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# Transitioning Paradigms: Navigating the Shift to Project-Based Organizations Nuno Araújo Vasques Master in Management Supervisor: PhD Leandro Luís Ferreira Pereira, Associate Professor (with Aggregation), ISCTE - University Institute of Lisbon



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# Transitioning Paradigms: Navigating the Shift to Project-Based Organizations

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**Abstract** 

The number of project-based organizations is increasing as well as the number of

organizations trying to do a transition from functional organizations to project-based

organizations. The inexistence of information regarding this transformation is a problem

for the organizations that want to change. This research demonstrates the importance of

information for organizations in order to have the possibility to analyse and make a

conscious decision to transition into a project-based organization. Twenty interviews

were carried out with professionals from different companies, with different roles and

working in several areas of action to better understand the relevance of the problem. Using

a qualitative analysis was possible to conclude that most of organizations are impacted in

their projects efficiency depending on the sector of action where they work and in their

employees. To solve this problem organizations should work on their characteristics, find

people with specific characteristics to work in their organization, share information

regarding the transition to a project-based organization and work with universities and

consulting firms to create new studies about this subject.

**Keywords:** Project-based organizations, functional organizations, inexistence of

information, transition process.

**JEL Classification System Code:** L20 - Firm Objectives, Organization, and Behavior:

General

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Resumo

O número de organizações que trabalha por projetos está a aumentar, bem como o número

de organizações que tentam fazer uma transição de uma organização funcional para uma

organização que trabalha por projetos. A falta de informação sobre esta transformação é

um problema para as organizações que querem fazer esta mudança de paradigma. Este

estudo demonstra a importância desta informação para as organizações, a fim de obterem

a possibilidade de analisar e tomar uma decisão consciente da transição para uma

organização baseada em projetos. Foram realizadas vinte entrevistas com profissionais de

diferentes empresas, com diferentes cargos e que atuam em diversas áreas industriais para

melhor compreender a relevância do problema. Através de uma análise qualitativa foi

possível concluir que a maioria das organizações são impactadas na eficiência dos seus

projetos dependendo do setor de ação onde trabalham e dos seus colaboradores. Para

resolver este problema, as organizações devem desenvolver as suas características,

encontrar pessoas com características específicas para trabalhar na sua organização

visando o seu futuro, partilhar informações sobre a transição para uma organização

baseada em projetos e trabalhar com universidades e empresas de consultoria para criar

novos estudos sobre este assunto.

Palavras-chave: Project-based organizations, organizações funcionais, falta de

informação, processo de transição.

Classificação JEL: L20 - Objetivos, Organização e Comportamentos: Geral

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### 1 Introduction

Project-based organizations are organizations that are structured to work by projects. Projects have an associated period of time with a beginning and an end in opposition to the traditional companies. This is a new challenge for companies that are structured in a traditional format (Ekstedt, 2019).

In the management literature, project-based organizations are a well-known topic. The study papers on this topic examine how they are organized, how they operate, as well as the advantages and disadvantages of this methodology. To help people to better understand how it works in practice there are also case studies on the use of this approach in several industries where businesses work by projects (Söderlund & Sydow, 2019; Ekstedt, 2019).

The majority of studies that already exists in this area are focus on engineering and consultancy companies where it is usual to work by projects because of how they are organized, the purpose of their business and the end product that they have to deliver (Wang et al., 2022; Barbosa et al., 2022; Löwsted et al., 2018; Pemsel et al., 2018; De Toni & Pessot, 2021; de Rooij et al., 2019).

The research problem is the missing information about the transformation from the traditional organizations to the project-based organizations and the missing studies regarding project-based organizations in different industries other than consulting and engineering industries.

The number of project-based organizations is growing and the number of companies with a traditional structure that wants to change to a project-oriented business is growing as well (Auschra et al., 2019). The traditional organizations are starting to understand the benefits of working with projects and some of them are already transforming without information to understand if it works in their industry, the advantages, and the disadvantages of this method. For this type of companies, it could be a problem because they may not adopt, it can be a problem for the end result of their productions or services delivery, it may affect their workers and the organization of the company. With this information it could be possible for the organizations to understand and predict if a transformation is feasible or not, what is necessary to do in order to complete this

transformation, what they can achieve with this information and what the may lose with it.

In this study we are going to try to understand what's the impact of the small amount of information regarding the transition from functional organizations is to project-based organizations. For this to happen we need to decompose the complexity of the project-based organizations and everything that can cause an effect on this organizations. First, in the literature review the understanding of four key topics in the project-based organizations are going to be studied. These four themes are: the project-based organizations, the organizational design, the organizational learning and leadership. With these four topics studied it is possible to understand the most common information abroad the project-based organizations. After the literature review, information regarding the research and the methodology is shared. Finally the discussion and findings will be presented using the analysis carried out during the study.

