



Project Management: Evaluation of the problems in the Portuguese construction industry

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Introduction

- Current conditions of the construction market have been imposing challenges to the contractors.
- Portuguese contractors have been struggling to improve their practices and performance in order to keep in activity on the market.
- However, it is common to find construction projects failing in their objectives.
- Therefore, it is important to understand how project managers plan the projects, so that the performance and the results can be improved.
- In this study, the main problems faced by Portuguese construction industry in terms of project management were analyzed.
- And the causes of project management failure were studied.

Contractors - empreiteiros



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Introduction

- It is important to understand the added value that project management can represent for the companies.
- And understand the existing barriers to the adoption of project management tools.
- This study reveals that the construction companies continue to manage empirically their projects without considering adequately the best management practices and standards of project management.
- Another new relevant aspect found is that some important knowledge areas such as risk management are rarely considered.

This is a particularly pertinent aspect given the unpredictability and risks affecting the majority of the sector's activities.



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Research methodology

Research strategy and design of the questionnaire

- A questionnaire was used, distributed through an online platform - Qualtrics Survey Software.
- The contact list used was obtained from various university researchers.
- The target were project managers or persons involved in projects of the selected companies.
- 121 answers were obtained, from which only 51 were considered valid for analysis.

The remaining answers were considered invalid and excluded because they were not complete.

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Research methodology

Research strategy and design of the questionnaire

Respondent's distribution according to his/her function in the company

		NR (N. of Responses)	%NR
	Construction Manager	14	28%
	Production Manager	3	4%
	Department Manager	10	20%
	Budget and Proposals Manager	7	14%
	General Manager	10	20%
	Other	7	14%

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Research methodology

Research strategy and design of the questionnaire

- The questionnaire was divided into two parts:
 - The first part of the questionnaire aims to gather information from the companies.
 - The second part focuses on the issue of project management and problems faced by project managers.
- It was also observed that the sample contains small (22) and large companies (21) corresponding to 84% of the total sample.
- The average years of experience in project management is 11, and the range of answers stood in the range 0-35 years.

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Research methodology

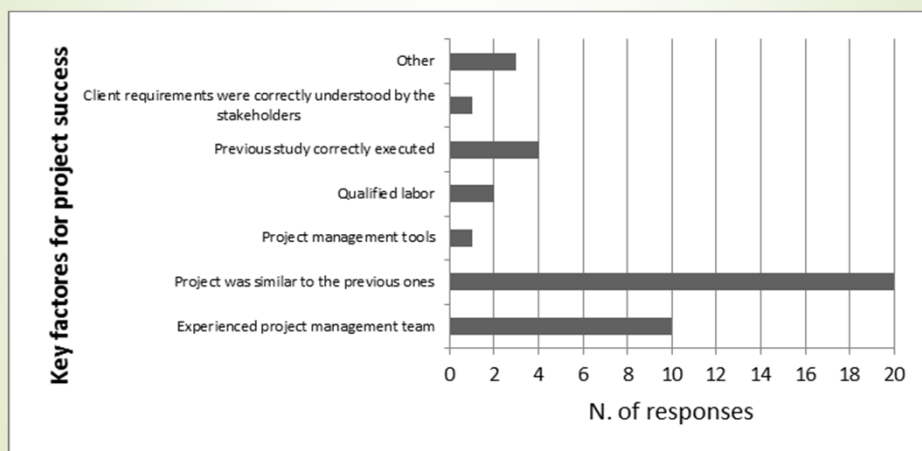
Research strategy and design of the questionnaire

- It was found that 76% of surveyed companies has been operating for over 15 years in the area, 16% between 5-15 years and only 8 from 0 to 5 years.
- The questionnaire allowed concluding that 90% of the companies execute several projects simultaneously, while only 10% conducts only one project at a time and that 55% of the companies are project oriented and the rest (45%) are not project oriented.

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Results and analysis

Distribution of the answers according to key factors for project success



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Results and analysis



Answers distribution according to the reason for not using project management tools



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Results and analysis



Answers distribution, according to the project management tools used

	NR	%NR
Project management software (e.g. MS Project, Primavera, ...)	22	79%
Gantt charts	19	8%
PERT (Program Evaluation and Review Technique) and CPM (Critical Path Method)	9	32%
WBS (Work Breakdown Structure)	8	29%
EVM (Earned Value Management)	9	32%
Project resource tools	2	7%
Other(s)	1	4%

