

HOW TO SUSTAIN IN A VUCA WORLD: A CONCEPTUAL STUDY ON START-UPS IN INDONESIA

Alvin Santoso

Universitas Bina Nusantara

Danu Rahardja Singgih

Universitas Bina Nusantara

Desman Hidayat*

Universitas Bina Nusantara

The purpose of this research is to find out the effect of entrepreneurial creativity on sustainable competitive advantage, and how business model innovation can help start-ups in Jabodetabek to achieve sustainable competitive advantage against its competitors. The method of analysis that is used in this research is Structural Equation Modeling (SEM). Data analysis is performed using AMOS Software. Collection of data in this research uses questionnaire that is aimed at respondents which are start-ups located in the Jakarta, Bogor, Depok, Tangerang, and Bekasi area (Jabodetabek).

Keywords: sustainable competitive advantage, entrepreneurial creativity, business model innovation, structural equation modeling

Tujuan dari penelitian ini adalah untuk mengetahui pengaruh kreativitas wirausaha terhadap keunggulan kompetitif berkelanjutan, dan bagaimana inovasi model bisnis dapat membantu para pemula di Jabodetabek untuk mencapai keunggulan kompetitif berkelanjutan terhadap para pesaingnya. Metode analisis yang digunakan dalam penelitian ini adalah Structural Equation Modeling (SEM). Analisis data dilakukan dengan menggunakan Perangkat Lunak AMOS. Pengumpulan data dalam penelitian ini menggunakan kuesioner yang ditujukan untuk responden yang merupakan *start-up* yang berlokasi di wilayah Jakarta, Bogor, Depok, Tangerang, dan Bekasi (Jabodetabek).

Kata Kunci: keunggulan kompetitif berkelanjutan, kreativitas wirausaha, inovasi model bisnis, structural equation modeling

INTRODUCTION

In this modern world, companies are faced with rapid change condition of the world that demands entrepreneurs to improve their entrepreneurial skills to be able to adapt with those changes and survive against the world market (Bekmezci, 2013; Castellacci, 2008).

Different types of innovation produces different competitive impact resulting in different markets. Business model innovation is part of

disruptive innovation where each aspects have different implications on companies (Markides, 2006). Disruptive innovation is a potent way to expand and develop new markets and provide new purpose, but disruptive innovation can disturb the existing market condition (Yu & Hang, 2010).

The choice of implementing disruptive innovation itself can lead to a condition called

VUCA (Millar, Groth, & Mahon, 2018). VUCA illustrates a business condition and that the strategy determination process are influenced by the rapid changes happening in the industry because of unpredictable challenges (Volatility), unpredictable issues (Uncertainty), interconnected issues and chaos around the organization (Complexity), and a condition where something clear and something that can be determined are so rare that courage, responsibility and willingness in decision making is needed (Ambiguity) (Potsangbam, 2017).

Despite the growing VUCA condition on the global market, there is still hope for the companies to strive. Chawla and Lenka (2018) state that creativity is one of the aspects that is needed to face VUCA, the reasoning behind it is because in VUCA companies are forced to be nimble on handling the rapid and unexpected changes that happen around them, so having creativity in these times are an advantage (Chawla & Lenka, 2018).

VUCA causes economic instability globally. In 2018, the world experience economic slowdown, where there is a 0.1% difference compared to the previous year (from 3.8% to 3.7%) (Bank Indonesia, 2018). In the case of Indonesia, *Bank Indonesia* and the government issues policies to handle the unstable economic condition and accelerate Indonesia's economic growth, resulting in 0.10% economic growth compared to the previous year (5,07% to 5,17%) and sets a new record as highest economic growth since 2003 (Bank Indonesia, 2018).

Within those growth, the digital technology growth also contribute to the creative economy in Indonesia. This leads to the government focus on Creative Economy these last 5 years (Bank Indonesia, 2018). According to Indonesia's BEKRAF, the creative economy contributes 7,44% of Indonesia's economy on 2016 and expected to grow until 2019. To the year 2016, there is 8.2 million entrepreneurs working on the creative economy sector (Badan Ekonomi Kreatif Indonesia, 2019).

