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BIG DATA CAPITALIZATION IN ATTEMPT TO SOLIDIFY TANIHUB STARTUP OPERATIONS: A CASE STUDY

Fakhreza Aminurahman[1*], Lien Herlina[2], Nur Hasanah[3]

[1] School of Business, Institut Pertanian Bogor University (IPB), Indonesia.
Email: Fakhreza@supermail.id
[2] School of Business, Institut Pertanian Bogor University (IPB), Indonesia.
[3] School of Business, Institut Pertanian Bogor University (IPB), Indonesia.
[*] Corresponding Author

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Abstract:

The high growth of startups in the VUCA (Volatile, Uncertainty, Complexity, Ambiguity) era was offset by the high number of failures of various businesses that relied on the technology. In many industries, the increasing level of vulnerability, uncertainty, and complexity of businesses is undermining the market and changing the nature of competition. Tanihub startup is an e-commerce startup that is considered able to come out as a winner by capitalizing the big data they formulated. This study aims to (1) identify variations in big data owned and formulated by the Tanihub Startup Company during its business, (2) review any big data that can be a sustainable competitive advantage for Tanihub Startup, and (3) formulate the implications regarding big data capitalized by Tanihub Startup Company. This study uses VRIO analysis in determining the big data of a company's competitive advantage and marketing in the formulation of strategies to maintain a sustainable competitive advantage. Big data that has been extracted through the 3 scopes, then processed and analyzed using VRIO (Valuable, Rare, Inimitability, Organize) to determine various variations of big data. Tanihub Startup that can be a competitive advantage for the company. Through the VRIO test results of the big data variations that have been analyzed, formulate 10 big data that can be categorized as a sustainable competitive advantage for the company Startup Tanihub. Then, formulate a market strategy based on these competitive advantages using marketing genius.

Keywords:

Big Data, Marketing Genius, Startup, VRIO Framework.

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Introduction

The high growth of startups in the VUCA (Volatile, Uncertainty, Complexity, Ambiguity) era was offset by the high number of failures of various businesses that relied on the technology. The growth of startups attracts more attention to the business world in the industrial era 4.0. Startups in Indonesia have become very booming because of the extraordinary growth lately. The rapid growth of this startup company is also directly proportional to the number of failures to survive from these new business actors. Some startups experience major failures, and others tend to keep changing their business models. Mikti (2018) states that in Indonesia there are 992 active startups, 522 of which are domiciled in Greater Jakarta. As many as 55% of startups are legally incorporated as Limited Liability Companies (PT), 36% of them are engaged in E-commerce. Mikti recorded a startup growth from 2015 to 2018 of 60.8%.

In fact, of all the startups that emerged, only 10% of them were able to survive the following year, and 1% of them became Unicorns (Diaz 2019). 42% of these startups fail because there is no market need for the products they offer. In many industries, the increasing level of vulnerability, uncertainty, and complexity of businesses is undermining the market and changing the nature of competition (Bennet and Lemoine,2014). Startups become a very strong business when they are able to collect and process very large data, or commonly referred to as big data. Big data holds a lot of consumer information that companies get to meet their business needs. The role of big data in businesses such as incubators for premature babies, big data plays an important role, especially for startups that are still very vulnerable to bankruptcy. Big data is a pillar and guide for businesses so that the targets to be achieved such as market segments, operations, competitors and other components can be achieved smoothly by minimizing obstacles that will occur. In the past few years, the concept of big data has become a hot topic for discussion in various sectors, ranging from business, education, technology, health, finance and other sectors. The role of big data is felt in the business sector. As the world of business and technology develops, the role of big data becomes even greater, especially in business marketing which includes various consumer and producer behaviors. There are so many research methods carried out by companies in an effort to improve marketing strategies to find out how consumers behave, what products are liked by consumers, or market trends. Tanihub startup is an e-commerce startup that is considered able to come out as a winner by capitalizing the big data they formulated.

Based on this background, the formulation of the problem can be formulated as follows:

1. What types of big data variations were entered for Tanihub Startup while operating the business?
2. What kind of big data gives Startup Tanihub a competitive edge?
3. How big data capitalization for companies to compete and survive in the VUCA era?

