Discovering Success Factors in the Pioneering Stage of a Digital Startup

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Background and Purpose: Successful digital startups can generate income for the country and improve people's lives. However, for prospective founders who will launch their startups, the success factor in pioneering digital startups remains unknown. The purpose of this study is to identify key success factors for digital startups in pioneering stages.

Methodology: Thematic analysis is a method for identifying success factors in pioneering stage digital startups. The data will be collected from the interviews of ten startup founders.

Results: The findings show that fifteen critical factors are success factors in the digital startup pioneering stage, namely; problems, business ideas, teams, business models, capital or funding, products, incubators, validation, competitors, marketing, mastery of technology, market analysis, founders and co-founders, partners, and passion. These findings are expected to be ground-breaking for anyone interested in launching a digital startup.

Conclusion: The first conclusion that we can draw is that there are fifteen important factors that can be claimed and used as success factors in the classification of the digital startup pioneering stage. The second conclusion, based on the findings of the ten founders' analyses, is that problem factors and team factors are two of the fifteen most dominant and influential digital startup success factors. Problem factor is critical for detecting problems encountered by many people and can motivate digital startup founders to develop solutions to these problems. While team factor is important because with a team, all problems raised are quickly and easily resolved, and all work is handled productively and collaboratively.

Keywords: Digital startup, Thematic analysis, Digital startup pioneering, Digital startup success factors

1 Introduction

Innovations abound in the world of digital startups and there is always unconventional ingenuity to get clients to use their goods or services (Media, 2020). According to Endrik et al. (2019) digital startups are digital-based enterprises utilizing Information Technology (IT) as a problem-solving tool. A digital startup is one that has passed the pioneering or development stage (in which it has used IT, has a team, and so on) and has been able to generate revenue for the startup. In terms of time, we can refer to Lane et al.(2017) assertion that one year at the start of a startup's pioneering stage counts as the length of the pioneering stage (so the duration of the pioneering stage is one year). However, if the digital startup candidate generates revenue in less than a year, the candidate is classified as a digital startup. It should be noted that a digital startup cannot be said to be a digital startup unless it has generated revenue. A startup can be said to be the primary foundation for economic stability and national development because its contribution can create numerous new employment (Burton & Sorenson, 2018; Zaidi et al., 2021).

In the scope of digital startups, of course, Indonesia cannot be underestimated given its strategic location and favorable business environment. Indonesia occupies the 5th position in the world with 2,457 startups (StartupRangking, 2023). Currently, Indonesia has 2 decacorn startups and 9 unicorn startups (Angelia, 2022). Decacorn startups have a total valuation of more than USD $ 10 billion, whereas unicorn startups have a minimum valuation

of USD $ 1 billion (Burhan, 2021).

According to the international institution Startup Commons, the startup development cycle entails three stages: the formation stage (pioneering), the validation stage (sale), and the growth stage (scaling). The pioneering stage involves discussing problems or suitable solutions to overcome these problems. In the validation stage there is a vision from the founder or a suitable market, while in the growth stage there is a business model that is patent and a suitable market (Startup Commons, 2022; Antunes et al., 2021; Freytag, 2019; Gonzaga et al., 2020)

Although the characteristics that contribute to successful companies have been studied up to this point,

many firms still fail. For instance, there are studies by Ko & An (2019), Nalintippayawong et al. (2018), and Khong-Khai & Wu (2018). Meanwhile, to the best of the author's knowledge, there are two studies in Indonesia, for example, research from Jaya et al. (2017), which found that the important factors that determine the success of a startup are HR factors (team), ideas, business models, and funding. Hardiansyah & Tricahyono (2019) then conducted research and proposed ten factors for startup success.

All of the literature reviewed by the author discusses the factors of startup success in a general classification, rather than in the classification of the pioneering stage. Many startups in the world experienced failure in their first year of operation.

According to Lane et al.(2017) and Chernev (2022), 90% of startups fail at the time of the pioneering stage. In Indonesia itself, according to the Coordinator of the 1000 Digital Startup program, only about 10% of businesses actually succeed during the early (pioneering) stages (this means that 90% of startups experience failure). The pioneering stage revealed to be where most startups fail (Bednár & Tarišková, 2018; Chernev, 2022), this study's gap is that many startups have failed during the pioneering stage. As per the search results in several large databases, the author did not find a single study on the classification of the pioneering stage because there has not been much investigation on it. Due to this gap, research questions (RQ) can be formulated as follows:

RQ1: What are some of the key success factors in the digital startup pioneering stage?

RQ2: What factors have the greatest influence on the success of a digital startup during its pioneering stages?

To address the issue of startup failure in the pioneering stages, the purpose of this study is to identify the key success factors for digital startups in the pioneering stages, as well as to determine which factors play an important role and are most influential in supporting the success of digital startups in the pioneering stages. The method that will be used to address and discover these factors is the Thematic Analysis (TA) method. The method can identify themes and contribute to giving rise to new theories (Clarke & Braun, 2018; Esfehani & Walters, 2018).

This study is limited to Indonesian digital startups (startups that already use information technology, for example social media, website and others). The sampling is based on startups that have participated in 1,000 digital startup activities from the Indonesian government program, as well as those that have reached the incubation stage, which means that they have been running for more than a year, have been successfully launched, and have fixed revenue. The interviews were limited to startup founders and excluded other stakeholders. The reason for this is that startup founders are more knowledgeable about the intricacies of their startup than others. This study only considers the pioneering stage classification, not the other stages. Sampling is restricted to startups that have been successfully launched and have operating business processes and revenue for more than a year. Ten digital startups were chosen as representative samples. Among the ten startups, some are in the education, social commerce, food and beverage, technology and service, and business to business sectors.

2 Literature Review

2.1 Understanding Digital Startups

The notion of digitals startup is still the center of debate among business professionals. Therefore, digital startups are defined as innovative technology companies that are developing essentially (Startup Commons, 2022). A digital startup, according to Endrik et al. (2019), is a digital-based organization that uses technology information as a problem-solving tool. Meanwhile, Rahardjo & Sugiarto (2019) claims that a digital startup is a small technology business or a business that has just begun operations without a proper business plan. Digital startups are the driving force behind a knowledge-based economy with a reputation for performance digital confirmation via social media (Gong & Ribiere, 2021; Tajpour & Hosseini, 2021). According to Ghezzi (2019), a digital startup is a digital-based entrepreneur who launches products and services using a new set of practices in development to test and validate the business model. A digital startup is a company that was created in a digital context to create value with customers and other stakeholders through an online community, grew quickly, and quickly turned into a successful company (Mingione & Abratt, 2020). A digital startup is a small company in the digital economy with a dependable innovative component that is expected to generate high profits (Simões et al., 2020).

