not a limiting, to which in future other researches in management systems, and in other pertinent areas can be carried out. The data collection instrument was organized: the questionnaire (found in the Appendices) to align organizational culture – in Charles Handy's typology – with practices in project management, choosing the questionnaire with open and closed questions.

Gray (2012) defines a case study as a research design focusing on a person or sample, which provides limited information about a single question, person or organization, and its results may indicate trends. Flick (2013) discuss the main problem in a case study is to identify a case that is relevant to the research question and clarify what else is attached to this case and what methodological approaches its reconstruction requires. However, it can be observed the same technique can be applied to different people or organizations, as in the case of a multiple case study, which refers to this study proposed in this dissertation.

The questions were elaborated in the search of how the conduct of the practices in project management is carried out, with its organizational cultures. There was no reference to any previous work specific to this research, however the questions formulated – both open and closed – were constructed based on the study carried out in the literature review. Table 1 shows the construction of this questionnaire, where the literature review was restricted to the pragmatism of the headings, in Capes, SciELO, Scopus and ISI Web of Science bases supporting theoretically in addition to several job searches of items researched by other perspectives, such as publications of academic events, books and dissertations.

Regarding the objectives of this research, the case study is adopted observing a contemporary phenomenon within a real context to understand a complex social phenomenon (Pinto, 2014). The nature of this research is pure in order to generate new knowledge for the continuity of studies in organizational culture and project management. The approach is for the most part, qualitative, since most of the research results cannot be measured numerically (Carvalho and Mello, 2012); although the relationship between employee attitudes and organizational effectiveness has been supported empirically (Gregory et al, 2009). The research phase lasted from September 2014 to the first fortnight of May 2015. The exploratory

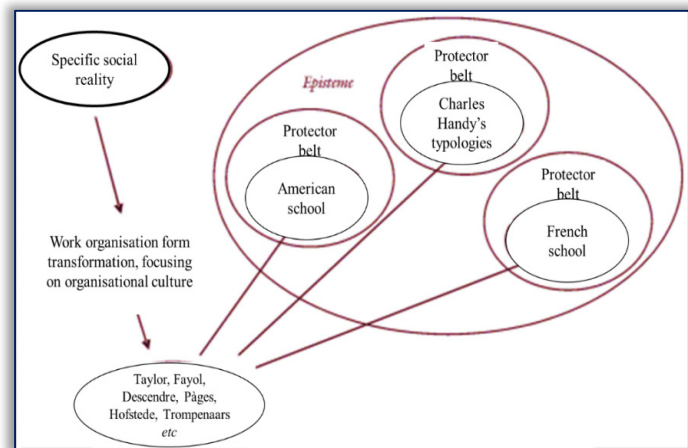


Figure 2 – Pragmatic organizational culture Charles Handy's hard core schematization

nature analyses the practices used by organizations for project management, suggesting the adherence of these practices to the improvement of project management (Castro and Farias Filho, 2013) by means of association with Charles Handy's organizational culture typologies (2003)

