



## Recruitment and Evaluation Practices at the Service of Project-Based Organization and Competence Management: Case of Tunisian Companies

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### Abstract

In recent years, the globalization of markets, the intensity of competition and the evolution of technology have forced companies to rationalize their management practices. Two main consequences arise: First, the emergence of new forms of organization, in particular project-based organization (PBO), denouncing the principles of scientific management. Second, the emergence of competence management has become an essential factor in the modernization of human resources management. This study aimed to understand how the relationship between PBO and competence management is effectively achieved. To this end, a qualitative research was conducted within Tunisian companies operating in different sectors of activity. The results show that recruitment and evaluation are two essential practices at the service of PBO and competence management. The results provide managers with a better understanding of the competence management in the PBOs.

**Keywords:** Project-based organization, Competence management, Human resource management, Recruitment, Evaluation, Qualitative research.

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### Contribution of this paper to the literature

This study highlights recruitment and evaluation practices that promote the relationship between project-based organization and competence management. The research results enrich the existing literature questioning how to manage competencies in project-based environments.

## 1. Introduction

Nowadays, researchers and practitioners have become increasingly interested in project-based organization (PBO) and competence management. In addition, human resource management is seen as an essential process for valuing competences in PBO (Huemann, Keegan, & Turner, 2007; Zia, Pervaiz, & Gill, 2014). Furthermore, the specific characteristics of the projects (the temporary and unstable nature of the operations and the dynamic nature of the work environment) have fundamental effects on the management of human resources (Bredin & Söderlund, 2011; Söderlund & Bredin, 2006; Zia et al., 2014).

In this context, the configuration of human resources within project-based organization is constantly changing (Yang, Chen, Wu, Huang, & Cheng, 2015). Hence the need for new ways of reformulating the human resource management system to better adapt to the needs of such organizations (Bredin, 2008; Bredin & Söderlund, 2006; Huemann et al., 2007; Turner, Huemann, & Keegan, 2008). These organizations require the implementation of competency-based human resources policies (Medina & Medina, 2014). The company must devote more attention to the link between the development of its competencies and the management of its projects. According to Loufrani-Fedida (2011) this relationship seems necessary for the survival of the company as it would maintain and strengthen its competencies and increase its capacity to master its projects.

However, only very few researches have focused on mechanisms that improve competencies in PBOs. Some previous works have pointed to the need for more in-depth studies of human resource development in project-based environments (Huemann, Turner, & Keegan, 2004; Loufrani-Fedida & Saglietto, 2016; Söderlund & Bredin, 2006; Turner et al., 2008). For this reason, our objective was to provide elements of answer to the central question of our research which is formulated as follows: *How do recruitment and evaluation practices promote the relationship between project-based organization and competence management?*

To this end, our research is based on a qualitative approach, centered on a series of semi-structured interviews that were conducted within Tunisian companies operating in different sectors of activity. Indeed, we preferred to interview project managers because they have a clear vision of the dissemination of competence management practices in their organizations. This article consists of three parts. In the first part, we try to clarify the relationship between project-based organization and competence management. In the second, we present the methodology of our research. The third part discusses the results of the research in relation to the existing literature.

## 2. Theoretical Framework

The objective of this part is to explain the relationships between project-based organization and competence management by outlining the different definitions of the key concepts of the research.

### 2.1. Definition of Project-Based Organization

Project-based organization refers to different forms of organizations that involve the creation of temporary systems (Hobday, 2000; Lundin, Arvidsson, Brady, Ekstedt, & Midler, 2015). Indeed, it is considered as a rapid and flexible response to the evolution of the main factors of success in an uncertain environment of globalization and competition.

The concept of PBO involves a variety of terms and definitions, such as "project-based organization", "project-led organization", "project-based firm", "project-based enterprise", "project-based company", etc. that have been proposed by researchers, consultants and practitioners (Loufrani-Fedida & Saglietto, 2016); (Miterev, Turner, & Mancini, 2017). According to AFITEP-AFNOR (2000), project-based organization is defined as "an organization that structures its tasks and adapts its operating rules from and around the projects to be carried out". However, this definition seems restricted, which is why several authors have tried to develop it. Hobday (2000) identifies two types of PBOs: First, "project-led organization", in which functional units exist, assigns a central role to the project in its activities. And projects go beyond functional departments and influence organizational decision-making; However, they remain framed and coordinated under the authority of the hierarchical function. Second, the most extreme form of project-based organization is exclusively managed by internal and external project activities, but there is no functional coordination of activities around the project. In both cases, the survival of the organization depends on the success of the project. DeFillippi and Arthur (2002) proposed another more complex term. They define "project-based enterprise" as an organization created around a project that aims to achieve a specific result and disappears once the project is completed, as in the case of sporting events or the production and making of films, etc. Lindkvist (2004) presents "project-based firm" as an organization that conducts the majority of its activities in project mode. This type of organization produces complex services and innovative tasks according to the needs of the clientele. This usually requires collaboration between companies (Business to Business Environment) which in turn require the support and coordination of the functional units. In addition, the actors are affiliated with the organization rather than the project. Koskinen (2010) used the term "project-based company" to describe organizations in which the majority of products are manufactured according to the specific needs of customers. This type of organization can be either a subsidiary of a large firm or a consortium of organizations.