Based on the definition above, a digital startup is defined in this study as a company or organization that has used information technology (including social media) or innovative digital technology to solve problems in the midst of changing (uncertain) conditions, with the goal of

generating revenue (profits) through services or products offered to the public. This study refers to digital startups (small businesses) that have sold their products or services using digital-based technology assistance such as websites, social media, artificial intelligence assistance, data science, business intelligence, chatbot, and other digital tools. The implementation of digital technologies to alter a business model and create new revenue and value-generating opportunities.

2.2 Startup Development Stage

According to Antunes et al. (2021), Freytag (2019), Startup Commons (2022), and Gonzaga et al.(2020), startups are classified into three types, each with a unique

process and stage of production. The stages are classified as follows: Pioneering stage (finding problems, business models, etc.), sales, and growth. In the special pioneering stage, the focus is on exploring root causes, finding solutions through ideas, or validating products, whereas in the sales stage, the focus is on commercializing validated products, and in the growth stage, the focus is on developing startups to become even more developed. Figure 1 shows the stages of startup development. In terms of time, Lane et al.(2017) claim that one year at the start of a startup's pioneering stage counts as the length of the stage (so the duration of the pioneering stage is one year). However, if a candidate for a digital startup generates revenue in less than a year, the candidate is classified as a digital startup (Chernev, 2022; Freytag, 2019; Gonzaga et al., 2020; Lane et al., 2017).
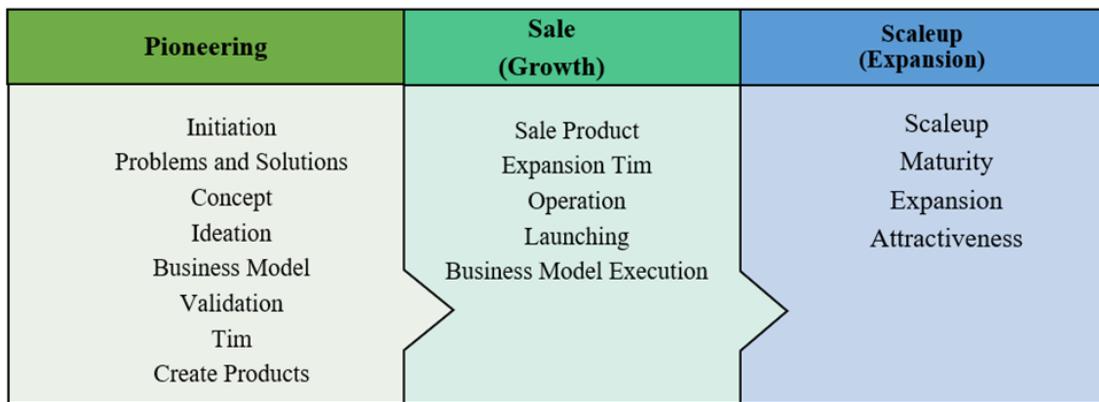

Pioneering	Sale (Growth)	Scaleup (Expansion)
Initiation Problems and Solutions Concept Ideation Business Model Validation Tim Create Products	Sale Product Expansion Tim Operation Launching Business Model Execution	Scaleup Maturity Expansion Attractiveness

Figure 1: Startup Development Stage. Source: Adopted from (Antunes et al., 2021; Freytag, 2019; Gonzaga et al., 2020; Startup Commons, 2022)

In Figure 1, particularly the pioneering stage, explains that at this stage any ideas for resolving the underlying causes can be expressed. There are two factor, ideation and concept. The goal of ideation is the entrepreneur's desire to create an idea, product, or service that has the potential to reach a large enough market. At this point, founder should also be discussing how to create value and looking for a well-aligned or solid team.

3 Methodology

3.1 Research Approach

In this study, the Thematic Analysis (TA) method was chosen as the primary technique to analyze qualitative research. TA method is suitable for answering inquiries

regarding experience, meaning, and perspective from the informant's point of view. Therefore, in this study TA was used to discover the success factors in the startup pioneering stage.

3.2 Thematic Analysis Procedure

TA requires time to become familiar with and knowledgeable about the data that has been obtained before conducting the next stages (Zhou et al., 2022; Ali et al., 2021). For more detail, the following are the stages of TA suggested by (Clarke & Braun, 2018), as presented in Figure 2. At the stage of deepening the data through the perspective of the participants, recorded interviews are a crucial source in the analysis process to gain insights through conversations with participants. The main goal of this first stage is

to understand the content of the data that has been obtained from the interview.

The second stage is code compilation process. According to Heriyanto (2018), code is considered a label. The code formulation in this stage is based on the records generated at the previous step. At this point, researchers will organize the code into groups according to a common theme (Clarke & Braun, 2018). The third stage is the theme identification which is the beginning of the analysis. At this point all those codes with the same meaning will be integrated. The fourth stage is finding the theme, which is in accordance with the research objectives (Clarke & Braun, 2018; Heriyanto, 2018). The fifth stage involves an in-depth analysis of themes that can be integrated into one since they have similar meanings. Then, the theme that has been selected and utilised as a success factor at the startup pioneering stage is written in the final stage.

3.3 Data Collection

In this study, data is collected through interviews, which the authors chose because interviews are the most commonly used data collection format in qualitative research. The interview method was chosen in this study to obtain more information as well as more accurate data (Paradis et al., 2016). To be honest, the interviews in this study were semi-structured (each informant had a different question structure because the follow-up questions were adapted to the previous answers), with open-ended and closed-ended questions mixed in. Open questions are those in which the interview begins with the words what, why, or explain (for example, why did you start a digital startup? and closed questions, such as is this factor important? is it true or false?). Ten startup founders served as resource people for this study. The interviews were conducted for three months, between December 2021 and February 2022. Each interview was carried out via video conferencing software, in this case Google Meet.

