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# What team members perceive as important to achieve high performance: an exploratory case study

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**Abstract**

In today's demanding business environment companies must perform more efficiently. One of the most important ways to tackle this challenge is to enhance the human resources potential, through effective team management. High-performing teams have been studied for some years, with literature discussing their features from several perspectives as, for instance: leadership; teams as a whole; and team members. But, little has been written on managing these teams in the construction business. Based on a project involving 44 professionals and six teams, our exploratory case study presents preliminary results on perceived important features for managing teams into high performance. Surprisingly, in opposition to their team members, managers did not perceive as most important some of the common features identified in the literature. Plus, some differences exist between teams' perceptions. The reported differences may be correlated with the characteristics (e.g., social and demographic) of the professionals.

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## 1. Introduction

Firms are vital to a country's economy. Portugal is no exception to this rule. As the country almost headed toward bankruptcy, so did many firms. Recovering from this severe downward cycle requires firms to improve their performance. To make this happen, in such a complex environment, firms should be able to rely on high-performing teams (e.g., effective teams that gather knowledgeable and skilful professionals). Thus, making managers take a deep insight into team management issues may help turn teams into high performance.

Several factors may affect the performance of teams, whether they are multidisciplinary or designed for specific tasks. For instance, identifying (a) issues that result from putting together different personalities and (b) best practices to overcome unforeseen difficulties can benefit all project managers. On the other hand, the ability of the managers to coordinate their teams has a major influence on teams' performance, as managers play a decisive role when it comes to accomplishing positive results by teams during the execution of a project [8].

Through an exploratory case study, our aim is to improve the understanding of practices and managing processes concerning teams so that they can eventually achieve better results in today's demanding business environment. Having this purpose in mind, we designed an investigation driven by the following questions:

- What are the most relevant perceived features for managing teams into high performance? Do these perceptions differ (a) across teams from different areas and (b) between teams and managers?
- Do such perceived features match the practice on location?
- What features of high-performing teams were perceived to match the practice on location? Do these perceptions differ (a) across teams from different areas and (b) between teams and managers?
- How was the overall team performance perceived by team members and managers?

As this is a work-in-progress, we will limit ourselves to answer the set of questions mentioned in the first point. Therefore, in the section that follows we make a brief overview of the literature on team management looking for what possibly characterizes a high-performing team and how it should be managed. We then present the research methodology mainly based on a questionnaire that was administered to team members and managers while working on a construction project. Results are presented next. A discussion and concluding remarks follow on this exploratory study's results.

## 2. Teams and their performance

Several authors (e.g.,[1,2,3,4,15]) agree on a team being a small group of people that have complementary skills and are committed to a general purpose and goals to reach it, with both purpose and goals being settled by that group. Plus, a team is also characterized by its own (a) direction, momentum, and commitment (e.g., pulling together in the same direction to achieve something); (b) common approach (e.g., particular organizational and motivation methods); and (c) mutual accountability (e.g., with each team member being accountable for her/his actions, as these add to the team as a whole).

A high-performing team is an ideal one that combines individual talents and abilities into a high performing whole with capabilities that exceed those of its most talented member [7]. Specifically, high-performing teams, for instance, (a) range between two and 25 members [5]; (b) possess the right mix of technical and functional expertise and problem-solving, decision-making, and interpersonal skills; (c) shape their purposes usually in response to the firms' high management; (d) invest a huge amount of time and effort exploring, shaping, and agreeing on a purpose that belongs to them both individually and collectively; (e) translate their purposes into explicit, measurable, and attainable performance goals, with purposes and goals building on one another and being combined with team commitment; (f) develop strong commitment to how they will work together to accomplish their purposes; and (g) hold themselves responsible, both as individuals and as a team, for the team's performance [1,4,10,14].