There is a multitude of terms and definitions that revolve around PBO. As for this work, we retain the term project-based organization, which is considered as the most preferred, in an undifferentiated way and we propose to understand it in its most general acceptance. We, therefore, adopt the definition mentioned by several authors, where project-based organizations are defined as organizations that conduct most of their production activities in the form of projects and favor the project approach to the functional approach.

## 2.2. Definition of Competence Management

Along with the emergence of new organizational forms that challenge the principles of scientific management, the new challenges of the economic environment and the development of new technologies have forced companies to rethink their business models towards more autonomy and accountability. This new context imposes the emergence of the "model of competence" (Zarifian, 1988).

Competence management is defined as " a set of activities aiming at optimally exploiting and developing the competencies of individuals and groups with the aim of achieving the company's mission and improving employees' performance" (Van Beirendonck, 2006). For Defélix & Retour (2008) " managing competencies is identifying personal achievements through the identification of all the activities carried out and developed within the different markets ".

In addition, Boyé and Ropert (1995) assign three essential functions to competence management: First, the development of management reflected in the professional development of new knowledge in the company which often refers to training that reduces the gaps between required and acquired competences. This function is necessary for managers since it helps them to accomplish their tasks concretely. Then, the valuation of competencies which highlights the knowledge of the employee's acquired experience and qualification. This managerial approach consists of creating an atmosphere of versatility in which the individual can ensure the sustainability of his employability throughout his career. As a result, the company is expected to leverage and capitalize on the available competencies of its human capital to create a sustainable competitive advantage (Hamel & Prahalad, 1990). In this sense, valuing competencies " means networking them, organizing synergies between them so as to create added value impossible to obtain otherwise " (Delavallée, 2006). Finally, the optimization of competence which consists in improving the performance of the company. Indeed, changes in the economic environment are pushing organizations to adapt the competencies of their human capital to the new challenges of increased competition to be more flexible (Defélix & Sanséau, 2017). In this context, the management of the company no longer seeks to reduce the cost of its workforce but to optimize the use of its competences.

## 2.3. Recognition of Relationships between Competencies and Projects

With the rapidly changing technological environment, PBOs need to manage their competencies to reconfigure and update their internal and external resources to support and leverage business opportunities.

The term competence management was first used by Hartman (1998) in the project environment. It consists of ensuring the quality of the project's successful completion and the efficacy of its processes and tools. Indeed, competence management can be seen as the ability to manage projects efficiently through the application of good practices and methods in the project environment (Gareis & Huemann, 2000). For his part, Hansen (2004) adds that competence management contributes to the development and improvement of the organization through the collaboration, communication and control of employees with processes and procedures of project-based organizations.

Söderlund. (2005) proposed a model for the development and support of competence management in PBO. This model is defined as " the ability of the organization to efficiently generate/select and implement/execute projects " (Söderlund., 2005) and is composed of four interrelated domains:

- **Project generation** addresses the ability to undertake pre-tendering, tendering and project selection activities. Different organizations use different techniques to take on and manage these activities in order to increase the success of their projects.
- **Project organization** consists of identifying the competence required to conduct the project efficiently. According to (Söderlund. & Tell, 2009), organizational structures and collaborative arrangements are important for competence acquisition during the project's lifecycle.
- **Project leadership** goes beyond the competencies of a single individual and mobilizes the collective capacities of individuals to support, motivate and coordinate the smooth running of projects.
- **Project teamwork** mobilizes the competencies available within the project team; the coordination of the different activities, the synchronization of interdependent processes and the communication between the different stakeholders of the project.

According to Havila and Salmi (2009), Söderlund's definition of competence management focuses only on the early stages of project development. These authors propose to add the notion of "project ending competence" which is defined as " the ability and skills of the organization and its employees to terminate the project so that internal and external project stakeholders and company relations incur as little harm as possible ".

## 3. Research Methodology

In what follows, we present respectively the method of data collection, the description of the sample and the conduct of the interviews.

