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PROJECT OFFICES AND THE FEDERAL UNIVERSITIES: A STUDY ON PROJECT MANAGEMENT IN THE CONTEXT OF HIGHER EDUCATION INSTITUTIONS

ABSTRACT

Project management has a wide field of study, but its implementation in Public Universities is still recent. In order to support project management, as well as to improve the methodology and management tools, this study aimed to identify which are the models of Project Management Offices – PMO's, existing in Brazilian Federal Universities. From the theoretical review, the office model was chosen by performance level and its attributions. After conducting a mapping based on data from the Ministry of Education and from the Universities websites, the existence of 20 Offices was identified, present in 14 of the 63 Federal Universities in Brazil. It was verified that most of the offices has a more technical than strategic action, being more connected to certain units or areas of the Universities, such as Engineering or Computing. The study provides evidence that most Brazilian Universities still do not use the PMO's, and demonstrates that they could improve their performance if they adopted these units in their administrative structures, at the operational levels and especially at the strategic level.

Keywords: Project Office; Project Management; University.

ESCRITÓRIOS DE PROJETO E UNIVERSIDADES FEDERAIS: UM ESTUDO SOBRE GESTÃO DE PROJETOS NO CONTEXTO DE INSTITUIÇÕES DE EDUCAÇÃO SUPERIOR

RESUMO

O gerenciamento de projetos tem um vasto campo de estudo, mas a sua implantação nas Universidades Públicas ainda é recente. Com o intuito de oferecer suporte ao gerenciamento dos projetos, bem como buscar o aperfeiçoamento da metodologia e das ferramentas de gerenciamento, este estudo teve como objetivo identificar quais são os modelos de Escritórios de Gerenciamento de Projetos – EGP's, existentes nas Universidades Federais Brasileiras. A partir da revisão teórica elegeu-se o modelo de escritório por nível de atuação e suas atribuições. Após um mapeamento feito com base nos dados do Ministério da Educação e dos websites das Universidades, identificou-se a existência de 20 Escritórios, presentes em 14 das 63 Universidades Federais existentes no Brasil. Verificou-se que a maioria tem uma atuação mais técnica do que estratégica, estando mais ligados a determinadas unidades ou áreas das Universidades, como a Engenharia ou a Computação. O estudo realizado fornece evidências de que a maioria das Universidades Brasileiras ainda não utilizam os EGP's, e demonstra que essas poderiam melhorar o seu desempenho se adotassem essas unidades em suas estruturas, nos níveis operacional e, principalmente no nível estratégico.

Palavras-chave: Escritório de Projetos; Gerenciamento de Projetos; Universidade.

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1 INTRODUCTION

Nowadays, the project management subject is a very studied field of knowledge. This tool has unrestricted applicability, being effective in the conduction of projects of any area, cost or complexity. However, managing projects is a complex task for any type of private or public organization.

Public Universities are committed to generating social development through their actions and the dissemination of knowledge and engagement of researchers, students and civil servants in teaching, research and extension projects and programs. Projects execution in Public Universities provides for the extra budgetary resources for the Institutions themselves, contributing to the development of several teaching, research and extension activities. In this context, it is imperative that the projects execution be carried out through an efficient resource management so that the results are achieved (Carvalho, Rodrigues, & Freitas, 2011).

According to Maximiano and Anselmo (2006) the so-called Project Office Management (PMO) emerges as the organizational unit responsible for correcting these problems and, additionally, for the dissemination of project management practices throughout the organization, decreases failure rates and ensures that the most important projects for the organization are treated as a priority.

There are a variety of templates and functions that the Project Management Office can assume. Therefore, there is no single Office setup. The office model will be determined according to the projects needs and objectives and the organizations profiles. Considering that different Office formats solve singular issues, it is emphasized that the type definition to be adopted in each organization should also consider the project management maturity level of the institution itself.

This article aims to identify the models of Project Management Offices existing in Brazilian Federal Universities. The choice of this theme is due to the subject relevance for the projects management within the Universities. It should be noted that these units can assume different nomenclatures (as discussed in the review).

