

**The Difficulty With Introducing Project Management Techniques in
Digital Startups**

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Abstract

Digital startups face complex issues when it comes to accurately using project management techniques because of the startup's scarcity of resources and the governance of projects, such as having different stages of growth and development. Since project management is needed in almost all businesses, dealing with this problem is important to improve the growth of startups and their organizational issues. Because of the correlation between startups using traditional project management techniques and their problems with implementing project management, this traditional model might not be relevant for startups. Startups seem to require more flexible and quick solutions to project management, suggesting that agile methods might be the right way for most digital startups to use project management. By looking at how different startups in different stages of development deal with problems in implementing project management by use of a qualitative research study, this paper looks to back the statement that the way that startups function leads to issues with implementing project management. Looking at how different startups have dealt with these problems might suggest where and in which stage the problem lies, leading to the possible solution of project management difficulty in startups.

Keywords: project management in startups, digital startups and project management difficulties, project management difficulties in startups, digital

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Introduction

Digital startups are, in this digital world that we live in, a major source of growth, economic stability, and job creation. Zaheer, Breyer, Dumay, & Enjeti (2019) stated that the digital start-up sector is a “magnet for opportunity-driven entrepreneurs proficient in business and technical fields”. They (Zaheer et al, 2019) describe that a digital startup is any startup that centers around the creation of digital tools, assets or products. This sector holds many qualities entrepreneurs look for, like high demand, high-profit margins, early-stage technology life cycles, medium competition density, and growth potential. Digital startups are now relevant in most of the world’s most important markets according to Sulayman (2014), which makes it all the more important to understand them and how they work, understand their complexities and issues they face because startups do not function the same way as bigger companies do.

According to Blank (2012), a startup is defined as “an organization formed to search for a repeatable and scalable business model”. This suggests that startups work with a different business model than medium or large organizations and therefore have different priorities and different ways to handle problems and projects. But, as much growth as startups can bring to the world, they are characterized by a scarcity of resources, making it more difficult for them to use their assets in a way that will help them grow and scale in a much more realistic way. The way they function and deal with problems also makes them struggle when implementing project management techniques. This is why it is important to take a look at papers like this one, where the reason why project management techniques are hard to implement in digital startups is explored. It is also a good source of understanding of how important project management techniques are to the successful working of an organization.

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Problem Statement and Justification

Despite project management being implemented in many different organizations and industries, startups, especially those in the digital realm, have different priorities and problems that make it more difficult for project management to be implemented successfully. According to Blank (2015), a startup is defined as “an organization formed to search for a repeatable and scalable business model” (Blank, 2015, p.20). This suggests that startups work with a different business model than medium or large organizations and therefore have different priorities and different ways to handle problems and projects. , such as the way the govern projects, the way they receive funding and manage resources. According to Zaheer et al. (2019), the digital startup sector holds many qualities entrepreneurs look for, like high demand, high-profit margins, early-stage technology life cycles, medium competition density, and growth potential. Startups are now relevant in most of the world’s important markets according to Sulayman (2016), so why specifically is it more difficult for digital startups to implement project management techniques?

According to Teixeira, Martins, Branco & Gonçalves (2018), project management in digital startups is a recent concept, especially when it comes to its application in small and medium enterprises (SME); startups typically have reduced resources and can’t make very risky investments. Therefore, there is an increasing importance for research focusing on the adoption of project management techniques by these companies, such as this thesis, to “reach a full understanding on what might be the obstacles and determinants of the adoption process”. (Teixeira et al., 2018, p.11) A difficulty in project management adoptions can negatively affect the growth

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of a startup and can lead to organizational issues, such as disorganization, inability to follow timelines and complete deadlines, making it an important problem to understand and solve.

A possible cause of this problem found during the research process is how different the governance of projects is in startups. Startups have different development stages, and projects work differently in each stage, suggesting project management might work differently in each stage. Pugliese (2016), suggests it is important to understand the stages of development of a startup and how to manage each stage to achieve success in order to identify which factors of success are relevant to the stages of development. Therefore, to be able to understand how project management techniques can work successfully in startups, we need to understand how success works in the different stages of development of a startup. This indicates that different project management techniques might be needed to be looked at to see how they can be implemented in a startup.