### 3.1. The Method of Data Collection: Semi-Structured Interviews

To achieve our research objectives, we adopted a qualitative study through a series of investigations with project managers. This study aimed to understand how project managers think, express and perform in relation to a context or situation. It would allow us to better understand the research problem, through a maximum of information collected. We opted for the interview survey technique, which is the most widely used method in qualitative research in management sciences (Roussel & Wacheux, 2005). In general, it is defined as " a process of scientific inquiry, using a process of verbal communication, to gather information in relation to the goal set " (Grawitz, 2001). As part of our research, we chose the technique of semi-structured interviews because it " achieves an often optimal compromise between the respondent's freedom of expression and the structure of the research " (Romelaer, 2005). Indeed, the interviewee responds as he/she likes, but with " freedom framed " by the researcher on well-defined topics.

### 3.2. Sample Description

The choice of the sample is a crucial step in the qualitative study, it contributes to the wealth of information collected. It is a question of identifying the actors that are in a position to produce answers to the questions asked (Blanchet & Gotman, 2001).

Our qualitative study is not about generating representativeness in the statistical sense, i.e. the testing of the research hypotheses; however, it allows enriching the key concepts of the research. In fact, Igalens and Roussel (1998) state that exploratory research often involves data collection on a convenience sample. Therefore, we chose to constitute a sample of reduced size. The selected sample must take into account the relevance criteria that relate to the structure of the project managers population in accordance with the research objective.

Our choice to focus on project managers only can be justified by two main reasons: First, they are the first responsible for the operation of their projects. Second, they are more likely to have relevant information on competence management practices. In addition, we attempted to reconcile a diverse population sample. We diversified the individual characteristics of project managers contacted in terms of experience, age and gender. The number of businesses sectors in which the interviewees exercise their missions was also amplified. According to the recommendations of Guba and Lincoln (1989), this profile diversity of allows reinforcing the relevance of the information collected through the different perceptions and visions of the respondents about the research.

All semi-structured interviews were conducted with project managers. The number of interviews was not determined in advance and has been subject to the principle of semantic saturation (Glaser & Strauss, 2017). In other words, we stopped data collection when additional interviews no longer generate new information to the previous ones.

The criterion of semantic saturation allowed us to reach the threshold of 28 semi-structured interviews. However, three more were added to confirm this saturation. As a result, the final sample of our qualitative study consisted of 31 Tunisian project managers from different local and foreign companies. We interviewed 5 women (16.13%) and 26 men (83.87%). All those who agreed to participate in the interviews were Tunisians. The average age of the sample was 39, ranging from 28 to 53 years. In fact, 11 interviewed people were below 35. Interviewees had an average of 7 years of experience as project managers. Despite the small size of our sample, it covered different business sectors: automotive, building and public works, oil and energy as well as telecommunications. Indeed, the project managers were contacted from our own network of acquaintances: family members and friends.

### 3.3. The Conduct of the Interviews

In order to successfully conduct the interviews, we followed the recommendations of Quivy and Van (2011). We conducted 31 face-to-face interviews in the workplaces of project managers interviewed for confidentiality and security reasons. We received a warm welcome and most respondents answered the questions in the interview guide outside working hours. The interviews were conducted during the last five months of 2016. Moreover, an appointment was set in advance for each planned interview. The topics of the interview guide were announced without giving details to avoid biasing the interview process thereafter. The duration of these semi-structured interviews varied between 1 hour and 1 hour 30 minutes, and this, according to the volume of information generated by the interviewee and his/her availability. Besides, each interview was followed by the same protocol. We reassured the interviewed project managers about the anonymity and confidentiality of their statements to soothe them. For example, we mentioned that neither the name of the respondent's nor his company's name would be identified in the analysis of the research results. This situation made it possible to create a climate of trust between the interviewer and the interviewee. This seems important for the good quality of the information collected.

We then proceeded to state and explain the context and objectives of the research. Before starting the interview, we asked the interviewee to introduce himself/herself. We then administered the topics of the interview guide by inviting the interviewee to speak freely about the problems addressed as he/she perceives them.

Most interviews were conducted by crossing, often, two languages: French and Arabic. We noticed that some interviewees were more comfortable expressing themselves in their mother tongue: Tunisian Arabic. Nevertheless, some respondents used French words and phrases excessively. As a result, we made a considerable effort to translate their discourses into English. Reformulations of verbatim transcripts were imposed not to lose their meaning.

In addition, out of the 31 interviews conducted, 23 were recorded using a Dictaphone, after having obtained the explicit agreement of the interviewees. The Dictaphone helps keep the perceptions and thoughts declared. We used a few notes to remain focused on the respondents' discourse. However, the nine other respondents refused to record their discourse for reasons of confidentiality. For example, one respondent states " *Excuse me, but ... I prefer that you take notes without recording my discourse, ... if you do not mind* " (Interview 15). As a result, we were compelled to take notes of these nine interviews.

