

The Application Of Agile Tools In The Context Of Social Organizations: A Case Study That Proposes A New Project Approach For The Third Sector

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Abstract:

The present work aimed to propose the application of agile methodologies, seeking the integration of tools that are appropriate to the context of social organizations of the third sector, to provide greater efficiency, innovation, and dynamism. Initially, we sought to explore the agile Lean, Scrum, and Design Sprint methodologies, and to make a brief contextualization of the third sector and its challenges. As a case study, the Center for The Study and Memory of Youth (CEMJ) was presented. The method adopted was qualitative research with an exploratory objective carried out through the case study method. As an expected result, we sought to develop a proposal for the integration of tools, highly adaptable to social organizations and easy to apply.

Key Word: Project Management. Scrum. Kanban. Sprint Design. Lean. 5s program. Social organizations.

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I. Introduction

Organizations conduct projects to achieve specific objectives in certain periods of time and use control activities to obtain an expected performance. These activities, in turn, were systematized, originating project management methodologies, classified into traditional and agile models.

Although both models are intended to ensure that teams achieve the project scope using their resources efficiently, there are significant changes to the way these practices are carried out.

Specifically, when it comes to agile methodologies, these characteristics were outlined by the environment in which they were developed: the software industry - a dynamic environment of rapid change and high competitiveness, giving rise to aspects such as emphasis on learning, multidisciplinary and lean teams, simplified control structures, and special focus on the human aspect, as pointed out in the Agile Manifesto, written in 2001.

It is observed that these characteristics find great similarity with a specific sector of the economy that has great social importance, the third sector. Due to the low rate of formalization of the workforce and limited resources, this sector is very short of specialized labor in project management and is composed of lean, multidisciplinary teams with large volumes of work.

These elements can be clearly seen in a recent study conducted by the Institute of Applied Economic Research, which showed that 83% of the 820 thousand social organizations registered in Brazil had no formal employment ties and 7% of them had up to two employment ties. The same study also showed that 66% of the employees did not have a college degree and only 49% had a high school degree.

Under the analysis of this context, we sought to propose an important contribution of the innovation area to increase the efficiency of social organizations, through the formulation of a proposed model based on the integration of agile project management tools: Design Sprint, Scrum, Lean and Kanban, based on the case study of the Center for Youth Studies and Memory - CEMJ, São Paulo, SP, Brazil.

As specific objectives, the work proposed to study the characteristics of the selected agile methodologies and tools, to understand the context that involves the third sector organizations, to identify the problems found in the project team and, finally, to elaborate a two-step action plan: implementation of a structured project management and an agile project management model for a later moment.

As a method, it was adopted the research with qualitative approach (Malhotra, 2006), of exploratory purpose (Gil, 2010), due to the proposal of adaptation of existing models and methodologies of agile project management, being them: Kanban, Lean, Design Sprint and Scrum, to the context of third sector organizations, taking as basis a single case study for analysis and data collection.

The paper presents bibliographic research about specific tools, seeking to gather inputs for the elaboration of the hybrid model that can be adapted to organizations configured as third sector, considering the similarity of the dynamics found.

Among the bibliographies consulted, the main sources of research were the Fundamentals in Project Management - Building Competencies to Manage Projects (CARVALHO; RABECHINI JR., 2021) and the PMBOK Guide (6th edition), seeking to establish the importance and the relationship between the existing models of methodologies for project management. Sprint: the method used at Google to test and apply new ideas in just five days (KNAPP et al, 2017), Kanban: Condensed Essentials (ANDERSON AND CARMICHAEL, 2016) and Project Model Canvas (FINOCCHIO JR., 2013), with the purpose of establishing hybrid model for application in the organization in two stages.

Besides these, publications and academic articles with themes related to the study were used as references, as a practical basis for the application of the proposed methodologies.

We also sought to situate the universe of social organizations by describing their main foundations, briefly contextualizing the third sector, and trying to point out some observed specificities that dialog with agile methodologies.

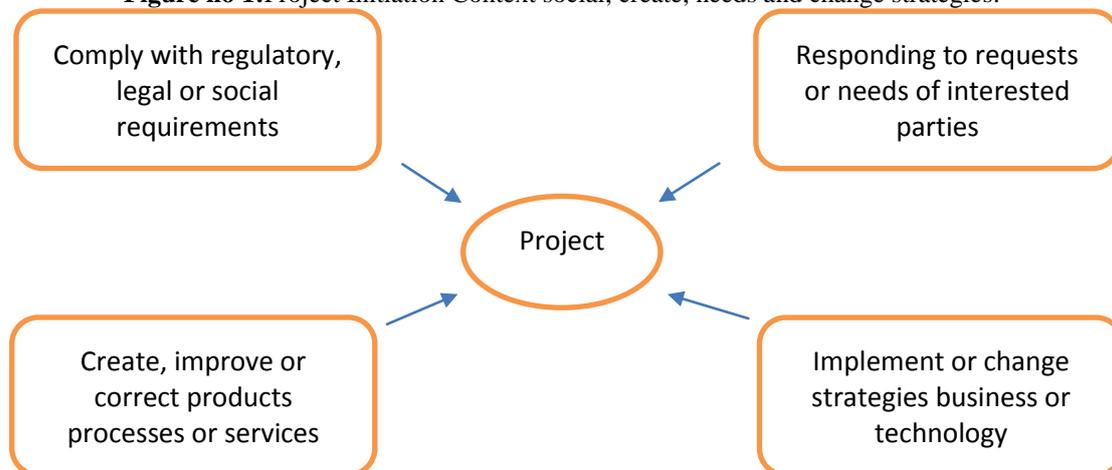
II. Project Management

The Project Management Institute (2017) defines a project as a set of temporary activities aimed at creating a unique product, service, or result. With a defined beginning and end, defined resources, and scope, it is characterized by its unique nature as it is an effort that escapes routine and aims to achieve a singular goal.

Projects bring value to the business and these benefits can be tangible or intangible. Tangible values are understood as monetary assets, shareholder capital, utilities, facilities, tools, and market share. Intangible elements, on the other hand, are understood as: good faith, brand recognition, public benefit, trademarks, strategic alignment, and reputation. And for this reason, the projects are initiated as a response to factors that affect the organization, such as: regulatory requirements, meeting stakeholder demands, product improvement or business strategy implementation. (PMI, 2017).