Table 1 – The questionnaire construction according to the literature review

Question	Justification	References
1– What is the size of your company? (Number of employees) a. 0–100 b. 101–500 c. 501–1000 d. Above 1000	The company' size influences the project management practice choice, and also shows possibilities of culture and organizational subcultures.	HANDY, 2003. BARBOSA <i>et al</i> , 2013. OLIVEIRA and MUNIZ JUNIOR, 2015.
2– Does the company have project office? a. Yes, the company has project office. b. No, the company doesn't have project office. c. No, projects are conducted by the IT Team. d. No, projects are conducted by other teams.	The project office existence in the company shows maturity degree in the conduct of the projects in the company, and also, if the project management is in the organizational strategy. Otherwise, the project manager acts as a fact manager, or interlocutor in project's execution.	VERTEL <i>et al</i> (2013) ABNT, 2012.
3– How many projects are undertaken and completed successfully per year? a. 1–5 b. 6–10 c. 11–20 d. More than 20 projects e. I don't know about it.	The project accomplishment and project conclusion throughout the year show alignment with the organizational strategy in meeting the company's core activities through the middle–base activities.	TERRIBILI FILHO, 2013. VERTEL <i>et al</i> (2013) ABNT, 2012.
4– How many projects are started and not completed successfully a year? a. 1–5 b. 6–10 c. 11–20 d. More than 20 projects	Identifying unfinished projects is one of the first flags of communication problems.	TERRIBILI FILHO, 2011. TERRIBILI FILHO, 2013. PMSURVEY.ORG, 2013.
5– How are divided the tasks and activities? a. A single manager manages the activity of all, and all the team report to him. b. The tasks and activities are divided for each team member to run it at a certain time and deliver to another member as a result of the project. c. Tasks and activities are divided into products with deadlines, and, although there are people responsible for the implementation, there may be exchange activities between people. d. All the team works on the project without division of tasks and report to the responsible person (not a senior person, but a person that stands out about the group because the name on the market that already has) on the activities that have to do.	The project manager's description of the activities and tasks carried out by the project manager informs the type of culture or organizational pragmatic subculture that is experienced in the company	HANDY, 2003.
6– What are the best practices in project used by your company? (Can mark more than one answer) a.PMBOK b.FEL c. Agile d.Scrum e.ITIL f.COBIT g.MPS.BR h.CMMI i.Other best practice: j. We use several practices at the same time (which – in this case check the existing and write next to the adopted that aren't on the list?):	With this question, it is analyzed how the project manager conducts the projects, fulfilling the market's demand to follow an extremely widespread practice in Brazil, or if he chooses to really align the organizational culture with project management practice.	ABNT, 2012. LACRUZ, 2015. CASTRO and FARIAS FILHO, 2013. QUERUBINA, 2013. MARQUES JUNIOR <i>et al</i> , 2011. DROB and ZICHIL, 2013. BORIA <i>et al</i> , 2013. PMSURVEY.ORG, 2013. OLIVEIRA and MUNIZ JUNIOR, 2015.
7–When you adopt best practice in projects of your company, which one is more efficient? a.PMBOK b.FEL c.Agile d.Scrum e.ITIL f.COBIT g.MPS.BR h.CMMI i.Other best practice	With this question, it is observed how the project manager conducts the projects, taking into account the market's requirement to follow an extremely widespread practice in Brazil to manage a crisis in project management, or if he chooses to actually align the organizational culture with project management practice.	ABNT, 2012. LACRUZ, 2015. CASTRO and FARIAS FILHO, 2013. QUERUBINA, 2013. MARQUES JUNIOR <i>et al</i> , 2011. DROB and ZICHIL, 2013. BORIA <i>et al</i> , 2013. PMSURVEY.ORG, 2013. OLIVEIRA and MUNIZ JUNIOR, 2015. OCHNER, 2006.

Question	Justification	References
8 – What is the average size, in number of employees, a project team in your company?	It identifies the team structuring by the project manager, with overload or balance of activities in the projects conduction in their resources management and communication management.	TERRIBILI FILHO, 2011. TERRIBILI FILHO, 2013.
9 – How many projects simultaneously occur per year in your company?	It identifies the team structuring by the project manager, with overloading or balancing the activities in the projects management in their resource management and communication management.	PMSURVEY.ORG, 2013. TERRIBILI FILHO, 2013. CASTRO and FARIAS FILHO, 2013.
10 – Which the average duration of a project in your company?	It is observed the works conduction in the projects management on the time management.	PRADO, 2009. SILVA NETO, 2011. PMSURVEY.ORG, 2013.

4. RESULTS

The questionnaire was prepared using a type form electronic page tool – the questions were kept unchanged to fit the tool – with e-mail to 100 project managers, working in projects in Brazil: 29 project managers of these companies responded to the survey, a sample population of 29%. The questionnaire is anonymous and focused on the study contained in this research, however, it is emphasized that this method is not limiting, to which in future other researches in management systems, and in other pertinent areas can be carried out.

Regarding managers’ companies’ size from companies with size above 1000 employees the results are 51.72%, being a great percentage. 24.14% are companies with 0 to 100 employees. The companies with 101 to 500 employees have 20.69% of the answers and companies of 501–1000 employees have 3.45% of the answers of the project managers interviewed. Figure 3 shows the size of the companies by number of employees, in units.

Figure 4 shows the existence of a project office in companies, where 48.28% of companies have a project office, followed by 34.48% that do not have a project office. Project management by IT teams accounts for 10.34% and projects by other teams are 6.9%.