4 Results

According to the findings, the criteria for the startups interviewed were startups that had gone digital (used information technology as their infrastructure), were successfully launched, and had business and revenue processes that had been running for more than a year. The positions of the 10 interviewees were limited to startup founders or CEOs, with no other stakeholders involved. Therefore, in order to facilitate further analysis, the authors provide abbreviations for each of the 10 founders and their startups: the founder of Rumahbelajar (F1), the founder of Fresio (F2), the founder of BaCiraro (F3), the founder of Arcourse (F4), the founder of Intelligo (F5), the founder of Jagokan (F6), the founder of MudaJualan (F7), the founder of DCreative Indonesia (F8), the founder of Chickin Indonesia (F9), and the founder of B33OP (F10). The following are descriptions of the ten startups:
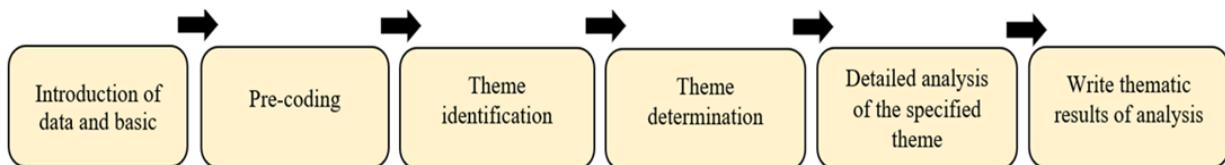

Figure 2: Stages of Thematic Analysis. Source: Adopted from (Clarke & Braun, 2018; Walters, 2016)

1. Rumahbelajar is a startup that operates in many fields, not just education. There are classes in fashion, entrepreneurship, and the arts, among others. As the name implies, this startup is a learning platform where learning materials and explanations are tailored to the needs of smart friends (a reference to students who enter the learning house). After being confirmed, this startup has a total of 17 employees, excluding the core team of founders and co-founders, of which there are 3 co-founders, for a total of 21 people.

2. Fresio is a social commerce platform for shopping for daily needs from traditional markets, which can provide extra income for its customers, so the principle is to shop for shopping money, and the focus is on how to get extra money and attractive cashback. This startup has a total of 19 employees plus a total founder of 20 people.

3. BaCiraro is a startup engaged in business management, specifically more education in the field of waste sorting because BaCiraro means cleaning the house before the holidays in Minahasa Indonesia. As a result, BaCiraro's own principle is that if there are used goods that cannot be reused, they are recycled. This startup has only 7 employees because it requires a large number of partners. Because they are only responsible for application management, financial management, and administration, 7 employees are deemed sufficient.

4. Intelligo is a startup that specializes in online learning technology and services, as well as a software house that can design a company's website or conduct data science. This startup's target demographic is active workers between the ages of 23 and 35. There are 15 people working for this startup.

5. Arcourse is a startup in the field of education that provides learning media via the use of augmented reality technology. The target audience consists of elementary and secondary school students. The new ARcourse employs 8 people.

6. Jagokan is an education-focused startup whose mission is to connect students and teachers. Students and teachers, particularly those over the age of 20, are the target market. This startup employs 17 people, all of whom are colleagues.

7. DCreative Indonesia is a service startup that helps MSME players by delivering food, medicines, and other items (micro, small and medium enterprises). This startup also includes motorcycle taxi bases that make deliveries to their destinations. This startup has 8 core employees and dozens of workers who come from motorcycle taxi drivers who deliver orders.

8. MudaJualan is a startup that specializes in Food and Beverage (F&B) drivers. This startup employs drivers to deliver food and beverages sold in complexes by partners who have collaborated with MudaJualan. This startup employs 13 full-time employees and hundreds of part-time employees who work as food and beverage delivery drivers.

9. Chickin Indonesia is a startup that uses internet of things technology in the business to business (B2) chicken supply sector. The goal of this startup is to deliver chickens directly from the farm shed to restaurants, hotels, or customer homes, a practice known as business to business (B2B). Currently, the Chickin Indonesia startup employs 108 people who are assigned to predetermined division groups based on their expertise.

10. B33BOP is a startup that aims to help micro, small, and medium-sized businesses. This startup's primary goal is to promote MSME entrepreneurs' products through short videos about food and beverages, among other products. This startup already has branches in several regions and employs approximately 60 people.

The ten digital startups are currently running startups that have been in operation for nearly two years when this research was conducted.

Based on the results of the analysis, 483 codes can be identified. The code that we are referring to here is a sign of semantic similarity to the success factors (CSF) of digital startups. The code was identified during the pioneering stage through interviews with ten founders. CSFs with the same meaning are given the same code and grouped together.

The collected CSF is labeled with the name or theme that best represents each of these groups. As a result, we have classified the groups into fifteen major themes, which are as follows:

- Problems
- Business Ideas
- Teams
- Business Models
- Capital or Funding
- Products
- Incubators
- Validation
- Competitors
- Marketing
- Mastery of Technology
- Market Analysis
- Founder and Co-Founder
- Partners
- Passion.

The author then provides a detailed analysis of these themes in the following stage.

Theme 1: Problem

The foundation of startup should be based on the problem that needs to be solved. At the startup pioneering stage, it is critical to recognize the problems experienced by many people. One of the founding members has made the following statement:

"There are problems faced by the crowd so they are moved and encouraged to solve the problem. The issue is real, and solving it is crucial." (F1)

Starting a startup is pointless in the absence of a problem because its purpose is to assist in and address problems that arise in the immediate environment. As the founders have stated,

"This startup was founded because of the waste problem in Indonesia, emerged from a lack of education on recycling waste. Due to the importance of this issue, a solution to the waste problem is also needed." (F3)

"It's because we want to help farmers and ranchers to get a more reasonable and feasible price than the price taken by middlemen." (F2)

The problem factor is very important in starting a startup because it can inspire startup founders to create solutions that can address many people's problems. Here are the statements from the founders:

"That issue is very important because it can encourage you to find new ways to learn to overcome poor education issue." (F4)

"The problem is so crucial that we want to assist the community in solving its issue, especially MSME players who should be encouraged to adopt digital technology." (F8)

"The problem is significant because it is used as an opportunity to find a solution, which indicates that it has a significant impact for the creation of problem-solving.