Regardless of the characteristics of the organizations, for-profit or not-for-profit, it can be observed that the projects are common to all the models, and the reach of the results are related to the purposes, as can be seen in Figure 1.

Figure no 1:Project Initiation Context social, create, needs and change strategies.



Source: Project Management Institute (2017).

III. Project Management

Carvalho and Rabechini Júnior (2021) report on the importance of the 1997 Toyota Production System (TPS) for the production management area, presenting the logic of customer-driven manufacturing, just in time.

A 1996 MIT study coined the term still applied today - lean manufacturing, having found that the Japanese model was customer-centric and had an aversion to waste.

According to Womach and Jones (1996) (apud Carvalho and Rabechini Junior, 2021, p. 391) Lean thinking aligns, in a systematic way, without interruption and in the best sequence, the activities that create value resulting in greater efficiency, accomplishing more and more with less and less and delivering to customers what they want.

Another point learned from the study was the search for simplicity and the use of visual resources for management exposing waste, deviations, problems, and nonconformities, stimulating a quick action of correction and adaptation.

Chart no 1: Lean Thinking: principles and types of waste.

Principles	Types of Waste
a. Specific Value	1. Stock Waste
b. Identify the value chain of products and the stages that generate waste.	2. Overproduction waste
c. Getting the value-crating steps flowing	3. Waste of waiting
d. Making production driven by demand	4. Transport waste
e. Manage to pursue perfection	5. Processing waste
	6. Motion wastage
	7. Waste of producing defects

Source: Carvalho and Rabechini Jr.

The authors draw attention to the similarities between Lean and Agile principles, especially in the aspects of focus on value and on the customer, and emphasis on efficiency and simplicity, as shown in chart 1.

For this reason, it makes sense that the methodologies be applied jointly, and even articles and studies propose that the Lean process be the preparation for applying the agile methodology, which can be operated simultaneously and complementarily.

One practice found is called agile and is the fusion of methodologies that consist of the use of Lean and Kanban principles, with elements from the Deming or PDCA cycle, adding to Scrum's repertoire (CARVALHO; RABECHINI JR., 2021).

Scrum Framework

The term framework was chosen by its authors Schwaber and Beedle (2001) because they understand that it is close to a structural or referential framework. According to the Cambridge Dictionary: framework, in the sense of structure, "is a system of rules, ideas, or beliefs that is used to plan or decide something". In the sense of foundation, framework has been defined as "the basic structure that supports something like a vehicle or building and gives it its shape."

The definition of Scrum according to its authors is a framework adopted to solve complex adaptive problems by delivering efficient and creative products with the highest possible added value (SCHWABER; SUTERLAND, 2017).

Based on the understanding that knowledge comes from experience, Scrum adopts the empirical learning method which is structured on three pillars: transparency, inspection, and adaptation. In other words, the individuals involved see and understand what is happening, they can follow the product creation process and adapt to the product or creation process, successively. (CARVALHO; RABECHINI JR., 2021)

This process is organized by events and supported by artifacts and operating rules. It is an empirical process, guided by development steps (increments), accompanied by the inspection of both the resulting product and the success of the adaptation practices to the product objectives and the processes used. These artifacts have the function of maintaining the transparency of the process for the team and seek inspiration in the principle 10 of agile management: simplicity.

Carvalho and Rabechini Jr. (2021) point out that if there is a need for documentation, auditing, and contractual rules, other more appropriate approaches should be adopted.

It should also be noted that the framework has several references with some variability regarding the artifacts. The model presented in the paper is by Carvalho and Rabechini Jr. (2021), based on the original model by Schwaber and Sutherland (2016).

Product Backlog

It is an artifact, the term for which can be treated as work that is planned and must be executed. It is basically a list or visual dashboard of everything that should be fundamental to the product at a specific point in the project's life cycle.

It is commanded by the product owner and contains:

1. Content, availability, and order of the work to be performed;
2. Particularities, functionality, improvements, and corrections that should be assimilated in the next versions;

3. It is the only gateway to all records and change requirements.

Sprint

The sprint is a short and regular cycle of fixed duration through which the project is divided. There is variability in the literature as to how long each sprint should be, but, generally, its duration is one month, and each sprint occurs according to the product's backlog. The other events occur within each sprint:

1. Planning meetings;
2. Daily meetings;
3. Reviewing;
4. Retrospective of the sprint.

Each sprint has a goal to be achieved during it, and therefore can be seen as a mini project. However, the product owner and the development team can renegotiate the scope throughout the sprint without jeopardizing the goal or lowering the quality targets.

Sprint Backlog

It is a set of product backlog items defined for the sprint that depict the development team's prediction of the features added to the next increment and the work required to deliver them. It is a dynamic plan, which will be visible, recorded in real time, detailed, and seeks to make clear the development and possible changes in the project.

The result of a sprint is the increment of functionality, and therefore the added value of that cycle, added to the added value of the previous cycles.

Scrum Team

There are three roles in a team: Scrum master, Product owner and the development team.

The scrum master's main function is to ensure interaction between team and stakeholders by transmitting and ensuring understanding and dissemination of theory, practices, events, artifacts, and rules. He performs empirical learning process, facilitates the team's activities, resolves problems on behalf of the team but he does not assign tasks to them or act as a project manager in a traditional sense. However, he ensures that there are some conditions that could enable the product owner to manage and organize it properly.

Product owner - This person is responsible for increasing the value of the product as well as maximizing the work done by a team performing all its professional functions. He is ultimately accountable for his vision of what things the product should do and how it should grow toward maturity. The decision on what features will be included in the product to develop has been made by him or her – as well as in which order they will be done – so called prioritizing stories in backlog.

Development team Multifunctionality is key for this team to achieve a deliverable increment of the product at the end of each sprint. The team must be small enough to meet sprint demands, which requires considering the volume of work and competencies needed. The team is self-organized, with no interference from outsiders. Although individuals may specialize, they excel in working in different areas. Professionals make up the team that is responsible for performing the required work. Schwaber and Sutherland (2016) consider these factors to be important characteristics.