Empirical research and some scientific systematization (e.g., [11,12,13]) suggest that there are several factors (e.g., leadership) that affect the performance of teams and projects. Within the construction industry, authors (e.g., [9]) suggests that (a) presumably "beneficial behaviors" of the manager toward the team members (i.e., leader characteristics) and (b) team members who believe that others think their project is worthwhile (i.e., image), tend to

make teams achieve high performance. Also in construction projects, authors (e.g., [6]) found that (a) the higher the team manager's professional qualification, the higher is the overall project performance; (b) consensus team leaders (i.e., a leadership style) improve overall project performance; (c) teams of in-house consultants positively influence overall project performance. Team management (and leadership) in particular seems to play an important role in explaining the performance of teams and projects, not only in the construction business, but also in other sectors of the economy. For instance, the author of [8] examined 76 technology-based project teams from 27 large multinational companies (mostly of the ''Fortune-500'' category) looking for the influences of the project environment on team performance. Again, direction and leadership was one of the perceived strongest drivers toward high team performance (as well as, e.g., interesting and stimulating work and effective communication) in complex project environments.

Although teams play an important role in construction projects [8], relatively little is known about leadership criteria conducive to high team performance – the area targeted for this paper. Given the broad perspective and insight gained by [8] into the processes of teamwork, we used the author's recommendations for effective team management as foundation to the part of our questionnaire that aims to elicit the most relevant perceived features (according to team members and managers) for managing high-performing teams effectively (i.e., answering the set of questions referred in the first point of the previous section).

### 3. Methodology

Because of the complexities and the absence of specific theories, an exploratory case study research format has been chosen for the investigation, involving mainly a questionnaire. In particular, data were captured on five visits made to a project site, from six teams (typically ranging from 5–12 members), engaged in the renewal of a historic building located in the northeastern region of Portugal. The visits were scattered throughout project's three month period. The total sample population was of 44 professionals (e.g., carpenters, plumbers, and electricians and their lower-level supervisors, plus the general supervisor, the project manager, and the firm's CEO). Since the unit of analysis used in this study is the team, data were collected as part of personal interviews – known as the most efficient way to examine the attitudes and behavior of high-performing teams [9], by questionnaire. The questionnaire was developed to elicit, from team members and managers, (a) demographics of the professionals (e.g., age, years in the profession, and academic background) regarded as relevant to this type of projects [6]; (b) the most relevant perceived features for managing high-performing teams effectively; (c) the actually perceived performance of project teams; (d) the actually perceived high-performing team characteristics of project teams; and (e) if the most relevant perceived features for managing high-performing teams effectively are part of the project teams.

In this work-in-progress, our main concern was to elicit (from teams and managers) the most relevant perceived features for managing high-performing teams effectively (i.e., answer the set of questions mentioned in the first point of the introductory section). Therefore, we based this part of the questionnaire (i.e., part 1, refer to Appendix A) on [8]'s recommendations for effective team management, as they summarize what others have pointed out on this matter [12]. Team members were then asked to think about the importance of each [8]'s recommendation (adapted to this study) for managing high team performance effectively and indicate their agreement with it on a four-point Likert-type scale: (1) disagree; (2) partially agree; (3) agree; and (4) totally agree. Note that, in the process of adapting [8]'s recommendations, we ended-up splitting one of these (i.e., "define work process, interfaces, and team structure") into three, so the meaning of each feature (i.e., work process, interface, and team structure) could be better explained to and understood by our population.

In this exploratory case study we used quantitative research methods to summarize the surveyed data.

### 4. Results

Our cohort of 44 male professionals ended up divided into six teams (i.e., one team of four carpenters, one team of five electricians, one team of four plumbers, one team of five iron forgers, one team of five PVC forgers, and one coating team of 12 professionals, plus one lower-level supervisor per team) and managers (i.e., one general supervisor, one project manager, and the firm's CEO). The average age was of: (a) 43 years for both the electricians

and coating teams; (b) 42 years for both the iron forgers and carpenters teams; (c) 40 years for the PVC forgers team; (d) 39 years for the plumbers team; and (e) 34 years for the managers. The average years in the profession was of: (a) 24 years for the electricians team; (b) 22 years for the iron forgers, carpenters, and coating teams; (c) 21 years for the plumbers team; (d) 20 years for the PVC forgers team; and (e) 18 years for the managers.