### 2 Literature Review

### 2.1 Project-based Organizations

The main characteristic of project-based organizations are the projects. Research by Söderlund and Sydow (2019) has shown that projects have deliberately limited time periods that make it possible for businesses and other people to flexibly manage their operations. This is the opposite of the traditional organizations that have channels with unlimited time.

Projects are part of our private life, we use them in our daily basis without even notice and inside the organizations we register the same thing (Gemünden et al., 2018), in the case of project-based organizations we are looking for companies that uses projects as their principal method of work.

Inside this organizations it can be easier to achieve innovation because of the crossfunctional teams with different people from different departments of the company with different mindsets and knowledge working together in order to solve problems and to create new things. In this case the organization needs to be very agile, flexible and they need to have the project objectives aligned to the long-term goals of the company (Gemünden et al., 2018).

Löwstedt et al. (2018) identify project managers, top management, and middle management as key actors in the strategy development process. The top management team is important to define the strategic objectives of the organization providing support and resources for the rest of the organization in order to achieve these goals. The middle management team have to transform these strategic objectives in actions and in several projects where the output contributes to the organizational objectives previously stablished by the top management. These actions and projects are delivered to the project managers where they gather a team with the resources available to complete the projects.

Project managers have a very important position in these organizations and the main function it is to coordinate the transfer of project information since projects usually include different people from diverse departments and areas in every team that at the end return to their positions on the organization or move on to other projects (Barbosa et al., 2022).

In their research Wiewiora et al. (2020) they found that the knowledge and the learning about the new skills and the organization in general is achieve with more accuracy in the

project-based organizations. The collaboration and the communication between colleagues in projects give a better understanding of the whole organization was also a very important factor in the study of Löwstedt et al. (2018) to achieve strategy development. The authors also find out that project complexity is a factor in the learning process by the workers that develop more skills and knowledge as the project becomes more complex. Technology became very useful to the companies to transfer knowledge and facilitate the learning between all the projects, teams and workers inside and outside the organizations.

The projects are utilized as instruments to achieve both internal and external ends, such as restructuring the internal structure or creating new goods. An increasing number of project-based organizations (PBOs) are supporting or substituting permanent organizations from the outside. These are businesses that focus on delivering projects across a range of industries (Lundin et al., 2015; Ekstedt, 2019).

Auschra et al. (2019) highlights some business areas where the project-based organizations are more common like the consulting business, the engineering business. They refer that these types of organizations are growing and expanding to other business areas.

The organizations want efficiency Rui Wang et al. (2022) identify, in the project-based organizations, there are some factors that influence the organizations. The greatest challenges of this type of companies are how to produce the best products or deliver the best services possible with low costs, meeting the reduce deadlines that they promise to their clients creating another challenge that is to gain the confidence of their stakeholders. They highlight the cultural, political, and social factors as possible problems to achieve this efficiency. In this case as solution, they propose several strategies inside the organization to better use their resources like the utilization of technologies and create network strategies between the organization and the stakeholders. Improve contracts can be the key factor in these organizations to achieve the efficiency that the organizations are looking for, the fact that employees work in temporary projects gives the opportunity for the organizations to change the contracts from project to project to deliver the best depending on the type of project and from what the company pretends to achieve with it.

It is possible for everyone to see and study the positive aspects of the project-based organizations between the money that can be saved in the employees, the capacity to innovate, solve problems and achieve the corporate goals by the teams working in different projects. It is more difficult to understand the worst part of this organizations

and that was the study of Locatelli et al. (2022) where the authors choose several real-life examples to prove it. The corruption inside the projects is one of the most important problems inside the project-based organisations. The authors gave as an example the Olympic games in Rio, one of the biggest scandals of corruption in the last years. The abusive behaviour from FIFA in the 2022 world cup in Qatar was another bad image for the project-based organizations that for a lower price had people dying to build the stadiums in the worst labour conditions imaginable. For these authors the complexity, uncertainty and ambiguity are some of the dimensions that organizations, with a special focus from the project managers, have to take into account.

### 2.2. Organizational Design

Organizational design examines the causes, interactions, and effects of different organizational aspects, which are sometimes known as organizational design components or dimensions. The stream implicitly presupposes that management can, at least in part, influence these components toward accomplishing certain objectives (Turner and Miterey, 2019).

The research of Aubry and Lavoie-Tremblay (2018) define organizational design as the organization of resources and people with the main goal of achieve the expected results. They also draw some conclusions from their research as the importance of the information about the internal and external context of the organization, the fact of the organizational design is always changing, and the continuation of the previous two conclusions that is the duration of the perfect organizational design that it is always changing because it depends on several factors, and it is different for each company because it doesn't exist the ideal model.