Design Sprint

Based on the context of Design Thinking came the Design Sprint framework, which for presentation purposes, the bibliographic study was based mainly on Knapp (2017), creator of the Sprint method at the Google company.

The process results in the alignment of the team with a common vision, contemplates clearly defined goals and results, and results in a hypothesis, a prototype of an idea and the possibility to test it in a short period of time with minimal investment.

The author states that the Design Sprint offers conditions for collaborators to generate solutions and assimilate knowledge in the process, in a more versatile and dynamic way, respecting diversity. Knapp (2017) refers to the success of the format to the short deadlines, which force him to keep the team focused and considers it preponderant to have a multidisciplinary team.

Chart no 2: Stages for the development of the Design Sprint.

NO.	Day of the Week	Activities
1	Monday MAPEIE	Long-Term Goal Which would lead to the project failing. Customer or user journey. Interview experts. Rewrite probable problems. Most relevant opportunities.

		Redefine a more specific target for the rest of the sprint.
2	Tuesday DO SOMETHING	Benchmark the ideas. 4-step method: notes, ideas, crazy 8s, and sketches. Draw the best idea with hypothetical solution to the challenge. Draw 3-frame storyboard with solution.
	Wednesday DECIDE	Select the most promising solutions. Decide if the winning ideas will be part of the same prototype. Develop a single storyboard (from 5 to 15 scenes) for prototype planning.
4	Thursday PROTOTYPE	Define the tools for building the prototype. Build sufficient prototype of the quality needed for simulation. Elect executors, stitcher, writer, and resource collector to realize the prototype. Test the prototype and make any necessary adjustments. Get acceptance from the Definer.
5	Friday TEST	Two locations: one for interviews and one for staff interviews. Interview participants. Review the long-term goal and the questions raised on Monday. Define what to do after the sprint.

Source: Knapp, 2017 (adapted by the authors)

Knapp (2017) points out that the methodology is composed of well-defined steps, divided into the five days of the week, from Monday to Friday, structured in specific activities and makes use of some specific roles for conducting the process:

1. Definer - makes the project decisions, must bring the company's values, and share its values. Required participation on Monday - to present his perspective on the problem, on Wednesday - to help choose the right idea for the test, and on Friday - to check the customers' reaction to the prototype. One or two people can be appointed from within the project team by the company's CEO.
2. Facilitator - responsible for leading the Sprint, managing time, discussion, and process. Characteristics: confidence to lead the meeting, conclude the collective thoughts, and follow through on the process. This member must be impartial and not be the Definer.
3. Team - composed of up to 7 people who develop or execute the service, some experts with specialized knowledge. The ideal team is made up of definer, facilitator, experts in finance, marketing, consumer, technology, and design.

Table 2 presents an outline of the main activities provided by the presented model, however, Knapp (2017) points out that the framework is also adaptable to the environment of non-profit organizations, since these organizations, like startups, have resource constraints and face major challenges.

Regarding the time proposed for the development of the process, the author states that it is possible to reduce the process from five to four days to carry out all the steps.

Even though the author suggests several steps that were designed from the trial-and-error process, he states that the process was designed as a framework, in the sense of being a structure on which to adapt the necessary tools, considering the product of the process, the environment, and the characteristics of the organization. The goal of the study, in short, proposes flexibility in the process.

IV. Who are the Civil Society Organizations

According to the Regulatory Framework for CSOs, Law 13.019, of 07/31/2014, CSOs are private, non-profit institutions that provide a service with a social purpose. The legislation qualifies this model of institutions according to three different types of structures: 1) Private non-profit entity; 2) Cooperative societies; 3) Religious organizations.

Research conducted by IPEA in 2018, called Perfil das Organizações da Sociedade Civil do Brasil (Profile of Civil Society Organizations in Brazil), pointed out that in 2016, approximately 820,000 civil society organizations were mapped in Brazil, while a previous study by IBGE pointed to a total of 300,000 institutions of this model in 2010. However, part of this difference was due to the methodology applied by IPEA, which, in addition to the Ministry of Labor, incorporated the study information from the CNPJ of the Internal Revenue Service, bringing the universe closer to reality.

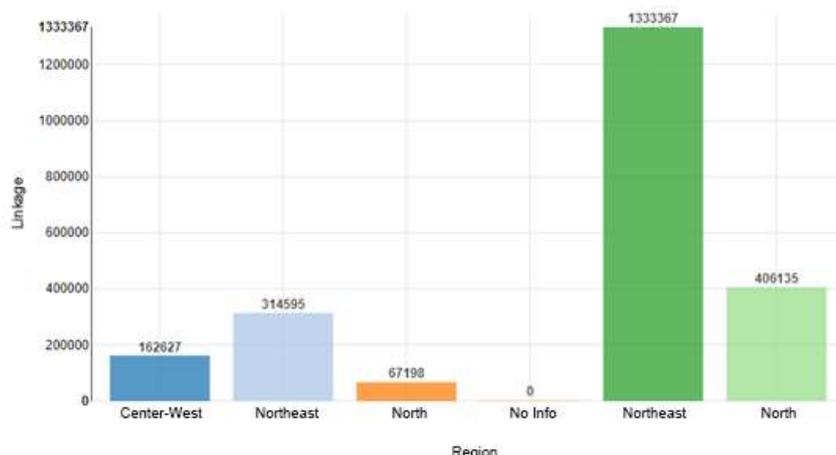
Professional profile of the third sector

A majority fraction of these organizations works without formal employment ties and have part of their functions replaced by volunteer work. It is noteworthy that a large portion of the sector is characterized as micro-organization and has no formal employment ties: 83% have no formal employment ties; another 7% of them have up to two employment ties, totaling 90% of organizations that have up to two ties. There are records from RAIS/TEM - 2015, that there were almost three million people with employment bonds in organizations across the country, and approximately 60% of people employed in social organizations are in the Southeast

region, which houses more than 50% of organizations with employment bonds. One third of the employment ties are in São Paulo, with more than 35% of the people employed in the organizations.

