

**IDENTIFICATION OF CRITICAL SUCCESS FACTOR STARTUP IN
BUSINESS INCUBATORS (CASE STUDY: BANDUNG TECHNO PARK)****Sisca Eka Fitria*, Faris Rahman Hakim**

Telecommunication and Informatics Business Management, Faculty of Economics and Business,
Telkom University, West Java, Indonesia
Email: siscaef@telkomuniversity.ac.id*

Abstract

The growth of startups in Indonesia has been relatively fast since the last few years. Startup growth must be accompanied by knowledge related to critical success factors for the success of startup. Bandung Techno Park serves an incubator to help develop startups toward success. This research aims to find out the critical success factors of startups in Bandung Techno Park. Grand theory in this study is entrepreneurship and the applied theory is a critical success factor. This research examines innovation, entrepreneurship, technology and economics as critical success factor of startups. Research methods in this study use qualitative research methods with descriptive analysis. Data obtained in-depth interviews with CEOs and startup experts in Bandung Techno Park. The data analysis techniques used are data collection, data reduction and data conclusion. The result of this study show that Innovation is one of the startups needs that must be met so that startups continue to grow and continue to be acceptable to the market. In implementation of innovation, obstacles that are often encountered in innovating are related to market targets, capital resources, technological trends, and human resources. Entrepreneurship is one of the concepts that must be understood and owned by a CEO in order to be able to run his business well. Technology is a tool that cannot be separated from startups. Startups always need technology, but technology skills of the operators are needed more than the latest technology. Economist, deals with funding including investors and financial management. Things to note related to funding are how to attract investors, maintain investor contracts and manage finances wisely. Of these four factors, entrepreneurship is the most important factor in startup success. This aspect of entrepreneurship is related to the characteristics of the founder, and the performance of human resources

Keywords: innovation; entrepreneurship; technology; economics; critical success factor start-up

Received 5 October 2022, Revised 17 October 2022, Accepted 24 October 2022

INTRODUCTION

Start-up is a company that has not been operating for a long time which usually refers to a technology-based company. [Ries \(2011\)](#) defines a Start-ups as a start-up company designed to find the right business model for the company to survive in the midst of extreme uncertainty. According to [Hardiansyah and Tricahyono \(2019\)](#), Start-ups are designed to find the right business model to generate rapid growth. The very

rapid growth of Start-ups must be balanced with sustainability, maintaining and increasing the competitive level in order to be successful. In addition, Start-ups are also required to continue to grow and look for forms in order to get big profits so that they can help the country's economy.

The development of Start-ups in Indonesia has been relatively fast in the last few years. Based on the Global Start-ups Ecosystem Annual Report in an article

published by CNN Indonesia, Indonesia is ranked as the 3rd most developed Start-ups business in the world. The article states that Jakarta is in the third position after Mumbai in India and Copenhagen in Denmark. In addition, Jakarta also managed to achieve the highest position at the Southeast Asian level, passing Kuala Lumpur, Bangkok, and Manila as the city with the most developed Start-ups (Samiono & Nurlatifah, 2021).

This change in Start-ups business trends has opened up new business opportunities as well as requires new entrepreneurs to have better business and management skills (Kim et al., 2018). Developing a new business is not as easy as the process of setting it up. According to Hardiansyah and Tricahyono (2019), the Start-ups failure rate reaches 95%, while according to one Start-ups incubator in Bandung City, the Start-ups failure rate reaches 62.2%. Kim et al. (2018) mentions that creating a new business is a process full of difficulties and failures. Then, Anggara and Anggadwita (2018) also mentioned that this Start-ups had to go through critical times during the last five years since the company was founded. During these times, there were many Start-ups that failed and not a few of them were quite successful. In this case, Knowledge of the causes of failure is needed to help business people to develop Start-ups properly. In addition, Start-ups also need to learn from the success of previous Start-ups as a reference.

In 2016, Indonesia had approximately 2000 Start-ups that had a fairly high failure ratio (Afdi & Purwanggono, 2018). The data shows that 75% of developing Start-ups fail. The failure mentioned is caused by the management of company resources that have not been maximized so that the company cannot carry out the money cycle properly. Start-ups cannot do the money cycle well because the products they produce are less innovative and therefore do not have high market interest. Jesemann (2020) argues that

a technology-based business model is indeed an opportunity for the industry.