The verbal speeches from the interviews were entirely transcribed manually word-by-word on paper, in order to gather as much as possible of the qualitative data in accordance with the recommendations of Miles and Huberman (2003). We thus retain many pages in order to better understand the research problem. This transcription process was carried out without delay in order to ensure the accuracy of the respondents' statements. In addition, we neglected information that do not relate to our research topic (the social climate and politics of the country, national sporting events, etc.).

## 4. Discussion of Results

In what follows, we will discuss the results obtained from the qualitative survey. We will compare these results with those found in some previous works in order to deduce the main conclusions from the research.

The analysis of our interviews highlights the existence of two essential practices of competence management in project-based organizations: Recruitment and Evaluation.

#### 4.1. Relationship between Project-Based Organization and Recruitment Policy

Selecting a good project manager is a challenge for any PBO and is one of the most important elements of project management. The majority of the interviewees of the qualitative study say that the selection of the wrong person can lead to the failure of a project.

" *The role of the project manager is the most important in the execution of project tasks because he/she is the first person responsible for the success or failure of the project* " (Interview 10).

It is therefore important to assign the most highly qualified person at the head of the project. A rigorous methodology is needed to recruit project staff, i.e. the development of recruitment methods is vital for selecting the appropriate project staff.

In the light of the different discourses of the qualitative study, the hierarchical authority is the main responsible for hiring people with specific competencies related to the project environment. This vision is also shared by some interviewees who emphasize the pertinence of competencies when selecting project managers.

" *The project manager is someone who must have exceptional qualities: not only technical competencies but also relational and behavioral ones* " (Interview 17).

" *Listen, a project manager must be chosen with great care, especially when it comes to competencies with all specific case and especially for the management of people* " (Interview 23).

Through the analysis of the semi-structured interviews realized, we note that the good selection of the project team members is also essential because these individuals are the driving force of the whole project. Indeed, several studies highlight the important role of project staff as active actors in PBOs. Each project actor must possess particular competencies that differentiate him/her from other people. The selection process should focus on identifying potential employees who are able to work collaboratively. In this sense, the analysis of the qualitative study reveals that hiring a competent person from the beginning of the project is more reassuring than trying to change behaviors through training and supervision. Selection criteria for project actors should focus on skills assessment: communication, problem solving, time management, decision-making, interpersonal competencies, initiative, creativity, etc.

During the planning phase of the project, senior management must learn about the job requirements and must have an understanding of the project environment (Duif & Barry, 2011). The results of the qualitative study prove that senior management must ensure that the most suitable people are assigned to the right jobs. It is primarily responsible for preparing the job descriptions and identifying the specific competencies needed for the realization of the project. According to some interviewees, the project manager sometimes participates in selecting the members of his/her team:

" *Yes, the project manager is responsible, he/she must make sure that the right person is in the right place* " (Interview 4).

" *The project manager is a decision-maker, so he/she has to participate with others in selecting his team members* " (Interview 18).

" *The project manager is the closest person to his collaborators, so he/she needs to know their competencies and abilities* " (Interview 26).

According to the majority of interviewees, the organization needs to find a project manager using a competencies profile. This allows selecting the right candidate for the job. The existence of a competency model facilitates the recruitment process in project-based organizations. It consists of a set of competencies related to the project environment. Similarly, the study by Keil, Lee, and Deng (2013) reveals that the specific competencies of project managers must be ranked in the order of their importance. This allows companies to apply competency models to make informed and objective judgments about the selection of project managers who demonstrate great performance in their work. The competency model aligns the competencies required with the overall business strategy; which helps management to recruit the right people. El-Sabaa (2001) has also developed a competency profile to improve the selection and performance of effective project managers. Similarly, the model developed by Patanakul (2011) highlights the competencies of the project manager in the recruitment phase. It helps senior management select the right candidate who will have the best performance in the project. Finally, the study by Wei, Lai, and Wei (2013) proposed a model that measures the level of imbalance in the project team which allows the project manager to carefully select the project team members to ensure the success of the project.

In the recruitment process, management must evaluate not only the technical competencies but also the interpersonal competencies of the candidate based on a competence profile (Lloyd-Walker, French, & Crawford, 2015). Technical competencies refer to the ability to understand and apply various tools and techniques related to the project environment, while interpersonal competencies include decision-making, delegation and teamwork. Indeed, several researches highlight these competencies when hiring project actors. The lack of interpersonal competencies is considered a major impediment to the success of the project. Fisher (2011) identified that interpersonal competencies are more pertinent to some project industries, namely new technologies and construction. For this author, cultural competencies and behaviors must be an important part of the competency profile. Similarly, Chipulu, Neoh, Ojiako, and Williams (2013) analyzing the content of several online job postings in eight countries, found that recruiters focus on hiring project managers who demonstrate interpersonal competencies rather than technical competencies.

