MOTIVATION AND ENGAGEMENT OF PEOPLE IN PROJECTS: A CLUSTER ANALYSIS

Motivação e engajamento de pessoas em projetos: uma análise de Clusters

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ABSTRACT

The purpose of this article was to identify the relationship between motivation and engagement and project management. For that, we performed a cluster analysis with 529 articles. As a result of this research, the increase in the number of publications and the formation of 5 large groups that indicate different discussions on the theme, with emphasis on sustainability and local participation of interested parties, were evidenced, suggesting that these factors impact on the motivation of project teams. This research contributes to studies on motivation by pointing out its relationship with other issues of importance for project management with greaterefficiency and effectiveness.
Keywords: Motivation; Engagement; Project; Bibliometry.

MOTIVAÇÃO E ENGAJAMENTO DE PESSOAS EM PROJETOS: UMA ANÁLISE DE CLUSTER

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RESUMO

O objetivo deste artigo foi identificar a relação entre motivação e engajamento e gerenciamento de projetos. Para isso, foi realizada uma análise de cluster com 529 artigos. Como resultado desta pesquisa, evidenciou-se o aumento do número de publicações e a formação de 5 grandes grupos que indicam diferentes discussões sobre o tema, com ênfase na sustentabilidade e participação local das partes interessadas, sugerindo que esses fatores impactam na motivação das equipes de projeto. Esta pesquisa contribui para os estudos sobre motivação ao apontar sua relação com outras questões importantes para a gestão de projetos com maior eficiência e eficácia.
Palavras-chave: Motivação; Engajamento; Projeto; Bibliometria.

INTRODUCTION

Motivation for work, defined as a set of energetic forces that originate within the professional and are external to him, that is, they interact between the professional and the environment Latham and Pinder, 2005). According to Alderfer (1972), in empirical research, motivation is generated by material needs, interpersonal relationships and personal development. For Dulewicz and Higgs (2005) motivation is part of the set of emotional skills that a good leader must possess and generate in his team. The authors also define motivation as being the stimulus and energy to reach goals, knowing how to balance them in the timeline in an environment of constant rejection and questioning.

Project engagement, in turn, is related to the professional's commitment to the team and to the project's objectives In this perspective, Allen and Meyer (1996), affirm that there must be a connection between the professional and the organization, and this connection is made through the identification of the professional with the organization (affective engagement), costs of leaving the company (continuity of the relationship with the organization) and a sense of obligation with the organization (normative commitment). Motivation and engagement within the scope of Project Management has been studied in the areas of administration (Patankul e al., 2016), construction and engineering (Voordijk, 2016).

Thus, this research sought to identify the relationship between motivation and engagement and project management. For that, we carried out a mapping of the literature, which is a variation of the systematic literature review, and which was used to understand the interaction between keywords and answer the research question that guided this study: what are the relationships between Project Management with Engagement and Motivation?

As a result, this work demonstrated its importance in pointing out the direction and interests that the subject has taken. We identified that the publications focus more and more on the concern with the product or service to be generated in the project, as well as on the professional and emotional development and growth of the members of the project team.

1 THEORETICAL BACKGROUND

Motivation, already studied for more than 60 years with Maslow (1954) in his pyramid of needs and with Alderfer (1972) that defined three basic levels of needs: Survival (material), Relationship (social) and Growth (development and power). More recently, Dwivedula and Bredillet (2010) analyzed motivation within hierarchical project-oriented structures, and identified four basic areas: support for employee training, a motivating, challenging and interesting work environment, a formal and informal communication, and job security that influence and promote motivation in the context of projects.

For Maloney (1985), motivation depends on the encounter between what is desired by the organization (expected behaviors) and what is desired by the employee (expected rewards). Patanakul, Pinto and Pinto (2016), inferred that aspects of motivation in multi-project environments involve four aspects: the difference in objectives between projects, the lack of resources, the heavy workload with conflicting priorities that lead to loss of morale, and productivity.

When analyzing the effects of unexpected incidents on working conditions and their consequences on the loss of motivation by the project team, Gällstedt (2003) considered 9 categories of incidents that may affect the team's motivation, among which we could notice issues related to resources, changing priorities, new stakeholders with different requirements and relying on support from others. Martin (2009) investigated through the 'Motivation and Engagement Wheel' how the capacity for evaluation and persistence affect positively and anxiety negatively affects project teams.

2 METHODOLOGY

In this work we use the Scopus database for representativeness with publications related to Project Management. The research was carried out on 05/14/2020 to select the works related to the objective of this study. The search term used was (Motivation or Engagement) AND ("Project Management") so that the

combination should appear in titles, keywords or in the summary, which resulted in 2,276 documents. For refinement, we performed the filter in the Business, Management and Accounting and Social Sciences areas, which reduced the sample to 916 documents.

Then, we filtered only articles, reducing the sample to 561 articles and finally, we eliminated articles that were not aligned with the objective of our study but that appeared in our search for the use of keywords, with the result that the resulting sample was 529 articles. We then performed an analysis using the clustering technique of the VOSviewer software.

3 RESULTS

When analyzing the most common Journals in our research, we noticed that the International Journal of Project Management as the main Journal in terms of the number of published papers, indicating a high adherence to the theme by the Journal over time. We also noticed as representative the International Journal of Managing Projects in Business, Journal of Construction and Management, Construction Management and Economics and Engineering Construction and Architectural Management.