Without problems, it will be difficult to create a startup." (F9)

Startup pioneering should start from a problem; it is not suggested to take the courage to launch a one based merely on interest or hobby. Because, if it is simply based on hobbies, undoubtedly people will encounter stagnation. This statement can be justified by one of the founders,

"That issue is very essential compared to everything else. I gained a lot of insight into my lack of progress on the issue initially. While pioneering, we were off because we were focused on working on the problem in the first place. Maybe if time could be turned around, I would decide to work on the problem first, because initially it was only started from hobbies." (F5)

Problems are such a significant factor when starting a startup business, and this factor has been widely recognized among startup founders during the pioneering stage. Here are the recognitions of some founders who represent them:

"That problem is a very significant aspect in startup pioneering, why we create a startup if we don't have a problem. If the problem is not too urgent then it is questionable whether our product will sell or not." (F6)

"For me, this problem is a very important factor since it may accommodate the problems experienced by young people." (F7)

"The problem factor is important because without the problem we have no desire to keep trying to overcome it." (F10)

Theme 2: Business Ideas

Experiences that can be used as inspiration for ambitions to address societal needs and challenges give rise to business concepts. According to one of the founders, "This idea arose as a result of both personal experience and a dream to regulate the world of fashion, modeling, and other soft skills." (F1)

Business ideas often comprise crucial components that support a startups groundbreaking success. Ideas can also help many business sectors that are sought after by the public as business people, "Ideas are so significant because we can use them to help small business people such as MSMEs" (F8). Ideas are a result of problems that develop, not the other way around. According to one of the founders,

"From the problem, finally, an idea emerges. Therefore, ideas are very essential because they can help and encourage individuals to solve problems experienced by people, especially young people." (F7)

Social problems in the environment can lead to the emergence of an idea to be employed as a very key aspect in starting a company, one of the founders explained, "Ideas are important in starting a startup because the existence of social issues in the surrounding is known to be able to drive the birth of ideas that can be used as a very important factor in starting a startup." (F3)

The presence of innovation in a startup is preceded by bright ideas and its execution is what causes the creation of a platform. Here is an explanation from one of the founders, "Ideas are important because startup itself means owning an innovation. So, the ideas we innovate, for example from a business model or from a platform that we made, everything comes from an idea, so the idea is very important." (F9)

Exploring idea requires a team to run it quickly and precisely, and to channel a brilliant idea in a startup, it would be nice as a founder to offer one idea to another team so that the idea can be refined together to be executed appropriately. One of the founders explained as follows,

"... if I analyzed it again, the idea is very important, and channeling this idea entails running it with others. And after luring them with one notion, another one will naturally emerge." (F5)

Business ideas can evolve and develop towards perfection if the idea is always sought to be developed in startup pioneering, one of the founders argued as follows, "The idea is likened to a tree that comes from its seedlings first then we strive and can experience growth." (F10)

Theme 3: Teams

Team is the most crucial success element in the pioneering stage of a startup. Without a team, startups cannot survive and are very difficult to start. Having a solid team can turn startup goals into success. One of the founders explained based on his experience as follows,

"From personal experience, team is an essential aspect, because if you don't have a solid team, the startup cannot survive until now. The big challenge in the startup's pioneering is the team, that's why that team is a very important factor." (F2)

Team is recognized as being able to cope with any work easily and quickly. Teams are needed to ease the work in terms of time and effort. With a team in a startup, all work can be shared so that everyone supports each other, especially those who are nowledgeable about the field. Recognition of the functioning of the team in a startup can be justified by the statements of the following several founders:

"This team is very important, especially people who understand aspects in the field." (F9)

"This team is very important in pioneering a startup because we have goals ahead that are still long to go through so it is very important to have a team because they help to attain the distant goals." (F3)

"The team is very important because we can't do the startup ourselves, we can't master all things, therefore it takes a team to save the time and energy." (F4)

"The team can bring up work, work can be shared so that everyone helps each other." (F8)

In addition, it is considered useless if initiating an idea but never executing it together with the team. This statement can be justified by one of the following founders,

"The most important thing in startup pioneering is the team because it is useless if we have an idea but do not have a team to execute the idea we have." (F6)

Choosing a team must be based on the similar mindset with the founder. At the beginning of startup pioneering, the team should not be too large because it was not very effective during that time. The statement can be justified by one of the founders, "Team is vital to start a startup during 2 - 3 months, but it should not involve too much people because will not be advantageous. So, the team is important as long as they have the same vision as ours." (F5)

To get satisfactory results in startup pioneering, it is advisable to have a team with the same vision and mission, because all work in the startup will be light and it can bring success in starting a startup. It is not recommended to set up a startup alone because it can be troublesome and can cause frustration. The following is an explanation from one of the founders who shared her experience,

"In my experience, team is significant because we cannot work alone in the business world. If you work alone, it must be troublesome and frustrated. But if you have a team, it is certain that the work has been as light and in line with the mission and vision, and the outcomes can be pleasing." (F7)

Talking about the team in startup pioneering is not only about the ease of completing work together, but the team can be used to focus on improving the product. Here is a statement from one of the startup founders, "To improve the product even better, we need to work with the team. That's why the team is important for the startup pioneering stage because everything is done together." (F10)

Theme 4: Business Model

Business model is a basic concept or structure that can be used as a success factor in starting a startup. Business model is also an outline in the form of a process flow, where the goal is to run a startup and earn revenue. One founder argues that, "It's important to think about the outline of a business model because it can lead us to get a consistent revenue match in the middle of a pioneering." (F4). In addition, the business model is recognized as a directional indicator and can be used as an analytical tool to find out whether a startup can run or not. Here is an explanation from two startup founders who have experienced it:

"What I feel is that the business model is very important because from the business model we will know where the startup is going." (F1)

"The business model is very important because it can analyze whether our startup can run or not." (F3)

In starting a startup, besides thinking about ideas, it is inevitable to consider about business model because it can provide an overview of how startups can get income. One of the founders expressed this, "The business model must be considered alongside ideas because that's where it will also be thought how startups make money." (F6). Non only focusing on the inclusion of business models, it can also be

used to describe the lifestyle in doing business. "The business model is very important because the business model is our passion or lifestyle." (F7)

Business models can be arbitrary and are very suitable for a company such as startups because every time they experience an incompatibility, startup founders can change it and adjust to a proper model to survive, so it is necessary to determine and choose the right business model. Here are the explanations of several founders who thought the same thing,

"So, it is necessary to have a profitable business model for startups to survive. This business model is important, important to find, and suitable in the pioneering stage. It is possible to change and surely it will change depending on whether the startup is running or not." (F2)