Start-up requires a design in the process of its establishment or development. This Start-ups design will help Start-ups be able to compete and survive in the business world. Based on several studies, there are various Start-ups design factors in developing a business. According to Anggara and Anggadwita (2018), business success can be linked to ideas, opportunities and business people. Kim et al. (2018) some of the determinants of Start-ups success are entrepreneurship, innovation, technology, and the economy. In this case, Kim et al. (2018) states that innovation is the most important factor as a determinant of Start-ups success. Start-ups cannot be separated from technology. As the most important part in Start-ups, technology requires the industry to build innovative new service products and business models so that they can compete in the market (Jesemann, 2020). Innovation in this case is related to the commercialization of ideas owned by Start-ups actors. This innovation is also not only needed at the beginning of the establishment of a Start-ups, but also during the Start-ups development period so that it can follow the trends of the times.

In addition to innovation, other factors that determine Start-ups success according to Kim et al. (2018) are entrepreneurship, technology and the economy. Entrepreneurship or entrepreneurship can affect a person's readiness to survive in the business world. The important thing in entrepreneurship is the combination of the cognitive orientation of an entrepreneur and the skills that can lead to Start-ups success. These skills are related to the ability to lead, the courage to take risks, and have a high spirit and will. Next is the technology factor that cannot be separated from Start-ups. In order to achieve success, Start-ups are required to keep abreast of developments and accept the latest technologies. The last factor is the economy.

In fact, the problems faced by Start-ups in running their business are caused by many factors. Based on previous research conducted by [Kim et al. \(2018\)](#) in Korea, the problems faced by Start-ups companies are not only related to the lack of creativity of business actors to innovate. Funding issues are also important for Start-ups success. The number of investors who invest in a company, the company will be easier to develop and manage the company. According to [Prohorovs et al. \(2019\)](#), almost all Start-ups companies face difficulties in the capital withdrawal stage due to information asymmetry between company founders and potential investors.

The company's success in attracting capital is associated with organizational and financial aspects owned by the company itself so that the company's founders succeeded in creating trust in potential investors. If the organization of a company has poor performance, it can lead to distrust from outsiders. Good Start-ups human resources are directly proportional to the interest of investors to invest their capital ([Jaya, Ferdiana, & Fauziati, 2017](#)). HR is related to the quality and creativity of the team in the Start-ups. Thus, based on this opinion, it can be concluded that in attracting the trust and interest of potential investors, innovation and creativity are needed by the team within the company. The success of a Start-ups is the greatest hope for the founders and the team in it.

Indonesia is currently experiencing Start-ups euphoria as evidenced by the large number of Start-ups that have been established in the last few years. To realize the hopes of each of these Start-ups founders, many accelerators and incubators have been formed in Indonesia. Based on an article published by Tracxn, there are 54 accelerator and incubator institutions in Indonesia ([Fitri et al., 2021](#)). The number is not a large number when compared to the large number of Start-ups that exist in Indonesia. For this reason, the government

plays a role in efforts to maximize the development of Start-ups in Indonesia. These efforts are in the form of encouragement so that universities can go beyond research results to become innovative products that can be accepted by the community. Besides that,

One form of collaboration between the government and universities in creating technology-based Start-ups is the Bandung Techno Park. Bandung Techno Park (BTP) is the result of a collaboration between the Ministry of Trade and Telkom University. Initially, the establishment of BTP was intended to be a forum for innovation for lecturers, students, the general public and also a business incubator as a place for the community to learn business ([Hasanuddin et al., 2019](#)). Over time, BTP has succeeded in producing sustainable innovation products, giving birth to Start-ups, commercializing research products, and carrying out research & business development.

BTP is a manifestation of Telkom University's seriousness towards Entrepreneurial University. In addition, this BTP also aims not only to fulfill what is needed by Telkom University, but BTP has also succeeded in driving innovation to the national level. This is evidenced by the many programs that BTP offers to the wider community, such as the incubation program, WRAP entrepreneurship, and corporate innovation programs. The existence of BTP as a business incubator is expected to influence the industry in Indonesia by maximizing the innovation and creativity of new entrepreneurs in developing their business. However, in reality this business incubator still has various obstacles and constraints related to human resources, capital, facilities, market potential and also regulations ([Ghina & Sinaryanti, 2021](#)).

The review of previous research is an activity of reviewing theories, concepts, previous research, and so on as the basis for this research. In addition, a review of previous research is the basis for the

preparation of research to find out the results of previous researchers as well as a comparison and description in subsequent research. The previous research used by researchers are as follows:

Table 1
Literature Review

Title and Authors	Method	Results	Equality	Difference
Examining the Key Success Factors for Startups in the Kingdom of Bahrain (Al Sahaf & Al Tahoo, 2021).	Quantitative	The success of a startup in Bahrain depends on the knowledge and experience of the startup founder and funding	Looking at economic factors (funding) As a determinant of startup success	Using quantitative research methods -Research background in the Kingdom of Bahrain -Seeing the startup founder experience variable as a success factor
How Do Startup Manage External Resources in Innovation Ecosystem? A Resource Perspective of Startups' Lifecycle (Marcon & Ribeiro, 2021)	Qualitative	-Innovation is always needed at every stage of Startup, from the creation stage to Startup development. Innovation helps Startups in developing exploration and exploitation strategies and what capabilities the Startup develops in each phase of the Startup life cycle.	Using qualitative research methods Seeing innovation factors as a determinant of startup success	-Only taking the innovation variable, not the overall success factor
Startup Success Factors in the Capital Attraction Stage: Founders' Perspective (Prohorovs et al., 2019)	Quantitative	-Companies that are successful in attracting funds from investors are managed companies by entrepreneurs who have previous experience in business creation by building experienced teams, having special education, and high management skills.	-Seeing funding variables as economic factors that determine startup success	-Using quantitative research methods -Research background in Russia
Critical Success Factors of a Design startup Business (Kim et al., 2018)	Quantitative	-There are four factors that determine the success of startups in Korea, namely entrepreneurship, innovation, technology, and economy	-Seeing 4 determinants of startup success, namely innovation, entrepreneurship, technology and economy	-Using quantitative methods, Research background in Korea
Exploring the Factors of Startup Success and Growth (Okrah et al., 2018)	Quantitative	-Innovation and finance are considered for independent variables. Meanwhile other factors such as government policies, internal market openness, internal market dynamics are considered as dependent variables with GDP and per capita and employment as control variables.	-Seeing innovation and funding as critical success factors for startups	-Using quantitative research methods -Research background in Russia
Identification of Digital Startup Success Factors in Bandung City (Hardiansyah & Tricahyono, 2019)	Qualitative	-There are 11 critical success factors for digital startups obtained from The literature to be analyzed, namely: synergy, product, process, managerial innovation, communication, culture,	-Using qualitative research methods, viewing technology and innovation as determinants of startup success,	Discussing more broad success factors such as synergy, product process, managerial innovation, communication, culture, experience, information technology, innovation skills,

Title and Authors	Method	Results	Equality	Difference
Analysis of the Factors That Influence Technopreneur's Success : Case Study At Bandung Techno Park Analysis of the Factors That Influence Technopreneur' S Success : Case Study At Bandung Techno Park (Anggara & Anggadwita, 2018)	Quantitative	Percentage of determinants of startup success entrepreneurial behavior (26.2%), skills (21.7%), service quality (48%), and educational background (no effect on business success).	-Seeing entrepreneurial factors as the key to startup success	functional skills, implementation skills -Using quantitative research methods
Analysis of Digital Startup Success Factors in Yogyakarta (Jaya, Ferdiana, & Fauziyati, 2017)	Quantitative	The determinants of startup success include good human resources or team, the right timing, sufficient ideas and funding	Seeing ideas and funding as critical success factors for startups	-Using quantitative research methods -Research background in Yogyakarta

Nevertheless, the existence of this startup incubator can help startups in exploring knowledge. More in-depth knowledge regarding the determinants of startup success is expected to help startups to better manage their business. Business success is the hope of every startup founder. This research is expected to provide knowledge for startup managers regarding what factors will lead their startup to business success. This study will explore information related to critical success factors and which critical success factors are most important for the startup.

The problems studied in this study are:

- (a) knowing how startups can implement 4 factors as critical success factors for startups under the auspices of the Bandung Techno Park, namely innovation, entrepreneurship, technology and economics,
- (b) find out which factor is the most dominant of the four factors. In obtaining data, this study used a qualitative research method with a descriptive analysis approach. The data

in this study were obtained from interviews with 5 informants.

METHOD

The research method used for this research is a qualitative research method with descriptive research objectives and an inductive theory approach. The strategy in this research is a case study with an individual unit of analysis. In this study, the researchers went into the field directly with minimal involvement and time of cross-sectional implementation. The research object used in this research is Bandung Techno Park, where the resource persons or informants are 4 CEOs and 1 startup expert. The researcher carried out activities through interviews and secondary data collection to find out the social situation regarding the critical success factors of startups. Data collection techniques used in this study were interviews, documentation, and triangulation of sources.