Although the choice of project managers can lead to brilliant solutions to the technical requirements of the project, the lack of interpersonal competencies can lead to its failure. In other words, interpersonal competencies must be clearly made known to project staff. Turner and Müller (2003) state that project managers must combine technical and interpersonal competencies to effectively conduct project activities. This is in line with the interviews of the qualitative study. The interviewees recognize that companies must necessarily select project managers who balance technical and interpersonal competencies. Here are some extracts of the interviews:

" *Normally, the project manager, besides the technical competencies that he/she must have, must lead his subordinate employees, taking into account his human, relational and managerial qualities* " (Interview 16).

" *Listen, if you are a leader, you still need to have the qualities, and here the interpersonal relationships count a lot in project management* " (Interview 25).

" *The project manager is the boss and he/she must be a real team leader* " (Interview 31).

#### 4.2. Relationship between Project-Based Organization and Evaluation Policy

The main objective of the evaluation process is to optimize the current performance of the project team members. Indeed, traditional systems of evaluation have become increasingly ineffective. Ahadzie, Proverbs, and Olomolaiye (2009) state that competencies must be taken into account in the evaluation of employees.

The evaluation policy provides an analysis of the current state of the employee's competencies. It allows the project manager to better manage his team by improving the acquisition and exchange of knowledge and to monitor employees' performance and progress. In this regard, one of the interviewees notes that:

" *The annual interview promotes dialogue, discussion, exchange and transparency between collaborators and supervisors so that organizational goals are not imposed but shared* " (Interview 28).

The results of the qualitative study revealed that evaluations are very useful for predicting the performance of the employee's job. In addition, the evaluation policy identifies and resolves problems as well as competence gaps in order to keep a high-performance team.

According to the interviewees' discourses, evaluation is not only about measuring the competence level of project managers but is more often used as a basis for reward, such as salary increases and bonuses, etc.

" *In the case of our project, project actors are evaluated on a regular basis not only to identify their strengths and weaknesses but also to establish appropriate training, reward and bonuses for certain employees* " (Interview 2).

The evaluation also offers the opportunity to fill existing gaps in competencies through future training programs. In addition, the purpose of the evaluation process is not only to receive information on past performance results but also to allow the employee to discuss the perspectives of his career path with his evaluator.

There are different competence models that can be used to recognize the current competence level of the project actor. In a study by Von, Wong, Kanjanabutra, and Taheri (2016) a computerized management model was implemented to facilitate competencies assessment. Supervisors evaluate the competencies of a project actor by giving him/her a score from 1 to 10. Judrups, Zandbergs, and Kazakovs (2015) proposed a competency model that addresses problems related to inaccuracy and subjectivity in the process of evaluation. These authors divided competencies into several groups. Competence gap is the difference between the desirable and the real competence level. The identification of competencies gaps helps project actors understand their weaknesses which require considerable competencies development. This evaluation model enhances the employee's ability to operate effectively.

The study by Napier, Keil, and Tan (2009) developed an assessment tool based on a set of selected competencies. This tool helps to measure the current returns and predict the future performance of project leaders in the new technology sector.

In addition, Bočková, Dohnanská, Hilčíková, and Vaníčková (2016) developed a model that evaluates project managers from a set of ranked competencies, namely: time, the ability to work in a team, communication skills, technical knowledge, aptitude and flexibility. Cheng, Dainty, and Moore (2005) presented a model that evaluates project managers in the building sector based on 12 core competencies: achievement orientation, initiative, search for information, focus on client's needs, impact and influence, directiveness, teamwork and cooperation, leadership, analytical thinking, conceptual thinking, self-control and flexibility.

It is worth noting that some interviewees believe that self-assessment allows project staff to become aware of their level of competence and to seek opportunities for career advancement. This method consists of collecting and analyzing data on the competencies of the project actor. It provides reports on the current state of the individual's competence. Indeed, the use of self-assessment does not make it possible to directly evaluate the competencies; however, it takes into account the statements that describe behaviors related to the activities of the profession. The tool of self-evaluation is influenced by the individual's own intentions (motivations, experiences and personality). These results are consistent with those of Liikamaa (2015) who applied the self-evaluation method to 750 project managers. The results showed that the most important competencies were leadership, initiative and conflict management. Respondents in this study also felt the need to develop analytical thinking, stress management and decision-making skills, etc.

Based on the analysis of the qualitative survey interviews, it can be concluded that the line manager plays a key role in the evaluation of the project team. However, tensions can arise because the line manager does not sufficiently recognize the achievements made by the project team members. He/she cannot directly assess the competencies of the project actor, as he/she is sometimes located far away from the project platform. His role is to collect information from project managers to conduct a performance-based assessment. In addition, interviewees emphasized that project managers are best placed to assess the competencies of their teams.