According to Temasek's e-Conomy SEA 2018, the Indonesian market for digital economy is as big as 27 billion dollars or 40% of the whole South East Asia's total digital economy market and will keep rising to 100 billion dollars by 2025. The sectors that is considered as digital

economy on their research includes: E-commerce, Online Media (Music, Video, Gaming, and Advertising), Online Travel, and Ride Hailing, where E-commerce deemed having the biggest part on increasing the digitalization of Indonesia (DailySocial id, 2018).

According to Indonesia's BEKRAF, the start-up count in Indonesia reach as much as 992 companies from the total of 3025 start-ups that exist in South East Asia. This data shows that start-ups in Indonesia is the 3rd largest in South East Asia after Malaysia (1592 companies) and Singapore (2089 companies) (E27, 2018). This proves that Indonesia have a good potential in International Digital Market.

Problem Statement

Despite the rapid growth, start-ups have their own set of problems. 90% of start-ups fail to attract investors and will only survive for around 3 years (Gompers & Lerner, 2002). After studying the death of start-ups, CB Insights learned that there are 20 reasons that start-up fails (see Figure 1). Among those 20, the top five reasons are inability to find market's needs (42%), running out of cash (capital) (29%), incompatible team (23%), outcompeted by other start-ups (19%), and pricing/cost issues (18%) (CB Insights, 2017).

Start-ups that got outcompeted ranks at number 4, while the current global condition indicates that a rapid changing environment (VUCA) force companies to be able to survive competing against their competitors. In the end, we cannot avoid the tight competition and should face the change that competitors did so we can adapt and survive in this VUCA era. The fast technological growth and unstable conditions of the global markets also dictates companies to improve their values and business models so that they can survive and the most important thing is to have a competitive advantage over the competitors and that will stand over time (Bashir & Verma, 2017). Business Model Innovation is one of the way for company to do the adaptation in this state, and it can help these companies to achieve Sustainable Competitive Advantage. One of the advantages of business model innovation is to make our company difficult to be imitated by competitors (Bashir & Verma, 2017).

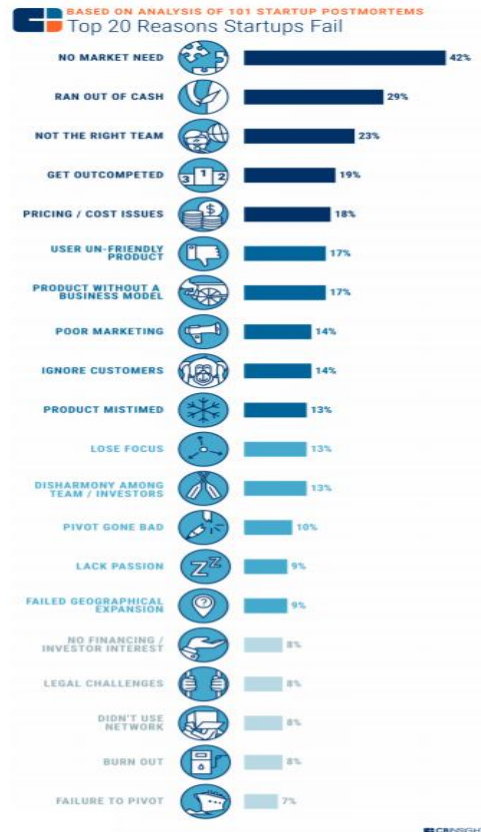


Figure 1. Twenty Reasons Start-ups Fail

Research Objectives and Benefits

In this study, there are three (3) research objectives and hypotheses used as a guideline for the researchers to work on. The specific objectives of this study are to determine:

1. To identify the cause of start-ups deaths in Jabodetabek
2. To identify factors that contributes to the Sustainable Competitive Advantage of start-ups in Jabodetabek
3. To identify the right strategies for start-ups in Jabodetabek to achieve sustainable competitive advantage over their competitors

The benefits of this research is to point out the relationship between entrepreneurial creativity on sustainable competitive advantage using business model innovation as a mediating variable, where the result can be used as a

strategy recommendation for start-ups in Jabodetabek to compete against their competitors.