The organizations that employ the most are those in the areas of Health and Education, although they correspond to less than 10% of the universe of organizations in RAIS (3% and 7%, respectively), they accounted for 40% of the total number of people employed in 2015.

Graph no 1: Number of employment relationships in social organizations per region.



Source: Adapted from MAPA OSC IPEA, 2023.

In terms of education among sector professionals, a survey discovered that in 2015, a majority - 66% - had not completed college, with 49% having high school diplomas and an additional 13% having only completed elementary school. Interestingly, women were found to take up the largest portion of these employees, with 65% of the workforce being female. Interestingly, Rio Grande do Sul and Santa Catarina were shown to have the highest proportion of female workers, while Amazonas had the lowest. Despite this gender disparity, women still earn an average of 85% of what their male counterparts earn. In terms of race, the workforce within these entities consists of 63% whites and 37% blacks. Notably, the Northern and Northeastern regions display a disproportionate number of black employees at 75% and 70% respectively. Meanwhile, the hiring of individuals with disabilities exhibits significant fluctuations. Consequently, the Map coordinator highlights the existence of comparable disparities within the social organization job market in comparison to the broader national labor market.

Amidst salaried employees, an average of R\$2,869 or 3.2 minimum wages were bestowed as compensation. In establishments related to Health, Employers' and Professional Associations, and Education and Research, the fixed amounts climbed higher to 3.8 and 3.7 minimum wages. However, those aligned with Social Assistance numbered the lowest, culminating at 1.9 minimum wages. Barring these differences, the South and Southeast regions recorded a median of R\$2,798 and R\$2,881, correspondingly rising above the others.

The study also comes up with ideas for economic partnerships with the federal government. Between 2010 and 2017, the Union allocated Rs 75 billion to social institutions, of which 50% was allocated to health and education. Analysis of federal fund allocation by region (Chart 1) observed that it is more centralized than regional location of organizations is identified as headquarters, having received 61% of all government transfers. We also found the highest concentration in the Center-West Region: organizations headquartered in the Federal District received 83% of all resources allocated to the region, although 22% were resident at the time this analysis dispels the image that organizations survive on public resources. An example is 2016, when the number of organizations that received voluntary direct transfers from a government was 7,000 out of 820,000.

V. Management and planning in the Third Sector

It is evident that project management in the third sector is not non-existent, for besides the organizations that start with individual initiatives or voluntary groups, there are also organizations that operate in the social responsibility arm of large corporations, and thus inherit this legacy of management knowledge and technology.

However, it is worth noting that, as could be observed in the study presented, Brazilian social organizations have several resource constraints that hinder efficient project management, limiting access to innovative project management tools, already widespread in the universe of startups and other private sector organizations, as is the case of the organization selected for the case study.

VI. Case Study: The Study of Memory Center for Youth

CEMJ is a non-profit social organization established in 1984, established with the aim of preserving the history and democratic activities of youth during critical historical moments for the country.

In 2002, the reorganization at the national level expanded its primary role, positioning itself as a forum for discussion, debate, and expansion of national policies for youth, including the study of adolescent memories and their role in contemporary society. It was based on three pillars: and education.

Today, CEMJ brings together scholars and practitioners from various fields, such as sociologists, anthropologists, historians, journalists, psychologists, and others, who work in a broad range of fields in various industries.

Its key achievements include the production of films and documentaries with academic social and movement values, important initiatives since 2014 in collaboration with important cultural organizations and public universities, such as platforms for books, documents and audiovisual content on youth issues, UFC, radio; Organized in partnership with the Biennial and the youth, education, and business research journal Juventude.Br, including topics on youth.

Currently, CEMJ is working on partnership projects with regional secretaries of state, conducting training courses for youth workers in collaboration with a government university, and developing a memorial trail in collaboration with UNFPA-UN.

Initial Diagnosis

The initial diagnosis was collected through two preliminary interviews with the Executive Board, whose direct action is in the management of ongoing projects and the main management functions of the organization. These ongoing projects are very complex and comprehensive, and their main purposes are the education, production and dissemination of scientific knowledge, systematization of the collection for the conservation and dissemination of the memory of Brazilian youth.

Although there is no systematized structuring in conformity with known project management methodologies, it is important to point out that the projects are organized into programs with managers assigned to each project and specific teams, under a general participative coordination and distributed within the Center's three areas of activity.

The teams are composed of several professionals with high levels of education due to the research nature of the institution and use tools such as spreadsheets, applications for remote meetings and a range of tools, however, without systematization or standardization at present. The teams are small, multidisciplinary, and the professionals are multitasking and have many attributions.

Field Research

The field research conducted by means of a structured questionnaire was designed based on the characteristics of traditional project management models that use PMI (2017) as a reference and agile models such as Scrum.

Table no 3: Sentences from the questionnaire applied to the CEMJ divided by subject.

	Sentence
Relationship	There is clear and objective communication between members.
	The team has a good rapport among members.
	There is a good acceptance of criticism by the members.
	The leadership has a good relationship with everyone on the team.
Organization	All of them use some software to organize their work.
	More work is done in less time.
	Every step of the project is documented.
	Members show good flexibility of their commitments linked to the project needs.
Time	The members and the team as a whole meet the deadlines.
	When any change is needed the responses are quick for these unforeseen events.
	They all work with pre-defined deadlines.
	The team can measure how much work a certain activity will have.
Experience	The changes are assertive and efficiently managed.
	The available resources are used in the best way.
	The project is subject to high risks due to the lack of experience of the members.
	The members perform well in carrying out their activities.
Teamwork	Members have a high amount of rework of their activities.
	Joint decision making occurs.
	The frequency of meetings together is sufficient.
	The team has good flexibility in working together.

	Each member carries out his or her activities alone.
	Members share their experience and knowledge with other members.
Leadership	Leadership takes the initiative in times of difficulty.
	The team is encouraged to work together.
	The activities are delegated, and the member has the knowledge of the importance of each one.
	The result presented by some member is recognized.
	The team receives feedback frequently.
Focus	All members present the same vision of the project's goals.
	There is no loss of focus of the project steps that are important at the moment.
	Some members lack commitment, responsibility, and trust.
	Members are dedicated to achieving their goals and those of the entire team.
	The team can identify what is urgent, important, and circumstantial.