This study is justified by the lack of research on the subject in public universities, specifically on the typologies of project offices. The universities have some difficulties regarding to which type to adopt or how to do it. This study can provide subsidy to help high education institutions who want to implement a project office. It was found that there are studies that approach a case study with a particular university, but we did not find studies that cover the whole universe, all the universities of

the country. So we believe that this study is pioneering in this aspect. On the other hand, considering the general context, the study is also justified because it generates knowledge about the subject. Most public higher education institutions believe that a project office is restricted to the function of operationalizing research projects, the literature demonstrates that they can also be strategic (a review of the literature will address this topic)

In this study the term Project Office Management is used with the acronym PMO, but in the text in some moments this will be nominated simply as Project Office, as some authors use this nomenclature. The study can also serve as a stimulus for other universities to implement the Office using its structures to improve their performance in society.

2 PROJECT MANAGEMENT

According to Dinsmore and Cavalieri (2011) the Project Office aims to support project managers in order to ensure that activities are performed to the best of their ability. Besides that, it also aims to ensure effective and efficient management by improving the methodology and management tools before the aid offered to the project managers.

As stated in the Project Management Institute (PMI), the Project Management Office is defined as a formally established organizational unit whose responsibilities includes: defining, standardizing and defending standards, processes, metrics and tools; offering management, training and documentation services; ensuring the alignment of the initiatives with the organizational strategy; writing progress and follow-up reports and sending them to the sponsors.

The PMO design, presented by Rad and Raghavan (2000), shows that the main function of this unit is related to the development of policies, procedures, training, tools and project management consultancy. It can also be understood as an organizational unit that "provides institutional focus on project management procedures". This configuration supports sequencing and enhancement of project management learning.

For Prado (2000, p. 89) the PMO is characterized as a group of people who have direct relationship with all the company's projects, whether it is consulting and training, or performing audit and monitoring of project performance. On the other hand, the definition provided by Valeriano (2005) defines the PMO as a formal unit of an institution that supports the professionals involved in project management.

There are different models and functions that the Office can assume. In addition, according to its characterization depends on the selected type to be implanted or developed in an institution. Thus, among other factors, the PMO's typology is defined according to the organizational structure, the discipline evolution stage and the action method followed (Rodrigues, Gonzáles, & Sbragia, 2002).

According to Moutinho and Kniess (2012) several combinations of this unit are admissible, each one is focused on meeting the needs of the organization. It is possible to find an Office exclusively focused on "internal processes (planning, people management, execution, change control, etc.)" among its functions, but it is also plausible to identify units that are responsible for "external interfaces (communication with stakeholders, etc.)". These Offices can also take on different nomenclatures, such as "Project Support Offices, Project Office, Centers of Excellence, etc".

However, it is evident that their distinction is in the different degrees of "authority and responsibility" and level of maturity in project management (Galante, Bergiante, & Rodriguez, 2013). It should be noted that there is not only a Project Office configuration that can meet the diverse needs of the projects. Therefore, one should avoid operating the Office as a prototype that can be run like any functional departments (Casey & Peck, 2001). Functions such as: project support, training, consulting, resource management, methodology implementation and processes standardization, are present in all office configurations. In addition, the Office is responsible for monitoring the Work Plan or Action Plan defined by the project coordinator/manager, in order to ensure that the activities are being carried out according to plan, so that the goals can be achieved (Quelhas & Barcaui, 2015).

Generally, this support offered to the coordinator/project manager by this organizational unit is essential for the resolution of possible impasses, since an external look at the situations faced is of great value in moments when an impartial evaluation is necessary.

2.1 Project Office Models

There are different Project Office's models mentioned in the literature, as already said in this article. The type definition of this unit will vary according to each author and according to the maturity level of the institution's own project management maturity, since different formats of this unit solve singular issues (Casey & Peck, 2001).

For Galante *et al.* (2013) project offices can be classified according to: amplitude dimension, project activity dimension, approach dimension, complexity dimension and manager figure

dimension; based on the need to find more succinctly and detailed characteristics of the models found.

According to Casey and Peck (2001) the PMO can be classified into three categories considering the tasks performed: Weather Station; Control Tower and Resource Pool. Already Verzuh (2000) characterizes the PMOs by hierarchical level: Center of Excellence; Support Project Office; Management Project Office; Program Management Office; Responsible Office Project. Englund, Grahan and Dinsmore (2003) classify them into: Project Support Office - PO; Project Management Center of Excellence - PMCOE; Program Management Office - PMO; Chief Project Officer - CPO. For this study, the classification of this last author was chosen, because it is more suitable to the characteristics of the organization studied. Each type is detailed as following:

- **Project Support Office – PO:** This Office model provides internal support, its linked to the administrative, financial and operational services and routines. Such services are performed by Office staff members (Englund *et al.*, 2003). According to Dinsmore and Cavalieri (2011) this model has an operational focus and supports several project managers concurrently, through technical resources and methodological models that favor communication and team improvement.
- **Project Management Center of Excellence – PMCOE:** For Englund *et al.* (2003) this model encompasses the improvement and management excellence within each project. PMCOE offers training services, processes standardization, internal consulting, identification of best practices, skills improvement and standardization tools definitions. Therefore, it is verified that the PO is focused on operational support and the PMCOE seeks to improve the methodology management. For Dinsmore and Cavalieri (2011) it is intended to increase the organizational capacity without being directly responsible for the results obtained by the project. Thus, this typology is appropriate for institutions that manage projects of different natures, because instead of conducting the projects, the PMCOE provides the information to the stakeholders (Kerzner, 2009).
- **Program Management Office – PMO:** According to Englund *et al.* (2003) the PMO coordinates the project managers and assumes responsibilities related to the project's success. This Office model performs the recruitment, development and coordination of project managers, selects

priorities and projects, accomplishes alignment with business strategies, draws up portfolio, projects, methodology and management processes reports, does the accountability for programs or projects, changes management procedures. According to Dinsmore and Cavalieri (2011) the PMO coincides with support services and excellence of the methodology management.

- **Chief Project Officer – CPO:** This model encompasses business decisions that result in new projects. This has central authority on priorities definitions and resources negotiation for strategic projects implementation (Englund *et al.*, 2003). As discussed by Dinsmore (2011) CPO has "an essentially strategic focus and seems to make sense in global, multidisciplinary, complex business oriented organizations."

Bridges and Crawford (2001) propose another classification: by performance level and attributions. Performance level covers the composition of the project portfolio, related to the level of maturity in project management and the goals of the organization. Thus, it can be subdivided

according to the following categories: project portfolio composition (number of projects and/or programs, and/or portfolio managed by the proposed PMO model); and the "hierarchical-functional positioning", that covers the level at which the project execution is linked, which can be technical, meaning its performance is more localized "at the project development level"; intermediate, involving a more corporate action at the "department or division" or institutional, which contains a more strategic "board level" performance.

According to its attributions the PMO can be classified in consonance to its focus of performance which can be operational, that is, it offers administrative and operational support, in order to assist the managers "to fulfill the project or program goals"; methodological, which seeks to improve the methodology, generating a "knowledge base"; tactical, which takes responsibility for project success and manages project managers, coordinates and integrates "resources, reports, controls and requisitions"; or strategic, that aims to "promote the alignment of projects with the organizations strategic plan". In this research it was used the model proposed by Englund *et al.* (2003) combined with the model of Bridges and Crawford (2001) for a better understanding of a PMO structure. Table 1 shows the matching between the two models.

Table 1 - Project Office's Model

Englund <i>et al.</i> model	Bridges and Crawford's model	
	Performance level	Assigments
Project Support Office - PO	Portfolio – Several projects Hierarchical-functioning positioning: Technical	Focus: Operational
Project Management Center of Excellence - PMCOE	Portfolio – Several projects Hierarchical-functioning positioning: Technical	Focus: Methodological
Program Management Office - PMO	Portfolio: Several projects and programs Hierarchical-functioning positioning: Institutional	Focus: Tatical
Chief Project Office - CPO	Portfolio: Several projects and programs Hierarchical-functioning positioning: Institutional	Focus: Strategic

Note. Adapted from "Creating the Project Office: A manager's guide to leading organizational change" by Englund, R. L., Graham, R. J., & Dinsmore, P. C., 2003; and "A Project office - where and what type." by Bridges, D. N.; & Crawford, J. K., 2001.

Finally, it is important to understand program and portfolio design. According to Valeriano (2005) programs cover projects and operations that are linked by a certain criterion, they are "subdivisions that allow to group the decisions

and the actions by related areas or by sectoral or related objectives". For the same author, the portfolio is a set of projects and/or programs that do not have direct linkage, but are managed by the same organization.

3 OFFICES CONTRIBUTION FOR PROJECT MANAGEMENT AT FEDERAL UNIVERSITIES

For Galante *et al.* (2013, p. 3) most of the reasons for project failures are linked to the absence of “methodology, procedure and standards”. According to Laruccia, Ignez, Deghi and Garcia (2012, p. 112) a survey by PMI-RJ reveals that 65% of the projects analyzed in the Benchmarking Project Management Study (Project Management Institute, 2008) “demonstrate problems of financial loss, credibility loss, non-compliance with deadlines and team demotivation”. Observing this theme in the context of the Public Universities, it is verified that many do not have a formal structure oriented to the projects management. In addition, it is evident that the project management in Federal Universities often runs counter to the bureaucracy found in these institutions, which causes them to become difficult to provide agile solutions, flexibility and immediate answers to the demands inherent in the projects.