Results show that our population conferred great relevance to all [8]'s recommendations for managing high-performing teams effectively (see Fig. 1). That is, points per recommendation (or feature) rose above 3.5 (on average). Overall, the less relevant features were 1, 9, and 11, whereas the most relevant ones were 2, 4, and 5.
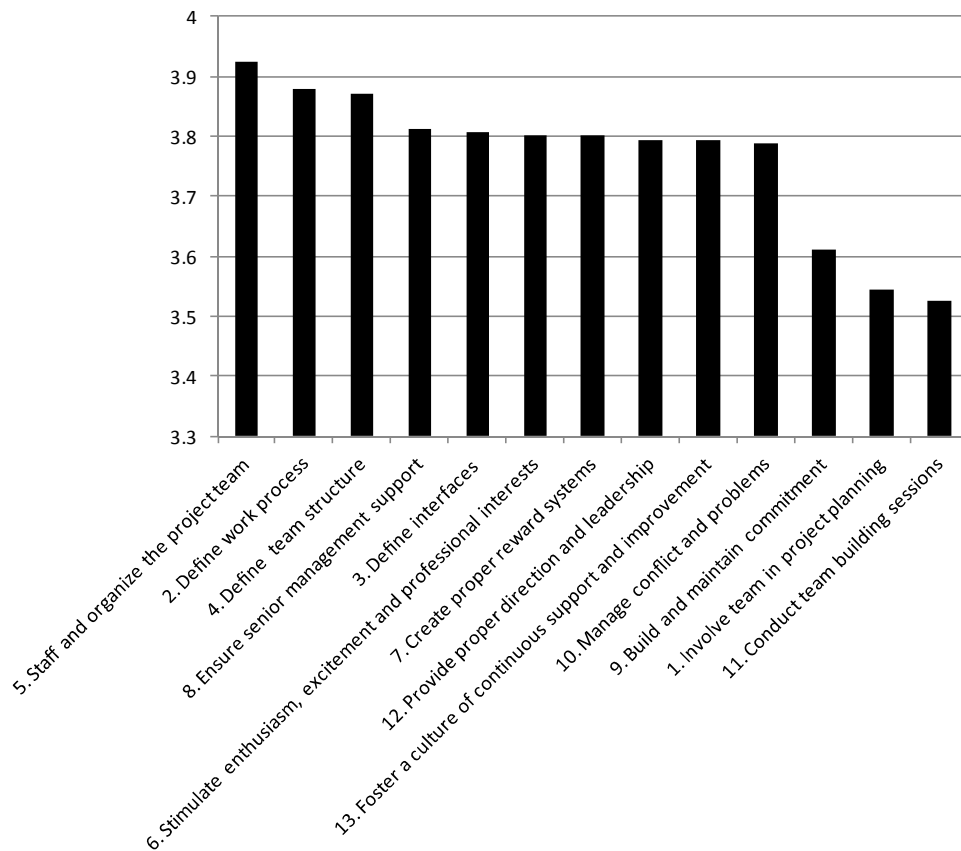


Fig. 1. Point average per [8]'s recommendation for effective team management.

Specifically, according to the responses intended for this part of the questionnaire (i.e., part 1, refer to Appendix A), [8]'s recommendations for managing high-performing teams effectively got ordered this way by level of importance (see Fig. 1): 2, 4, and 5 (with averages around 3.9 points, on a 1–4 scale); 3, 6, 7, 8, 10, 12, and 13 (all with averages around 3.8 points); 9 (with an average of 3.6 points, on a 1–4 scale); and 1 and 11 (with averages around 3.5 points). Therefore, it seems that our cohort perceived these features to be the most relevant ones for managing teams into high performance (i.e., totally agreed and/or agreed with them).