There is a definite problem with implementing traditional project management models into startups. This suggests that traditional project management models might not be the way to go when it comes to startups. Some possible topics to explore might be the implementation of agile models in startups. Startups need to build a business that is sustainable in an uncertain environment, which “is achieved by testing business ideas and validating them through successes or failures” (Galli, 2019, p.15). Startups need to be innovative and use innovative tools to be able to compete and be profitable compared to medium-large companies. Therefore, one innovative approach could be the lean startup method. “The lean startup approach seeks to provide tools to decrease product development cycles by creating hypotheses and experiments through an iterative process. The iterative process is also a learning one through which information that is collected is

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validated.” (Galli, 2019, p.20). Exploring this subject has the potential to revolutionize how project management in startups works.

Literature Review

Literature Review Introduction

While searching for literature, the focus was on finding different project management techniques in startups and how they worked or if they worked. The result was more information on startups and their functioning and less on how project management helped them. Project Management techniques have been helping to structure businesses for years. However, there is a problem with how project management is implemented in startups, especially in digital startups. Therefore, it is important to understand the definition of startups, the way they work differently than other organizations and in which stage of the development of a startup we might find this problem, to provide a better understanding into project management and how it can be organized in a way that is suitable for startups and the way they operate.

Since project management is important to have in every organization, including startups, it is important to find where this issue might present itself and look at successful ways to implement project management techniques into startups. Since they work differently, they might also need a different approach to project management. This might lie in project management models like agile or lean, as they are better techniques to handle businesses that have as much uncertainty as startups do.

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Four common themes were found during research for the topic of Project Management Implementation Problems in Digital Startups. These are:

1. Definition of startups and how they operate
2. Importance of project management in businesses, especially startups
3. Successes in implementing different project management techniques in startups
4. Exploring different project management models to implement in startups

Theme 1: Definition of Startups and How They Operate

Startups are defined and structured differently than bigger businesses, making it important to look at the definition of startups and how they solve problems. As identified by Pollman, “The world’s largest companies in 2019 by market capitalization—Apple, Microsoft, and Amazon—all began as startups” (Pollman, 2019, p.156). Even more influential ones, “such as Google, Facebook, Amazon, Uber, Airbnb, Salesforce, and Spotify – started as digital ventures.” (Zaheer et al., 2019, p.262). Therefore, defining them and understanding them is of the utmost importance.

According to Niculescu (2016) “one definition of a startup is the natural urge designed to develop new products in an environment of extreme uncertainty” (Niculescu, 2016, p.130). Uncertainty is, then, ingrained in startups and, for most, can be difficult to handle. “Uncertainty is an inevitable aspect of most projects, but even the most proficient managers have difficulty handling it.” (De Meyer, Loch, & Pich, 2002, p.60). Pollman (2019) also suggests that startups, “with their focus on technology and innovation, and their correspondingly high levels of risk and emphasis on growth, are different from both public corporations and traditional closely held corporations. As a result, their governance is also different” (Pollman, 2019, p.159).

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Startups are also defined as organizations started by entrepreneurs and backed by outside investment “with the goal of developing an innovative product or service, creating high growth, and exiting through a trade sale of the company or initial public offering (IPO)” (Pollman, 2019, p.164). According to Sońta-Drączkowska, & Mrożewski, entrepreneurship companies "involve discovery, evaluation, and exploitation of opportunities" (Sońta-Drączkowska, & Mrożewski, 2020, p. 295) Therefore, startups aim to exploit opportunities, like being acquired by other organizations or becoming a public corporation. According to Wooder (2015), in the end, startups strive to create products and services based on entrepreneurial ideas. They also “depend heavily on innovative technologies. Innovation drives the creative mind of entrepreneurs, and it is a necessity for growth and sustainability”. (Terry Frederick, 2016, p.8). They start at a seed-stage and then progress through maturity stages, for which they have different focuses. In the early stage, the focus is highly entrepreneurial and on innovation and technology. Later, they become focused on refining product development to generate revenue and grow quickly, because “startups need to be able to scale.” (Santisteban & Mauricio, 2017, p. 150) As the startup evolves to its late-stage, its focus shifts to managing more complex issues and finding a way to be acquired or going public.

