

Coffee Agribusiness Competence Factors Influencing Marketing Patterns After the Covid-19 Pandemic in Indonesia

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Abstract. The agricultural sector has an important role in driving the national economy. The main supporting factor for the success of agribusiness is the capability and high level of competence of the actors, so that marketing strategies and patterns can be implemented properly to increase income. Coffee is one of the main plantation commodities with high export value for Indonesia. Indonesia's position as one of the largest coffee producers in the world is one of the challenges to remain competitive in global marketing during the Covid-19 pandemic. The Covid-19 pandemic has resulted in a change in marketing patterns from conventional to digital. The purpose of this study is to analyze the agribusiness competency factors that affect coffee marketing patterns after the Covid-19 pandemic in Indonesia. This study uses a descriptive approach and literature review that refers to the literature on agribusiness competencies and marketing patterns due to the Covid-19 pandemic, data analysis using SEM (Structural Equation Modeling). Research shows that the characteristics of human resources, marketing planning, product innovation, and mastery of information technology and telecommunications for agribusiness actors have a positive effect on coffee marketing patterns in Indonesia after the Covid-19 pandemic.

Keywords: Competency factor, Coffee Marketing, Marketing Pattern, Covid-19 Pandemic

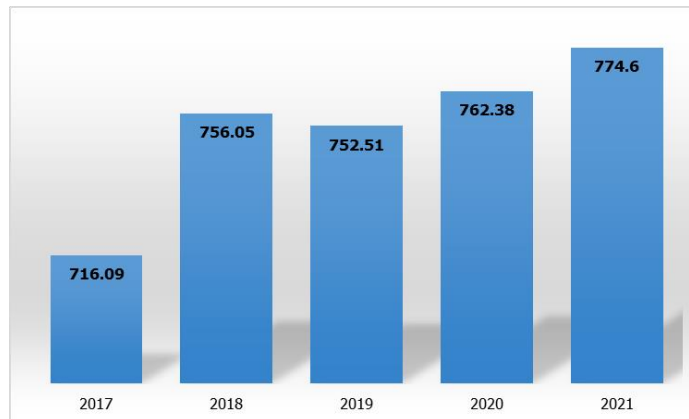
1. Introduction

The agricultural sector has a very important role in supporting the movement of the national economy. Products originating from agriculture, plantations, and livestock have a contribution of 13.93 percent to the Gross Domestic Product (GDP) in 2020. The Minister of Agriculture stated in the Minister of Agriculture Extension Service Program (MSPP) Vol. 21 edition of Human Resource Performance Improvement and Agricultural Extension, that based on BPS (Central Statistics Agency) data, the Agricultural Business Exchange Rate (NTUP) in May 2021 was 104.04 or an increase of 0.47% compared to April 2021 which was 103.55.

Competence in agribusiness makes it an important means to determine the marketing pattern of the products produced. Success in agribusiness requires an agribusiness actor to have advantages and a strong character compared to other agribusiness actors (Lee and Bateman, 2021). The phenomenon of limited information management for small farmers in doing agribusiness is the availability of inadequate production facilities and the low mastery of information technology as the cause of the lack of absorption of market information (Raungpaka and Savetpanuvong, 2017).

Coffee production in Indonesia comes from smallholder plantations and large plantations. People's plantations are managed and cultivated by farmers in central areas, while large plantations are managed by the private sector and the state through State-Owned Enterprises (BUMN). The volume of coffee production in Indonesia mostly comes from smallholder plantations, as according to BPS data in 2020 it is 757.29 thousand tons, while that from large plantations is only 5.09 thousand tons.

Figure 1. Indonesian Coffee Production Volume in 2017-2021



Source: Central Statistics Agency (2021)

Based on the figure, the volume of coffee production experienced a significant increase in 2018 compared to 2017 of 39.96 thousand tons, which is around 5.58%, but a slight decrease of 0.47% in 2019. The increase again occurred in 2020 by 1.31% and in 2021 by around 1.60% compared to 2020. The price of dry coffee beans in 2020 is in the range of IDR 2,040,353.00 per 100 kg, in 2021 it will decrease by 2.76% to IDR 2,096,666.00 per 100 kg.

Coffee from Indonesia is exported to several countries that have a high level of coffee consumption, for domestic needs it is taken from the remaining export interests.

Table 1. Five Coffee Importing Countries from Indonesia

No.	Country of destination	Export Volume		
		Product (thousand tons)	Volume	Price (US\$)
1.	America	54.49		202.45 million
2.	Malaysia	38.55		62.84 million
3.	Egypt	32.54		55.04 million
4.	Italy	27.24		44.28 million
5.	Japan	23.48		56.05 million

Source: Central Bureau of Statistics (2020)

Based on Figure 1. It can be explained that the largest export volume of coffee to America with a volume of 54.49 thousand tons worth US\$ 202.45 million. The interesting thing is that exports to Italy amounted to 27.24 thousand tons above Japan which amounted to 23.48 thousand tons, but in terms of prices, Japan was above Italy at US\$ 56.05 million while Italy was only US\$ 44.28 million.