LITERATURE REVIEW

VUCA (Volatility, Uncertainty, Complexity, Ambiguity)

The term VUCA originated and introduced by U.S. Military as the cold war ended, to prepare on increasing challenge from unbalanced opponents such as non-state militias and other loosely organized. It's used to respond quickly effectively, and efficiently to the explosion of technology-enabled battlefield intelligence and to increasing ambiguity surrounding who was an

“enemy combatant” versus who was “innocent civilian”. Frequently, VUCA is used to avoid planning and action as the environment is “too desperate and too crazy” (Millar et al., 2018).

VUCA is an acronym that describes 4 conditions, which are Volatile, Uncertain, Complex, and Ambiguous. Jeroen Kraaijenbrink describe these conditions related to each other, by showing an example such as “the more complex and volatile an Industry is, the harder it is to predict, resulting an uncertain condition” (Kraaijenbrink, 2014). Below are the detailed explanation on each of these conditions according to Kraaijenbrink (2014) and Bennett and Lemoine (2014):

Volatility is described as how fast does an industry or market change, demand fluctuations and turbulence. Kraaijenbrink (2014) also conveyed that the fast change in the industry is one of the signs of volatility. Bennett and Lemoine (2014) stated that one of the sign of volatility is how unexpected and unstable a challenge is, but not necessarily hard to understand.

Uncertainty is defined as the degree of how we can confidently predict the future, whether it’s the demand of the market, or technological innovation. One of the indicator of uncertainty is

the people’s inability to understand what is happening around them. Bennett and Lemoine (2014) suggest to handle uncertainty by investing in information which means that companies should start to collect, interpret, and share the information.

Complexity is the how much of things or factors that must be taken into account, their variety and relationship or correlation between them. Kraaijenbrink define that the more these things or factors interconnected, the more complex an environment is, and as the environment or industry gets more complex, the harder it is to be analysed. According to Bennett and Lemoine (2014), this situation can be challenging and overwhelming to process, but solutions such as restructuring the company and recruiting external specialists or developing internal ones could help solve this issue.

Ambiguity refers to how hard it is to interpret a situation, and as the world gets more ambiguous, the harder it is to be interpreted. This can be coped with creating hypotheses’ to understand why or how things happen and test them by doing experiments (trial-and-error), then create a solution that can be practically executable.



Figure 2. VUCA Characteristics

Strategic Management

According to David and David (2017), strategy management is an art and science formulating, implementing, and evaluating cross-functional decisions that make it possible for organizations to achieve their goals. Strategy management can focus on integrating management, finance, R&D, production and operations to achieve organizational success in obtaining profits and achieving objectives. The main objective of strategy management is to create and exploit new and different opportunities for the organization today, tomorrow, short-term planning and long-term planning (David & David, 2017).

According to Rothaermel (2015), strategic management is a science and field that is part of the management that combines analysis, formulation, and implementation to seek and acquire a competitive advantage. Mastering strategic management can help and enable people in seeing the company as a whole. It also allows managers to think and work properly and properly so that the company can stand in a winning position with good performance from its HR (Rothaermel, 2015).

Entrepreneurial Creativity

Entrepreneurial Creativity can be seen as the ability of an entrepreneur to compose a new combination of factors (which until now) are independent so that they are able to create a new product, service, process or application that has more value than previously existed in the market or production environment. Creativity is believed to be a driving factor that causes an individual to become an entrepreneur and in encouraging the growth of a company (Dayan, Zacca, & DiBenedetto, 2013).

Perry-Smith and Coff (2011) say that Entrepreneurial Creativity is the ability to identify new and useful solutions to problems in the form of new products or services. They also assess that for entrepreneurs, the novelty element of the idea and (in the context of long-term success) of the usability element (usefulness) is very relevant, and the imbalance of these two

elements often reflects the failure of an idea Business (Perry-Smith & Coff, 2011).

Business Model Innovation

Business Model Innovation is defined as a process whereby a company not only creates a radical new strategy for their business, but rather gives a new definition to existing products or services, and how the products and services provided to their consumers. For that reason, in order to be said to be a business model innovation, a new business model belonging to the company should be able to strengthen its market share in the economy. It can be done by bringing new consumers into the market, or encouraging consumers in existing markets to consume more (Markides, 2006)

Sustainable Competitive Advantage

According to Petrakis and Konstantakopoulou (2015), achieving sustainable competitive advantage is the main goal of all business strategies. Petrakis also said that in the midst of circumstances with high uncertainty, sustainable competitive advantage is a competitive advantage that is expected to excel in the future (Petrakis & Konstantakopoulou, 2015).