"The business model is important since to create a business we need a model first. It would be nice for us to have a model and then we use it as a reference even though there are changes in the middle of the road, it is natural." (F5)

"The business model can be arbitrary, therefore try to find a suitable business model, and of course over time, the business model will be more perfected." (F9)

Theme 5: Capital or Funding

In the realm of starting a startup, capital or funding is needed in the early stages of pioneering and is a significant element when starting a startup. It is suggested that capital should come from internal parties, in this case the founder, "Capital is important for initial operational costs, founders are expected to have capital at the beginning of startup pioneering." (F9) At the beginning of startup pioneering, capital must first come from its costs, because capital or funding is one of the important factors when starting a startup. The two founders argued as follows:

"Capital is categorized as important but not very important. In the pioneering stage capital comes at its own expense." (F3)

"Capital is important but not very important. In my opinion, capital is one of the main things besides ideas." (F1)

In addition, at the beginning of startup pioneering, lack of funds makes starting a business pointless and a time-consuming endeavour. One of the founders explained,

"Capital or funding is important in our startups because without funding it would be useless to set up a free startup, it is just a waste of time." (F7)

Therefore, for the outset of a startup's establishment, capital or funding is required to cover the shortcomings. With the presence of capital, the startup will continue to operate. It is also strongly advised that at the beginning of startup pioneering, it must involve external parties to prevent its burden to the founder. The clarification of the statement can be justified by the following two founders:

"Yes, at the first time it must be from the internal and that is very important, but for the future, after a year, it

must be considered to earn funding from the external, because it will be heavier. Why? Because startups require speed, so there must be external aid to accelerate." (F2)

"Capital, in general, is important for the startup pioneering stage because capital can be used to cover shortfalls when something gets in the way." (F5)

Theme 6: Products

Product is a successful supporting factor that can meet customer needs instantly. However, if the product offered is not demanded by the market, the product is not included in the success factor. Therefore, product selection must be able to answer the problems that are occuring, "A product must already be in existence before starting a startup, but the product must exclusively focus on solving issues." (F3).

The right product can be a success factor in startup pioneering. Because of its importance as a selling point, it is considered useless if setting up startup without having a product. One of the founders explained this, "A product is a selling point, without a free product when starting a startup it means that you don't have selling value, then what to sell? Therefore, the product is important." (F7). Setting up a startup without a product only consumes time for nothing, this is advertised by the founder of Intelligo, "The product is so important because the product is what we will sell, because if we go public without a product then we just waste the time."

Products are used as a source of income because it is from the products itself that we can sell and introduce startups to customers. This is as stated by one of the founders: "The product is important because it will be used for startup income, and it is the product that will be shared with potential customers." (F4). In addition to the source of income, the product is also functioned as a symbol of the excellence and uniqueness of a startup. The following is an explanation submitted by two founders:

"The product is very important because it is a symbol of startup excellence. Over time products can emerge from new ideas needed by the market." (F1)

"The product is important because it can provide the unique value of our startup brand with competitors." (F6)

The result of a solution is a product, and the product is a solution formed from executed ideas. Products can take any form but thinking about one product only when starting a startup is not advisable.

"There must be many alternatives, but don't think about just one solution (product). The result of a solution is a product, the product can be in the form of a web or an application." (F2)

Theme 7: Incubators

Incubators according to the informants are factors that can make the startup's pioneering process successful. Incubators are considered advisors or mentors because they can motivate individuals to always think out of the box, provide support, develop startups into mature company, and manage good finances.

The presence of an incubator is recognized as being able to speed up the startup pioneering process. Incubators in this case refers to mentoring and training that are very influential at the startup pioneering stage because they can motivate individuals to always rise against the downturn, two founders argued this:

"Incubators are important, the focus is not about funding provider but on training and mentoring. As long as it is influential to the startups, its forms are not really matter. If the startup runs alone, the process will be very slow. Compared to the support of an incubator, the startup will be fast because there is a place for discussion." (F2)

"Incubators in terms of mentoring are very important for startup development. Since it is significantly impactful in providing motivation when starting a startup, it is considered important." (F3)

Incubators or mentors are also recognized as mentors and helpers who can be utilized as a reference in startup pioneering. Incubators can lead a thinking process to a broader direction and can be used as the most reliable place for help when there are questions about startup pioneering. The founder of Rumahbelajar gave the following statement: "Mentoring is very useful in pioneering startups as it can be a mentor, bringing thoughts out of the box". Also, one of the founders gave a statement, "Incubators are important but in terms of gaining knowledge and insight. So, when we have obstacles and we ask them, it is very essential because we can be involved in helping and can be used as a reference." (F5)

Incubators are very important for startups, "Incubators are an crucial aspect for startups." (F9). In addition, incubators are very helpful in terms of funding and knowledge transfer, "Incubators or mentoring are very helpful because they can provide developments both in terms of funding and insight." (F10). Furthermore, it also turns out that incubators can expand the thinking of startup founders, "The importance of incubators is because they can expand our thinking to be even more developed." (F8)

However, it is also highly advisable to continue to rely on the incubator if the prospective startup founder still has minimal capital and even insufficient knowledge. The following is a statement from one of the founders,

"Incubators are very important except for people who already have a lot of money, they don't need an incubator, but if the founder is still lacking in budget, then use the knowledge, energy, and relationship skills of the incubator." (F7)

A mentor is necessary to develop a startup because without one, doing so is pointless and will only lead to failure. It is mandatory to have a mentor because a mentor may share his knowledge with startup pioneering and because the mentor's knowledge has a significant impact on a company's success. Here is a statement from one of the founders,

"It's useless for us to start a startup if we don't have a mentor because of its role in terms of providing knowledge about the startup world, the knowledge they provide is very impactful for startup pioneering." (F6)

Theme 8: Validation

Validation is also such an important factor at the startup pioneering stage since validation can solve problems most effectively. With the validation process carried out, it is easy to find out the existence of people who are ready to pay for products from startup business ideas. One of the founders stated like this, "Validation is important because that's where we will know whether our product is needed by the market or not." (F4). Validation aims to discover the target market and preferred market by people, the following is an explanation from one of the founders,

"Validation is very important to know what kind of market is, what we want to direct, who will be the target." (F8)