According to Ribeiro, Moraes and Ruiz (2010) despite the university professors' function of covering scientific production, student orientation, conducting research groups and in some cases even administrative practice, the majority usually do not have projects management experience. Therefore, the introduction of Project Management Offices - PMO in the context of Universities provides researchers with support for an efficient execution of their projects while also being able to devote themselves to practical and scientific activities.

For Laruccia *et al.* (2012, p.112) high complexity and uncertainty are characteristics of research and development (R & D) projects. It can also be said that Project Offices are extremely relevant for these institutions, since they provide the necessary technical support for the projects execution, satisfying the lack of such aid. There are actions that seek to enable such Institutions to

efficiently manage their project portfolio. Likewise, it can be seen that the increase in the cost of top-level research drives the demand for new sources of resources (Moutinho & Kniess, 2012). The PMO can “build a map of the university researchers competences in order to map the lines of research and action of each researcher of the institution”, facilitating the constitution of a memory or bank of projects susceptible to financing (Carvalho *et al.*, 2011).

4 METHODOLOGICAL PROCEDURES

This study aimed to identify the models of existing Project Management Offices in Brazilian Federal Universities. The study is characterized as descriptive, as it provides the researcher with more knowledge about the subject, so that the research results in greater familiarity, knowledge and understanding of the studied phenomena (Prodanov & Freitas, 2009).

As for the procedure, the documentary research was chosen, since it has worked with materials that do not have an analytical treatment, or that can even be re-elaborated. According to Gerhardt and Silveira (2009) documentary and bibliographical research are sometimes confused, but the difference between the two is that the former uses “more diversified and dispersed sources without analytical treatment”, while the latter is worth of “sources constituted by material already elaborated, constituted basically by books and scientific articles located in libraries”. The data was collected through the Federal Universities websites, in a total of 63, according to data from the Ministry of Education (MEC) (<http://emec.mec.gov.br/>, 2016). Table 2 shows the universities and the state to which they belong to, that being: Mato Grosso (1), Goiás Minas Gerais (4), Rio de Janeiro (2), São Paulo (3), Paraná (1) and Rio Grande do Sul (2).

Table 2 - Universities that have Project Offices

State	University
Goiás	Universidade Federal de Goiás – UFG
Mato Grosso	Universidade Federal de Mato Grosso - UFMT
Minas Gerais	Universidade Federal de Juiz de Fora – UFJF Universidade Federal de Minas Gerais – UFMG Universidade Federal de São João Del Rei – UFSJ Universidade Federal de Viçosa – UFV ^a
Rio de Janeiro	Universidade Federal do Rio de Janeiro – UFRJ ^a Universidade Federal Fluminense – UFF ^a
São Paulo	Universidade Federal de São Carlos – UFSCAR ^a Universidade Federal de São Paulo – UNIFESP Universidade Federal do ABC – UFABC ^a
Paraná	Universidade Tecnológica Federal do Paraná – UTFPR
Rio Grande do Sul	Universidade Federal do Pampa – UNIPAMPA Universidade Federal do Rio Grande do Sul – UFRGS

Note. ^aUniversities that have two Project Offices.

It was verified that among the 63 (sixty-three) Brazilian Federal Universities 14 (fourteen) Universities have Project Offices. It is also evidenced that 06 (six) of the identified Universities have 02 (two) PMO's, totaling 20 (twenty) Offices. It was categorized twenty offices according to the model adapted from the two studies by Englund *et al.* (2003) and Bridges and Crawford (2001).

We compared the functions of each office found in the documentary research to the university websites with the model presented in the literature (according to the description presented in this study in section 2.1) by the performance level and attributions:

1. Performance level: it covers the composition of the project portfolio, related to the level of maturity in project management and the goals of the organization, divided into:

1.1. Composition of the project portfolio: number of projects and/or programs, and/or portfolio managed by the proposed EGP model: Single project; Several projects; Several programs and projects and Project portfolio and programs.