Table 2
Variable Operation

Variable	Operational definition	Sub Variable	Interview Questions	Interview Speaker
Innovation	The process by which an organization incorporates new procedures, services, or goods that affect business change in a positive direction	Entrepreneurial motivation	-What is your business philosophy and goals?	CEO Startup incubated in Bandung Techno Park and an expert in the startup field
		Progressive thinking	-Is innovation important for startups? - When do startups need to innovate? -What are the startup obstacles in innovating?	
		Self-development	-Does the startup have a dedicated team for innovation?	
		Idea commercialization	-Are startups able to develop various ideas for startup success?	
		Market-oriented opportunity switch	-How is the startup's efforts in developing services and products according to customer demand? -How does the startup respond to suggestions and input from customers?	
Entrepreneurship	The creation of something new and valuable in which there is a combination of motivation in the creative process in which there is inspiration	Entrepreneur competence	-Are entrepreneurial skills important in managing and building a business? -Why is understanding entrepreneurship important for startups? -When is entrepreneurship needed in a startup?	CEO Startups incubated in Bandung Techno Park are experts in the startup field
		Adventure tendency	-What obstacles often occur in the application of entrepreneurship? -Are you willing to accept business risks for startup success?	
		Desire to accomplish	-As an entrepreneur, what do you want to achieve?	
		Goal Orientation	-What is the motivation to lead a startup in achieving success?	
		Risk Sensitivity	-How do you deal with possible business risks for startup success?	
Technology	Support all business activities by utilizing and accepting new technology	Creative technology utilization	-Do startups need to use the latest technology? - What technologies do startups already have?	CEO Startups incubated in Bandung Techno Park are experts in the startup field
		Technical knowledge and craftsmanship	-How do startups respond to sustainable technological developments - When is technology needed for startups?	
		Intellectual property rights retention	-What are startups' efforts in adopting technology? -Why is technology needed for startup development?	
		Market-oriented technology	-Do startups recognize and accept new technological developments based on new lifestyle trends? -What obstacles often occur in the use of startup technology?	
		High-technology globalization	-How are startup efforts to maximize intellectual and technological resources in expanding the market?	
Economics	Company's financial activities including financing and investing	Continuous investment	-What are the efforts to maintain a sustainable relationship or contract with investors?	CEO Startups incubated in Bandung Techno Park are experts in
		Venture capital	-How to use startup capital to achieve	

Variable	Operational definition	Sub Variable	Interview Questions	Interview Speaker
		utilization	financial stability in business?	the startup field
		Raising venture funds	-How are startups used to attract investment? -What are the constraints in funding? -Why is funding important for startups?	
		Raising available funds	-How to manage startup funds for financial risk management?	
		Financial resource retention	-When is funding needed for a startup? -How do startups make a profit?	

A. Research Stages

In conducting qualitative research, researchers need to understand and recognize the stages of qualitative research so that it can run well.

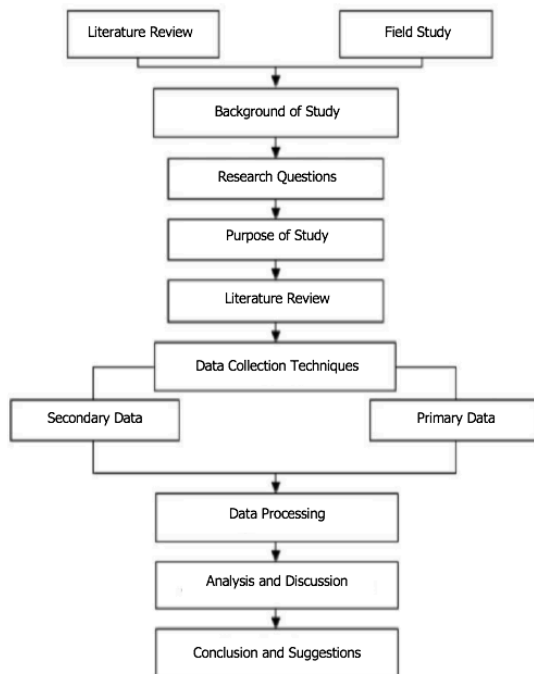


Figure 1. Research Stages
Source: Sugiyono (2019)

Based on Figure 1, the researcher describes the research process that begins with working on a research plan, including literature studies and field studies. The preparation of the research design includes choosing a place or research location, managing research permits, conducting field observations, determining informants, preparing research equipment, understanding and preparing ethics at the time of research.

The background stage of the problem, problem formulation, research objectives, literature study to data collection techniques, includes an understanding of the research background, namely about the critical success factors of startups in Bandung Techno Park. Then enter the research location and collect data in the field. In this data collection process, online interviews were carried out through the Zoom meeting platform to four startup CEOs and one startup expert.

The data processing stage includes the analysis of primary data and secondary data obtained through observations from online media and field research based on in-depth interviews with startup CEOs at Bandung Techno Park. All references obtained both primary and secondary were collected and revised to obtain data in accordance with the research objectives. Screening and checking of data is carried out for the basis and material taken from valid data so that it can be used to understand the context of the research being studied.

B. Data collection technique

Data collection techniques are the most strategic stages in research because research has the main goal of obtaining data. In qualitative research there are four data collection techniques, namely: observation, interview documentation and triangulation (Sugiyono, 2019). Data collection techniques in this study include: (1) interviews, (2) documentation, (3) triangulation.

