

HUMAN RESOURCE MANAGEMENT IN PROJECT MANAGEMENT: IDEAS AT THE CUSP

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Abstract: Human resource management is an important function when managing projects. Over the years, project management has developed and consolidated a robust theory base that lead to a body of knowledge that is unique to its practice and distinct within the larger management discipline. In this direction, this is an opportune moment to reflect on the themes explored within the project management literature that is specific to managing people. Using 104 peer-reviewed articles extracted from web of science database, 6 research themes have been identified that lie at the intersection of project management and human resource management. Co-occurrence of key words is the methodology employed. The themes are Human resource management as a critical success factor for projects, Project manager as an enabler of project success, Projects human resource as vehicle for organizational competitiveness, Project-Human Resource management as engines of innovation, People management competencies of project manager, and Contextual competencies of project manager.

Key words: co-occurrence of key words, human resource management, project management, qualitative research.

1. INTRODUCTION

Human resource management is defined as management of systems, policies, and practices related to people in order to achieve personal and organizational goals. Given the technological, social, and economic influences on the organizations, human resource management is evolving to a strategically important function (Josler, & Burger, 2005). On the other hand, project management has emerged as a strong discipline with a strong body of knowledge that includes distinct theory and practice (Wessels, 2007). Therefore, the convergence of these two constantly evolving domains of management is a fertile ground to explore novel ideas with importance to theory and practice.

Managing people in projects is essential for project success and is of strategic importance to the organization. Projects are temporary and unique in nature. Given the specific resource requirements of each project, the human resource configuration- policies, systems, and practices, will change according to the project (Huemann, Turner, & Keegan, 2004). The

increasing demand for qualified project workers further increases the importance of human resource management to projects, and project management (Ekrot, Rank, Kock, & Gemunden, 2018). While people management on projects has been of significant interest to project practitioners, only recently have academics turned their focus to a rigorous study of human resource practices specific to projects. The current paper reviews these research studies.

The motivation for this current research stems from the question - *what is the status of literature at the crossroads of human resource management and project management?*

Thus, the objective of this paper is to :

- Identify the research themes common to project management and human resource management domains.

The organization of the paper is as follows. First, the overarching literature review that points to research themes pertinent to managing people on projects is presented. Second, is the methodology section where the

qualitative research method - 'co-occurrence of key words' used to analyze the theoretical corpus in this study is explained in detail. Third, the research themes, and the key words within those research themes are summarized. Fourth, a discussion of the six research themes that lie at the intersection of human resource management and project management studies is presented. This is followed by the conclusion.

2. LITERATURE REVIEW

There is an increasing interest in the study of human resource management variables within

project management. The research studies are within the general domain of management followed by peer-reviewed articles from industrial engineering, civil engineering, electrical and electronic engineering, and computer science & applications. Furthermore, the research is equally represented in traditional journals from both the domains (such as international journal of project management, and international journal of human resource management). Such a trend indicates cross-fertilization of ideas between these two disciplines.