1.2. Hierarchical-functional positioning: level at which project execution is linked: a. Technical -

Performance at the level of project development; b. Intermediate - Corporate performance at department or division level; c. Institutional - Strategic management performance.

2. Attributions: according to its focus of action:

a. Operational: Provides administrative and operational support; helps managers achieve project or program goals;

b. Methodology: Seeks to improve the methodology; Generates knowledge base;

c. Tactical: Assumes responsibility for project success; Manages project managers; Coordinates and integrates resources, reports, controls and requisitions;

d. Strategic: Promotes the alignment of projects with the organization's strategic plan.

5 PROJECT OFFICE MODELS LINKED TO THE BRAZILIAN FEDERAL UNIVERSITIES SURVEYED

According to Bridges and Crawford (2001) the Project Offices performance level includes the

composition of the project portfolio and its hierarchical-functional positioning. According to the model presented in Table 01, it was verified that out of the 20 (twenty) PMO's, none of them have a single portfolio, 09 (nine) encompass several projects; 08 (eight) have several projects and

programs and 03 (three) contain a portfolio of projects and programs. As regards its hierarchical-functional positioning, 10 (ten) present technical level, 03 (three) intermediate level and 07 (seven) institutional level (Table 3).

Table 3 - Classification of Project Offices according to Bridges and Crawford's model

Technical level	Intermediate level	Institutional level
Escritório de Projetos – UFSJ	Escritório de Experimentações Utópicas (ZEU) – UFG	Escritório de Inovação Tecnológica (EIT) – UFMT
Escritório de Criatividade (EDC) – UFV	Escritório de Ligação (ELO) – UFMG	Escritório de Gerenciamento de Projetos (EGP) – UFJF
Escritório de Projetos Fundo Verde – UFRJ	Agência de Inovação da UFF – Escritório Volta Redonda	Inovation Link – Escritório de Ligação – UFV
Escritório de Apoio Institucional ao Pesquisador (EAIP) – UFSCAR		Escritório Técnico da Universidade (ETU) – UFRJ
Escritório de Apoio ao Pesquisador (EAP) – UNIFESP		Escritório de Transferência de Conhecimento – UFF
Escritório de Integridade em Pesquisa (EIP) – UFABC		Escritório de Desenvolvimento Físico – UFSCAR
Escritório de Projetos do NTI – UFABC		Escritório Verde – UTFPR
Escritório Modelo de Engenharia Civil - UNIPAMPA		
Escritório de Projetos Engenharia de Produção - UFRGS		
Escritório de Apoio a Projetos (IFCH) – UFRGS		

Using the classification of the same authors, regarding the hierarchical-functional positioning, it was verified that of the 20 (twenty) Project Offices, 07 (seven) have operational focus, 03 (three) methodological, 03 (three) tactical and 07 (seven) strategic.

Most of the Offices surveyed have a level of technical performance and attributions with an operational and strategic focus. It is assumed that this typology is defined according to the type of organizational structure, maturity and quantity of projects among other factors, for universities this type of unit is the most appropriate.

The research reveals that the PMO's in the universities are focused on technical areas of research projects, and are not acting in a strategic way, that is, covering the whole university, acting as: fundraiser; prospecting demands and partnerships; acting in the training of personnel to work with projects and in the development of new tools.

According to the classification of Englund *et al.* (2003) and the combination of the two variables (performance level and attributions)

proposed in studies by Bridges and Crawford (2001), already described in the theoretical review, it was verified that of the 20 (twenty) organizational units studied, 07 (seven) qualify as Project Support Office – PO, that is, according to their level of performance they present a portfolio type of several projects and hierarchical-functional positioning and its focus is operational. It was identified that 03 (three) Offices can be classified as Project Management Center of Excellence - PMCOE, because they have a portfolio of diverse projects and a technical positioning, with a focus of methodological performance. Because it has several projects and programs with an institutional position and a tactical focus, 03 (three) units analyzed resemble the Program Management Office – PMO.

Finally, 07 (seven) Offices were equipped with the Chief Project Officer (CPO), for presenting a portfolio type with a portfolio of projects and programs, an institutional positioning and a strategic focus. A synthesis of the research is presented in Table 4.