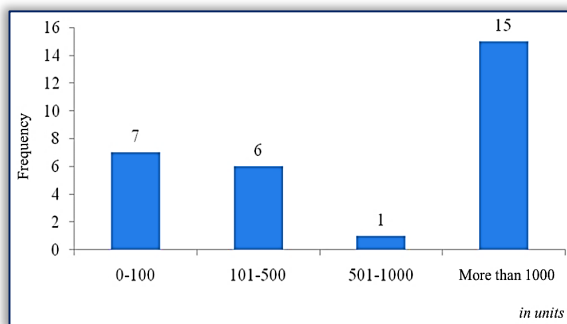


Figure 3 – Size of the companies by number of employees

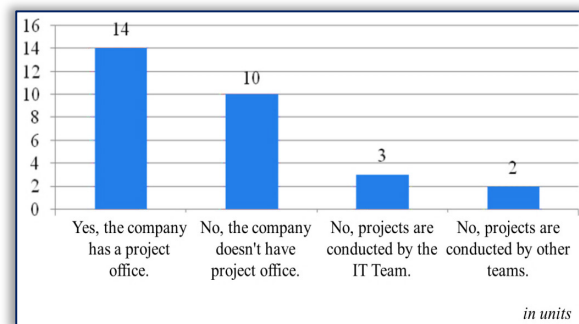


Figure 4 – The existence of a project office in companies

The number of successfully completed projects annually is seen at Figure 5, whose the majority was concentrated in more than 20 projects with 27.59%, followed by the answers that do not have this information and 1 to 5 projects, both with 20.69%. 6 to 10 projects are successfully completed annually with 13.79% and with 17.24% from 11 to 20 projects.

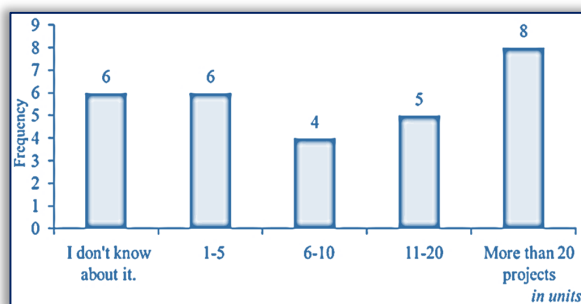


Figure 5 – The number of successfully completed projects annually

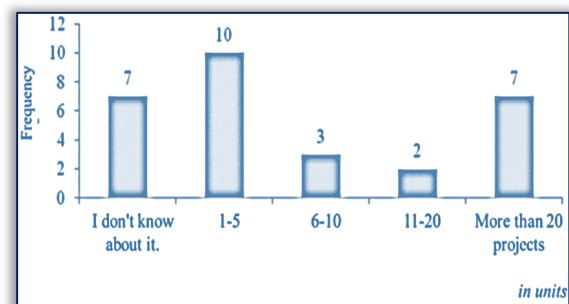


Figure 6 – Started projects quantity and not completed successfully a year

Started projects quantity and not completed successfully per year in more than 20 projects is 24.14%, the same answers percentage of those who didn’t know about it. The quantity of not concluded projects among 1 up to 5 is 34.48% being this the biggest percentage in this answer. Among 6 up to 10 not concluded projects is 10.34% and 6.9% is 11 up to 20 not concluded projects, showed at Figure 6.

Respondents were able to respond to more than one practice, so 10 of the 29 project managers answered more than one item out of a total of 43 responses. PMBOK leads the practices with 60.47% execution, followed by scrum with 13.95%, ITIL

with 9.3% and FEL and Agile – other agile practices but scrum – both with 6.98 %. The maturity in project management practices was reported only in 1 response so the CMMI was at 2.33% and COBIT and MPS.BR were not cited, as illustrated at Figure 7.

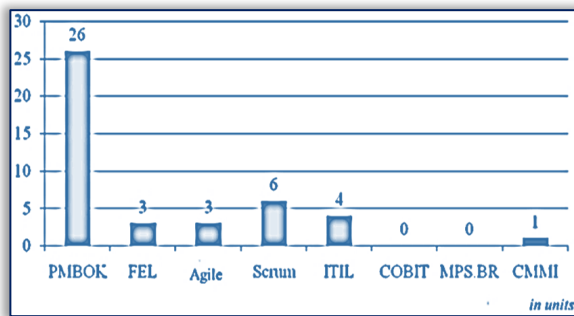


Figure 7 – The best practices in project used by companies

The project management practices adopted in a more efficient way question was possible to answer more than one alternative, where 6 project managers responded to more than one response option. Again, the majority in 62.16% consider the PMBOK more efficient, followed by scrum with 13.51%. Therefore, it was observed that there was adherence of proof of real use of project management practice for the PMBOK. Tied with 10.81% follow FEL, ITIL, while agile practices – but scrum – with 2.7%. COBIT, MPS.BR and CMMI were not mentioned by project managers, considering a point of attention for the issue of maturity management in project management.