Source: Adapted Dias (2023).

As can be seen in Table 3, the questions were clusters of questions by subject matter in order to contextualize the greatest difficulties of the CEMJ by area.

For the answers of the form a Likert scale was attributed, according to chart 4, where the lowest degree determines that "there is no difficulty" in the questioned aspect and the highest degree denotes "extreme difficulty", and, therefore, a more sensitive subject for the organization that should be treated with priority.

Table no 4: Adaptive scale for the structured questionnaire

0	1	2	3	4	5
No difficulties	Very low difficulty	Low difficulty	Medium difficulty	High difficulty	Extreme difficulty

Source: The Authors, 2023.

Analysis of the results

The field research was conducted through the application of a questionnaire, anonymously, via Google Forms and answered by the three members of the executive board who work directly in the management of ongoing projects. The three board members have higher education degrees and have worked for at least two years in the organization.

According to the Likert scale, the minimum score per question corresponds to a total of 0 points, and the maximum score per question corresponds to 15 points.

Table 5 below presents the tabulation of the answers to the questionnaire, and then we will discuss the results obtained.

Chart no 5: Tabulation of the answers to the applied questionnaire

Group	Question	Subj. A	Subj. B	Subj. C	Total Points question	Total Points Group	Percent.x total obtained			
Relationship	1 Clear and objective communication among members.	1	3	2	6	16	7,80%			
	2 Team members are well-matched.	0	0	0	0					
	3 There is a good acceptance of criticism by the members.	1	5	1	7					
	4 The leadership has a good relationship with everyone on the team.	0	2	1	3					
Organization	5 All of them use some software to organize their work.	5	5	5	15	46	22,44%			
	6 A greater amount of work is done in less time.	5	5	2	12					
	7 Every step of the project is documented.	5	5	2	12					
	8 The members show good flexibility of their commitments tied to the needs of the project.	1	5	1	7					
Time	9 The members and the team as a whole meet the deadlines.				5	4	3	12	40	19,51%
	10 When any change is needed the responses are quick for these unforeseen events.				4	1	1	6		
	11 They all work with pre-defined deadlines.				2	5	3	10		
	12 The team can measure the work to accomplish a certain activity.				4	5	3	12		
Experience	13 The available resources are used in the best way.				4	3	1	8	40	19,51%

	14	The project is subject to high risks due to the lack of experience of the members.	5	5	1	11			
	15	Members perform well in carrying out the activities	3	4	2	9			
	16	Members have a high amount of rework of their activities.	5	5	2	12			
Work	17	Joint decision making occurs.	0	1	0	1	15	7,32%	
	18	The frequency of meetings together is sufficient.	2	0	0	2			
	19	Each member carries out his or her activities alone.	0	5	2	7			
	20	Members share their experience and knowledge with other members.	1	2	2	5			
Leadership	21	Leadership takes the initiative in times of difficulty.	0	0	1	1	18	8,78%	
	22	The team is encouraged to work together.	0	3	1	4			
	23	The activities are delegated, and the member has the knowledge of the importance of each one.	1	4	2	7			
	24	The team receives frequent feedback from the leadership.	1	3	2	6			
Focus	25	All members present the same vision of the project's goals.	2	5	1	8	30	14,63%	
	26	There is no loss of focus of the project steps that are important at the moment.	2	3	2	7			
	27	Members are dedicated to achieving their goals and those of the entire team.	1	5	1	7			
	28	The team can identify what is urgent, important, and circumstantial.	2	5	1	8			
Total							205		

Source: The Authors, 2023.

Examining Table 5, the highest scoring categories, indicating greater difficulty, were "organization" with 46 points, "time" and "experience" with 40 points, and "concept." " with 30 points

In the group of questions on "organization," it was found that almost 43 questions received excellent scores, except for question 8, which questions the flexibility of project members to adapt their commitment to project needs. However, other questions relate to project management tools and workload, both in relation to operations - a perceived difficulty for members

An examination of the group of questions on the topic "time" shows a very broad range of responses, especially the responses of one member, who finds it difficult to respond quickly to unexpected events in the project.

The questions tied for second in difficulty rating are about the "experience" of employees and show a specific breakdown of the scores. It should be clarified that some members work in more strategically focused industries and form a group of higher education professionals, and for this reason, there may be a lack of reaction more under the influence of a less prepared group.

Regarding the "focus" group that came third, it is noted that the highest score was placed on one item - "B", which did not influence the results but because these questions affect factor efficiency, schedule and timely. The teams will analyze the responses.

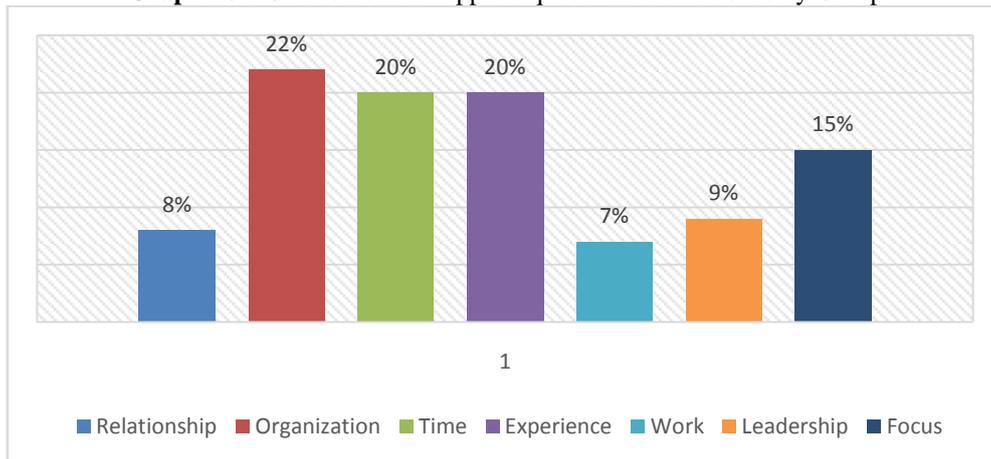
Chart 2 shows the groups with the greatest impact in the questionnaire survey, and shows the greatest challenges faced by the project team, namely: organization, experience, time, and perspective, respectively.