Before launching a startup, it would be suggested to validate the created product in the first place, so that the product can be accepted and known by many people (potential customers). In addition, validation is crucial so that company pioneers may avoid mistakes. Additionally, through validation pioneers gather feedback and suggestion from potential customers for improvements of products or services that potential customers want to purchase. Here are the statements of several founders voicing similar things:

"Before soft-launching, we need to validate first to introduce our startup products to many people. The importance of validation is because we can minimize mistakes, we can get input and suggestions from people who want to use our services atau product." (F6)

"There is a need for validation before the soft opening. Validation is material of launching preparation. Validation is a very important factor because before launching, the business product must first be validated." (F1)

"Product validation is very important because it is related to aspects of product acceptance by the market." (F9)

Validation is a crucial factor when developing a startup business because validation aims to test solutions for customers who have problems. Starting a startup is not enough if it only depends on idea initiation and assumption. One of the founders explained as follows,

"Validation is the same as diamonds which is a very important factor, even if you want to start a business, it must be from validation, it cannot be only based on assumptions because ideas without validation are just like garbage." (F7)

Validation of the market is a process to ensure that the products produced by startups are acceptable and useful in the market. One of the founders described as follows,

"Validation can tell the public about something useful. The public receives the product through validation.

And this validation is a very important factor in startup pioneering because problems in society can be detected through validation." (F3)

To reduce errors in startup pioneering, it is recommended to validate it in the beginning. Whether it is a validation of products, problems, or markets it should never be missed. Here is the advice of the co-founder of the startup,

"To reduce trial and error, validation is needed. Validation is an important point at the beginning before execution, and at the time of execution, it must still be validated. In Fresio itself, it had run 4 validations or 4 fee terms which include: problem validation, solution validation, market validation, and product validation. So validation is a very important factor or the top factor before it starts." (F2)

Theme 9: Competitors

In the pioneering stage of a startup, competitors are needed because competitors can encourage innovation and improvement of the quality of startup products and services. This is as stated by one of the founders: "Competitors are very important at the stage of pioneering startups because competitors become a reference to be able to analyze goals, competitors become an encouragement and when we are weak, competitors can motivate us to rise." (F1)

Through competitors, startup will be able to learn about their vulnerabilities from their competition and boost the benchmark of startups that are currently in development. Those weaknesses can be turned into an advantage or a solution that is unique for the startup. Here are the statements of some founders who have the same thoughts:

"Competitors are important for today because from them we can find out their weaknesses and we can make these weaknesses as a unique point in the startup we are doing." (F8)

"Competition is important because that's where we can learn from them, it can be used as a benchmark to be able to know their weaknesses and it is from those weaknesses that we can make it a uniqueness in our startup." (F4)

"Competitors are important because we can see what the disadvantages and advantages are, so that we can take the shortcomings and used it as advantages in our startup." (F6)

Competitors are not only used as a place to see weaknesses but they can also be used as sparring partners or rivals for encouragement in the startup pioneering period. The presence of competitors is considered as the best motivation. The following is a statement from two founders who consider competitors as motivating rivals and as encouragement:

"In terms of competitors, it is very much awaited and it is very necessary to sparring partners. How can you say that you are good at it, but you never be in a competition? Therefore, it is better to have competitors during the pioneering stage, because no matter their condition are, we have to be better. Hence, it is crucial to have competition

without criticizing them. So you have to have a Unique Value Proposition (UVP) that distinguishes what you have and your competitors do not have, called a solution. It's not encouraging if there are no competitors." (F2)

"Competitors are a challenge event, so this factor is categorized important because there must be rivals at work, there must be something we can miss and can make our innovation more developed than competitors." (F7)

Unlike the case with the BaCiraro startup, this firm considers competitors as friends because they can solve the same problem, "In pioneering startups, competitors are considered their friends. The competitor does not have any effect because it carries out a common goal. To be different from competitors, you must show your uniqueness." (F3)

In addition, competitors are used as a tool to analyze the market and validate the market. It is considered as market analysis and market validation since it is possible to discover how many people will use the products or services we make. The following is a presentation and explanation from two founders who consider competitors as market validation and analysis:

"The competitor, in the startup world, is important because it is used as market validation. Without competitors, usually investors don't have confidence in investing in the startup." (F9)

"The competitor factor is very important for Intelligo startups because from them we can analyze the market and see how they can attract customers and we can use it as basis for analysis materials." (F5)

Theme 10: Marketing

Startup pioneering can be considered running if the startup can do marketing because the purpose of marketing is to sell products to customers. Here is a statement from one of the informants,

"So the factor that we get from our startup, the main factor is marketing, that is because we sell. If we can't sell well, it's all the same, there must be no action and the startup can't run." (F5)

Starting a startup also requires mastering marketing; if individuals do not expertise this knowledge, the startup will experience stagnation or unable to run. Marketing needs to be prioritized if individuals already have a product that is ready for sale, because if marketing is not a priority then all products will be considered junk and cannot be distributed to customers. The clarification of the statement can be justified by the following explanation from the founder,

"This field of marketing must be in goals and promoted. Whatever the product is, if it is not sold with marketing, it's useless. There must be marketing knowledge as this is included in the category of an important part of startups." (F7)

Theme 11: Mastery of Technology

When establishing a startup, mastering technology and keeping up to date with its developments is highly required even though there are a lot of aspects to learn related to technological advancement. In this modern world, if we don't master technology, we will experience lagging. The following is an opinion expressed by one of the founders,

"The important factor is also that they must be technologically literate (mastery of technology), humans now if they are not technologically literate will be outdated. This means that he does not know about the current development, so it will be a loss for himself." (F7)

To be able to attract more customers fast and precisely, it is required to learn more and understand relatively new technologies. The following is a suggestion made by one of the informants,

"We have to learn a lot of things related to new technologies so that we can reach customers faster and more precisely." (F8)

Theme 12: Market Analysis

When starting a startup, it would be helpful to conduct a market analysis so that we can be certain of the target market. The market analysis' findings can be utilized as a guide to ensure that the product created is marketable (customer). The impact of market study on startup innovation is equally significant, this is as stated by the founder of startup ARcourse, "Market analysis is important for the startup pioneering stage because we want to sell products, which means we can see the market analysis from the book. Then, we must pay attention to the market from various aspects".