As for the number of employees who participate in a project team, observed in Figure 6, are concentrated with 1 to 5 people with 41.38% of the answers. With 20.69% follow the teams between 6 to 10 people and 11 to 20 people. 6.90% of the project managers answered that they had no information because the projects were conducted in the IT area, and that the company did not have a project office (project manager's function as interlocutors in the execution of the project). With also 6.90% were the projects answered that were conducted with more than 100 people. At 3.45%, the project teams worked between 21 and 50 employees, according to the Figure 8.

As for the average duration of projects in the company, even though this question at the questionnaire was open type, there were, however, a number of responses with similar intervals on the number of projects that occur simultaneously in companies. Therefore, the concentration was 41.38% in the interval between 11 and 20 months, followed by 24.14% of the interval of 6 to 10 months and 17.24% of 1 to 5 months. 6.90% for 21 to 30 months, and 6.90% for those who did not have this information, and 3.45% responded from 31 to 40 months, as observed in Figure 9.

When asked about the occurrence of simultaneous projects in the company per year, in the form of an opened question, it was possible to observe a similar number of responses, in which 10 managers did not have this information 34.48%, identifying itself in this group, 9 managers who worked in companies of size over 1,000 employees and 1 manager who did not have the information; although this precisely manager company has size up to 100 employees, there is no project office. 24.14% represent from 1 to 5 projects occurring simultaneously, 17.24% from 11 to 20 projects, 10.34% from 6 to 10 projects, and from 21 to 30 projects, 31 to 40 projects, 41 to 50 projects and 51 to 60 projects, the representation was 3.45%, as shown in Figure 10.

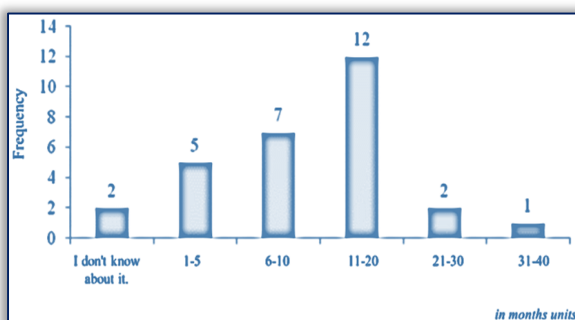


Figure 9 – The average duration of projects in the company

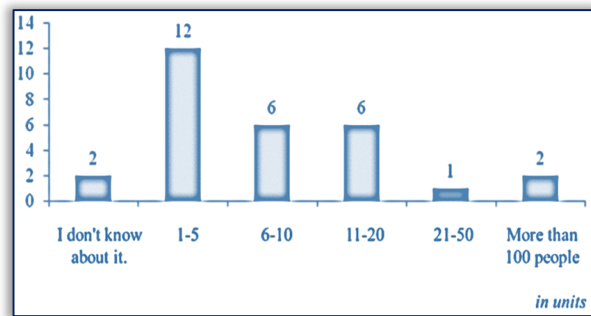


Figure 8 – The number of employees in a project team

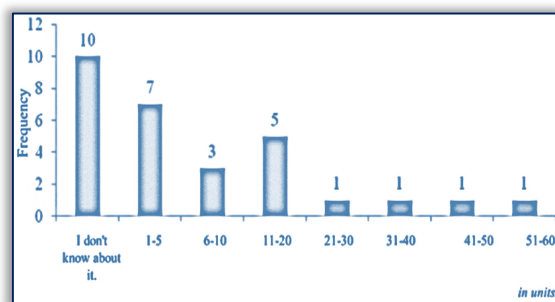


Figure 10 – The occurrence of simultaneous projects in the company per year

According to Charles Handy's organizational culture typologies (Handy, 2003), a questionnaire question was asked for respondents answering the kind of organizational culture there was in companies, as shown in Figure 11. This questionnaire question had 4 response alternatives however the names of these gods were not mentioned in the question, only the definition of the organizational cultures for avoiding the direct and personal association of the gods, which could lead to distortions in the research.