Table 4 - Classification of Project Offices according to Englund et al. Model

Models	Project Office's names
Project Support Office – PO	Escritório de Projetos – UFSJ Escritório de Projetos Fundo Verde – UFRJ Escritório de Apoio Institucional ao Pesquisador (EAIP) – UFSCAR Escritório de Apoio a Projetos (EAP) – UNIFESP Escritório Modelo de Engenharia Civil – UNIPAMPA Escritório de Projetos Engenharia de Produção – UFRGS Escritório de Apoio a Projetos (IFCH) – UFRGS
Project Management Center of Excellence – PMCOE	Escritório de Criatividade (EDC) – UFV Escritório de Integridade em Pesquisa (EIP) – UFABC Escritório de Projetos do NTI – UFABC
Program Management Office – PMO	Escritório de Experimentações Utópicas (ZEU) – UFG Escritório de Ligação (ELO) – UFMG Escritório de Inovação da UFF – Escritório Volta Redonda) – UFF
Chief Project Office – CPO	Escritório de Inovação Tecnológica (EIT) – UFMT Escritório de Gerenciamento de Projetos (EGP) – UFJF Inovation Link – Escritório de Ligação – UFV Escritório Técnico da Universidade (ETU) – UFRJ Escritório de Transferência de Conhecimento – UFF Escritório de Desenvolvimento Físico – UFSCAR Escritório Verde - UTFPR

When discussing the theme of project implementation in the context of Public Universities, it is inevitable to mention the performance of these Institutions in meeting the needs of society contributing to social development through actions involving the tripod teaching, research and extension (Gomes, Oliveira, & Cassanego, 2013).

The importance of the PMO's is also related to the obtaining of financial resources necessary for conducting research from the development agencies such as Financiadora de Estudos e Projetos – FINEP (Financier of Studies and Projects) and the Conselho Nacional de Desenvolvimento Científico e Tecnológico – CNPq (National Council of Scientific and Technological Development). Project Management Offices, especially in the public sphere, have the function of operating the projects for fundraising.

The researchers and the students group engaged in research, teaching and extension programs and projects in the context of Federal Universities provides the generation of institutionalized knowledge as well as the development of critical and inquiring thinking. Thus, in order to fulfill their role in the community, it is essential that these institutions carry out project activities efficiently (Carvalho *et al.*, 2011). Project management involves planning, executing, and controlling activities. It aids in the enhancement of resources, avoids unforeseen events and

accomplishes what has been planned (Pestana & Valente, 2010).

The advantages of project management go beyond the guarantee of completion, since they provide continuous monitoring, detection of deviations, dynamic analysis of progress, risk mapping and project management (Terzian, 2005).

Dinsmore and Cabanis-Brewin (2014) argue that a decade ago they theorized that the so-called "project office" would become an important factor for corporate competitiveness, however, the authors say, their expectations have been exceeded: "PMOs, whether evolved from grassroots levels or implemented from top to bottom, have become indispensable centers of guidance for public and private organizations."

We call these "classes" of PMOs to make it clear that one is not better than the other, except in terms of individual organizational needs. We envisioned that individual firms could be scoped from a PMO that would cross all the boundaries shown, incorporating to a greater or lesser extent the functions that may be typical of a particular class.

In this study it was verified that the offices are created by the majority of universities to support the researchers in the progress of their research projects (bids, contracts, purchases, rendering of accounts, etc). This is the case of the Escritório de Apoio ao Pesquisador at UNIFESP, the Escritório de Apoio a Projetos of the Human Sciences Institute of

UFRGS or the Escritório de Apoio Institucional ao Pesquisador at UFSCAR, among others.

It is also possible to verify that there is another group of universities' offices that manage technology transfer processes between universities and companies, such the Escritório de Inovação Tecnológica at UFMT, Escritório de Transferência de Conhecimento at UFF, Escritório Verde at UTFPR, among others.

The size of the university is not something that influences the creation of a PMO. There are universities that have 60,000 students (UFRJ) and others such as UNIPAMPA, which has 11,000

students and both created the same type of PMO (Project Support Office), as we can see in Table 5. In the same way, the number of doctorate courses could be an influence due to the great number of researches, but again, UNIPAMPA has only two doctorates and it has a Project Office. The conclusion in this case is that the implementation of an office is more linked to the needs of a department, and less defined by the Institution's strategy. Another issue that may influence this is the knowledge about the importance of a PMO for institutional efficiency.