Concerning teams, the perceived strongest drivers toward managing high-performing teams appear to differ across teams from different areas and between teams and managers (see Fig. 2). Surprisingly, managers conferred great relevance to few of [8]'s recommendations, while teams conferred great relevance to almost all of them. Specifically, out of [8]'s recommendations, the team of carpenters totally agreed with all (i.e., averages of four and 3.8 points, on a 1–4 scale, were calculated for almost all of the recommendations), but two (1 and 11). The team of electricians totally agreed with all the recommendations (i.e., averages of four, 3.8, and 3.7 points were calculated

for all of them). The team of plumbers totally agreed with all (i.e., averages of four and 3.8 points, on a 1–4 scale, were calculated for almost all of the recommendations) but three: 1, 6, and 9. The team of iron forgers totally agreed with all (i.e., averages of four, 3.8, and 3.7 points were calculated for almost all of the recommendations) but two: 9 and 11. The team of PVC forgers totally agreed with all the recommendations (i.e., an average of four points, on a 1–4 scale, was calculated for almost all of them) but one: 1. The coating team totally agreed with all (i.e., averages of four, 3.9, and 3.8 points were calculated for almost all of the recommendations) but two: 1 and 11. Finally, managers totally agreed with the following recommendations: 1, 5, and "define work process, interfaces and team structure" – 2, 3, and 4 (i.e., an average of four points, on a 1–4 scale, was calculated for the former two recommendations and an average of 3.7 points for the latter three).
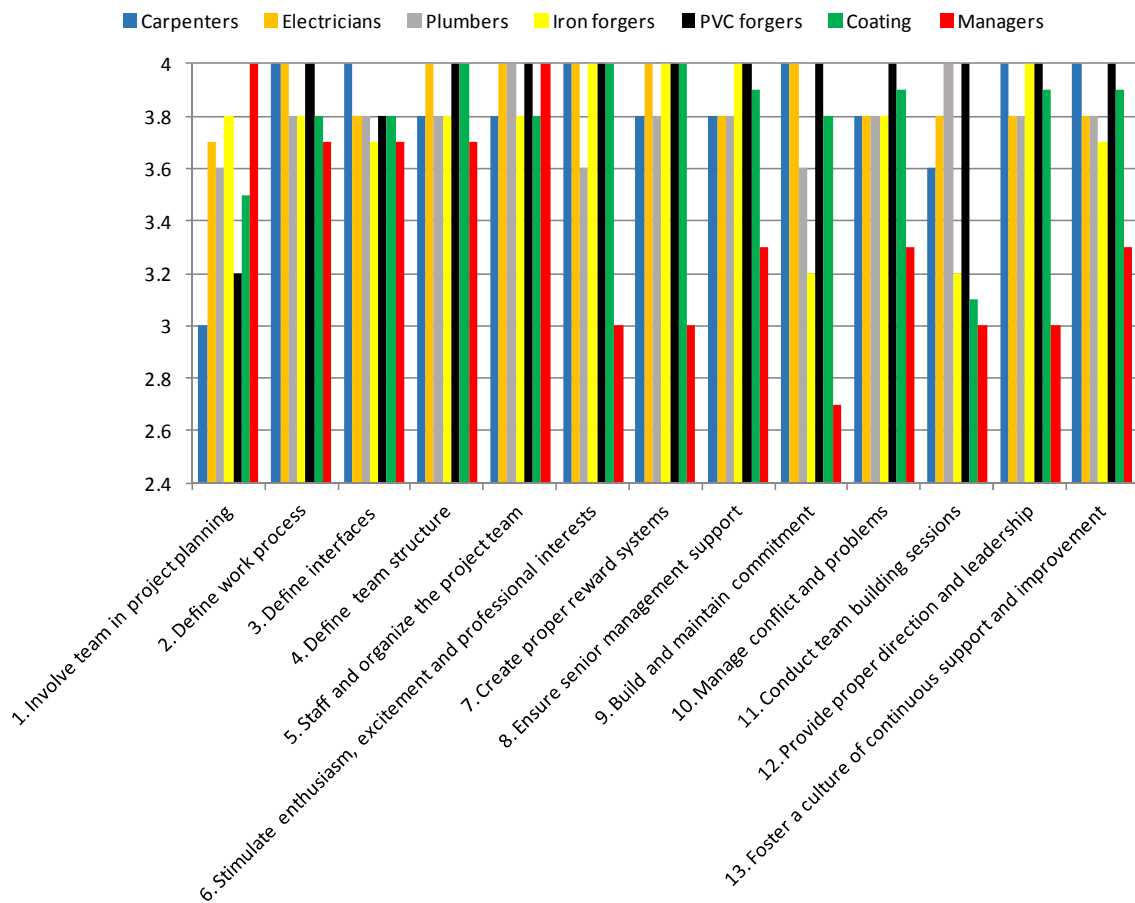