Based on the existing problems, this study aims to:

1. Identify the big data variations owned and formulated by the Tanihub Startup company while running its business.
2. Assessing what big data can be a competitive advantage for Startup Tanihub.
3. Formulate managerial implications regarding big data capitalized by Tanihub Startup companies.

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Overall, this research makes some important contributions. First, in view of the discrepancies highlighted, this paper provides significant insights into the benefits of the power of enterprise big data for both the startup owners as well as the general public. This will help to achieve a more holistic picture and a better understanding of the businesses. Second, there is a notable debate on competitive advantage in which this is an important study for the startup owners to be able to maximize their role big data for companies as a competitive advantage and creating an artful new frame of mind in task design end.

To limit the scope of this study, this paper only conduct research on the variation and capitalization of big data supply partners, collaborators and consumers as a sustainable competitive advantage at the Tanihub Startup company. The researcher will also provide a strategic formulation of managerial implications on the use of company big data. This research was conducted during the Covid-19 pandemic outbreak.

Research Method

This research was conducted through online interviews with respondents located at CoHive 101 17th Floor, Jl. Mega Kuningan Barat No. 1, Kuningan Timur, Setiabudi, South Jakarta, 12950 (Tanihub Startup office) in March-April 2020.

This research was conducted using a qualitative descriptive method because it is in accordance with the VRIO framework theory in finding resources and capabilities that can be used as a source of sustainable competitive advantage for the company. This method is very helpful for researchers in obtaining analysis in the company's internal activities.

The data needed in this study consists of primary and secondary data. Primary data was obtained through in-depth interviews with company employees. This primary data is needed in order to obtain information about the company's big data variations and their use. The company's secondary data is also needed through supporting data owned by the company, such as data on platforms used, as well as variations in data from several consumers and producers to support good accuracy in observations. This research method is used because it is in accordance with the intent and purpose of obtaining sufficient in-depth information, in order to determine the role of big data in the company's operations.

Determination of respondents is done by non-probability sampling, namely selecting respondents who have experience or can be said to be experts. The selection of respondents was carried out by determining respondents intentionally (purposive sampling) by referring to the expertise and positions held by the experts who would be the resource persons. The experts in this study are the management of Startup Tanihub Indonesia, including Vice president, Head of Supply Chain, Head of Business Process, Head of Community Development, Head of Marketing, Software Engineer.

The method used to process data in this study includes 2 stages, namely: (1) Formulating what big data can be a sustainable competitive advantage using the VRIO framework analysis tool, (2) formulating a strategy to maintain big data for a sustainable competitive advantage using Marketing Genius.

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Results

Big Data Variations in Tanihub Startups

Based on the scope of the research, the researcher limits the variation of big data at the Tanihub Startup company on 3 things, namely: big data supplier partners, big data collaborators and big data consumers.

1. Big data variations in the scope of supply partners: Number of Suppliers, Supplier Profile, Supplier Income, Supplier's Production Commodities, Supplier's Land Area, Supplier's Production Capacity, Supplier's Cultivation Results, Domicile and Coordinates of Supplier's Land.
2. Big data variations in the scope of collaborators: End User Field Condition Data
3. Big data variations in the consumer scope: Consumer Email, Consumer Profile, Number of Consumer Transactions, Types of Top & Down Search Products, Types of Products Sold, Social Media Insights, Geographical Distribution, Types of Consumer Gadget Devices, Android/Ios Version Consumer Devices, Number of Retailers, Potential Agricultural Products, Number of Access and Application Downloads.

Analysis of Sustainable Competitive Advantage for Big Data Startup Tanihub Using VRIO

This study uses VRIO analysis in determining the big data of a company's competitive advantage and marketing genius in the formulation of strategies to maintain a sustainable competitive advantage. Big data that has been extracted through the 3 scope, then processed and analyzed using VRIO (Valuable, Rare, Inimitability, Organize) to determine various variations of big data Tanihub Startup that can be a competitive advantage for the company.Through the VRIO test results of the big data variations that have been analyzed (table 2), formulated 10 big data that can be categorized as a sustainable competitive advantage for the company Startup Tanihub.The top ten variations of the big data can be seen in table 1 with the white blocks.