According to some interviewed project managers, the evaluation process contains a subjective dimension, as it is based on the evaluator's personal judgments. This sometimes produces results that are not perfectly reliable. The face-to-face contact between the project actor and his evaluator sometimes activates the negative emotions that provoke conflicts.

" *We often do an evaluation, but in my opinion, it is not always objective* " (Interview 1).

" *The grievances between the supervisor and the subordinate can easily affect the evaluation procedures as the manager may deprive his or her staff of some extra marks in the assessment* " (Interview 16).

" *In our project, there are always unclear relationships between the evaluator and the evaluated, nor should we forget the emotions that may affect the evaluation measure* " (Interview 19).

## 5. Conclusion

Our research highlights recruitment and evaluation practices that promote the relationship between project-based organization and competence management. Thus, it offers an extension of the existing literature on the relationship between PBO and competence management (Bredin, 2008; Crawford, 2005; Loufrani-Fedida. & Saglietto, 2016; Söderlund & Bredin, 2006).

It is important to highlight the managerial contributions of this research: This article provides Tunisian project managers with a better understanding of the competence management practices which they can use to ensure not only the maintenance but also the development of competencies necessary to meet the project needs.

Our research has a number of limitations: The first limitation lies in the choice of certain practices that we have chosen to comprehend the notion of competence in project-based environments. We limited ourselves to two practices: recruitment and evaluation. The second limitation relates to the fact that we did not introduce other socio-professional categories, such as leaders, executives and workers, into our sample. In fact, the information collected is essentially based on an examination of the perceptions of the projects managers. The third limitation refers to the small size of the study sample (31) which is far from being representative of the entire concerned population in Tunisia.

The limitations and contributions previously discussed open the door to new lines of research that can enrich the conclusions of our study. First, future research should be replicated in other areas of investigation and in different geographic regions in Tunisia. This would allow us to enrich and further develop the results obtained. Second, it would be interesting to conduct comparative studies between national and foreign companies to grasp the similarities and cultural differences relating to competence management approaches in project-based organizations.

Finally, the analysis of the results has provided an enriching perspective on the study of the relationship between PBO and competence management. Since this research has some limitations, future studies would be necessary to better understand and explain the studied phenomenon. Therefore, the completion of our research is not an end in itself but would constitute the opening to new research avenues.