Chart 3 shows that the question considered the most sensitive in the "organizational" category and in the questionnaire, refers to the use of support software.

The second is the questions of time management and references related to strategies, issues related to project management.

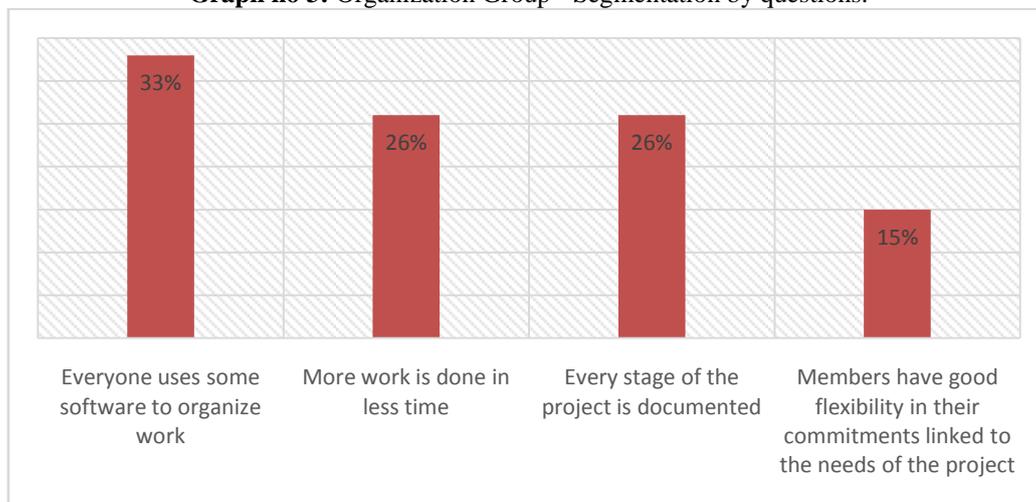
Chart 4 is about the "time" group and the answer that is considered the most problematic in this group is about time management. Graphs 5 and 6 are graphs of "experience" and "focus" groups and were presented to show a balance of responses.

Graph no 2:Scores from the applied questionnaire - Results by Group



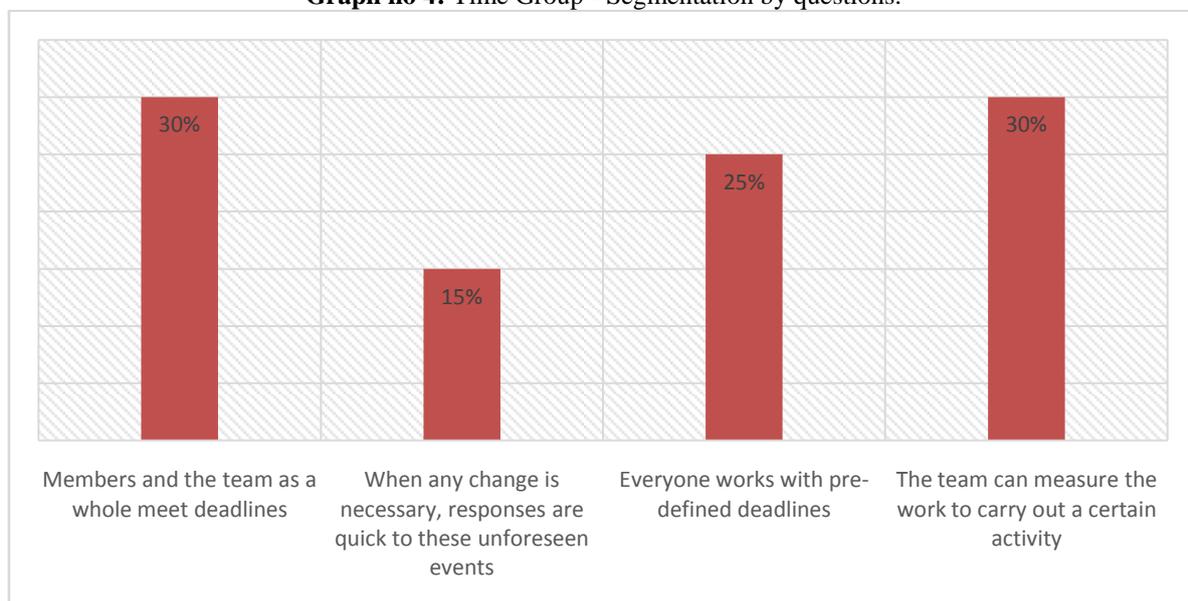
Source:The Authors, 2021.

Graph no 3: Organization Group - Segmentation by questions.



Source:The Authors, 2021.

Graph no 4: Time Group - Segmentation by questions.



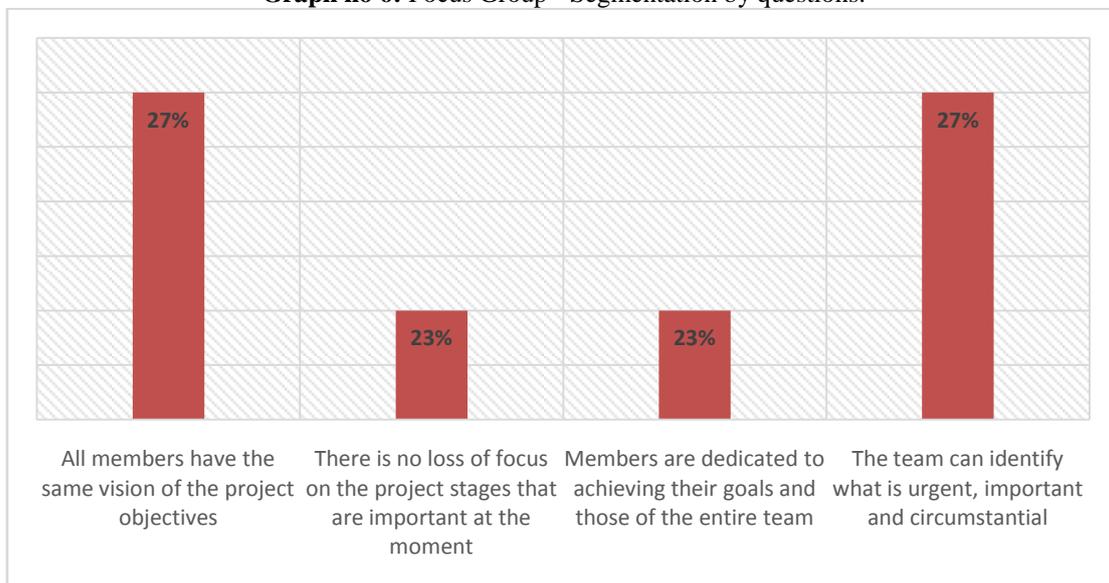
Source: The Authors, 2021.