According to Sugiyono (2019), interviews or interviews are data collection techniques that are based on self-reports which are at least based on personal knowledge or beliefs. In this study, the researcher will conduct semi-structured interviews to find more open problems where the resource person is free to answer questions openly. There were five resource persons in this study, including: Ridwan as CEO of PT Synchronus, Dedy Chandra Haludin as CEO of Modiflat, Adi Wisnu Suandharu as CEO of Socio caster, Rea Qinthara as CEO of Create It and Iwan Iwut Tritoasmoro as administrator of the Science Technology Association. Indonesian Park.

According to Moleong (2019), documentation is used in research as a data source because it can be used to interpret, test, and even predict. In this study, researchers collected documentation data through online media articles, taking pictures directly at BTP, and screenshots of interviews with the five sources which were carried out through the zoom meeting platform.

According to Farida (2014), triangulation is a technique of checking the validity of data by utilizing something other than the data for comparison purposes or checking the data in question. In this study, researchers used source triangulation where data were collected from various different sources through the same technique. Source triangulation is a triangulation process that directs researchers to collect data from various sources because similar data will be more secure when extracted from different sources (Farida, 2014). Researchers triangulated sources by comparing the results of interviews with four CEOs and a startup expert with various previous research findings.

C. Data source

In this study, the sources of data to be collected and analysed were obtained

in two ways, namely primary data and secondary data. Primary data or primary data is the first data obtained by researchers through observation, in-depth interviews with informants, and field documentation. In this study, the primary data that will be analysed by researchers is obtained from in-depth interviews with startups regarding the factors that determine startup success. Secondary data is supporting data from primary data. In this study, secondary data were obtained from literature, journals, and articles where the data could facilitate researchers in analyzing the primary data obtained.

RESULTS AND DISCUSSION

The data in this study were obtained from in-depth interviews with four CEOs from several startups namely Magic Order, Modiflat and Socio Caster and an expert in the startup field. The factor in critical success includes:

A. Innovation

1. Entrepreneurial Motivation

Referring to Kim et al. (2018) research, entrepreneurial motivation can be identified through the philosophy and goals of the business being undertaken. Based on the results of the interviews, the four CEOs have relatively the same philosophy and business goals, which are always trying to meet customer and market demands. The purpose of the business is related to meeting market and customer demands. This has become a business cycle and axiom where the goal of the founder to establish a business is to meet market demand. Referring to the results of Kim et al. (2018), entrepreneurial motivation is the third priority aftermarket oriented and progressive thinking.

Meanwhile, according to Chester et al. (2020), entrepreneurial motivation leads to the effect of striving for the goals of entrepreneurs. The greater the motivation possessed

by the entrepreneur, the more persistent the entrepreneur will be to continue to struggle to achieve the goal. In this study, the CEOs as informants already be motivated in the form of the goal of their business, namely being able to meet customer and market demands. With this goal in mind, startup CEOs will continue to strive for various things to meet market and customer demands. So, like it or not, these startup CEOs will continue to innovate.

2. Progressive Thinking

Based on [Kim et al. \(2018\)](#), progressive thinking can be identified through the open and flexible minds of business managers. Progressive thinking is one of the entrepreneurial mindsets that every startup founder must have. Entrepreneur mindset or entrepreneurial mindset is a way of thinking that can help entrepreneurs achieve business success. The success of a business can be realized if entrepreneurs are able to embrace various challenges, mistakes and failures so that they can become opportunities to help them succeed in the future.

Innovation is divided into two, namely implemental innovation and radical innovation. Implemental innovation is to improve existing ones in order to produce better products according to market demand. While radical innovation will actually burden the startup itself because the cost to innovate certainly costs a lot of money. Based on the results of the study, to be able to improve the ability to innovate, a learning process from mistakes made by oneself is needed and then used as learning.

3. Self-Development

Based on [Kim et al. \(2018\)](#), self-development can be identified through learning activities and team

development for business success. Based on the research results, involving the team to innovate is mandatory. This is because innovation is the result of teamwork where the success of innovation is the result of good teamwork and can meet customer demands on time.

4. Idea Commercialization

Based on [Kim et al. \(2018\)](#), the idea of commercialization can be identified through various efforts to develop new businesses using the idea of commercialization for business success. The results of the study show that with all the limitations and uncertainties in startups, market driven is a savior to find gaps in market needs. Based on these findings, the commercialization of ideas as a milestone of innovation always leads to market driven.

5. Market Oriented Opportunity Switch

Based on [Kim et al. \(2018\)](#), market-oriented opportunity switch is a flexible and easy-to-change business model which is caused by the development of products and services based on market and customer trends. Asking for feedback or validation from customers is an effective way to find out market needs. From the results of the interview, it can be seen that asking for feedback, criticism, suggestions and input from customers or customers is a way that startups always do in order to make products or services that are in accordance with customer or market demands. This effort is in line with [Kim et al. \(2018\)](#) research which states that a startup can attract consumers but if it is then only able to offer one product continuously, it will surely fail.