Table 1 presents the main keywords and the respective frequency identified in the analysis. Note that the word "project management" appears in 409 articles as a keyword, followed by "motivation" 108 times, words that made up the search string. From these two words it is possible to notice some areas that are more representative, such as the construction industry, educational area represented by the word "students", and aspects related to society and institutions. These first 5 records had an accumulated representativeness of more than 40% of all keywords and when analyzing the first 10 records it is noted that they represent 49.73% of the sample.

Table 1 - Frequency of keywords

ID	Keyword	Frequency (n)	Frequency(%)	Cumulative freq.(%)
1	project management	409	24,24%	24,24%
2	motivation	108	6,40%	30,65%
3	construction industry	77	4,56%	35,21%
4	students	44	2,61%	37,82%
5	societies and institutions	37	2,19%	40,01%
6	managers	35	2,07%	42,09%
7	decision making	34	2,02%	44,10%
8	stakeholders	33	1,96%	46,06%
9	Surveys	32	1,90%	47,95%
10	construction	30	1,78%	49,73%

From the frequency analysis of the keywords, we performed the cluster analysis using the VOSViewer software, so that the keywords would have to have a minimum repetition of 10 times in the entire sample. Figure 1 shows, by color, the formation of 5 large groups.
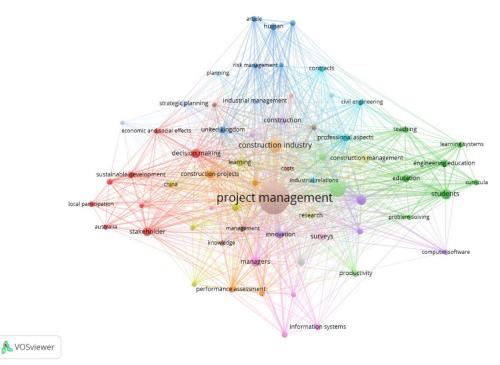
Figure 1 - Grouping by keywords

The grouping in blue suggests publications on risk management related to accident prevention and people management, there is a strong relationship with engineering and construction areas. In this context Xiong, Skitmore, Xia, Masrom, & Bridge (2014) defend the hypothesis that risk management positively influences the effectiveness of the work carried out by the project participants, since it may involve physical risks.

The green grouping suggests publications on development and training, which could be inferred, for example, by the keywords students, research and innovation. In "students" there are 44 articles such as Chen, Hwang and Chang (2019) that leads with the relationship between inverted classes and the learning time of each student within the context of learning projects. Divjak and Kukec (2008) work on the other hand deal with project management training in environments with different levels of motivation.

The lilac cluster, which has some interaction with the green cluster, indicating a relationship with innovation and management. Gann and Salter (2000) considers innovation more as a form of project management in project-based organizations and the importance of integration within the organization, as well as with customers and suppliers. Pacagnella Júnior, Porto, Pacífico and Salgado Júnior [16] state that in an innovation environment, such as a science park, the project should focus on generating environments conducive to engagement, collaboration and learning for stakeholders.

The yellow group is related to issues related to leadership and development. Unger-Aviram, Zwikael and Restubog (2015), for example, discuss the leadership and the effects of the feedback given to the project team and the impact on the success of projects. The grouping in red suggests publications related to the environment, sustainability and community participation. The authors Wu and Low (2010), for example, show the importance of project management in the construction of green buildings, as well as the concern with the motivation of the workers.

In the case of Figure 2, keywords are organized according to the frequency identified in a time horizon, referring to the yellow words as being the most recent and, as they get darker, they characterize the frequency in old periods. Note that since 2000 the focus of interest was tending to more technical issues such as "planning", "risk management", "construction industry" and "contracts". For example, in the case of contracts, the selection returned articles until 2010 such as Bower, Ashby, Gerald and Smyk (2002) in which the characteristics and mechanisms of incentive contracting are described. Around 2008, development and training began to gain strength through the keyword "learning", and among the most cited are Drinkwaard and Romijn (2010) with an article on a learning-based approach for small hydroelectric construction projects.
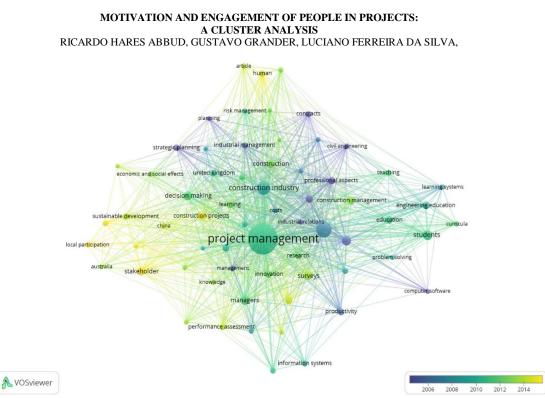
Figure 2 – Keyword overlay view

After 2008, the interest related to sustainability becomes more evident, with the keywords "sustainability", "local participation" and "stakeholders". In the case of "sustainability", for example, the first article selected is from 2008, with the largest number of publications belonging to the year 2019 (6 articles) such as Thomson and El-Haram (2019) dealing with methods of sustainability assessment in buildings.

CONCLUSION

By seeking to identify the relationship between motivation and engagement and project management, we were able to conclude that motivation in projects is strongly linked to professional development and growth, with increased interest in sustainability and in the relationship with stakeholders represented by the internal and external community of projects. In addition to the evolution of these interests over time, we can confirm that the motivation in projects remains strongly related to the technical factors of management and the safety of the work environment of the project teams. Future studies on this area may include advanced refinements of the Maslow framework by considering Richard Barrett Values-Driven Organizations (2017).

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