Theme 2: Importance of project management in businesses, especially startups

Project Management is important in all companies, including startups. Teixeira, S., Branco, F., Martins, J., Au-Yong-Oliveira, M., Moreira, F., Gonçalves, R., Pérez-Cota, M., & Jorge, F. (2018) looked at how startups can successfully adopt and implement project management as a strategy in their business plan. Given that startups have a number of elements that makes them different from larger enterprises, like lack of capital and qualified human resources, (Pollman, 2019, p.170) they need to really take a look at how to implement project management and adopt technology and

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processes that will help them in the long run. According to Marković, Mihić and Obradović (2015, p.25), more companies are using project management as a strategy to remain competitive, increase value and bring in new business. The use of project management produces more efficient project realization and “project management methods and criteria, can directly influence a better project planning, realization and control in this domain.” (Marković et al, 2015, p. 29)

Project Management is now in its “third wave” of use, according to Obradović, Kostić, & Mitrović (2016), where it has focused more on contemporary management practices, such as information management and knowledge management. “There is a synergetic connection between project management and marketing management” (Obradović et al, 2016, p.391) And, both private and public sector organizations are marketing oriented, experiencing a bigger need for projects. So, now more than ever, marketing management (which is predominantly high in startups), has gained attention in project management research because it can help boost the performance of projects.

Project Management in Digital Marketing is a recent concept, especially when it comes to its application in small and medium enterprises (SME), as are startups, that have reduced resources and cannot make very risky investments. (Cova & Salle, 2015). Therefore, there is an increasing demand for studies focusing on the adoption of project management technology by these companies, so as to “reach a full understanding on what might be the obstacles and determinants of the adoption process” (Teixeira et al., 2018, p.20). It is of the utmost importance for startups in the digital marketing arena to implement project management.

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Theme 3: Successes in implementing different project management techniques in startups

Many successes make the way startups function important to world economies. It is important to take a look at successes in implementing different techniques in startups. To comprehend how a startup works and how to implement different management systems in them, one must first analyze how a startup defines success. This is of great importance because, as stated by Santisteban & Mauricio (2017), "new technology-based companies (Startups) are born each year" (Santisteban & Mauricio, 2017, p.10). Therefore, startups are impacting economies now more than ever, especially digital startups or technology startups. They are companies that have "a potential for rapid growth scalability, contributing to an economy's growth and job creation." (Santisteban & Mauricio, 2017, p.25). They are, now more than ever, relevant in the most dynamic markets in the world as a new model for growth. Therefore, analyzing their successes is essential to better understand how to make them better.

According to Santisteban & Mauricio (2017), only 21% of startups last more than five years. That means almost 80% of startups fail and some in their first year of existence. Therefore, analyzing the critical factors of success for digital startups, mitigating the risks and failures, and helping increase their successes is critical to understand how to better utilize project management in companies like these. There is also a recognized need for understanding of the stages of development of a startup and the importance of project management in each stage to achieve success. (Pollman, 2019) Therefore, it is important to identify which success factors are relevant and influence the stages of development.

Knowledge Management in Startups works differently than it would in a medium-large business. Taking a look at cases of knowledge management successes and failures in startups will give a bigger understanding of how project management can influence a startup's internal

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functioning. Centobelli, Cerchione & Esposito (2017) establish that knowledge management includes project management and other management topics in an organization and is acquiring an important role in the global economy and are a crucial factor for the growth of companies. Many papers highlight the uses of knowledge management (KM) systems in small, medium, and large companies and conclude that they are of crucial importance for their competitiveness. However, there are very few contributions when it comes to the use of KM systems in startups. This is an important item that needs to be addressed because startups now make up a big part of the economy and, because of the nature of startups (scarcity of resources, small size), they could greatly benefit from the adoption of knowledge management strategies and/or systems.