Likewise, as stated by the founder of Rumahbelajar, where the founder suggested that he could do a market analysis before validating, this is intended to detect as early as possible potential customers who will use products from the startup.

"Before doing validation, it would be nice for us to do a market analysis so that we can already know and detect how many people will use the product we are creating." (F1)

Theme 13: Founder and Co-Founder

Before establishing a startup, founders and co-founders must have a vision-mission, goals, and ideas that are in line, this is as stated by the founder of Intelligo:

"Founders must choose a co-founder sharing the same vision because both of them must dare to fail, if these two factors are already on the same route, then the startup is safe to run, which means they have successfully executed the startup." (F5)

Not only owning the same direction and vision, but the founder and co-founder are also required to be solid with other teams. "The founder and co-founder, if they can work together with other teams then everything can be overcome properly." (F9)

Theme 14: Partners

The birth of large startups is certainly inseparable from the existence of partners who work together. At the startup pioneering stage, a founder should have started looking for

potential partners to cooperate with. One of the founders explained the following, "Partners are important for the startup pioneering stage because with partners we can expand the market." (F6)

Theme 15: Passion

Startup pioneering must also be supported by passion so that all the processes can be accomplished easily. Prioritizing passion during the pioneering stage refers to the condition where all difficult factors will be resolved because the advantage of passion is doing something loved and loving the work itself. One founder expressed his experience according to his passion,

"Passion is important because when we experience a stroke we don't give up easily. It means we get motivated and still love the business we do." (F10)

After successfully identifying the themes and being able to describe their meaning, the following can be presented in quantitative form (as in Table 1). Looking at Table 1, the most dominating factor is the Problem and Team factor, which acquired 10, meaning that the ten founders agreed that the Problem and Team factors are aspects that need to be prioritized when starting a startup, because they have such a high role according to the assessment of these founders.

Table 1: Dominating Theme Calculations

Theme	Informants (ten founders)										
	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	Total
Problems	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10
Business Ideas	✓		✓		✓		✓	✓	✓	✓	7
Teams	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10
Business Models	✓	✓	✓	✓	✓	✓	✓		✓		8
Capital or Funding	✓	✓	✓		✓		✓		✓		6
Products	✓	✓	✓	✓		✓	✓				6
Incubators	✓	✓	✓		✓	✓	✓	✓	✓	✓	9
Validation	✓	✓	✓	✓		✓	✓	✓	✓		8
Competitors	✓	✓	✓	✓	✓	✓	✓	✓	✓		9
Marketing	✓				✓		✓		✓		4
Mastery of Technology				✓			✓	✓			3
Market Analysis	✓	✓			✓				✓		4
Founder and Co-Founder					✓				✓		2
Partners		✓				✓	✓	✓			4
Passion	✓						✓			✓	3

5 Discussion

In this study, several elements need to be highlighted because these factors can trigger failures in digital startup pioneering. The first is the problem factor, considering an issue before starting a startup is highly necessary, otherwise, it can result in pioneering failure. Problems are important factors that can be used as a guide to creating solutions (Freytag, 2019). The second factor is the team, the startup team is significant aspect that affects the success and growth of the startup. However, it must be underlined that having a team that is not solid and strong can lead to the failure of startup pioneering (Khong-Khai & Wu, 2018).

The third factor is the business model, this factor acts as a success factor as a basic concept in establishing a startup (Nalintippayawong et al., 2018). However, according to Cantamessa et al. (2018) and Bednár & Tarišková (2018) if the wrong business model is run, it will fail the startup. The fourth factor is funding, according to Cantamessa et al. (2018) and CB Insight (2021), funding has a very big influence on startup success, have no funds means failure.

The fifth factor is the product, at the startup pioneering stage according to Cantamessa et al. (2018) and Bednár & Tarišková (2018) the product must be released in the right time (not too early or not too late), if the product is released at the wrong time it will bring failure to the startup. The sixth factor is competitors, the strengths and advantages in

the pioneering process can be known through competitors. They are considered as success factors to start a startup because they motivate startup pioneering to continue to rise, change, and develop. In contrast, according to Cantamessa et al. (2018), competitors are factors that can lead to failures in startups. On the other hand, competitors are needed because competitors can motivate us to continue to innovate.

The seventh factor is market analysis, startup pioneering requires market analysis factors because through these steps startups can successfully earn income. Market analysis is an important factor because without market analysis, startups will be in vain to create products that do not match customer demands. Furthermore, what needs to be highlighted are the founder and co-founder factors. The success of pioneering a startup can be generayed by founders and co-founders who have a solid relationship, and have the same vision and mission. According to Cantamessa et al. (2018) misalignment between founders and Co-Founders can lead to failures in startups. The last factor that needs to be highlighted is passion, without passion we will find it difficult to make decisions and it is difficult to rise from obstacles that hinder us in the pioneering stage of a startup. Passion is also recognized as self-motivation because through passion we can do all the work we like.

6 Research Implications

6.1 Practical Implications

This research provides knowledge and recommendations to prospective startup founder entrepreneurs and other stakeholders (e.g. mentors). The findings of this study have implications for startup founders to choose co-founders who have the same vision and mission so that all ideas about business can be implemented by common expectations and goals. This research also provides advice to prospective startup founders that before marketing a product, it is advisable to do a market analysis and validation since the beginning, and use competitors as a motivational factor and a place to learn to turn weaknesses into advantages in the startup.

The study's findings have implications for startup founders in that they must choose co-founders who share the same vision and mission, so that all business ideas can be implemented in accordance with shared hopes and goals. This research also advises prospective startup founders that before marketing a product, it would be nice to do market analysis and validation first, and use competitors as a motivator and a place for observation, and learn to imitate their startup success process, and turn their weaknesses into strengths in startups that are being pioneered, modify these strengths, and make them unique products.

6.2 Theoretical Implications

This research can contribute to providing new theories and adding new knowledge within the scope of startup pioneering. This research has classified the themes of success factors in the startup pioneering stage through a thematic analysis approach. The research findings provide a new factor regarding success in the startup pioneering stage. These findings are problems, competitors, passion, markets, partners, mastery of technology, as well as founders and co-founders. These factors are relatively new because, to the best of our knowledge, no one has conducted a systematic analysis of these factors using thematic analysis. Based on case studies of ten startups, this paper identifies new knowledge and lessons for academia that can be applied to digital startup learning to help increase the success rate of digital startups, and can add to academic knowledge (within the framework of the startup pioneering stage investigation) about the important factors that support success in the digital startup pioneering stage.