Table 1: Tanihub Startup Big Data Variations on Three Scopes (Supplier Partners, Collaborators, dnd Consumers)

No.	Big Data	V	R	I	O	Competitive Implication
		A. SUPPLIER PARTNER				
1.	Supplier Partners	yes	yes	yes	yes	Sustained competitive advantage
2.	Supplier Profile (Name, Handphone Number, Land Area & Contract Co-ordination, Identity Card)	yes	yes	yes	yes	Sustained competitive advantage
3.	Supplier's Income	yes	yes	no	no	Temporary competitive advantage
4.	Products Type	yes	yes	yes	yes	Sustained competitive advantage
5.	The Area of Supplier's Land	yes	yes	no	no	Temporary competitive advantage

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6.	Supplier's Capacity Production	yes	yes	no	no	Temporary competitive advantage
7.	Cultivation of suppliers	yes	yes	yes	yes	Sustained competitive advantage
8.	Domicile and Coordinate of Supplier Land	yes	yes	no	no	Temporary competitive advantage
	B. COLLABORATOR					
1.	End User Field Condition Data	yes	yes	yes	yes	Sustained competitive advantage
	C. CONSUMER					
1.	Consumer Email	yes	yes	yes	no	Unused competitive advantage
2.	Consumer Profile	yes	yes	yes	yes	Sustained competitive advantage
3.	Total and Time of Consumer Transactions	yes	yes	yes	yes	Sustained competitive advantage
4.	Top & Down Search Products	yes	yes	yes	yes	Sustained competitive advantage
5.	Types of Products Sold	yes	yes	yes	no	Unused competitive advantage
6.	Media Social Insight	yes	yes	yes	yes	Sustained competitive advantage
7.	Geographical Distribution	yes	yes	no	no	Temporary competitive advantage
8.	Types of Consumer Gadget Devices	yes	no	no	no	Competitive parity
9.	Version of Android/ Ios Consumer's Device	yes	yes	yes	yes	Sustained competitive advantage
10.	Number of Potential Agricultural Product Retailers	yes	no	no	no	Competitive parity
11.	Number of App Accesses and Downloads	yes	no	no	no	Competitive parity

Table 2 shows managerial implications through the creation of a derivative product of Tanihub which is the result of the company's competitive advantage through the big data in which it is collected, researchers provide the term Tanivasi. Table 3 shows the linkage between the innovation of Tanivasi products with the big data source which is a competitive advantage Tanihub Startup.

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Table 2: The Managerial Implications of Tanivation as Big Data Capitalization Products at Startup Tanihub

	Tanivasi	
Supplier Partner	Collaborator	Consumer
TaniFund	TaniHack	Developing SKU Bundling
TaniSupply	TaniSocial	Marketing Concept
Prospecting		Design Packaging
	Program Cashback (OVO/Gopay)	
Re aquaculture Program	Free Shipping Program	Developing UI/UX of Application
	Tanimbrung	Program Promo Tani TaniSeries

Table 3: The Relationship of With Big Data Competitive Advantage Tanihub Startup

Tanivasi The Source of Big Data Competitive Advantages		
a. Supplier Partner		
TaniFund	-	Suppliers Profile
	-	Result of Partner's Cultivation
TaniSupply	-	Type of Product Supply
Prospecting	-	Sum of Supplier Partners
re aquaculture program	-	Supplier Profile Data
	-	Partner Cultivation Data
b. Collaborator		
TaniHack	-	End User Field Condition Data
TaniSocial	-	End User Field Condition Data
Cashback + Free Ongkir[1]	-	End User Field Condition Data
	-	Profile and Number of Consumer Transactions
c. Consumer		
SKU Bundling	-	Type Top & Down Product Search
Marketing Concept	-	Profil Konsumen
	-	Insight Media Sosial
Packaging Design	-	Insight Media Sosial
Develop on UI/UX	-	Versi Software Gadget
TaniSeries	-	Insight Media Sosial
Note: [1]=Shipping fee		

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After various variations of Tanivasi which is the capitalization product of Tanihub Startup Big Data, then it will be formulated market strategy to be input advice for the company to have a competitive advantage that is increasingly robust in the increasingly abstract VUCA era.