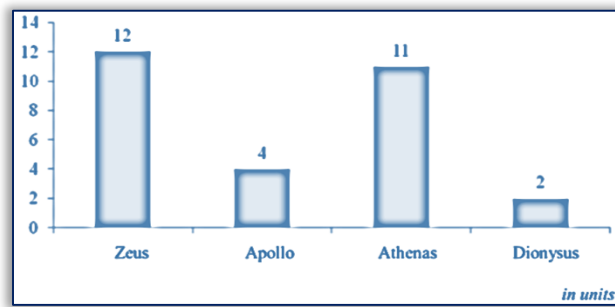


Figure 11 – Companies identifications with Charles Handy's typologies

In this way, when it was answered that “a single manager manages the activity of all, and all the team report to him” there was an association with Zeus; the alternative “the tasks and activities are divided for each team member to run it at a certain time and deliver to another member as a result of the project” meant the reference in Apollo; the third item “tasks and activities are divided into products with deadlines, and although there are people responsible for the implementation, there may be exchange of activities between people.” was the reference of Athena, and finally the definition of “all the team works on the project without division of tasks and

report to the responsible person (not a senior person, but a person that stands out about the group because the name on the market that already has) on the activities that have to do” refers to Dionysius.

According to the answers, Zeus represents the majority with 41.38% of the answers, followed by Athena with 37.93%; Apollo with 13.79% and Dionysius with 6.9%. It is observed in this context that there is the concentration of power – as for decision making in the companies – in Zeus, while there are constant exchanges of activities and tasks as demonstrated in the representation of the culture of Athena. Apollo and Dionysius were inexpressive in terms of identification of typology of organizational culture with the answers of these 29 project managers.

It was captured on the basis of the perceptions of the researched individuals that the culture in Zeus uses scrum and FEL as practices in project management, with a focus on the efficient use of scrum, which may indicate the presence of conflict or failure of the company's strategy, if there is a continuous decision to change the project requirements; in FEL such adherence was expected since the decision making in this practice is concentrated in the figure of the sponsor of the project, observed in Zeus as the leader in this culture. Hoda and Murugesan (2016) also found the same scrum perspective, regarding organizational culture, for scrum direct and frequent interaction with customers that exposes the self-organizing team to potentially unreasonable and unsystematic change requests from the customers.

In the perspective of Apollo's culture perception there was an alignment with the PMBOK project management practice, which was already expected due to the initial observation that led to the questioning and formulation of this study, since Apollo has a sequencing of activities and tasks always controlling the execution, which refers to the reasoning of the PMBOK practice. Considering Apollo's culture negative aspects, it is interesting to note whether the negative points – such as bureaucratic facts – can be overcome without stagnating the conduct of the projects in any of the practices.

In the continuity of the analysis of the research responses, we observed the expected adherence of Athena to FEL and scrum by the constant search for interaction, or control of the individual activities that stand out to the collective, when one has to continue the project in the culture of Athena; for this reason, the efficient use of FEL in Athena was one of the initial observations that were verified in the answers, and the use of the practice of maturity of projects in this culture also does not resemble a deviation, since there is a search in this culture in which the individual is the best at what he does to achieve his goals.

Regarding the culture of Dionysius, although identified in few answers of the research, it was perceived that its efficient use is through PMBOK's project management practice, even though it is mentioned in other practices, because, for a culture that the individual who does not have actual responsibility for the conduct of the projects prevails, only having a reference of their individual professional profile, the greater control of their participation in the project is given through the monitoring and controlling of the sequential activities with which their participation.

5. FINAL CONSIDERATIONS

The research shows a certain tendency to disseminate the PMBOK practice in Brazil, when it is considered that only 3 project managers did not respond to it as a practice used in everyday use, and 6 did not respond to their efficient use. This behaviour regarding the PMBOK practice is expected because, as observed in the literature review, some project management practices have a hard core in the PMBOK, and benchmarking to the US corporate market in project management is expected to adopt of this practice in project management in an enormous way in Brazil.

Another point of attention in the research is the perceived deviations of the execution of the chosen project practices that are distinct from the behaviours of the Charles Handy's organizational cultures typologies elements. In these cases, it is suggested for future study purposes, the in-depth search of daily use and efficient use in these cultures to verify if the deviations occur in the low proportion as observed in the research of this study, or, will become large ceasing to be deviations to meet the behavioural of the cultures.

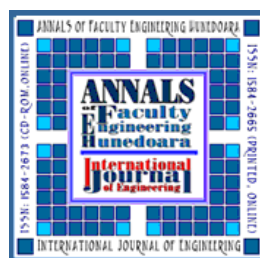
It is suggested to project managers analysing the humanistic perspective in the conduct of their projects, in general; identifying organizational cultures typologies that existing in the company – with its subcultures – in order to align them with the practices in project management in which they have behavioural adherence. It is still recommended to evaluate

other variables, through new studies in future work, within the humanistic approach to project management, considering the organizational culture – since there are impacts of adherence to the project management practices – and in this sense, the continuity of the project may not be feasible in its execution, which may lead to a failure to reach the corporate strategy.

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