Fig. 2. Perception averages, per team and managers, for each of [8]'s recommendations for effective team management.

## 5. Discussion and conclusion

The main goal of this work-in-progress was to elicit teams' and managers' perceptions (while working in a construction project) on the most relevant features for managing high-performing teams. We also attempted to see if (and why) these perceptions may differ (a) across teams from different areas and (b) between teams and managers. Because relatively little is known about leadership criteria conducive to high team performance in the construction business, we do hope to be contributing to this body of knowledge. Consequently, we used an exploratory case study involving mainly a questionnaire that was build based on [8]'s recommendations for managing high-performing teams. Preliminary results show that our cohort perceived these recommendations to be important for managing

teams into high performance (i.e., totally agreed and/or agreed with them). However, the perceived strongest drivers toward managing high-performing teams appear to differ not only across teams but, especially, between teams and managers. Demographics and some of managers' concerns may explain these differences. The slight differences observed across teams' perceptions on how to manage a high-performing team effectively may have to do with team members' experience in the profession. For instance, as the average number of years in the profession (i.e., 24) was the highest for the team of electricians, it was the only one to totally agree with all [8]'s recommendations. Regarding managers, they totally agreed with a few of these recommendations (i.e., "involve team in project planning", "staff and organize the project team", and "define work process, interfaces and team structure"), while teams totally agreed with almost all of them. In the construction project under analysis, managers can be seen as the least experienced workers, as they (on average) (a) were the youngest (with an average age of 34 years old) and (b) had the least of years in the profession (i.e., an average of 18 years).

On the other hand, field interviews revealed that managers' major concerns had to do with finishing the project on time and budget and finding skilled workers in the local labor market for the jobs. Therefore, probably because of their youth and little experience in the profession, managers were more focused on the performance of the project than on following a set of recommendations (i.e., broad guidelines and benchmarks, such as, [8]'s) for managing teams effectively.

In future work we will try to figure out if the differences in perceptions found in this study can be statistically significant and correlated with, for instance, demographics. We also intend to answer the remaining questions that drove this investigation (refer to the introductory section).

## Acknowledgements

## Appendix A. Part 1 of the questionnaire (translated into English)

Given the aspects that follow, please state the importance of each one toward the high performance of a working team:
1.  Involving the team in project planning
2.  Defining the work process (defining how things should be done)
3.  Defining the supervision interfaces (defining with whom shall one talk when one needs information or to make a decision)
4.  Defining team structure (defining how the team is organized and who is accountable for what tasks)
5.  Putting together a team with the right competences for the job.
6.  Stimulating enthusiasm, excitement, and professional interests of each team member
7.  Creating proper rewarding systems
8.  Ensuring senior management support
9.  Building and maintaining overall commitment toward the goals of the project (making everybody reach the same goals for the project)
10. Properly managing conflict and problems that arise
11. Conducting team building sessions
12. Providing proper direction and leadership (making sure that the team has competent project managers)
13. Fostering a culture of continuous support and improvement

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