B. Entrepreneurship

1. Entrepreneur's Competency

According to Kim et al. (2018), entrepreneur's competency can be identified through the ability of entrepreneurs to lead startups to success. Based on the research results, all informants in this study realized that entrepreneurial skills are very important for startup success. Based on research results, starting a startup is creating something in an extreme position, uncertain, with limited resources. Thus, startups need special competencies obtained from this entrepreneurship. In addition, startups also need leadership.

Based on the results of interviews, all informants in this study realized when entrepreneurship was needed by startups. Entrepreneurial attitude must be grown and developed. The earlier a person grows his entrepreneurial character, the more it will help him to be better prepared to face the opportunities that come or face the business he is developing.

2. Adventure Tendency

In Kim et al. (2018), adventure tendency is an offensive attribute of entrepreneurs to take business risks in order to achieve success. The entrepreneurship challenges faced by startup CEOs are different and come from various sectors. Regarding the understanding of entrepreneurship, it must be planted as a mindset. Regarding the market, it is not an obstacle, but a challenge for every startup. The problem is our capacity or our inability to meet market demand. Based on the results of the interviews, all of the informants in this study were classified as having the courage to take risks. According to one of the informants, being an entrepreneur, itself can also be categorized as having the courage to take risks.

3. Desire to Accomplish

According to Kim et al. (2018), desire to accomplish can be known through entrepreneurial willingness to lead their business. based on the results of interviews, all informants in this study have the will to continue to meet customer needs. Fulfillment of customer requests is coveted by CEOs because this is the vision and mission of the business. Businesses must have a vision and mission. As long as the vision and mission of the business is in line with the vision and mission of the founders or founders, or let's say these stakeholders are running it, it will run well.

4. Goal's Orientation

Based on Kim et al. (2018), goal's orientation can be identified through their goals and willingness to achieve success which can be seen from their motivation. Based on the research results, the four CEOs as informants have their own vision and mission in running their business. Every entrepreneur or CEO must be motivated in the form of a vision and mission where the vision and mission will clarify the direction and goals of their business. According to Chester et al. (2020), entrepreneurial motivation leads to the effect of striving for the goals of entrepreneurs. The greater the motivation possessed by the entrepreneur, the more persistent the entrepreneur will be to continue to struggle to achieve the goal. Therefore,

5. Risk Sensitivity

Based on Kim et al. (2018), risk sensitivity can be identified through the attitude of entrepreneurs in dealing with risk with all its negative effects for startup success. Each startup leader who became an informant in this study has a different character. They have their own style that cannot be forced. There are those who are used to high

calculations and there are also those who are ordinary but dare to take risks. According to Scarborough (2016), an entrepreneur is a person who creates a new business in the face of risk and uncertainty with the aim of achieving profit and growth by identifying opportunities and the required resources. From the opinion of Scarborough (2016), it can be concluded that the four startup CEOs have tried their best for business success. This can be seen from the way they create opportunities, try to meet customer demands and determine the target market. All of the above was done by the CEO in the midst of uncertainty over the results they received, but they still dared to do it.

C. Technology

1. Creative Technology utilization

According to Kim et al. (2018), creative technology utilization can be identified through the acceptance and acknowledgment of new technology. Based on research results, the essence of running a business is to create value for customers. If the customer needs value with new technology, it means that this is his demand. If the customer gets value, it doesn't have to be with new technology, but with reliable skills from the team, that's what is needed. It all depends on the value impression. Startup is a business model that cannot be separated from technology. Because, startups are born as products of technology itself. A startup's need for technology depends on delivering value to customers.

2. Technical Knowledge and Craftmanship

Based on Kim et al. (2018), technical knowledge and craftsmanship can be seen through the way startups respond to sustainable

technological developments and knowledge about when technology is needed by startups. The results in this study indicate that in responding to sustainable technological developments, a learning process is needed from a mistake that has been made before. In addition, it is necessary to upgrade the skills possessed by the talents. Some startups may be affected to have to implement the latest technology. But back to fulfilling the value impression on the customer earlier. The most important thing is the skill to use the technology. startups do not have to have the latest technology, but the most important thing is the skill to operate the technology. startups do need technology, but technology is just a startup supporting element.