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Results and analysis



Top 5 of project failure causes

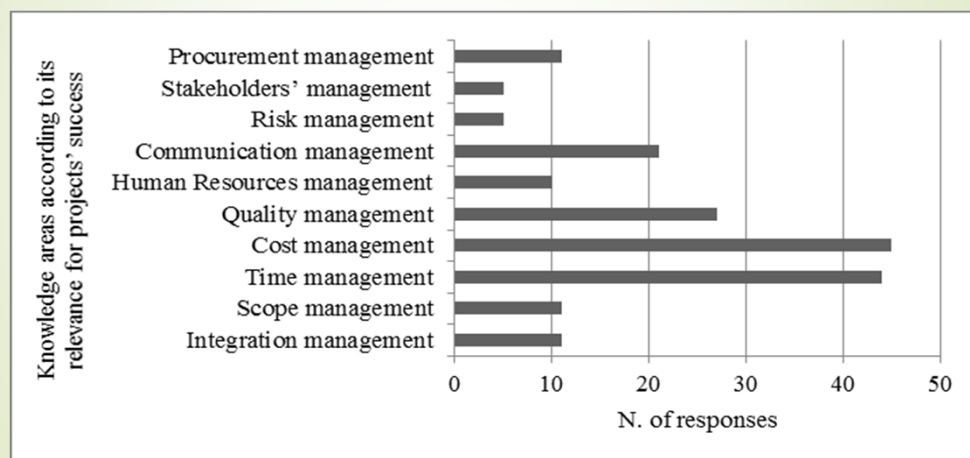
	NR	%NR
Changes requested by the client	34	67%
Bad planning	27	53%
Bad communication	22	43%
Delay in decision making	20	39%
Misunderstood of what client wishes	14	27%

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Results and analysis



Knowledge areas according to their relevance for projects' success

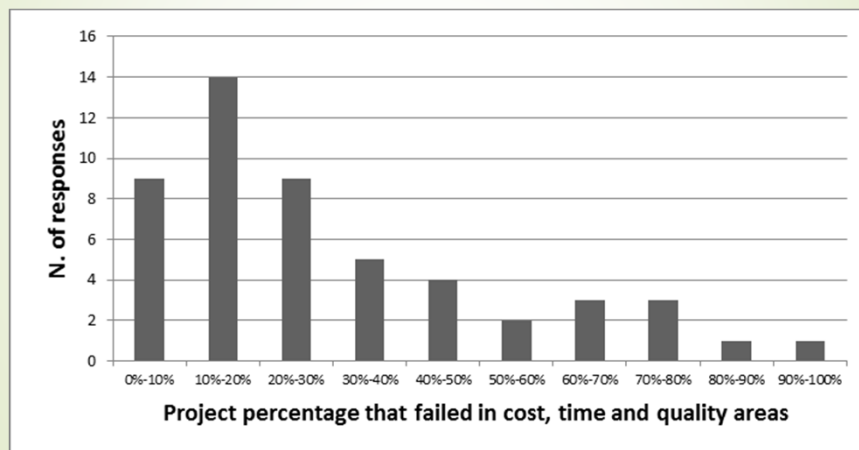


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Results and analysis



Distribution of project percentage that failed in cost, time and quality areas



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Results and analysis



Distribution of the answers according to the percentage of the projects that the client decided to abandon, after failures happened.

	NR	%NR
0%	26	51%
1% to 25%	21	41%
25% to 50%	1	2%
50% to 75%	3	6%
75% to 100%	0	0%



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Results and analysis

- 26 of the companies did not take any action related to meetings/communications, whereas 25 companies communicate normally to the team the conclusions obtained.
- 92% of the respondents referred that it would be a positive action to consider a data base creation with the problems faced by the companies (lessons learned).
- Some of the failures that were identified by the respondents are related to project management scope and communication knowledge areas.
- However, when analyzing the knowledge areas identified by the respondents, the most important areas to achieve project success, were considered to be time, cost and quality, relegating the knowledge areas of scope and communication to a second place, as well as some other ones such as risk management.
- But risk is an area that is always present in construction projects and which requires a lot of attention by the project manager.



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Conclusions and further studies

- It was possible to observe the main causes that lead to project failures in Portuguese construction industry:
 - Changes requested by the client
 - Bad project planning
 - Bad communication
 - Delays in decisions making
 - Incorrect perception of clients requests
- These findings are in agreement with previous Portuguese studies, namely by Couto [19].

Conclusions and further studies

- It was shown that there is a strong relationship between project performance and the use of the best management practices and standards of project management.
- According to the respondents, the unfamiliarity with the available tools, culture aspects or even the company choices still continues to work as barriers to the adoption of project management tools.
- To study the types of construction projects that have more failures, can be an important future research, in order to understand if there is a relationship among specific types of construction projects and the main reasons for the projects failures.
- The reasons for not using project management tools and for lack of consideration of the risk management on construction projects should be also studied.