In startups, the processes of creation, storage, and transfer of knowledge should leverage mainly on human knowledge, but spread through knowledge management systems (Centobelli, Cerchione & Esposito, 2017). Therefore, KM systems should be aligned with the nature of the knowledge in startups, which is different than medium or large companies. KM systems could help deal with project management implementation issues in startups.

Theme 4: Exploring different project management models to implement in startups

Not all project management techniques are created equal. Traditional project management models might not be the way to go when it comes to startups. Exploring this subject might revolutionize how project management in startups works. There are many different perspectives on what works best in organizations like startups, who “work in such extreme conditions that they have only a 10% chance of succeeding” (Johnson, 2017, p.2). With so much uncertainty, traditional project management techniques might not be the best way to organize the business. According to

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Johnson (2017), teams need to learn to change fast and use management processes that can ensure order in a chaotic environment.

Others suggest a more forward-thinking approach is needed for project management within startups. “Uncertainty-based management, which derives planning, monitoring and management style from an uncertainty profile comprising four uncertainty types — variation, foreseen uncertainty, unforeseen uncertainty and chaos.” (De Meyer et al, 2002, p.62). This type of thinking allows managers to move from traditional-based projects based on fixed tasks to more flexible approaches, that “allow for visions to change, even in the middle of the project.” (De Meyer et al, 2002, p.62). The methods and processes used in a lean startup and lean innovation could be applied to companies in the startup arena, solving project management problems in startups. Because startups are not traditional and they work with different environments, they also need non-traditional methods. “Furthermore, the chaotic environment in which startups operate renders traditional business planning tools and models inappropriate. This underlines the need for innovative tools that allow startups to compete and be profitable.” (Galli, 2019, p.7) Taking a look at the concept of lean methods and its origins and applying it to the startup world is an important part of understanding how project management works in startups. “Startups are complex entities that go beyond product and technological breakthroughs; they seek to build a business that is sustainable in an uncertain environment, which is achieved by testing business ideas and validating them through successes or failures. The lean startup method adapts the scientific principle to the framework of free enterprise entrepreneurship.” (Galli, 2019, p.15). Therefore, these two seem to fit. Galli also states that the lean startup method is a very innovative approach to creating viable business models, like startups. A discussion of the difference between traditional business models

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and the lean approach was also found in the research, as well as the role of innovation as a competitive advantage tool in organizations.

The paper by Galli studies the impact that innovation has on startups and organizations seeking to implement project management innovation models. The assumption is that lean innovation can be applied to any company, including tech startups. Innovation and entrepreneurship are influenced by company culture, and since startups have very unique cultures, the model fits well. “Lean or Agile provides a model of how any businesses can discover, develop, and deploy innovative solutions under extreme uncertainty.” (Johnson, 2017, p.5). By evaluating project management techniques like agile and lean management and applying them to technology startups, we can understand the ways in which they can help within an organization, especially one with extreme conditions like startups. Learning where it is most appropriate to use lean or agile and how to transition between them can lead to insights into how they can help solve project management problems in startups.

Literature Review Conclusion

The identified topics in this literature review were:

1. Definition of startups and how they operate
2. Importance of project management in businesses, especially startups
3. Successes in implementing different project management techniques in startups
4. Exploring different project management models to implement in startups

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Based on the literature reviewed, there seems to be a correlation between startups deciding to use traditional project management techniques and their problems with implementing project management in their organization. This suggests that traditional project management models might not be the way to go when it comes to startups. Startups seem to require more flexible and quick solutions to project management, also known as “on the go” solutions; therefore, agile methods like lean startup might be the right way for most startups, especially those in the tech and digital realm, to use project management. Exploring this subject further could potentially solve the problem of project management in startups.