For the organizational design evolve, the authors that work and study this theme often make references to the capacity of the organizations to learn with the experiences. Pemsel et al. (2018) gave special attention to the knowledge mechanisms and how they influence the organizations. In this study was a major focus in knowledge mechanisms for shifting, leveraging, and adapting. The shifting process normally occurs when exists a big alteration made by the top management team due to internal or external reasons. This provokes a shifting process along all the organization like a reconfiguration of the structure, this can happen due to a change of the strategic objectives of the organization or because of a new entry for the top management team as a CEO or a director. This

alteration to the configuration of the organization can bring new motivations for the employees as they see it as an opportunity to develop new skills and new ways of working. For the leveraging the authors highlighted the project manager as the most important position to take into consideration, this type of knowledge mechanisms affects the learning thru the projects where is important to complete the project and get valuable innovative ideas for future projects. The learnings in this case are that the leaders are having some difficulties to find a balance between these two topics, this should be search proactively or reactively depending of the outcome of the project whether it was important to innovate in order to achieve the completion of the project or the incompletion of the project led the project managers to find the problems to make sure that this doesn't happen again, in this second case is important that the project managers transfer this knowledge to the rest of the organization to create an evolution. The organizations need to adapt, they must possess the flexibility to modify their knowledge governance processes to suit the particular requirements of each project. This can assist to guarantee that the methods and procedures for knowledge management are efficient in each unique setting.

The organizational structure of a company can have a big impact in the decision-making process (Joseph and Gaba, 2020), Turner (2020) identifies as key factors the culture of the organization, the level of stakeholder involvement, and the degree of centralization or decentralization. A good governance can lead to a reduction of the impact of these factors to achieve good solutions for the projects and for the organization's interests. For this to happen it is important for the project managers, the top managers, and other possible stakeholders in action to have a good knowledge regarding the organization's governance structure, ensure that processes are transparent and accountable, try to achieve an involvement from several decision makers to get more perspectives about the existing questions leading to a collaborative organization that can facilitate decision-making problems.

Rooij et al. (2019) highlight as factors to make an impact in the organizational design of the organizations the uncertainty of the external environment of the company, the increment of the organizations and their complexity, an innovation strategy can also change the structure in order to search and take risks to find innovation and an opportunity strategy that is more reactive when comparing with the innovation strategy. In the study conducted by the authors it was possible to take some conclusions like some correlation with the performance management system of the organizations and the environment uncertainty.

Exists differences between the project-based organizations and the traditional organizations, Ekstedt (2019) concludes that the major difference is the time of work of the employees. In the traditional organizations the structure is more rigid so the daily basis it is very similar in terms of working hours, entrance and departure of the company and the daily tasks. Regarding the project-based organizations they are more flexible, exists organization but it is different for every company, exists working hours but it is more flexible because there is a deadline to finish the project and the personnel can organized their own time.

### 2.3 Organizational Learning

For the study of project-based organizations we need to consider the organizational learning of the companies. In terms of process first comes the acquisition, then the retention and in the end the memory retrieval (Barbosa et al., 2022).

Barbosa et al. (2022) refer in their article that organizational learning is based on previous experiences, actions, and results and this depends on the structure that a company use and how it responds to their market. In this type of companies is more difficult to use the experience because it is easier to innovate and participate in new experiences. On the opposite side we have the companies with traditional functional structures that work on a long-term purpose with the same specific activities during the years, so it is easier to retain new useful information and used them in a long-term.

De Toni and Pessot (2021) highlighted the importance of organizational learning responding to the very complex projects. Organizational learning brings knowledge, experience, and culture to the organizations. We must understand that PBO's work with short-term temporary projects in every part of the organization made by specific people that work together to reach a common goal (the efficiency of the project). The rate of turnover from one project to another is very high so it's difficult to retain some specific learnings (Barbosa et al. 2022). In companies that achieve the organizational learning find it easier to respond to complex projects, to innovate and to be more efficient (De Toni and Pessot, 2021).

The learnings can be achieved individually, from teams and projects, and from an organizational level as whole. The motivation from the employees, the communication from the top management teams and an easy access to information from technology or other platforms available inside the organizations as departments with all the learning

materials from the company are important to a successful organizational learning (Wiewiora et al., 2020).

In this organizations, new knowledge could be acquired from friends, from college, books, from experiences of other persons in the company, in the same industry (Barbosa et al., 2022).

### 2.4 Leadership

Scott-Young et al. (2019) says that project-centric organizations are increasing and with this the leadership and the management of the companies have to change. The fact that exists multiple projects with different objectives and in different scopes, with different people working in the company from the office, home, or the other part of the world origins a difficult task for the leaders to work without innovate. In this article they refer the term shared leadership and give it a major importance in these types of organizations. With this shared leadership they are assigning more responsibility to all the workers evolved in the projects and withdrawing some responsibility from the leaders. They also highlight the fact that are increasing practices and behaviours for team members instead of creating a centralized specific position with all the leadership roles.