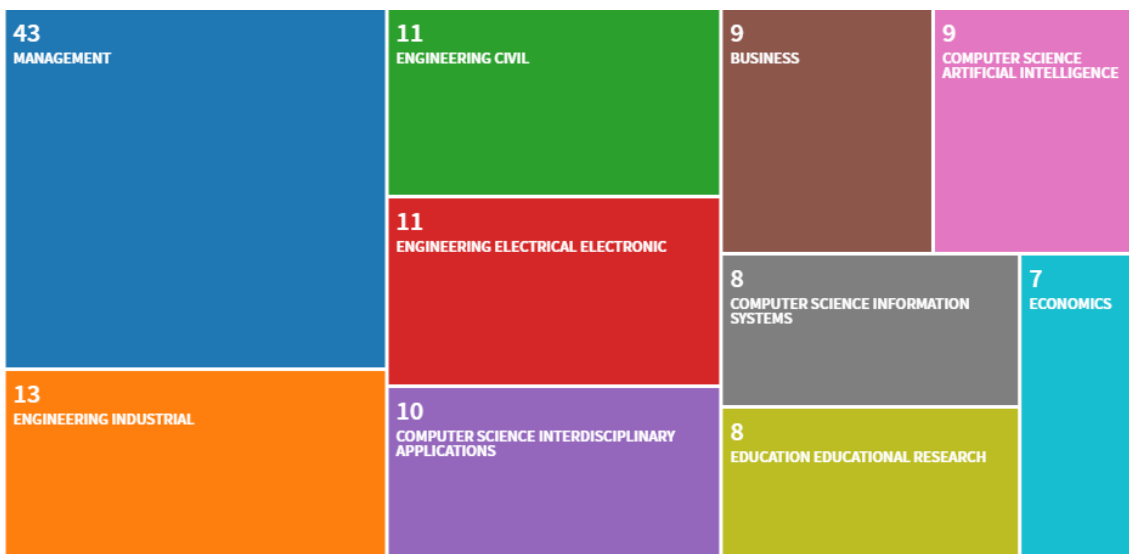


Figure 1: Research areas



Figure 2: Research Journals & Conferences

Extant literature brought to the fore important themes that lie at the intersection of these two

management domains (c.f. Keegan, Ringhofer, & Huemann, 2018; Dociu, 2018; Pak, Carden,

Table 1: Research themes extracted from co-occurrence of key word analysis

Cluster	Key words
Cluster 1	Antecedents, critical success factors, firm performance, human resource management, organizations, product development, project performance
Cluster 2	Behavior, challenges, construction industry, construction management, model, project managers
Cluster 3	Competitive advantage, construction, firms, framework, human resources, innovation, knowledge management, new product development, systems
Cluster 4	Framework, innovation, knowledge management, new product development, system
Cluster 5	Human resource management, performance, project manager, project teams, project manager
Cluster 6	Competencies, expertise, human resource management, resource allocation, work

5. DISCUSSION

The co-occurrence of key word reveals six major research themes that lie at the intersection of human resource management, and project management research. These themes pertain to the significance of project-human resource management practices for project success, and for organization's performance. Extant research also focuses on the competencies of the project manager. These themes are discussed in detail in this section.

Cluster 1. Human resource management as a critical success factor for projects

Human resource practices such as team development have been found to be moderate predictors of project performance. This relationship however is moderated by the project duration where projects with longer duration have been found to increase the effect of team development practices on success (Zwikael, & Unger-Aviram, 2010). Other research is more vocal about the impact of human resource practices. Demirkesen, and Ozorhon (2017) suggest human resource management to be important over project scope, and time management in determining project performance. In the same direction, empowering project team members is seen as an important aspect of people management in delivering successful projects (Dayan, & Basarir, 2010; Pons, 2008). Therefore, people management has important implications for project management in terms of successful project delivery.

Cluster 2. Project manager as an enabler of project success

Project manager is the executor of the organization's strategy through the project. Therefore, this role plays a paramount role in completing the projects efficiently (An, Qiang, Wen, Jiang, & Xia, 2019). Managing the project manager's behavior thus assumes significance. Extant research points to factors such as skill discretion, decision authority, job demands, job security, job readjustment, and family support as being important to reduce project manager's stress during the project execution (An et al, 2019). Extending this line of argument, Ekrot et al., (2018) apply the construct of perceived organizational support (POS) to project-based organizations. Their study underscores the importance of organizations' support in terms of career development, and project portfolio management (allocating adequate resources to the project) to project manager's job satisfaction.

Cluster 3: Projects human resource as vehicle for organizational competitiveness

In his 1988 article, Archibald first described projects as vehicles for organization's strategic growth. He describes how organizations that adopt a growth strategy, use programs, and projects to improve their products, services, markets, systems, procedures, and people. These findings maintain their relevance after three decades. Managerial support has a significant effect on the human resource practices in project types such as new product development.

Senior management's proclivity for taking risks, managing conflicts, and knowledge management has an impact on the firm's human resource practices and further on the performance (Roy, Dan, & Modak, 2018). In a similar vein, research findings also indicate that the firm's human resource practices are a determinant of a project manager's satisfaction with one's job. This has implications for the project's overall performance (Ling et al., 2018). Thus, research is unequivocal in stating the importance of human resource management, senior management's strategy, and knowledge management as being important for firm's competitive advantage, more so for project-based organizations (Loufrani-Fedida, & Saglietto, 2016).