By looking at how different startups in different stages of development deal with project management and the problems they have found while implementing project management techniques by use of a research study, specifically by means of a questionnaire, this paper looks to back the statement that the way that startups are set up and function with different business models leads to issues with implementing project management, as well as that traditional project management techniques might not be relevant for startups, as some viewpoints might suggest. Some viewpoints, such as Vytas Butkus, suggest that companies that are just starting out, like startups, need the structure that traditional methods provide. Future research should look into how startups using agile methodologies thrive when it comes to using project management and have a higher success rate than those using traditional methods.

The existing literature reviewed fails to delve deeper into how project management systems impact a startup’s performance. There is also some discrepancy when it comes to identifying the influencing factors of success in startups and how they affect how startups function, as well as analyzing these factors when it comes to the stages of development of a startup, which are very

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different from those of a medium-large company. More literature developed on this subject should focus on how to implement project management techniques that might fit a startup, like lean innovation models. This is where this thesis will focus. Therefore, my research question focuses on why specifically is it more difficult for digital startups to implement project management techniques? Are there specific project management tools that are better suited for the startup sector?

Proposed Solution Approach

Purpose of the study and main results expected

The purpose of this study is to show the barriers in adoption that startups have with project management, especially those in the digital sector, because of the uncertainty that we can find in these organizations. It is important to show that there are other solutions than traditional techniques that can be adjusted into the startup environment to make project management more accessible. The results expected for this study are for startups to show how they have dealt with project management and any other methodologies they might've used to solve this issue, exploring where the problem lies in implementing project management techniques in startups.

Methodology

The methodology used in the qualitative research study is a questionnaire with open-ended questions. This method will allow to collect in-depth information about how different startups have dealt with project management problems and other methodologies they might use to solve this issue.

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Process

The process used was first to create a series of questions that will allow to better understand the problems startups face when it comes to project management techniques. A questionnaire was then developed and sent out to different people in startups that are personally known by the investigator and assuring that answers will be obtained. This allowed to collect in-depth information about how different startups have dealt with project management problems and other methodologies they might have used to solve this issue.

Then, contact with the representatives of the startups intended to participate in the study was made and the questionnaire sent over. The questionnaire was conducted in a semi-structured way and taking little time from the intended representatives, but enough time to be relevant to the study and provide enough information. This enabled a deep understanding of the companies studied and their methods, permitting comparison and generalization of common patterns. After conducting the questionnaire, the data was transcribed and recorded, then separated by the company's theme and industry. The questionnaires were divided up by theme and industry of company as well.

Four main points were investigated for the purpose of this study:

1. The industry of the company and their history
2. Their current project management strategy and goals
3. Their use of project management tools
4. Any problems they see with their use of project management and where they wish to be in the future

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Instruments used for data collection

For the purpose of this study, a questionnaire was used that will be sent virtually via Survey Monkey.

Questionnaire

1. In what industry does your company work on?
2. How does the size of your company affect the project management techniques you use?
3. Please describe the maturity of your organization.
 - a) Concept stage
 - b) Seed Stage
 - c) Growth stage
 - d) Scale stage
4. What organizational difficulties has your company faced?
5. What is your company's current organizational goal?
6. Describe a time when your company experienced project management success.
7. Describe the project management techniques your company uses.
8. Describe the project management tools your company uses.
9. How has project management evolved over the course of the startup's lifetime?
10. What are your company's future goals for project management?

Consolidate Results

The way results were consolidated is by identifying themes and patterns, since the questionnaire is mostly made up of open-ended questions. Then, these themes and patterns were grouped and related to the research question. Each question was looked at separately when grouped and similar patterns were looked at and underlined.

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Intended Sample and Setting

The intended sample for this project was non-random sampling with the purpose to collect all the information needed and the best information from that sample. Overall, 10 startups in the tech world were studied, but in different industries so as to get the most relevant sample. Representatives of these 10 startups were chosen purposefully according to their role within the organization and their knowledge on the subject and was conducted via a questionnaire sent via email or LinkedIn. The questionnaire will be hosted on a third-party site called Survey Monkey.