The majority of scholars define leadership as a method of persuasion that one or several persons uses deliberate influence to shape the behaviour and interactions of others within a team or organization. Some of them also point out the fact the leadership should be spread across the organization by the departments or the teams and by the persons who work on the daily basis for the companies (Daniëls et al., 2019).

Zaman et al. (2020) brings the topic of the transformational leadership as a style of leadership towards the innovation. They highlighted this topic as way of leadership which provides a better environment to the organization, to their employees and with the main goal of innovation and a good adaptation to the constant change of the internal and external factors of the organizations. With the transformational leaders bringing focus to their objectives, the desire to get the best performance possible out of them and from their employees, the motivation and the inspiration to change and to create something new, they are creating space to a better work environment with good satisfaction from the people and with this a better performance outcome from the entire organization.

Project managers are the leaders of the projects, but has they said they are actually the doers because they don't have time to think, create or innovate, they gathered a team to

do what the clients want inside the company's expectations created by the top and middle management. In here the leadership focus is to motivate the team to achieve the goal of the project inside the specifications of the clients (Löwstedt et al. 2018).

Author, Year	Main Topics (Actual	Main Issues (Future
	Research)	Research)
Wang, Lu and Wei (2022)	Efficient production and	Project goals and stakeholder
	Legitimate power	satisfaction
Barbosa, Carvalho, Choo,	Corporate memory in PBOs	Analysis conducted in
Versiani and Pedron (2022)		engineering companies
Löwsted, Räisänen and	Strategy inside PBOs	Analysis conducted in an
Leiringer (2018)	organization	engineering company
Pemsel, Söderlund and	Knowledge governance	Analysis conducted in typical
Wiewiora (2018)	mechanisms in PBOs	PBO industries
De Toni and Pessot (2021)	Organizational learning from	Analysis conducted in a
	complex projects	typical PBO industry
de Rooij, Janowicz-Panjaitan,	Configurational approach to	Analysis conducted in a
and Mannak (2019)	performance management in PBO	consulting company
Wiewiora, Chang and Smidt	Organizational learning in	Limited feedback learning in
(2020)	PBOs	one industry
Löwsted, Räisänen and	Strategy in PBOs	Analysis limited to one
Leiringer (2018)		industry
Daniëls, Hondeghem and	Leadership	Leadership development
Dochy (2019)		
Scott-Young, Georgy and Grisinger (2019)	Leadership in PBOs	Not tested theoretical model
Ekstedt, E. (2019)	Projects and challenges to	Transformation from
	traditional institutions	traditional organizations to
		PBOs
Söderlund and Sydow (2019)	Challenges and opportunities	Fundamental issues were
	in the use of projects in	studied
	institutions	
Turner and Miterev (2019)	Organizational Design of PBOs	Small sample of PBOs
Aubry and Lavoie-Tremblay	Organizational Design of	The reasons for the
(2018)	PBOs	companies are organized in certain way
		certain way

Table 1 – Identification of main topics and main issues

Source – Author

## 3 Research Methodology

### 3.1 Research Context

The main problem identified in the literature review was the small amount of information regarding the transition from a company with a functional organization to a project-based organization.

It is possible to understand some of the advantages of the transition between both type of organizations, but it isn't clear how to do it and if it is possible in every industry.

To understand the main problems and impacts from this transition the problemsolving methodology will be used. This methodology gives an overall understanding of the problem, their impacts, the causes, a solution for the problem and the benefits brought by this solution.

Key Research Question:	What is the best solution	on to solve the problem
Main Issues (Author, Year)	Research Question	Research Objective
1. Stakeholder satisfaction and Leadership development (Wang, Lu and Wei, 2022); 2. Small sample or study conducted in a typical PBO industry (Barbosa, Carvalho, Choo, Versiani and Pedron ,2022); (De Toni and Pessot, 2021); 3. Transformation from traditional organizations to PBOs (Ekstedt, E., 2019);	RQ1: What are the evidences of the problem existence RQ2: What are the main impacts of the problem? RQ3: What is the problem trend? RQ4: What are the main causes?	RO1: Understand the problem in detail / framing the problem RO2: Understand the main impacts of the problem.  RO3: Understand the problem trend over the past-present.  RO4: Understand the real causes of the problem.
4. Companies and organizations issues (Söderlund and Sydow, 2019); (Aubry and Lavoie-Tremblay, 2018);		
	RQ5: What are best solutions?	RO5: Discover the best solution to solve the problem.
	RQ6: What are the main benefits of solving the problem?	RO6: Understand the main benefits of solving the problem.

Table 2 – Identification of research questions and objectives

Source - Author

For this research is going to be used the qualitative methodology in order to better understand the difference between the two types of organizations in the several industries. In order for this to happen it will be conducted in-depth interviews to answer the research questions.