RESEARCH METHODOLOGY

The data is both primary and secondary data. The database of the research object (start-ups located in Jabodetabek) will be taken from BEKRAF's data, while the data that will be analysed by the researchers (primary data) will be obtained from the use of questionnaire media.

The population for this research are start-ups that are established in the Jabodetabek Area (Jakarta, Bogor, Depok, Tangerang, Bekasi). The total population of start-ups in the Jabodetabek Area is at 522 companies, with 428 of the companies are based in Jakarta, 20 in Bogor, 20 in Depok, 35 in Tangerang, and 19 in Bekasi (Badan Ekonomi Kreatif Indonesia, 2018).

This research focuses on generally observing start-ups on the Jabodetabek Area with the assumptions that these start-ups that is located on different areas have no particular or distinct trait,

thus the sampling method that will be used in this research is simple random sampling.

Measures

In this research, the data will be collected with the use of questionnaire media. According to Sekaran and Bougie (2014), questionnaire is a batch of previously arranged written questions which then used as by the research respondents as a media to

record their answers. Other than generally designed as a method to gather a large sum of quantitative data, this method is popular on business research due to the ability of gathering variety of datas from each respondents (Sekaran & Bougie, 2014). The questionnaire will be distributed by email, to the start-ups that have previously agreed to provide help filling the questionnaire.

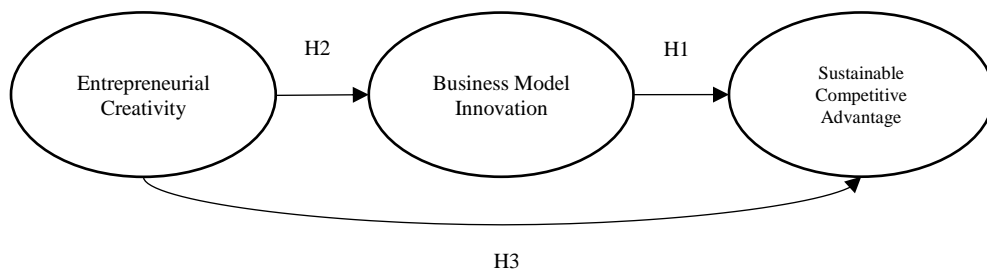


Figure 3. Proposed Structural Model

Hypothesis 1 (H₁)

Ho: There is no significant influence between Business Model Innovation on Sustainable Competitive Advantage.

Ha: There is a significant influence between Business Model Innovation on Sustainable Competitive Advantage.

Ha: There is a significant influence between Entrepreneurial Creativity on Business Model Innovation.

Hypothesis 3 (H₃)

Ho: There is no significant influence between Entrepreneurial Creativity on Sustainable Competitive Advantage

Ha: There is a significant influence between Entrepreneurial Creativity on Sustainable Competitive Advantage.

Hypothesis 2 (H₂)

Ho: There is no significant influence between Entrepreneurial Creativity on Business Model Innovation

Table 1. Operationalization of Variables

Variable	Dimension	Measurements Indicator
Entrepreneurial Creativity (Dayan et al., 2013)	Creative Self Efficacy (Carmeli & Schaubroeck, 2007)	I will be able to achieve most of the goals that I have set for myself in a creative way (X1)
		When facing difficult tasks, I am certain that I will accomplish them creatively (X2)
	Expertise	I have prior experience in small business management (X3)