Table 5 - Size of the Higher Education Institutions

Institutions	Students' number	Graduation courses' number	Doctorate courses' number
UFF	60.323	135	42
UFRJ	55.887	179	86
UFRGS	53752	93	68
UFMG	48949	77	63
UFMT	34.000	106	14
UTFPR	32.000	117	6
UFG	23.362	150	31
UFJF	20.000	93	19
UFSCAR	25.000	66	30
UFABC	16.450	24	14
UNIFESF	15.575	51	27
UFV	13.000	68	27
UNIPAMPA	11.521	66	2
UFSJ	10.268	52	6

6 FINAL CONSIDERATIONS

The complexity of the projects has led public and private organizations to systematize their application. Projects are of key importance for business competitiveness in the case of companies and can guarantee the efficiency of public sector institutions. Public universities have the objective of meeting the needs of a society through the widest range of actions and projects: social, applied research, products and services innovation, and internal projects for organizational efficiency. Hence, the importance of the existence of a Project Management Office (or more than one, as noted in this study), besides being units for project implementation in terms of costs, deadlines and quality, can still capture new projects.

However, in this study it is observed that there are still few public universities in Brazil that have in their administrative structures these units, of the 63 (sixty-three) universities surveyed, there are only 14 (fourteen) that have PMO's.

The offices models found, in relation to their attributions or performance level, are well diversified. Among the twenty Offices, some projects are specific to certain departments, such as engineering or computing, but with a broader scope as for example the Fundo Verde (UFRJ), which monitors the project, hires the team, bids materials, among other tasks.

Some offices are very specific, such as Escritório Modelo de Engenharia Civil in Universidade Federal do Pampa (UNIPAMPA) which acts more on the part of constructions for the university, and others like Escritório de Transferência de Conhecimento in Universidade Federal Fluminense (UFF) linked to technology transfer.

Also, it was possible to identify that the Universities have Departments, Coordinations, Nuclei and Sections aimed at the support of the project management that offer several services to the academic community, however, they are not qualified as Project Management Offices.

Thus, in the scope of most Public Universities, the aid to the group of researchers and students engaged in research, teaching and extension programs is not offered by a specialized unit that seeks to guarantee support in project management through the best practices.

The creation of a project management culture has been a recurring theme in contemporary organizations. PMO can have this assignment in that it assists project managers as well as other units of the organization to use team communication techniques, for example, to implement the principles of project management.

Finally, this study had a specific focus through a documentary research, the identification of the Project Management Offices existing in the researched Universities. It is possible to carry out further in-depth studies with interviews with those involved in order to know how these units work and what results they are bringing to the higher education institutions. These inquiries will allow giving subsidies to other Universities that do not yet have PMO's. It is believed that this research fulfilled its purpose and will serve as the basis for the intensification of other studies on projects and on their efficient application, in this case through the Offices.

REFERENCES

- Barcaui, A.(2012). PMO – Escritório de Projetos programas e portfólio na prática. São Paulo: Brasport.
- Bridges, D. N.; & Crawford, J. K. (2001). A Project office - where and what type. Proceedings of the Project management institute anual seminars & symposium. Nashville: Tenn.
- Carvalho, F. C. A. (2015). Gestão de projetos (1st ed). São Paulo: Pearson Education do Brasil.
- Carvalho, V. D.; Rodrigues, W. R. M., & Freitas, O. G. Jr. (2011). Um Modelo de Escritório de Gerenciamento de Projetos para as Organizações Públicas: o caso da UFAL. Anais do 10º Congresso Brasileiro de Gestão do Conhecimento, São Paulo, SP.
- Casey, W., & Peck, W. (2001). Choosing the right PMO setup. PM Network Magazine, Illions, 40-47.
- Cunha, M. I. (2010, dezembro). Indicadores de qualidade e a relação do ensino com a pesquisa e a extensão na universidade brasileira. X Colóquio Internacional sobre Gestão Universitária na América do Sul. Mar del Plata.
- Dinsmore, P. C., & Cabanis-Brewin, J., (2014). The AMA Handbook of Project management. Amacom Books, a division of the American Management Association. Broadway, New York
- Dinsmore, P. C., & Cavalieri, A. M. B. (2011). Como se tornar um profissional em gerenciamento de projetos: livro-base de “Preparação para Certificação PMP® - Project Management Professional” (4th ed.). Rio de Janeiro: Qualitymark.
- Englund, R. L., Graham, R. J., & Dinsmore, P. C. (2003). Creating the Project Office: A manager's guide to leading organizational change. San Francisco: Jossey-Bass.
- Galante, E. A. B. L. S., Bergiante, N. C .R ., & Rodriguez, M. V. R. (2013). Estudo comparativo dos modelos de escritório de projetos: uma proposição de dimensões de análise para adequação às organizações. Anais do IX congresso nacional excelência em gestão. Rio de Janeiro, RJ .
- Gerhardt, T. E., & Silveira, D. T. (2009). Métodos de pesquisa. Porto Alegre: UFRGS.
- Gomes, L. C., Oliveira, J. M., & Cassanego, P. (2013). Universidade Empreendedora: Um Estudo de Casos Múltiplos com Três Universidades no Estado do Rio Grande do Sul. Revista de Administração e Contabilidade, , 5 (3), 43 – 58.
- Kerzner, H. (2009). Project Management: case studies. New Jersey: John Wiley & Sons.
- Laruccia, M. M., Ignez, P. C., Deghi, G. J., & Garcia, M. G. (2012). Gerenciamento de Projetos em Pesquisa e Desenvolvimento. Revista de Gestão e Projetos - GeP, São Paulo, 3 (3), 109-135. .
- Maximiano, A. C. A., & Anselmo, J. L. (2006). Escritório de gerenciamento de projetos: um estudo de caso. Revista de Administração. São Paulo, 41(4), 394-403.
- Ministério da Educação. (2015). Qual é a diferença entre faculdades, centros universitários e universidades? Retrieved on August 30, 2015, from http://portal.mec.gov.br/index.php?option=com_content&view=article&id=116:qual-e-a-diferenca-entre-faculdades-centros-universitarios-e-universidades&catid=127&Itemid=1330