3. Intellectual Property Rights Retention

Based on Kim et al. (2018), intellectual property rights retention can be identified through startup efforts in adopting technology and understanding why technology is needed by startups. Technology only helps the development of a business but must still pay attention to the comfort of the target market. The essence of adopting technology is upgrading the skills of the technology team. A startup's understanding of its need for technology is needed so that startups can survive. The failure of startups to adopt the latest technology is due to financial or capital gaps and the expertise to operate the latest technology. The findings in this study also emphasize the team's ability to adopt the latest technology. The latest technology does not have to be owned by a startup because it can burden the startup's financial condition.

4. Market Oriented Technology

Based on Kim et al. (2018), market-oriented technology can be identified through the recognition and acceptance of new technology developments based on new lifestyle trends and constraints in operating technology. In this study, some startups may be affected to have to implement the latest technology. But back to fulfilling the value impression on the customer. The five informants agreed that technology is not an obstacle for startups. According to them, the problem is the human resources who manage the technology.

5. High Technology Globalization

Based on Kim et al. (2018), high technology globalization can be seen through startup efforts in maximizing intellectual and technological resources in expanding the market. In this study, the allocation of intellectual resources can be done by upgrading the skills of the team and placing the team according to their expertise. The role of technology in expanding the market can use the internet so that it can be reached by the wider community.

D. Economy

1. Continuous Investment

According to Kim et al. (2018), continuous investment can be identified through startup ways to maintain a sustainable contractual relationship with investors. In this study, the thing that must be done to maintain a contractual relationship with investors is that all members or the startup team must try to convince investors regarding business prospects in which there are ideas, target markets and are able to build good chemistry with investors. What investors see in general is the business prospects. The business prospect is constructed from

several things, including ideas, teams, and markets.

2. Venture Capital Utilization

Based on Kim et al. (2018), venture capital utilization can be identified through the use of startup capital to achieve financial stability. The results in this study indicate that the efforts made by startups to achieve financial stability are by utilizing and managing finances in the wisest and ideal way possible, not being greedy and applying the principle of mutual trust with the team. Setting up a startup is a professional thing. It is clear that you should not mix personal finances with company finances. Regarding the team's involvement in the financial management of startups, it is technical in nature.

3. Raising Venture Fund

Based on Kim et al. (2018), raising venture funds can be identified through startup efforts to attract investors. Investor involvement in startups is an obligation in the startup ecosystem. Investors are useful for providing funding and skill ups. However, it depends on the type of startup. Not all startups need investors. The skills of startup founders are the most important, especially the ability to build a team and lead a business. In addition, the things that are seen by investors include skills in business maturation and product development. Thus, the results of this study focus on startup founders or CEOs to attract investors in the initial phase of startup establishment.

4. Raising Available Fund

Based on Kim et al. (2018), raising available funds can be known through how startups manage startup funds for financial risk management. The findings in this study indicate that startup efforts in financial risk management can be carried out by

separating company finances from personal finances, managing funds accountably, coordinating and implementing the principle of mutual trust between the team and CEO.

5. Financial Resources Retention

Based on Kim et al. (2018), financial resource retention can be known through when funding is needed for startups. Startups need funding from start to finish. Funding is needed at all times for startups, even from the initial idea until the product is launched, it requires funding. When a startup needs funding, then everything will not run ideal.

E. The Most Dominant Determining Factors for Startup Success

Based on the research results, the most dominant factor in this study is entrepreneurship which is related to the characteristics of the founder, and the performance of human resources. In addition to the most dominant factors in the success of a startup, this research also produces findings in the form of factors that are the most difficult for startups to implement. Based on the results of interviews, this factor is entrepreneurship. The conclusion from the answers of the four informants is that the success of a startup depends on its human capabilities, be it the founder, CEO or team in the startup

CONCLUSION

Innovation is one of the startups needs that must be met so that the startup continues to grow and continues to be accepted by the market. In practice, the obstacles that are often encountered in innovating are related to the target market, capital resources, technology trends, and human resources. Entrepreneurship is one of the concepts that must be understood and owned by a CEO in order to be able to run his business well. Based on the research results,

the four CEOs have understood and implemented entrepreneurship well. Technology (technology) is a tool that cannot be separated from startups. Startups always need technology, but not necessarily the latest technology. Based on the opinion of the four informants, technological talent is more needed than the latest technology. Economics (economy), related to funding including investors and financial management. Based on the research results, things that need to be considered regarding funding include how to attract investors, maintain investor contracts and manage finances wisely.

Based on the results of interviews and researcher analysis, entrepreneurship is the most important factor in startup success. The entrepreneurship aspect is related to the characteristics of the founder, and the performance of human resources. In addition to the most dominant factors in the success of a startup, this research also produces findings in the form of factors that are the most difficult for startups to implement. Based on the results of interviews, this factor is entrepreneurship. The conclusion from the answers of the four informants is that the success of a startup depends on its human capabilities, be it the founder, CEO or team in the startup.