TaniFund is a financing product in the form of loans to farmers, fishermen and breeders with a crowdfunding system through a website with a gradual return system. TaniFund is a product of big data capitalization, namely big data supplier profiles and partner cultivation results. To date, a total of Rp 112.1 million has been successfully channeled through TaniFund.

The next Tanivasi is TaniSupply. TaniSupply is a product of big data capitalization that strengthens the company's supply chain where the main activity in the warehouse is sorting agricultural products purchased from farmers. Products that enter the warehouse are sorted into grades of low, medium and good quality. Then, weighing those agricultural produce for 6 determine the price. TaniSupply refers to big data on the type of supply products (commodities) produced by supply partners.

Then, Prospecting became the next Tanivasi product. Prospecting is an approach activity towards potential new farmer partners referring to big data on the number of partner farmers and also the target number of farmers. The more partners, the more impact Tanihub's programs will have. So, Prospecting becomes very important for companies to increase partnerships with suppliers. Products marketed will be more diverse and meet the needs of consumers who continue to grow more and more able to be fulfilled.

The last cultivation in the scope of supply partners is the re-cultivation program. This program refers to farmer profile data and also harvest data which is seen as satisfactory. Startup Tanihub will guide and assist how farmers can re-cultivate commodities on the land they own.

In the scope of collaborators, the first Tanivasi is TaniHack. TaniHack is a collaborative program between Tanihub and the Ministry of Agriculture of the Republic of Indonesia. This program is an agricultural education program for the general public in the form of competitions and open talk shows. The government, in this case, collaborates to fully support the regulation of the event and actively participates in providing education and appreciation.

Next up is TaniSocial, where this program is a form of collaboration between Tanihub and Dompet Dhuafa. This program is a corporate social activity by providing free health checks to the surrounding community.

The cashback and free shipping program is a collaboration program between Tanihub and a payment gateway company. This program was born based on the big data end user owned by the partner company and the big data profile and the number of consumer transactions owned by the Tanihub Startup company. This collaboration program is very good for increasing the engagement of all companies involved, both in terms of new user acquisitions or product purchases.

Then, through the scope of consumers, the next Tanivasi is the development of SKU Bundling. This development is based on big data from the top & down types of products that consumers are looking for. In addition to making it easier to sort products and distribute them, the development of SKUs can also be used as promos that are certainly attractive to consumers.

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Next, reviewing big data on consumer profiles and social media insights, the next Tanivasi is the concept of campaigns and marketing. Big data, which is capitalized, is able to create efficiencies in product marketing from Tanihub Startup. Marketing is right on target so that the costs incurred are very effective. Consumer profiles and social media insights turned out to be able to create the next Tanivasi, namely the packaging design for products from the Tanihub startup. The packaging design listens to the aspirations of consumers by utilizing social media features so that product designs become very attractive to Tanihub Startup consumers.

Big data in the consumer gadget software version is also capable of providing development products for UI/UX as well as adding features to the Tanihub Startup application. This display is constantly being updated so that the application becomes more compatible with consumer gadgets, and users who use the application can easily and comfortably operate it.

Then, the last Tanivasi product is TaniSeries, looking at consumer big data in the form of social media insight which turns out to be dominated by millennials with Jabodetabek domicile. This product is an agricultural education product through serial dramas on the Youtube platform.

Tanihub Startup Market Strategy with Marketing Genius

After obtaining various variations of Tanivasi which are the capitalization products of Tanihub Startup big data, then a market strategy will be formulated to be input for suggestions for companies to have advantages increasingly strong competitive environment in the increasingly abstract VUCA era.

Business Context

Startup Tanihub is an E-Commerce company engaged in the agricultural cultivation industry. Startup Tanihub connects partners who supply agricultural products to consumers, both retail and individual. Startup Tanihub plays an active role in simplifying the supply chain of partners' agricultural products, so that the value obtained by partners can increase.

Evaluate the Opportunities

The maximum capitalization of big data has not become a serious concern for startup players. This is evidenced by the number of startups that fail because there is no market need. Therefore, Tanihub Startup has a great opportunity to continue to grow by utilizing its big data. Startup Tanihub is considered to have the potential to become one of the unicorn startups in its field if it continues to be able to maximize the capitalization of its big data.