Graph no 5: Experience group - Segmentation by questions.



Source: The Authors, 2021.

Graph no 6: Focus Group - Segmentation by questions.



Source: The Authors, 2021.

The data shows the reference questions and scores obtained. Examining the general results, it is noticed that the question with the highest score indicates which software was adopted for task scheduling.

On the other hand, we can also note that the questions with the lowest scores, and therefore considered low in sensitivity, refer to the "task" category (Graph 2), which involves decision-making and communication around.

Through the interviews and the questionnaire applied to the Executive Board, it was possible to observe very relevant points that are perfectly met by the agile methodologies presented.

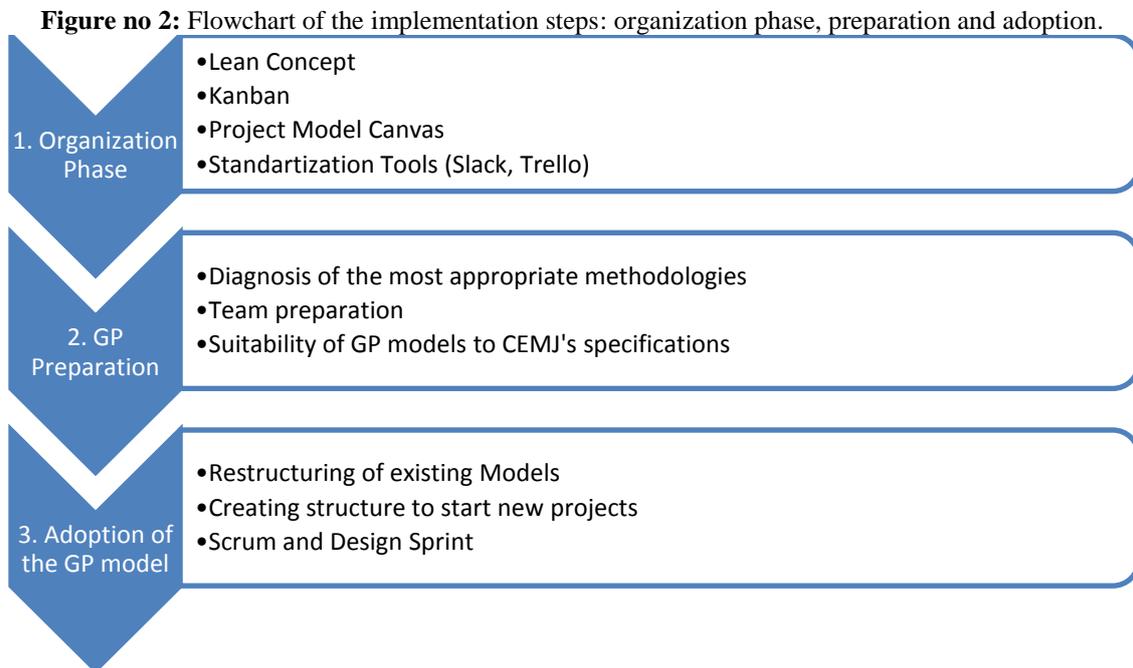
The characteristics of the project teams of the case study presented correspond in several aspects to the teams of agile projects. There is a clear need for the systematization of project management processes to increase team efficiency and result effectiveness.

It is also possible to address more urgent issues by adopting a step-by-step action plan that includes an easy-to-apply, agile, and simplified methodology. As well as adopting technological tools that aim to systematize and organize the existing processes and frameworks capable of meeting the need to create new projects, such as the Design Sprint.

Implementation Proposal

The flowchart below (Figure 2) illustrates the execution of the work phases, seeking alignment with the Lean methodology, to obtain the organization of the current processes.

The next stage is the preparation for the adoption of the new methodology, adapting the tools and training the team. And, finally, the last stage will seek to adapt the existing projects to the selected methodologies and prepare the creation of projects within the new model.



Source: The Authors, 2023.

Kanban and Lean System

In the first stage of the proposal, the focus was firstly on the organization, and to this end Kanban and Lean management were presented, both derived from the Toyota Production System.

It was found that the team does not have a systematization or standardization of processes, either in daily activities or in project management itself, for this reason simplified systems that prioritize an initial organization of the processes may be more beneficial.

The proposed adoption of Kanban for project management is based on the principles of transparency, simplicity, flexibility, and agility, generating process efficiency as a result.

The Kanban method works directly with the product backlog, i.e., it pulls activities from the workflow, unlike Scrum, which selects a few priority items from the product backlog for the sprint.

In this sense, it presents itself as an even simpler method than Scrum, which in turn is already considered very flexible and simplified compared to traditional methods. Kanban is also characterized by its easy implementation, being very suitable as a prerequisite for the adoption of an agile methodology later on. Figure 3 illustrates how the method works, and some internal rules may be suggested by the organization's own team, such as limiting the number of items that each team member can "pull" from the board at the same time, for example.

According to Anderson and Carmichael (2016), the operation of the methodology is quite elementary, transparent, and follows a few practices:

1. Visualize - Workflow and policies should be visible to everyone, whether on a board or digital solutions.
2. Limit work in progress - the purpose of this practice is to limit and respect the limits of work in progress by not allowing the introduction of new items until the work is finished.
3. Manage the flow - In the Kanban system (Figure 3) the flow of work should maximize the delivery of value, minimize waiting time, and be as predictable as possible. Control is achieved through transparency, inspection, and adaptation. Bottlenecks (flow limiters) and blockers (dependencies on other services) are identified and monitored.
4. Make policies explicit - Process policies should be rare, simple, well-defined, always enforced, and easily modifiable, as they create constraints on action.