- Ministério da Educação. (2016). Cadastro e-MEC de Instituições e Cursos de Educação Superior. Retrieved on February 19, 2016, from <http://emec.mec.gov.br/>
- Moutinho, J. A., & Kniess, C. T. (2012). Contribuições de um Escritório de Gerenciamento de Projetos em um Laboratório de P&D de uma Universidade Pública. *Revista de Gestão e Projetos - GeP*, São Paulo, 3(2), 282-293.
- Oliveira J. M. (2016). Mecanismos de fomento ao empreendedorismo. Deutschland: Novas edições acadêmicas.
- Pestana, C. V. S., & Valente, G. V. P. (2010). Gerenciamento de projetos na administração pública: da implantação do escritório de projetos à gestão de portfólio na secretaria de estado de gestão e recursos humanos do Espírito Santo. III Congresso CONSAD de Gestão Pública. Brasília, DF..
- Prado, D. (2000). Gerenciamento de projetos nas organizações. Belo Horizonte: editora Papyrus
- Prodanov, C. C., & Freitas, E. C. (2009). Metodologia do trabalho científico: métodos e técnicas da pesquisa e do trabalho acadêmico. Novo Hamburgo: Feevale.
- Project Management Institute (2003). Organizational project management maturity model [OPM3]. Newtown: Four Campus Boulevard.
- Quelhas, O., & Barcaui, A. B. (2015). Escritório de Projetos: Uma Visão Geral. Rio de Janeiro: B&B Brothers.
- Rad, P. F., & Raghavan, A. (2000). Establishing an organizational project office. AACE International Transactions, ABI/INFORM Global.
- Ribeiro, E. H., Moraes, J. R., & Ruiz, A. U. (2010). Identificação e caracterização de dificuldades na execução de projetos de P&D financiados pela FINEP. VI Congresso Nacional de Excelência em Gestão.
- Rodrigues, I., Júnior, R. R., & Csillag, J. M. (2006). Os escritórios de projetos como indutores de maturidade em gestão de projetos. *Revista de Administração da Universidade de São Paulo*, 41 (3), 273-287.
- Rodrigues, I., Gonzáles, F., & Sbragia, R. (2002). Escritório de gerenciamento de projetos: teoria e prática. Série de Working Papers, Universidade de São Paulo, (Working Paper Número 02/007).
- Terzian, R. L. (2005). Conceitos e Metodologias de Gestão de Projeto e sua aplicação ao caso da Integridade da Malha Dutoviária. Dissertação de Mestrado apresentada à Pontifícia Universidade Católica do Rio de Janeiro, Rio de Janeiro, RJ.
- Valeriano, D. (2005). Moderno gerenciamento de projetos. São Paulo: Prentice Hall.
- Vargas, R. V. (2009). Gerenciamento de projetos: estabelecendo diferenciais competitivos. (7th. ed). Rio de Janeiro: Brasport.
- Verzuh, E. (2000). MBA Compacto - Gestão de Projetos. 11th ed. Rio de Jan