## References

- AFITEP-AFNOR. (2000). *Project management dictionary* (4th ed.). Paris: AFNOR.
- Ahadzie, D.-K., Proverbs, D.-G., & Olomolaiye, P.-O. (2009). Competencies required by project managers for housing construction in Ghana: Implications for CPD agenda. *Engineering, Construction and Architectural Management*, 16(4), 353-375.
- Blanchet, A., & Gotman, A. (2001). *The investigation and its methods: The interview*. Paris: Nathan.
- Bočková, K. H., Dohnanská, M., Hilčíková, D., & Vaníčková, R. (2016). Project manager's competencies in Czech lottery industry enterprise. *Economics*, 4(6), 274-282. Available at: <https://doi.org/10.17265/2328-7144/2016.06.002>.
- Boyé, M., & Ropert, G. (1995). *Managing skills in public services* (pp. 203). Paris: Organizational Publishing.
- Bredin, K. (2008). People capability of project-based organisations: A conceptual framework. *International Journal of Project Management*, 26(5), 566-576. Available at: <https://doi.org/10.1016/j.ijproman.2008.05.002>.
- Bredin, K., & Söderlund, J. (2006). Perspectives on human resource management: An explorative study of the consequences of projectification in four firms. *International Journal of Human Resources Development and Management*, 6(1), 92-113. Available at: <https://doi.org/10.1504/ijhrdm.2006.009751>.
- Bredin, K., & Söderlund, J. (2011). The HR quadriad: A framework for the analysis of HRM in project-based organizations. *The International Journal of Human Resource Management*, 22(10), 2202-2221. Available at: <https://doi.org/10.1080/09585192.2011.580189>.
- Cheng, M. I., Dainty, A. R., & Moore, D. R. (2005). What makes a good project manager? *Human Resource Management Journal*, 15(1), 25-37.
- Chipulu, M., Neoh, J. G., Ojako, U. U., & Williams, T. (2013). A multidimensional analysis of project manager competences. *IEEE Transactions on Engineering Management*, 60(3), 506-517.
- Crawford, L. (2005). Senior management perceptions of project management competence. *International Journal of Project Management*, 23(1), 7-16. Available at: <https://doi.org/10.1016/j.ijproman.2004.06.005>.
- Defélix, C., & Sanséau, P. Y. (2017). How do business leaders make skills management? Practical and theoretical lessons. *Management & Avenir*, 98(8), 63-84. Available at: <https://doi.org/10.3917/mav.098.0063>.
- DeFillippi, R.-J., & Arthur, M.-B. (2002). 15 paradox in project-based enterprise: The case of film making. *California Management Review*, 40(2), 189-202. Available at: <https://doi.org/10.2307/41165936>.
- Delavallée, E. (2006). When setting goals is no longer enough (pp. 140). Paris: Organizational Issues.
- Duif, J., & Barry, M.-L. (2011). *Towards a framework for human resource management processes in the mature project orientated organization: The case for an ICT organisation in South Africa*. Paper presented at the Technology Management in the Energy-Smart World (PICMET'11), Portland: Hilton Portland & Executive Tower.
- El-Sabaa, S. (2001). The skills and career path of an effective project manager. *International Journal of Project Management*, 19(1), 1-7. Available at: [https://doi.org/10.1016/S0263-7863\(99\)00034-4](https://doi.org/10.1016/S0263-7863(99)00034-4).
- Fisher, E. (2011). What practitioners consider to be the skills and behaviours of an effective people project manager. *International Journal of Project Management*, 29(8), 994-1002. Available at: <https://doi.org/10.1016/j.ijproman.2010.09.002>.
- Gareis, R., & Huemann, M. (2000). Project management competences in the project-oriented organization. (Eds) Turner, J. R., & Simister, S. J. (In) *The gower handbook of project management* (pp. 709-721). Oxon: Routledge.
- Glaser, B.-G., & Strauss, A.-L. (2017). *Discovery of grounded theory: Strategies for qualitative research*. Oxon: Routledge.
- Grawitz, M. (2001). *Social sciences method* (11th ed.). Paris: Dalloz.
- Guba, E., & Lincoln, Y. (1989). *Fourth generation evaluation*. California: Sage.
- Hamel, G., & Prahalad, C.-K. (1990). The core competence of the corporation. *Harvard Business Review*, 68(3), 79-91.
- Hansen, S. (2004). The supervisor in the project-organized group work should participate in developing the students' project competencies. *European Journal of Engineering Education*, 29(3), 451-459. Available at: <https://doi.org/10.1080/03043790310001658596>.
- Hartman, F. (1998). *Project management competence*. Paper presented at the Proceedings of IRNOP III, The International Research Network on Organizing by Projects, Alberta : University of Calgary.
- Havila, V., & Salmi, A. (2009). *Managing project ending*. Oxon: Routledge.
- Hobday, M. (2000). The project-based organisation: An ideal form for managing complex products and systems? *Research Policy*, 29(7-8), 871-893. Available at: [https://doi.org/10.1016/S0048-7333\(00\)00110-4](https://doi.org/10.1016/S0048-7333(00)00110-4).
- Huemann, M., Keegan, A., & Turner, J. R. (2007). Human resource management in the project-oriented company: A review. *International Journal of Project Management*, 25(3), 315-323. Available at: <https://doi.org/10.1016/j.ijproman.2006.10.001>.
- Huemann, M., Turner, J.-R., & Keegan, A. (2004). Managing human resources in the project-oriented company. In : Morris, P.-W.-G. (Eds.), *The Wiley guide to managing projects* (pp. 1061-1086). New York: John Wiley and Sons.
- Igalens, J., & Roussel, P. (1998). *Research methods in human resources management*. Paris: Economica.
- Judrupis, J., Zandbergs, U., & Kazakovs, M. (2015). *Competence based human resource development solution*. Paper presented at the 14th International Scientific Conference Engineering for Rural Development, Latvia: Jelgava University of Agriculture Faculty of Engineering.
- Keil, M., Lee, H. K., & Deng, T. (2013). Understanding the most critical skills for managing IT projects: A Delphi study of IT project managers. *Information & Management*, 50(7), 398-414. Available at: <https://doi.org/10.1016/j.im.2013.05.005>.
- Koskinen, K.-U. (2010). Recursive view of the project-based companies' knowledge production. *Journal of Knowledge Management*, 14(2), 258-268. Available at: <https://doi.org/10.1108/13673271011032391>.
- Liikamaa, K. (2015). Developing a project manager's competencies: A collective view of the most important competencies. *Procedia Manufacturing*, 3, 681-687. Available at: <https://doi.org/10.1016/j.promfg.2015.07.305>.
- Lindkvist, L. (2004). Governing project-based firms: Promoting market-like processes within hierarchies. *Journal of Management and Governance*, 8(1), 3-25. Available at: <https://doi.org/10.1023/b:mago.0000015392.75507.ad>.
- Lloyd-Walker, B., French, E.-L., & Crawford, L. (2015). *On an unexpected career path ? Using Wittgenstein's family resemblance concept to determine the power of projects to transform project management careers*. International Research Network on Organising by Projects (IRNOP), London. (Unpublished).