7 Conclusion

The findings of this research analysis can be used to draw two important conclusions: conclusions that can be used as vital knowledge for stakeholders or prospective founders of digital startup pioneers, and conclusions that can be used to answer the research questions raised in the introduction section. As a result of the findings and identification, the first conclusion that we can draw is that there are fifteen important factors that can be claimed and used as success factors in the classification of the digital startup pioneering stage. This claim is based on thematic analysis, which is capable of identifying and determining success factors that are critical during the pioneering stages of a digital startup. We can identify fifteen digital startup success factors based on the following thematic analysis: Problems, business ideas, teams, business models, capital or funding, products, incubators, validation, competitors, marketing, technology mastery, market analysis, partners, and passion.

The second conclusion, based on the findings of the ten founders' analyses, is that problem factors and team factors are two of the fifteen most dominant and influential digital startup success factors in pioneering stage. These two elements have a significant impact on the pioneering stages of a digital startup. The following are the justifications: First, at the pioneering stages of a digital startup, the problem factor is critical for detecting problems encountered by many people, as this determines how much digital startup customers will use the product to be created. Furthermore, problem factors can motivate digital startup founders to develop solutions to these problems. Second, the team factor is important because with a team,

all problems raised will be resolved quickly and easily, and all work will be handled productively and collaboratively.

Based on the results in Table 1, the authors believe that it is true and reasonable to state that at the digital startup pioneering stage, these two factors are very important and very influential compared to the other 13 factors. The justification for this conclusion is that it is indeed very appropriate if you want to pioneer a successful digital startup, then the first and foremost factor that must be prioritized is the problem factor first. If there is a problem, it is highly likely that the digital startup will be able to earn revenue because on the basis of the problem, all kinds of solution ideas and other supporting factors will be created to solve the problem, which will eventually lead to a transaction that can generate revenue.

In terms of the team factor, it is true that the team factor is one of the most influential factors during the pioneering stages of a digital startup. The logic is that if we want to start a digital startup based on the problems that many people face, we cannot do so alone, we must form a team. A team will make it very easy and quick to build a digital startup because it is done collaboratively and together. If you already have a problem that you want to solve, all business ideas or solutions will come together to collaborate to create solutions in the form of digital startups to solve many people's problems through team thinking. The presence of the team will make the startup successful because it is from the team that all forms of business models that can generate revenue will emerge. The team will think of the most appropriate product as a form of solution. The team will learn from competitors to be able to imitate competitors' success. The team can also be mentors (incubator) if them share scientific fields. Product validation will be easy to do through a team, the team will also make it easier. Within the team, of course, there are various passions that collaboratively create solutions (both in terms of products and business models). In terms of mastering technology with a team, everyone will learn from each other from the team that has expertise on technology trends that he or she has mastered.

So, what the author wants to emphasize here is that it is true that problem factors and team factors are critical when starting a startup, but why is this so? Because when there is a problem, a pioneer will focus on the solution, how to solve the problem, rather than the floating idea factor. As a result, once the solution has been devised, the next most important factor is the team factor. Because it is certain that the solution will be simple to implement with a team, it is best to invite a team with expertise to implement these solutions. It doesn't matter if it's the marketing team, the programming team, the finance team, or any other team.

8 Limitation and Recommendation

This research only uses the Thematic Analysis method, and the scope is only within the scope of digital startups in Indonesia. The sample taken is only ten startups that have been successfully established, and which have been running for more than 1 year. The interview process is limited focusing solely on startup founders. This research is limited only to the context of the classification of the pioneering stage.

This research only examines 10 digital startups, it would be nice to conduct research in a larger scope so that other success factors that have not been identified are expected to discover soon. In order to rank and find the most influential factors in the startup pioneering stage, it is suggested to not only utilize Thematic Analysis but also using combination of AHP/ANP and TOPSIS methods, or other related methods.

Acknowledgement

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Analiza dejavnikov uspeha v začetni fazi digitalnega zagonskega podjetja

Ozadje in namen: Uspešna digitalna zagonska podjetja lahko ustvarijo dohodek za državo in izboljšajo življenja ljudi. Vendar pa za bodoče ustanovitelje, ki bodo lansirali svoja zagonska podjetja, ostajajo dejavniki uspeha pri pionirskih digitalnih zagonskih podjetjih neznanka. Namen te študije je identificirati ključne dejavnike uspeha digitalnih zagonskih podjetij v pionirskih fazah.

Metodologija: Tematska analiza je metoda za prepoznavanje dejavnikov uspeha v pionirskih digitalnih zagonskih podjetjih. Podatki so bili zbrani z intervjuji z desetimi ustanovitelji zagonskih podjetij.

Rezultati: Ugotovitve kažejo, da je petnajst kritičnih dejavnikov in dejavnikov uspeha v pionirski fazi digitalnega zagonskega podjetja in sicer; problemi, poslovne ideje, ekipe, poslovni modeli, kapital ali financiranje, izdelki, inkubatorji, validacija, konkurenti, trženje, obvladovanje tehnologije, analiza trga, ustanovitelji in soustanovitelji, partnerji in strast. Pričakuje se, da bodo te ugotovitve prelomne za vse, ki jih zanima zagon digitalnega zagonskega podjetja.

Zaključek: Prvič: ugotavljamo petnajst pomembnih dejavnikov, ki jih je mogoče navesti in uporabiti kot dejavnike uspeha pri klasifikaciji pionirske stopnje digitalnih zagonskih podjetij. Drugi zaključek, ki temelji na ugotovitvah analiz desetih ustanoviteljev, je, da sta dejavnika problema in dejavnika ekipe dva od petnajstih prevladujočih in najvplivnejših dejavnikov uspeha digitalnega zagonskega podjetja. Faktor problema je ključnega pomena za odkrivanje težav, s katerimi se srečuje veliko ljudi, in lahko motivira ustanovitelje digitalnih zagonskih podjetij, da razvijejo rešitve za te težave. Medtem ko je timski dejavnik pomemben, ker se z ekipo vse nastale težave hitro in enostavno rešijo, vse delo pa poteka produktivno in s sodelovanjem.

Ključne besede: Digitalno zagonsko podjetje, Tematska analiza, Dejavniki uspeha