### 3.2 Research Design

To understand the best solution for the problem, the "Pereira Problem-Solving Research Methodology" was used (Figure 1). This method demonstrates the impacts, the causes, and the trends of this problem in the organizations and lead us to a possible solution and its benefits. The answers were given from managers from companies that are doing this transition or already done this transition. The answers were collected by scripted interviews.

These interviews were conducted with 20 different people from different companies and organizations to collect different opinions in order to achieve the best solution possible for this problem. These interviews had the duration of 20 minutes each and were conducted online via Teams, digitally recorded with the consent of the participants to analyse the answers after the conversation. These interviews were carried out from August 3<sup>rd</sup> to September 18<sup>th</sup>. The questions were prepared before the beginning of the interviews to conduct the conversation to objective results. The script has 8 questions.

Projectification of the organizations		
Small amount of information regarding the transition from		
functional organizations to project-based organizations		
Question 1	How many years of experience do you have?	
Question 2	What is your role in the organization?	
Question 3	What are the evidences of the problem existence?	
Question 4	What are the main impacts of the problem?	
Question 5	tion 5 What is the problem trend?	
Question 6	What are the main causes?	
Question 7	What are the best solutions?	
Question 8	What are the main benefits of solving the problem?	

Table 3 – Interview Questions
Source - Author

The first two are to understand the experience and the role in the organization, the following question is to get to know the existence of the problem and the next five

questions are to collect knowledge for the study. In the table above is presented the script of the interviews.

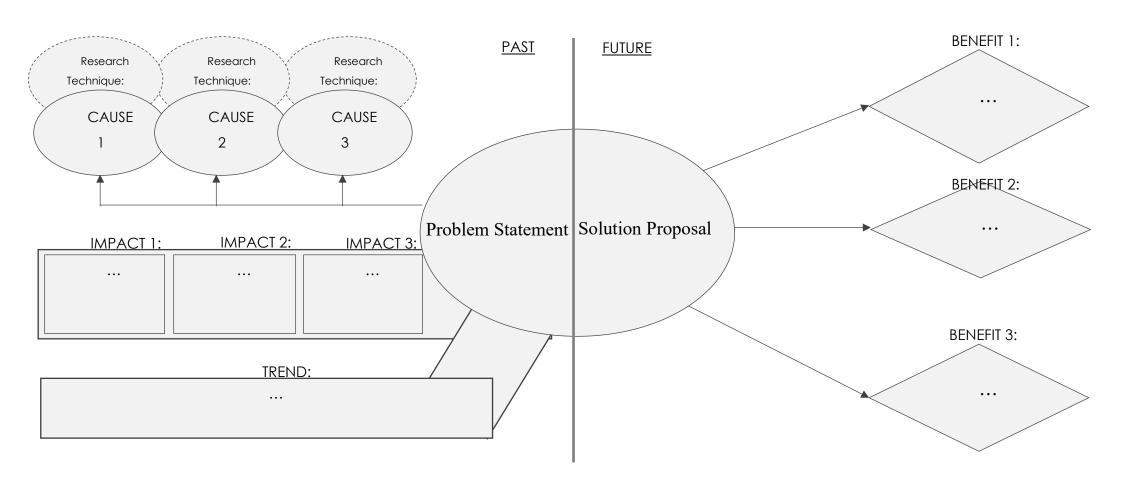


Figure 1 - Pereira Problem-Solving Research Methodology

Source – Pereira et al. (2021)

### 4 Data Analysis

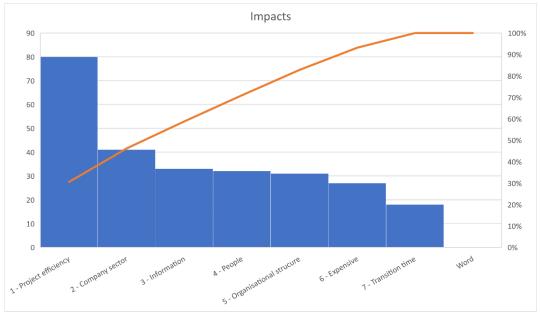
In this chapter it will be presented all the qualitative analysis carried out regarding the questions made in the interviews. These analyses were made using the KH Coder 3 software and Excel and were presented in graphs created by me in different visualization platforms.

### 4.1 Sample Characterization

For this study 20 people were picked to be interviewed. They have different backgrounds, different roles in their organizations, different years of experience and the working model (project oriented or business as usual) is different as well. This sample with various personalities and opinions is important to get more accurate conclusions where the answers are not equal or biased for having the same experiences and jobs.

### 4.2 Analysis of the impact of lack of information on organizations

The analysis of the impact of lack of information on organizations with a functional structure that want to do the transition to a PBO was made through a Pareto Chart.



Graph 1 – Pareto Chart

Source - Author

With this analysis we can observed that the biggest impact of not having information about the transition is the project efficiency where the major focus is the quality, the costs and the time that projects are made in the companies that are trying to do the transition. This first topic also includes the projects made to achieve the transformation of the organization.