- Loufrani-Fedida, S. (2011). Human resources management at the service of the link between skills management and project organization. *Human Resources Management Review*, 79(1), 24-38. Available at: <https://doi.org/10.3917/grhu.079.0024>.
- Loufrani-Fedida, S., & Saglietto, L. (2016). Mechanisms for managing competencies in project-based organizations: An integrative multilevel analysis. *Long Range Planning*.
- Lundin, R. A., Arvidsson, N., Brady, T., Ekstedt, E., & Midler, C. (2015). *Managing and working in project society: Institutional challenges of temporary organizations*. Cambridge: Cambridge University Press.
- Medina, R., & Medina, A. (2014). The project manager and the organisation's long-term competence goal. *International Journal of Project Management*, 32(8), 1459-1470. Available at: <https://doi.org/10.1016/j.ijproman.2014.02.011>.
- Miles, M.-B., & Huberman, A.-M. (2003). Analysis of qualitative data (3rd ed., pp. 632). Brussels: De Boeck.
- Miterev, M., Turner, J. R., & Mancini, M. (2017). The organization design perspective on the project-based organization: A structured review. *International Journal of Managing Projects in Business*, 10(3), 527-549. Available at: <https://doi.org/10.1108/IJMPB-06-2016-0048>.
- Napier, N. P., Keil, M., & Tan, F. B. (2009). IT project managers' construction of successful project management practice: A repertory grid investigation. *Information Systems Journal*, 19(3), 255-282. Available at: <https://doi.org/10.1111/j.1365-2575.2007.00264.x>.
- Patanakul, P. (2011). Project manager assignment and its impact on multiple project management effectiveness: An empirical study of an IT organization. *Engineering Management Journal*, 23(4), 14-23. Available at: <https://doi.org/10.1080/10429247.2011.11431916>.
- Quivy, R., & Van, C. L. (2011). *Social science research handbook*. Paris: Dunod.
- Romelaer, P. (2005). The research interview (Eds.), Roussel, P. and Wacheux, F, Management of human resources: Research methods in human and social sciences (pp. 101-137). Brussels: De Boeck Supérieur.
- Roussel, P., & Wacheux, F. (2005). *Human resources management: Research methods in human and social sciences*. Brussels: De Boeck Supérieur.
- Söderlund, J., & Bredin, K. (2006). HRM in project-intensive firms: Changes and challenges. *Human Resource Management*, 45(2), 249-265. Available at: <https://doi.org/10.1002/hrm.20107>.
- Söderlund, J. (2005). Developing project competence: Empirical regularities in competitive project operations. *International Journal of Innovation Management*, 9(04), 451-480. Available at: <https://doi.org/10.1142/s1363919605001344>.
- Söderlund, J., & Tell, F. (2009). The P-form organization and the dynamics of project competence: Project epochs in Asea/ABB, 1950-2000. *International Journal of Project Management*, 27(2), 101-112. Available at: <https://doi.org/10.1016/j.ijproman.2008.10.010>.
- Turner, R., Huemann, M., & Keegan, A. (2008). Human resource management in the project-oriented organization: employee well-being and ethical treatment. *International Journal of Project Management*, 26(5), 577-585. Available at: <https://doi.org/10.1016/j.ijproman.2008.05.005>.
- Turner, J. R., & Müller, R. (2003). On the nature of the project as a temporary organization. *International Journal of Project Management*, 21(1), 1-8. Available at: [https://doi.org/10.1016/s0263-7863\(02\)00020-0](https://doi.org/10.1016/s0263-7863(02)00020-0).
- Van Beirendonck, L. (2006). *All competent: Management of skills in the enterprise*. Belgium: Editions de Boeck.
- Von, M., J., Wong, J., Kanjanabootra, S., & Taheri, T.-M. (2016). Competence-based system development for post-disaster project management. *Disaster Prevention and Management*, 25(3), 375-394. Available at: <https://doi.org/10.1108/dpm-07-2015-0164>.
- Wei, C.-C., Lai, M.-C., & Wei, C.-S. (2013). Assignment of project members considering capability and personality balance. *Kybernetes*, 42(7), 1016-1028.
- Yang, L.-R., Chen, J.-H., Wu, K.-S., Huang, D.-M., & Cheng, C.-H. (2015). A framework for evaluating relationship among HRM practices, project success and organizational benefit. *Quality & Quantity*, 49(3), 1039-1061. Available at: <https://doi.org/10.1007/s11135-014-0033-8>.
- Zarifian, P. (1988). The emergence of the competence model. (Eds) Stankiewicz, F. (In) Business strategies in the face of human resources (pp. 77-82). Paris: Editions Economica.
- Zia, B., Pervaiz, M., & Gill, H. (2014). Correlation of human resource management & project management. *International Journal of Research in Business and Technology*, 4(1), 308-315.