The chosen startups also represented the different stages of development in the startup world, meaning there are small startups that are just founded, those in a middle and more stable position of development and then fully established startups that are public or are about to be. They also represented different project management techniques, like those using traditional project management methods and those using agile techniques, so as to see which ones have shown more success and which ones have had more problems with their project management.

Validity and Reliability

The way that validity and reliability of results can be assured during this study is to make sure to formulate the correct questions. Validity means the questionnaire will be able to give the necessary results, while reliability means that the questionnaire is consistent, stable and accurate. The way to make sure that the questionnaire is valid and reliable is to make sure to ask everyone the same questions and, again, make sure these questions are correct and give the necessary amount of detail needed to formulate a conclusion from them. They must dig deeper into the issues found in startups when it comes to project management and why.

To make sure results are of quality, the right representatives of a startup were chosen to answer the questionnaire. The chosen representative should be knowledgeable on the company, have

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seniority and know about project management techniques that the company uses. This assures, therefore, that the questions will be answered appropriately and sufficiently in-depth.

Finally, to make sure the results reflect the problem that is attempted to be resolved, startups that were all in different stages of the development process were chosen, therefore ensuring that we can see how they manage project management difficulties during each stage of development. The different startups also had different project management techniques, like traditional project management and agile project management, so as to show a difference in success within these different techniques.

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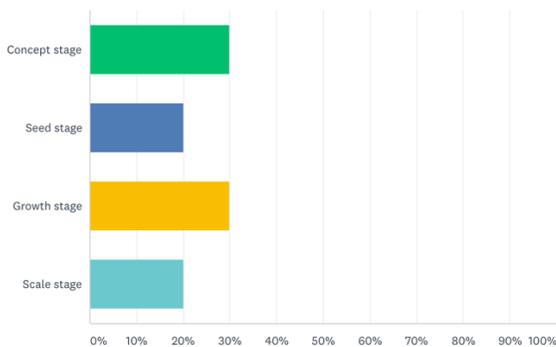
Results and Findings

When considering the research question, which is why specifically it is more difficult for digital startups to implement project management techniques, the existing literature found gaps in knowledge regarding how project management systems impacted a startup's performance. There was also some discrepancy in identifying the influencing factors of success in startups and how they affect how startups function. This raised the question: are there specific project management tools that are better suited for the startup sector? Are these impacted by the stages of development a startup is located in? This is where this thesis focused and most of the questions of the survey centered around, finding themes in common for each question. Some of these themes included what industry the startups surveyed were in, how their size affected how they used project management, the stage of maturity they were in, the organizational difficulties they face, and their current and future project management goals.

Results

Ten (10) startups in the digital sector were surveyed during the course of this study, all belonging to different industries of the digital sector. Out of 10 startups surveyed, 2 belonged to the healthcare industry, 3 belonged to general public services (like construction, products/services or online consumer goods) and 4 belongs to digital services (like online marketing, ecommerce and IT, and B2B software). The 10 startups evaluated were also all at different levels of growth or maturity, ranging from Concept Stage, which 3 of them were at, Seed Stage, where 2 of them were at, the Growth Stage, where 3 of them were at and the Scale Stage, which 2 of them were at. This means all of them were at different stages of growth and therefore faced different problems each.

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ANSWER CHOICES	RESPONSES
▼ Concept stage	30.00% 3
▼ Seed stage	20.00% 2
▼ Growth stage	30.00% 3
▼ Scale stage	20.00% 2
TOTAL	10

Most of the startups agreed that they faced difficulties when it came to lack of resources or organization (8 out of 10) while the other 2 struggled with meeting demands and facing unforeseen circumstances. Most of the startups had also decided to stick to traditional methods. Out of 10 startups surveyed, 3 used traditional methods while 4 used online services and only 2 had started using agile services.