We can also understand the importance in the company's sector or industry, in here the lack of information have a direct impact on the viability of the organizations to do this transition depending on their area of working.

Lack of information impacts the information in general as predicted, impacts the people knowledge regarding their work, role and mission that can translate in people's happiness.

The organizational structure also suffers an impact because there's no information to do a transition.

The analysis shows us the impact of the small amount of information that exists on the costs (6 - Expensive) and in the transition time.

### 4.3 Analysis of the trend of lack of information on organizations

The trend of lack of information on organizations with a functional structure was analysed using a word cloud. This was made with an analysis of the word frequency through KH Coder 3.



Figure 2 – Word Cloud Source – Author

As we can see from the word cloud analysis the words with more frequency are "company" and "project" which is not surprising because they are the major topics in this study. For this question in particular the meaning of this words is that it will exist more projects inside the organizations in the future.

The word "people" it is highlighted as well because it depends on them to create information for the future, to make this type of transitions and because the people in the future as we can see in the new generations want to work in high paced environments and by projects, so it is predictable that this is going to increase in the future.

### 4.4 Analysis of the causes of lack of information on organizations

To analyse the causes of lack of information on organizations with a functional structure that want to do the transition to a PBO an *Ishikawa* Diagram was made.

# Fishbone Diagram

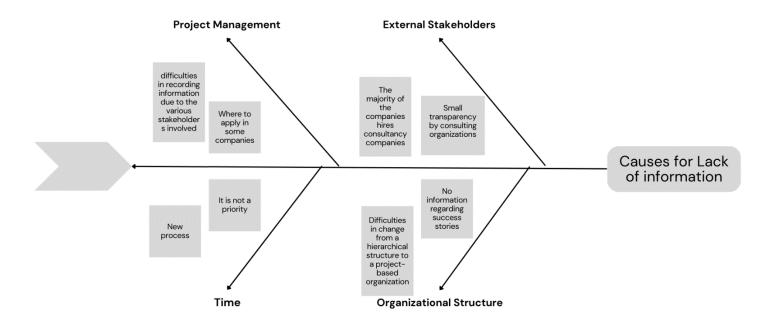


Figure 3 – *Ishikawa* Diagram
Source – Author

To understand this *Ishikawa* Diagram or Fishbone Diagram we must take into account the different positions of the main topics where time is the cause with smaller importance and the External Stakeholder are the topic with biggest importance to this theme.

This was calculated with the frequency of mentions using the KH Coder 3 software.

Time is one of the causes for the lack of information because this is a new process that the companies are trying to integrate in their organizations, so it is easily understandable that there is not a large enough sample on the market nor time to record this type of transformation. The registration of this information is not a priority as well and this contributes to the lack of information.

Project management is also one of the causes because the companies are including this type of working in their organizations. The contact with several stakeholders is something that difficult the recording of information, the small amount of people tailored to do these projects and the areas of the organization where they can apply it is something that the organizations are trying to discover.

The organizational structure of the companies causes lack of information because organizations are having difficulties in losing this hierarchical organization to transform into a PBO. This aligned to the lack of success stories makes impossible to register information until they create a good organizational method.

In this study the major cause to the lack of information was the External Stakeholders because they are owners of the information. Companies that try to do these transitions turn to consulting firms in order to achieve the expected goals. What we can conclude from this analysis is low transparency from this consulting firms and the small amount of studies made by the universities regarding this theme origins lack of information.

# 4.5 Analysis of the best solutions to the lack of information on organizations

To analyse the best solutions to solve this problem a Mindmap Diagram was created from several analysis made in the KH Coder 3 software that originate conclusions to create this diagram.



Figure 4 – Mindmap Diagram
Source – Author

In this Mindmap Diagram we can observe the best solutions taken from the interviews carried out.

These four main solutions are divided in two types of solution. In the left side the main solutions are from the organizations and from the people and they are the solution for companies that want to do the transformation without information, so this two doesn't solve the problem of lack of information directly but it gives an alternative solution for when the information doesn't exist. On the right side we have solutions from stakeholders and organizations that solve the problem directly.

Starting from the left we have the people and to achieve this transformation without information the organizations need people with different backgrounds, with different and specific soft skills and with an open-minded thinking towards the change.

For the success of the transformation organizations need flexibility, communication, and transparency of the information and the objectives that they want to achieve.

In order to solve directly the problem, the most common solution was from the stakeholders like the universities and consulting companies that should create several studies regarding this topic.

Information sharing by the companies was another solution given by our interviewees where they should share success stories, failure cases and register all the information regarding this topic to share it afterwards.

# 4.6 Analysis of the benefits of solving the lack of information on organizations

To understand the major benefits of solving this problem an analysis to the answers was conducted through the KH Coder 3 software and organized in a breakdown structure diagram.