Where to Compete

The market focus of Startup Tanihub is people who are digitally 'literate', do not have free time, and have medium financial capabilities to the top.

How to Compete

Potential consumers can be reached through websites, applications, social media, and direct communication.

How to Win

In winning the market competition, Startup Tanihub must maximize its supply chain and value chain. This is based on the business context of E-Commerce which simplifies the supply chain from supply partners to consumers. Of course, in improving the supply chain and value chain,

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it is also necessary to maximize the big data of supply partners as input in maximizing the product. There needs to be good management of other big data variations that have not been able to be capitalized.

Strategies for Action
Maximizing TaniSupply as the company's warehouse to be able to provide real-time services for consumers who want to order. The management of big data on the supply time of partner products is also considered capable of strengthening TaniSupply to make it even better. Maximization of service will increase loyalty for consumers. In addition to warehouse services, customer service available on the application and website must be updated to be able to respond quickly without having to make consumers wait long. Then, Tanihub can apply service improvements to the AI (Artificial Intelligence) Tanihub application based on the big data the company collects.

Competitive Positioning with Marketing Genius
In addition to market strategy, researchers also formulate a competitive positioning strategy against Tanihub startups as a form of input so that the company is able to position itself as an agricultural E-Commerce that has value as well as a sustainable competitive advantage.

Competitive Identification
There are three similar Startups that are major players in the E-Commerce industry of agricultural products in Indonesia. Two competitors include Sayurbox and Tukangsayur.co

Mapping Strategic Positioning
Sayurbox is positioned as the most complete agricultural product E-Commerce, while Tukangsayur.co the fastest agricultural product E-Commerce in terms of product distribution.

Mapping Customer Needs
Consumers want faster products in between and appropriate confirmation by customer services.

Mapping Profit Pattern
Startup Tanihub made the highest profit on the final transaction which is selling agricultural products to consumers

Choose Best Positioning
Viewed through the app, the price comparison offered by Startup Tanihub makes the most sense compared to its competitors.

Develop Value Offering
Judging by the evaluation of reviews on playstore and appstore, Tanihub application should improve service on product delivery, as well as improve customer services

The results showed that there were ten variations of Tanihub Startup big data which became a source of sustainable competitive advantage, with 12 varieties of big data-based innovation products.

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Conclusion

Startup Tanihub has 20 variations of big data formulated from 3 different scopes, namely big data for supply partners, collaborators, and consumers. The 20 variations of big data include the number of supply partners, supplier profiles, supplier income, supplier production commodities, cultivation products, as well as domicile and land coordinates of the supplier. The collaborators also contribute by providing access to the use of their big data end users. Then, from the consumer side, there are 11 variations of big data formulated, including email, profile, number of transactions, top & down search of products, types of products sold, social media insights, geographical distribution, types of consumer gadgets, versions of ios/android gadgets, number of potential agricultural product retailers, number of access and application downloads.

In determining what big data can become a company's competitive advantage, a VRIO test is carried out. Based on the results of the VRIO test, it was found that 10 big data were considered capable of being the company's sustainable competitive advantage. The big data is then capitalized by the company as Tanivasi, Tanihub Startup's innovation product based on its big data. After the implications of using big data were formulated in the Tanivasi, strategy inputs were given in the form of market strategy and competitive positioning using a marketing genius approach. The input suggests the company to maximize the capitalization of big data in the warehouse in the form of TaniSupply in order to provide real-time services to consumers. The input from the competitive positioning side found that Tanihub Startup's advantage in the market's mind was the most reasonable price compared to similar competitors. It is hoped that the implications of the input in maintaining a sustainable competitive advantage can be adapted by Startup Tanihub, as well as similar companies, especially in maximizing the capitalization of big data that companies have in competing and surviving in this era of uncertainty.

This research only focuses on the role of big data and the formulation of strategies to maintain competitive advantage in startup companies which incidentally are still categorized as small companies with a total of approximately 80 employees. This research can be continued by expanding case studies to multinational companies, which of course have much more variety of big data, as well as more complex data processing organizations. Further research can observe the effectiveness of big data capitalization on the work efficiency of multinational companies, which of course will be very interesting to study.

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