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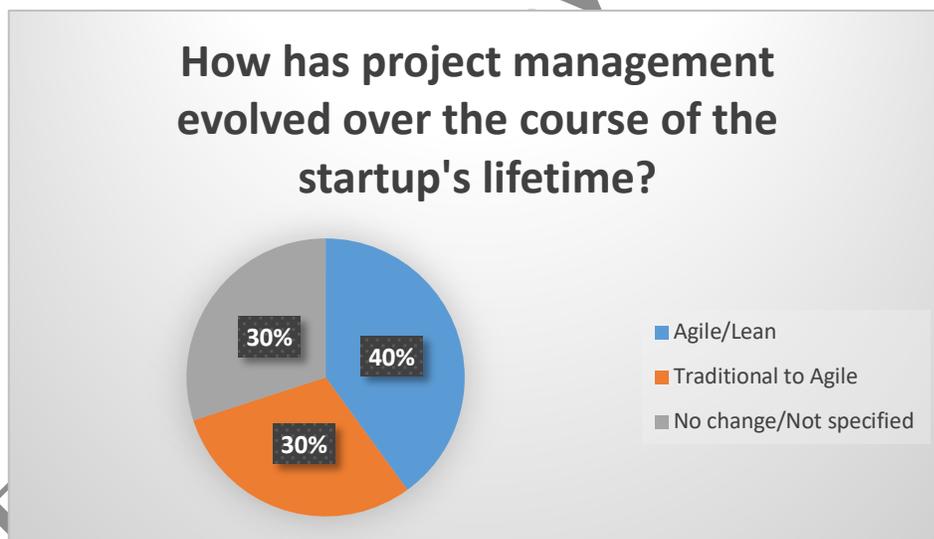
All the startups surveyed had different organizational goals, but the themes identified during the study could be divided into three categories: getting funding, growth and transitioning to remote. Out of the 10 startups surveyed, 3 wanted to get more funding, 6 wanted to grow and one wanted to transition to remote (this is due to 2020 circumstances of the COVID-19 pandemic). At one point or another, these startups had experienced some success when it came to utilizing project management and it seemed to come in different ways for the 10 startups surveyed, but the themes identified were success when they'd used agile methods, success with traditional methods and having a plan for the future. 4 of them had had success using agile methods, 3 of them had had success with traditional methods and 3 had had success with planning for the future. This suggests that, while some of the startups had had success using traditional methods, more of them had tried agile methods at one point or another.



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This also suggests some startups use traditional methods, while other use traditional methods currently. 6 out of the 10 startups surveyed used traditional methods like WBS, PERT and Gantt charts and were having problems with them, whereas 4 startups used agile methods like Kanban, Lean Startup and Trello. 4 out of 10 startups use office products as project management tools like Excel, Google Docs, while 5 use online products like Asana, Jira or Trello.

During the course of this study, it was important to see if startups were happy with their project management methods or if they would have changed course at some point in their journey. Most of the startups identified that while they grew over time, their project management had evolved from agile to more lean methods (4 out of 10), while the rest had changed from traditional to agile (3) or hadn't changed at all (1).



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Finally, when it came to the future of project management, most startups wanted to move into agile methods (8 out of 10), some even wanting to move even further into lean methodology (4 out of the 8 already wanting agile methods), while others wanted to stay in traditional methods or move into Artificial Intelligence or automation (1 out of 10).

Discussion

The results found during the dispatch of this survey relate to the research question because they show how startups in different industries all face similar problems when it comes to project management, like organization, funding and choosing a specific project management tool, which makes their problems different from those of a medium-large company. Depending on the stage of development the startup finds itself in, it will affect the different problems they face. For example, startups that are at the concept or seed stage face more problems of funding and development, while growth and scale stage have more organizational issues and figuring out which technique is better for their development.