	(Gill & Biger, 2014)	I have formal training in small business management (X4)
	Intrinsic Motivation (Tierney, Farmer, & Graen, 1999)	I enjoy engaging in analytical thinking (X5)
		I enjoy creating new procedures for work tasks (X6)
		I enjoy improving existing processes or product (X7)
	Alertness (Tang, Kacmar, & Busenitz, 2012)	I often see new combinations of people, materials, or products (X8)
		I often make novel connections and perceive new or emergent relationships between various pieces of information (X9)
		I am always actively looking for new information (X10)
	Resource Access (Seawright, Mitchell, & Smith, 2008)	I could raise money for a venture if I didn't have enough (X11)
		I can often see how requirements for my plans fit the knowledge and skills of other people (X12)
	Resource Possession (Seawright et al., 2008)	I presently control acquisition or expansion funds in an on-going business, or have my own funds available for venturing (X13)
		In the last three years, the size of the pool of people and assets I control has grown (X14)
Business Model Innovation (Futterer, Schmidt, & Heidenreich, 2017)	Value Offering Architecture	By the Implementation of the business model:
		New products, services, or combinations of both are offered (Y1)
		New value elements are offered (Y2)
		A new (sales) market is established (Y3)
	Internal Value Creation	By the Implementation of the business model:
		New Competencies are required (Y4)
		New Resources are required (Y5)
		New Internal processes are established (Y6)
	External Value Creation	By the Implementation of the business model:
		New sales channels are developed(Y7)
New partnerships are established(Y8)		
Financial Architecture	By the Implementation of the business model:	
	A new revenue model is developed(Y9)	
	New cost structures are established(Y10)	
Sustainable Competitive Advantage	Valuable Resources	Key resources represent value for exploring market opportunities or assisting the organization in defending itself against environmental threats through an increase in revenue and/or a reduction in spending (Z1)
	Rare Resources	Key resources are unavailable for other organizations. These resources are very difficult for competitors to acquire (Z2)
	Imperfectly Imitable Resources	Key resources are difficult for competitors to imitate (Z3)

	Strategically Irreplaceable (Durable)	Key resources are difficult to replace with another strategic equivalent (Z4)
	Environmental Sustainability	The company adheres to environmental sustainability in the use of key resources in the productive process and product development The company is also committed to the well-being of workers, society and the environment. (Z5)
	Responsibility	The company responsibly uses key resources in terms of the following aspects: economic (to provide society with goods and services); legal (regarding legal premises); ethics (respect for practices that are expected or prohibited by society); philanthropy (promote the well-being or quality of life of society). (Z6)

CONCLUSION

This study intend to be as a starting point to understand the impact of Entrepreneurial Creativity on the Sustainable Competitive Advantage through the use of Business Model Innovation for start-ups, especially in Indonesia's Jabodetabek Area. From our standpoint, this conceptual paper could be utilized by the start-ups to better understand the current VUCA condition happening in the world right now, and to serve as a reference for their formulation of strategies for start-ups in Indonesia's Jabodetabek Area in order to attain Sustainable Competitive Advantage.

Theoretical Implication

Findings we found in this conceptual paper would show that there is actually a correlation between the Entrepreneurial Creativity and Sustainable Competitive Advantage through the use of Business Model Innovation. The finding would enrich the newly emerging studies on Sustainable Competitive Advantage of start-ups.

Managerial Implication

The findings we acquire in this conceptual paper would provide a suggestion for start-ups to start considering the importance of entrepreneurial creativity in this VUCA world. We also would

like to suggest that start-ups should invest more in developing in-house employee's entrepreneurial creativity, where seminars and some training can be done to help develop the trait.

Limitations & Future Research

Although this conceptual paper is only limited to the start-ups that is established and based in Indonesia's Jabodetabek Area with the reasoning that the area itself is the highest concentration of start-ups in Indonesia, doesn't imply that this research can only be done here in Indonesia. Future research could be done on different countries, and on any part of the world since the death of start-ups happens everywhere in this VUCA world.

REFERENCES

- Badan Ekonomi Kreatif Indonesia. (2018). *Mapping & Database Startup Indonesia 2018*.
- Badan Ekonomi Kreatif Indonesia. (2019). *OPUS - Creative Economy Outlook 2019 (Indonesia Version)*. Retrieved from <https://www.bekraf.go.id/pustaka/page/89-opus-creative-economy-outlook-2019-indonesia-version>
- Bank Indonesia. (2018). *Economic Report On Indonesia*.