REFERENCES

- Afdi, Z., & Purwanggono, B. (2018). Perancangan strategi berbasis metodologi lean startup untuk mendorong pertumbuhan perusahaan rintisan berbasis teknologi di Indonesia. *Industrial Engineering Online Journal*, 6(4). [Google Scholar](#)
- Al Sahaf, M., & Al Tahoo, L. (2021). Examining the key success factors for startups in the Kingdom of Bahrain. *International Journal of Business Ethics and Governance*, 4(2), 9–49. [Google Scholar](#)
- Anggara, R. G., & Anggadwita, G. (2018). Analisis faktor-faktor yang

- mempengaruhi keberhasilan technopreneur: Studi kasus pada bandung techno park. *EProceedings of Management*, 5(2). [Google Scholar](#)
- Chester, Martínez, J. M. G., Orero-Blat, M., & Chau, K. P. (2020). Predicting motivational outcomes in social entrepreneurship: Roles of entrepreneurial self-efficacy and situational fit. *Journal of Business Research*, 121, 209–222. [Elsevier](#)
- Farida, N. (2014). Metode penelitian kualitatif dalam penelitian pendidikan bahasa. *Solo: Cakra Books*. [Google Scholar](#)
- Fitri, R., Nugroho, A. S. B., Asyikin, A. N., & Herlinawati, H. (2021). Pelatihan Dan Pendampingan Pembuatan Perusahaan Startup Bagi Ukm Demi Meningkatkan Ketahanan Ekonomi Di Masa Pandemi COVID 19. *Jurnal IMPACT: Implementation and Action*, 3(2), 164–173. [Google Scholar](#)
- Ghina, A., & Sinaryanti, I. (2021). The Learning Evaluation of Business Incubator's Role in Developing Technology-Based Startups at Technology Business Incubator. *The Asian Journal of Technology Management*, 14(1), 35–57. [Google Scholar](#)
- Hardiansyah, R., & Tricahyono, D. (2019). Identifikasi Faktor-Faktor Kesuksesan Start Up Digital di Kota Bandung. *Jurnal Ekonomi*, 27(2), 134–145. [Google Scholar](#)
- Hasanuddin, H., Nurdin, H., & Hayami, R. (2019). *Taman Tekno Kincir Angin/Windmill Techno Park: Mengolah Potensi Sumberdaya Pesisir untuk Kepariwisata dan Energi (Serial Wisata Terpadu Pendidikan)*. [Google Scholar](#)
- Jaya, M. A., Ferdiana, R., & Fauziati, S. (2017). Analisis Faktor Keberhasilan Startup Digital di Yogyakarta. *Prosiding Snatif*, 167–173. [Google Scholar](#)
- Jaya, M. A., Ferdiana, R., & Fauziyati, S. (2017). Analysis of Digital Startup Success Factors in Yogyakarta. *Journal of the University of Muria Kudus*, 4(1), 167–173. [Google Scholar](#)
- Jesemann, I. (2020). Support of startup innovation towards development of new industries. *Procedia Cirp*, 88, 3–8. [Elsevier](#)
- Kim, B., Kim, H., & Jeon, Y. (2018). Critical success factors of a design startup business. *Sustainability*, 10(9), 2981. [Google Scholar](#)
- Marcon, A., & Ribeiro, J. L. D. (2021). How do startups manage external resources in innovation ecosystems? A resource perspective of startups' lifecycle. *Technological Forecasting and Social Change*, 171, 120965. [Elsevier](#)
- Moleong, L. J. (2019). Moleong. *Metode Penelitian Kualitatif*. [Google Scholar](#)
- Okrah, J., Nepp, A., & Agbozo, E. (2018). Exploring the factors of startup success and growth. *The Business & Management Review*, 9(3), 229–237. [Google Scholar](#)
- Prohorovs, A., Bistrova, J., & Ten, D. (2019). Startup success factors in the capital attraction stage: Founders' perspective. *Journal of East-West Business*, 25(1), 26–51. [Google Scholar](#)
- Ries, E. (2011). *The lean startup: How today's entrepreneurs use continuous innovation to create radically successful businesses*. Currency. [Google Scholar](#)
- Samiono, B. E., & Nurlatifah, H. (2021). Start-up business camp TDA wilayah Jakarta. *Jurnal Pemberdayaan Masyarakat Universitas Al Azhar Indonesia*, 3(2). [Google Scholar](#)
- Scarborough, N. M. (2016). *Essentials of entrepreneurship and small business management*. Pearson. [Google Scholar](#)
- Sugiyono. (2019). *Metode Penelitian*. CV Alfabeta. [Google Scholar](#)



© 2022 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY SA) license (<https://creativecommons.org/licenses/by-sa/4.0/>).