Almost all startups surveyed agreed that they had they faced difficulties when it came to lack of resources or organization. Organization is one of the biggest problems faced by startups generally, either because they are too small or because they don't have enough resources to get organized. And, most of the startups agreed that because of their size and being new in the industry, they had decided to stick to traditional methods of project management or use free online tools to get the job done, either because of lack of resources or because they thought traditional methods were "tried and tested". This suggests that sticking to traditional methods hasn't worked for most startups, as they still face these issues.

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Most of the startups surveyed had an organizational goal of growing but were hindered by their difficulties. While some of the startups had had success using traditional methods, more of them had tried agile methods at one point or another and experienced success using this method, suggesting this is a better tool for startups to use.

During the course of this study, it was important to see if startups had changed their project management course at some point in their journey, since change is so inherent to a startup's functionality. Most of the startups identified that while they grew over time, their project management had evolved to agile methods because they provided to be simpler and give them better results. It was also important to see what these startups wanted for the future of their project management and most of them wanted to move into agile methods, some even wanting to move even further into lean methodology, like the lean startup. This suggests that the lean startup method might be a very good way for startups to face project management issues.

Limitations to Research

All research studies have limitations. Some of the limitations this study could have encountered are:

- **Sample size.** Results could be more accurate and more generalizable to the population if the sample size was bigger. For the sake of time and according to the responses received, the study was limited to 10 digital startups, all in different industries as to avoid bias or similar answers.

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- **Use of a longitudinal study.** Using a study that evolved over time, such as a longitudinal study, could have helped to study the number of startups using agile methods and to see how/if their business was improving over a longer period of time by using this methodology.
- **Research method applied.** The use of a survey could have affected the study by making it too specific and only valid for certain populations, this one specifically being applicable to startups and in the context of the digital sector. By using another research method, the research could have covered a broader range of project management tools, startup infrastructure and how they managed projects over time.
- **Use of incentive.** An incentive could have been offered for startups to join the study and get a bigger sample size.
- **Truthful results.** It is possible that this study could have been limited by the respondents not answering truthfully and wanting to make their companies appear bigger than they are or look more successful than it is, inflating their answers.
- **Design limitation.** The design limitation of the study could affect the credibility of the related results. The study could have included more multiple-choice questions and pre-given choices to narrow down the answers respondents could give and narrow down bias and confusion.

Future Research Opportunities

An opportunity for future research is to look into how startups using agile methodologies thrive when it comes to using project management and have a higher success rate than those using traditional methods.

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Conclusion

To conclude, digital startups are a significant source of economic growth and now represent the world's most important markets, so why specifically is it more difficult for digital startups to implement project management techniques? Mostly, startups face complex issues when it comes to accurately using project management techniques because of their scarcity of resources and the governance of projects inside them, such as having different growth and development stages. Startups differ from SME's and even more from large companies, having different business models, and therefore have different priorities, problems, and ways to manage them. Therefore, to understand how project management techniques can work successfully in startups, we need to understand how success works in the different stages of development of a startup.

Project management is needed in almost all businesses as a way to consolidate an organization and produce successful outcomes. Therefore, dealing with this problem is of the utmost importance because having difficulty with project management adoption can negatively affect a startup's growth and lead to organizational issues. There seems to be a correlation between startups deciding to use traditional project management techniques and their problems with implementing project management in their organization. This suggests that traditional project management models might not be the way to go when it comes to startups. Startups seem to require more flexible and quick solutions to project management, also known as "on the go" solutions; therefore, agile methods like lean startup might be the right way for most startups, especially those in the tech and digital realm, to use project management. Exploring this subject further could potentially solve the problem of project management in startups.

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By looking at how different startups in different stages of development deal with project management and the problems they have found while implementing project management techniques by use of a research study, specifically by means of a survey, this paper looks to back the statement that the way that startups are set up and function with different business models leads to issues with implementing project management, as well as that traditional project management techniques might not be relevant for startups, as some viewpoints might suggest. Some viewpoints, such as Vytas Butkus, suggest that companies that are just starting out, like startups, need the structure that traditional methods provide. Future research should look into how startups using agile methodologies thrive when it comes to using project management and have a higher success rate than those using traditional methods.

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