Cluster 4. Project-Human Resource management as engines of innovation

The success of an enterprise depends on the development and implementation of innovative ideas. Projects when linked to the organization's strategy act as engines of innovation. Traditional human resource practices may not advance this goal. Managing technology, people, and project specificities have to be considered holistically to this end (Apenko, 2017). In order to develop such a holistic system of technology-people-projects, organizations will need to cultivate a culture of knowledge sharing and collaboration among the project workers. While exchange of explicit (documented) knowledge has long been established to be important for the functioning of projects, sharing of tacit knowledge (which resides in the experience and memory of project workers) is more challenging and is the focus of numerous research studies (Olaniran, 2017; Terhorst, Lusher, Bolton, Elsum, & Wang, 2018; Wioleta, 2017). Sharing of tacit knowledge is a key factor to foster trust and creativity in project teams. Thus, a collaborative culture (Kucharska, & Kowalczyk, 2016), and human resource practices (Popaitoon, & Siengthai, 2014) are instrumental in driving the organization's innovation through projects.

Cluster 5. People management competencies of project manager

Extant research has also called for expanding the scope of project manager's competency to

areas outside project management, to especially human resource management, as projects become more complex (Reusch, Khushnood, & Kaufmann, 2011). The project manager's competencies broadly fall into three areas- knowledge of project management processes, managing project performance, and managing people (Sebt, Shahhosseini, & Rezaei, 2010). These models for project manager's competency are grounded in previous studies that underscored team leadership, emotional intelligence (Dainty, Cheng, & Moore, 2005), teamwork, problem solving, engagement & motivation, openness, and creativity (Shahhosseini, & Sebt, 2011). Interestingly, research clearly delineates the project manager's human resource competencies from technical (for example managing project scope, and time, contract management), and contextual competencies (for example technology management, program-portfolio management, and adapting to business environment, Shahhosseini, & Sebt, 2011).

Cluster 6. Contextual competencies of project manager

Assigning human resources to projects is contingent on the characteristics of a project. A temporary endeavor with specific objectives to be achieved, traditional human resource practices may fall short in meeting the project objectives. In cases where the temporary project organization is situated within the larger permanent organization, development of objective key performance indicators for each project derived from the organization's objectives will ensure effective utilization of project resources (Hao, & Li, 2010). With emerging approaches such as agile project management, self-organizing teams with greater levels of autonomy are becoming a common place. Such teams share the project management activities such as estimation, planning, and requirement analysis with the managers and the customers. Challenges such as lack of senior management support, failure to define dependencies when scheduling tasks, ambiguous acceptance criteria for project deliverables will mar the project performance (Hoda, & Murugesan, 2016). Therefore modern project manager needs to demonstrate contextual competencies related to cross-organizational project governance (when the

project is shared by multiple organizational units or between multiple organizations, Sommer, Dukovska-Popovska, & Steger-Jensen, 2014), and emergent management approaches such as design thinking, agile management, and business analytics (Claus, 2019).

6. CONCLUSION

In this paper, publishing trends that lie at the cusp of two dynamic domains of management—project management, and human resource management—are reported. Through an extensive and systematic analysis, six major themes are identified. These themes underscore the importance of project-human resource practices to organization performance and growth. Project manager's competencies also emerged as a dominant research theme. While this paper identifies a few of these promising areas for research, there are other opportunities to enrich our understanding of both these disciplines. Technology trends such as artificial intelligence and big data are redefining the human resource management practices such as HR planning (Moyo, Doan, Yun, & Tshuma, 2018) employee hiring (c.f. Cohen, 2019; Rodney, Valaskova, & Durana, 2019), performance management (Buck, & Morrow, 2018), and training (Snizek, Wilkins, Wadlington, & Baumann, 2002; Bassi, & McMurrer, 2016). The impact of technology on project management processes is equally profound (Wauters, & Vanhoucke, 2016). Processes such as project control (Ko, & Cheng, 2007), cost management (Zervos, Oliveira, & Duckworth, 2018), contract management (Chou, Hsu, Lin, & Chang, 2016), and risk management (Haji Karimian, Mbachu, Egbelakin, & Shahzad, 2019). Other areas of interest could be employee engagement (Batistič, & Kenda, 2018), and motivation (Havermans, Van der Heijden, Savelsbergh, & Storm, 2019) with implications for project resource management. As projects become more complex, and employee expectations become more diverse, there needs to be an ongoing dialog to address these issues. It is expected that this paper will become a point of departure for this dialog.

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