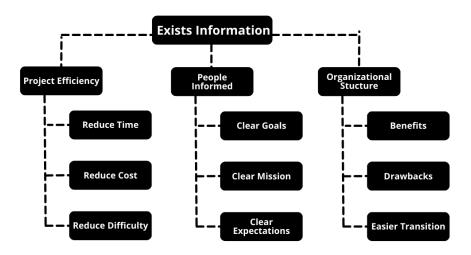


Figure 5 – Benefits Breakdown Structure Diagram
Source – Author

In this figure we can see the three major benefits of solving the problem and why.

The first major benefit of solving this problem is the project efficiency. With information it is possible that the organizations can reduce time, cost and the difficulty to do the projects that they want to because they have access to the information of how to do it and what they need to achieve the expected goals.

The second benefit is the information in people. With information the organisations can give a clear vision to their workers of their expected goals and missions giving them a clear expectation of they have to do contributing to a better wellbeing and less surprises in the future.

The last benefit is regarding the organizational structure where it is possible for the organizations to understand the benefits and the drawbacks of making this transformation contributing to a better a smoother transition.

### 5 Discussion and Findings

In this chapter, it will be possible to understand the connection between the results of the conducted study and the literature shared in the second chapter (Literature Review).

In the first question that was analysed, "What are the main impacts of the problem?", we conclude that project efficiency is the biggest impact that exists. This conclusion is evident because the small amount of information that exists difficult the best actions to take and the predictions regarding positive and negative outcomes in the future forcing people to resort to trial-and-error actions to achieve the intended objectives. These actions will force the organizations to spend more money and more time to achieve their expected goals. As the research of Wiewiora et al. (2020) showed us that the knowledge and learning new skills is very important to achieve more accuracy and more efficiency but for this to happen, information regarding this topic is needed.

The second major impact is the company sector. This can be linked to the fact of all the information that exists regarding project-based organizations are in specific industries where the core business of the organizations is to work by projects (Wang et al., 2022; Barbosa et al., 2022; Löwsted et al., 2018; Pemsel et al., 2018; De Toni & Pessot, 2021; de Rooij et al., 2019).

One of the biggest impacts are the persons, the lack of information is something that directly harms employees' daily lives because they don't have a concrete vision of their work, their responsibilities, their future, or the organization's future. In here we can observe that communication, transparency, and knowledge is very important for the employees as Löwstedt et al. (2018) shared in their research.

"What is the problem trend?" was the following question where it was clear that the future involves more projects in companies as well as the people want to work by projects. This conclusion is in agreement with studies of Lundin et al. (2015); Ekstedt (2019); Auschra et al. (2019) that have shared that the PBO's are increasing in every sectors.

The next question analysed was "What are the main causes?". The main causes found were the time, the project management, the organizational structure and the external stakeholders.

Here the definition of time refers to the novelty and the recent wave of transformations in companies for this type of organizations, such as the fact that it is not a priority for companies to record this type of information.

Other main cause was the project management where translates in the difficulty to apply projects in certain industries and the difficulty to register information due to the high turnover of employees from project to project and the amount of information lost between them as we could understand in Barbosa et al. (2022) study.

Organizational structure is also a main cause of the lack of information because some organizations have difficulties to lose the hierarchical structure because of the lost of power by top management or due to some cultural or historical questions as it was possible to conclude from the interviews conducted. These conclusions are also explained in the studies of Joseph and Gaba (2020) and Turner (2020) where the change of the organizational design develops impacts in decision making processes and in the level of involvement of different stakeholders. The fact that doesn't exist success stories is something that also impacts directly in the information topic.

The main cause considered by the interviewees was the external stakeholders. Consulting firms are one of the types of organizations that work by projects (Lundin et al., 2015; Ekstedt, 2019) and help other organizations to achieve these transformations so they have the knowledge to document and publish but their small transparency doesn't allow other organizations to understand the work made by them and contributes directly to this lack of information.

For the question "What are the best solutions?" the conclusions were split in two. The first conclusions were made to respond to the need of organizations carry out this transformation without the necessary information to do so and the second conclusions were made to directly impact the inexistence of information creating it.

These first conclusions have a focus on the organizations and in the people. The organizations need to be flexibles, transparent and with a clear and fluid communication between all the organization in order to have success to achieve this transformation and work with quality by projects as was published by the following authors Gemünden et al. (2018), Löwstedt et al. (2018) and Turner (2020).

People working in these organizations need to be open-minded to the future, have different backgrounds with different experiences and develop soft skills to achieve a good transformation to a PBO as we can observed by the literature of Wiewiora et al. (2020), Löwstedt et al. (2018) and Pemsel et al. (2018).