5. Implement feedback loops - It is important to improve feedback in all areas of the process, however the author suggests great importance in the areas of strategic planning, operational coordination, risk management, service improvement, replenishment, flow, and customer deliveries.
6. Improve collaboratively, evolve experimentally - Continuous improvement.

These practices involve visualizing and being aware of the work and the policies that govern its processing, as well as improving the process cyclically by incorporating useful changes, learning, and modifying ineffective changes.

As can be seen in Figure 3, the model resembles the shape of a card, from which the name of the tool in Japanese came from, created to signal when an item had been purchased by the customer and then needed to be produced. This way, those involved would know what the priority of execution at that moment is.

Figure no 3: Kanban board model: Product Backlog, To do, Doing and Done.



Source:The Authors, 2023.

Project Model Canvas

The Project Model Canvas is a model developed by Finocchio Jr. (2013) that proposes an objective, agile, simple, and complete framework for project management. Aligned with the Lean system and the Kanban methodology, it is seen as a very complete triad for implementing agile methodologies.

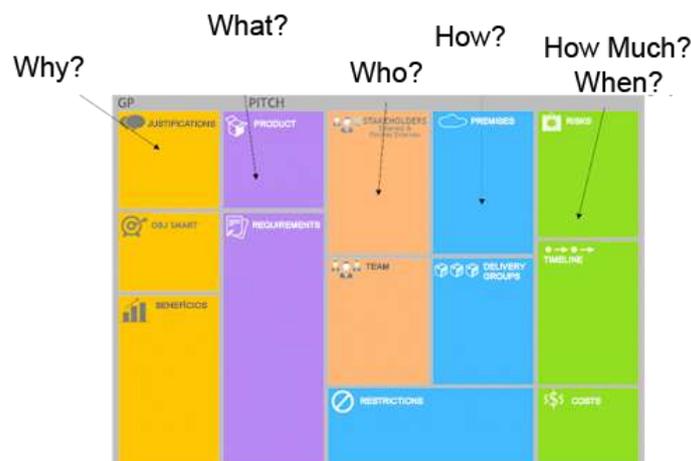
Based on Osterwalder's Business Model Canvas (2008), the Project Model Canvas addresses the main aspects of traditional project management methodology in a very timely and assertive manner.

Finocchio (2013) proposes that the Canvas should be built by following the steps:

- 1 Conceive - Questions must be answered: Why? What? Who? How? When?
- 2 Integrate - Establish coherence between the blocks and integrate the components.
- 3 Resolve - Identify the points where Canvas has stalled due to vagueness, lack of information, or contradictions.

The author also presents the importance of communicating and sharing the Canvas built as a team having at least one of those involved with knowledge of basic project management concepts and should involve subject matter experts. Figure 4 demonstrates the Project Model Canvas framework and its division.

Figure no 4: Areas of the Canvas Project Model using decision making tool.



Source: Adapted from Finnochio Júnior, 2013.

Finnocchio (2013) describes each step of filling out the model, which should, like the business Model Canvas, be contained in a single document and not contain attachments.

The Project Model Canvas model is quite intuitive according to the author and addresses the main items of project management already addressed in agile methodologies and supports, in a harmonic and complementary way, control elements that CEMJ does not have and needs today.

VII. Concluding Remarks

The present study sought to develop a project management model based on agile methodologies, namely: Design Sprint, Scrum, Lean and Kanban, that was adapted to the reality and specificities of third sector organizations, starting with a model applied to CEMJ.

To achieve the general objective of the work, a theoretical foundation of the selected agile methodologies was carried out. Then, with the objective of measuring the problems encountered by the organization, field research was conducted with analysis under seven characteristics: teamwork, leadership, focus, relationship, organization, time, and experience.

After applying the survey and after analyzing the data, it was possible to ensure the need to implement a project management methodology and to map, both through the particularities of the team and through interviews with the Executive Board, the characterization of the agile model, which requires less bureaucratization, greater agility, and greater autonomy of the team members. Emphasizing that some of the main characteristics of this model are leaner and multifunctional teams.

Having observed the fact that the organization does not have standardization of its processes, the study resulted in an action plan divided into three stages, assuming the validation of a sustainable management model. The first stage refers to the organization of current processes through the implementation of the 5s Program, Kanban, and Project Model Canvas. The second stage proposes the revalidation of the agile methodology to be implemented, the training of the teams, and the adaptation of the management structures. The third stage contemplates the implementation of the methodologies initially suggested, Scrum and Design Sprint, discussed in chapters 2.2 and 2.3, successively.

As could be observed in different chapters presented in the work, social organizations have characteristics very similar to the characteristics found in agile project teams. Moreover, it is also possible to verify the great lack of structuring, due to the limitations of resources compromising the efficiency of their actions.

The CEMJ, despite having some specificities that distance itself from the characteristics of the sector, such as the excessive training of professionals, for example, does not have many project management professionals working. In many other aspects, including those already mentioned, it is close to the profile presented by the studies presented here.

One cannot affirm that all social organizations have identical structures and methods, because even within their own sectors there is a multiplicity of organization formats, and the study did not focus on this aspect. However, it was confirmed through the IPEA survey presented, that some common particularities are easily identified among these organizations, and also between these organizations and the private sector, which adopt agile methodologies. Among them, we highlight work done by project, lean teams, multidisciplinary and self-manageable. In agile teams such as Scrum, for example, this aspect seeks agility and dynamism, and in some third sector teams it is due to budget restrictions.

The model presented to the CEMJ will have to be tested over time until the necessary adjustments perceived by the team are made. However, the model shows that it will meet the pressing needs of the organization and that, as in the case of private organizations in various sectors, it can be adapted to different modalities. For future studies, we suggest the development of indicators associated with the methodologies applied and the improvement of the diagnosis system applied to the CEMJ.

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