- Bashir, M., & Verma, R. (2017). Why Business Model Innovation Is the New Competitive Advantage. *The IUP Journal of Business Strategy*, XIV(1), 7-18.
- Bekmezci, M. (2013). Taking Competitive Advantage By Business Model Innovation. *Yönetim ve Ekonomi*, 20(1), 291-314.
- Bennett, N., & Lemoine, G.J. (2014). What VUCA Really Means for You. Harvard Business Review January-February Issue 2014. Retrieved from <https://hbr.org/2014/01/what-vuca-really-means-for-you>
- Carmeli, A., & Schaubroeck, J. (2007). The influence of leaders' and other referents' normative expectations on individual involvement in creative work. *Leadership Quarterly*, 18(1), 35-48.
- Castellacci, F. (2008). Innovation and the competitiveness of industries: Comparing the mainstream and the evolutionary approaches. *Technological Forecasting and Social Change*, 75(7), 984-1006.
- CB Insights. (2017). Top 20 Reasons Why Startups Fail. *Cbinsights*, 20. Retrieved from <https://www.cbinsights.com/research/startup-failure-reasons-top/>
- Chawla, S., & Lenka, U. (2018). Leadership in VUCA Environment. In *Flexible Strategies in VUCA Markets* (pp. 213-224). Singapore: Springer
- DailySocial id. (2018). Startup Report. *DailySocial*.
- David, F.R., & David, F.R. (2017). *Strategic Management*. England: Pearson Education Limited.
- Dayan, M., Zacca, R., & DiBenedetto, A. (2013). An exploratory study of entrepreneurial creativity: Its antecedents and mediators in the context of UAE firms. *Creativity and Innovation Management*, 22(3), 223-240.
- E27. (2018). *Southeast Asia Startup Economy Report 2018*. Retrieved from <https://doi.org/10.1017/CBO9781107415324.004>
- Futterer, F., Schmidt, J., & Heidenreich, S. (2017). Effectuation or causation as the key to corporate venture success? Investigating effects of entrepreneurial behaviors on business model innovation and venture performance. *Long Range Planning*, 51(1), 64-81.
- Gill, A., & Biger, N. (2014). The Relationship between Working Capital Management and Profitability: Evidence from Saudi Cement Companies. *British Journal of Economics, Management & Trade*, 4(1), 146-157.
- Gompers, P.A., & Lerner, J. (2002). The money of invention: how venture capital creates new wealth. *Ubiquity*, 2002(January), 1.
- Kraaijenbrink, J. (2018). What Does VUCA Really Mean? Retrieved from <https://www.forbes.com/sites/jeroenkraaijenbrink/2018/12/19/what-does-vuca-really-mean/#375719fe17d6>
- Markides, C. (2006). Disruptive innovation: In need of better theory. *Journal of Product Innovation Management*, 23(1), 19-25.
- Millar, C.C.J.M., Groth, O., & Mahon, J.F. (2018). Management innovation in a VUCA world: Challenges and recommendations. *California Management Review*, 61(1), 5-14.
- Perry-Smith, J.E., & Coff, R.W. (2011). In the Mood for Entrepreneurial Creativity? How Optimal Group Affect Differs for Generating and Selecting Ideas for New Ventures. *Strategic Entrepreneurship Journal*, 10(5), 235-256.
- Petrakis, P. E., & Konstantakopoulou, D. P. (2015). *Uncertainty in Entrepreneurial Decision Making: The Competitive Advantages of Strategic Creativity*. Palgrave-Macmillan.
- Potsangbam, C. (2017). Adaptive Performance in VUCA Era - Where Is Research Going? *International Journal of Management*, 8(February), 99-108.
- Rothaermel, F.T. (2015). *Strategic Management*. 2nd Edition. McGraw-Hill.
- Seawright, K.W., Mitchell, R.K., & Smith, J.B. (2008). Comparative entrepreneurial cognitions and lagging Russian new venture formation: A tale of two countries. *Journal of Small Business Management*, 46(4), 512-535.
- Sekaran, U., & Bougie, R. (2014). *Research Methods for Business* (7th ed.). UK: John Wiley & Sons.
- Tang, J., Kacmar, K.M.M., & Busenitz, L. (2012). Entrepreneurial alertness in the pursuit of new opportunities. *Journal of Business Venturing*, 27(1), 77-94.
- Tierney, P., Farmer, S.M., & Graen, G.B. (1999). An examination of leadership and employee creativity: The relevance of traits and relationships. *Personnel Psychology*, 52(3), 591-620.
- Yu, D., & Hang, C.C. (2010). A Reflective Review of Disruptive Innovation Theory. *International Journal of Management Reviews*, 12(4), 435-452.