Towards the conclusions that directly impact the lack of information we have as possible solutions the information sharing by the companies or by other stakeholders. The organizations should share success stories, failure cases and all the registered information

regarding this topic and other stakeholders as universities or consulting organizations should create and share information regarding the transformations of organizations.

To answer the final question "What are the main benefits of solving the problem?" three benefits have emerged from the analysis and the first one is the project efficiency, where it is possible to conclude that exists a reduction of the costs, the time and the difficulty to achieve the expected goals. The second benefit is more information for the people of the organization to give a clear mission, goals and what to expect contributing directly to employee's happiness and satisfaction. The third and last benefit is for the organizational structure where it will be possible to understand the benefits and the drawbacks of the transformation. This is important for the organizations to evaluate their future and to understand whether the transformation makes sense. This also contributes to a easier and smoother transition.

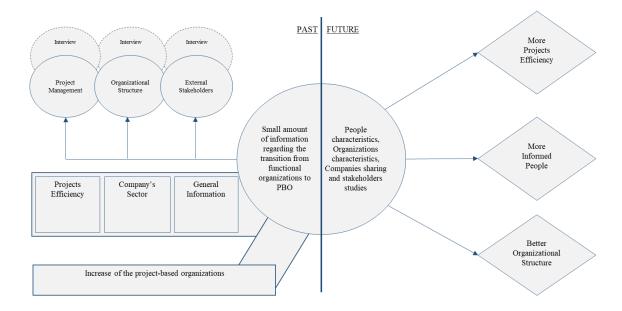


Figure 6 – Pereira Problem Solving "Findings" Source – Adapted from Pereira et al. (2021)

Author, Year	Main Topics	Main Theoretical/Practical
		Contributions
Barbosa, Carvalho, Choo,	Corporate memory in PBOs	The areas of action of
Versiani and Pedron (2022)		organizations have an impact
		to work by projects
Löwsted, Räisänen and	Strategy inside PBOs	Communication and
Leiringer (2018)	organization	transparency are important
		for the employees
Wiewiora, Chang and Smidt	Organizational learning in	Information and knowledge
(2020)	PBOs	increase efficiency
Löwsted, Räisänen and	Strategy in PBOs	The number of PBOs will
Leiringer (2018)		increase
Ekstedt, E. (2019)	Projects and challenges to	The importance of
	traditional institutions	information to transform

Table 4 – Contributions from the research

Source – Author

In the table presented it is possible to understand the main contributions from the research made towards the studies from other authors in the management field. The fact that this study is related to the lack of information about this theme, the contributions made were more related to some equal conclusions from both studies.

### 6 Conclusion

This study was created to understand the impact of the small amount of information regarding the transition from functional organizations to project-based organizations. This lack of information as well as the impacts of them in the organizations was showed in this study. The inexistence of information was found in the literature review where the gap of information regarding this topic is clear. To comprehend this subject 20 interviews were conducted with people with different years of experience, working in different organizations, in different sectors and with different roles inside their companies.

The impacts of this problem are evident in the efficiency of the projects carried out by the organizations as well as in the transition to PBO's. The sector of action of the organization is also impacted if they work in other industries than IT, consultancy, and engineering. Lastly the general information between the organizations and their employees has a big impact because the uncertainty created around them.

The trend of this problem is the increase of project-based organizations.

The main causes of this problem are the current project management in the organizations, their organizational structure, and the small contributions of external stakeholders.

There were four solutions offered in this study and they were split in two. The first two are towards the organizations that make the transition without information and the other two solutions are to solve the inexistence of information regarding this topic. This first two solutions have a major focus on people and organization's characteristics. The second pair of solutions have a bigger focus on shared information by companies and other stakeholders.

The benefits of solving the problem are the increase of projects efficiency, the increase of information of the employees and a better understanding of the best solution for the organizational structure of the companies that are trying to do this transformation.

With this study was possible to understand the gap in the literature, the impacts of this gap in organizations, possible solutions to solve this issue and the benefits of solving the problem.

For the future is important to follow the increase of information published regarding this topic, to do some business cases in organizations that are doing or trying to do these types of transitions, work together with several organizations from different sectors of action to register their transition, and to better understand the viability of the PBO's in every sector.

### Limitations

This study has presented some limitations during the elaboration process. Firstly, regarding to the problem, this was not a subject for some people that doesn't work with projects, in an organization that don't want to make this transition or if they aren't in a strategic position of their organization.

Next, the small number of interviews carried out in this study gave an expected conclusion for this work but with a bigger sample maybe the results would have been different.

This is a difficult subject to talk about, so it was very difficult to clearly explained the questions and the purpose of the study. This had a direct impact on some of the interviews made.

The data analysis was made with KH Coder 3 software and some of the questions were difficult to analyse and to take relevant conclusions because of the different words used by the interviewees that wanted to say the same information.

Finally, nineteen out of twenty interviewees work in Portugal so the answers given were based on Portugal's reality.

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