The pattern of coffee marketing in Indonesia is adjusted to the condition of human resources (HR), the availability of production facilities and infrastructure, access to trading partners, motivation and innovation, and mastery of management technology. In general, products are marketed from farmers to collectors or middlemen or small traders, very rarely directly to wholesalers. The trading trend in 2008-2009 experienced a shift according to Eaton *et.al.* (2016), namely the increasing demand for products that are durable both in terms of service life and materials. This is because the delivery factor can be delayed (Baldwin and Tomiura, 2020).

The COVID-19 pandemic has affected all aspects of life, including the agricultural economy. The impact for exporting countries is a decrease in demand from importing countries. However, in the agricultural sector, it is still very much needed considering that agricultural products are primary needs as food

ingredients (Hayakawa and Munoki, 2021). Consumer behavior has also shifted from conventional transaction methods to digital, as according to Watanabe and Omori (2020) that the pandemic era should switch to making transactions from offline to online. However, using information technology has several limitations and new problems related to the cost and competence of human resources (Johnson and Gueutal 2017).

This paper aims to analyze the agribusiness competency factors that affect coffee marketing patterns after the Covid-19 pandemic in Indonesia.

2. Coffee Agribusiness Competence

Frans and Narundana (2022) said that coffee business actors must improve their individual competencies through product price planning (including setting discounts for consumers), increasing product variant innovation capabilities (by maintaining a distinctive taste and aroma) and packaging, sharpening marketing with the help of technology, information and communication, expanding export sales networks and distribution to franchises or small and large outlets.

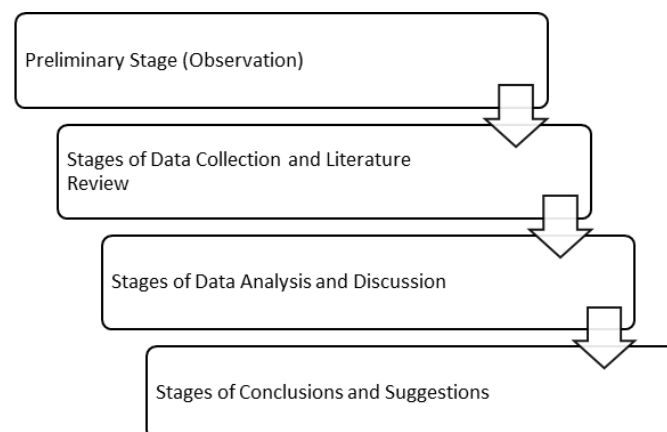
In Eva's research (2022), the Covid-19 pandemic affected coffee agribusiness in all aspects, from human resources, production volume, marketing patterns, to infrastructure. Competence in mastering digital marketing is the key to success in increasing production and marketing, so that 90% of agribusiness actors use digital marketing platforms. Offline marketing is not abandoned but as a complementary business.

Sari, *et.al.* (2020) wrote that the problems faced by small coffee business actors are production facilities, business management (management), human resource character, limited funding, and limitations for marketing (distribution). In the face of new habit patterns due to Covid-19, the quality of human resources in the use of information technology and its management procedures must be improved. What is more important in the post-Covid-19 pandemic is increasing competitiveness in the market regarding product innovation (uniqueness and production raw materials).

3. Materials and Methodology

The stages of the research are described in the image below.

Figure 2. Research Stages



3.1 Preliminary Stage (Observation)

Researchers make observations to identify problems and determine research objectives. Observations were made on 200 agribusiness actors in Indonesia (whose population was later determined as the object of research)) in the January-March 2022 range. Observations on the literature to be studied were carried out after determining the problems that occurred to agribusiness actors and coffee marketing patterns in Indonesia.

3.2 Stages of Data Collection and Literature Review

Sources of data come from research that is considered relevant and has the carrying capacity of the research objectives. This study uses a descriptive approach and literature review. Data collection is based on the population of agribusiness actors who meet the following requirements:

- a. Carry out coffee agribusiness processes from upstream to downstream
- b. 20-50 years old

The literature being studied is a previous study (range 2020 – 2022) which discusses the competence factors of coffee agribusiness that affect coffee marketing patterns after the Covid-19 pandemic.

3.3 Stages of Data Analysis and Discussion

Competency factors data analyzed as independent variables (X) are:

- a. Human resource character (X_1)
- b. Marketing planning (X_2)
- c. Product innovation (X_3)
- d. Mastery of information technology (X_4)

applies as, while the marketing pattern acts as the dependent variable (Y). So that the analysis of multiple linear regression data is formulated as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e \quad (1)$$

Where:

Y : marketing pattern

α : constant

β_1 : Regression coefficient on X_1

β_2 : Regression coefficient on X_2

β_3 : Regression coefficient on X_3

β_4 : Regression coefficient on X_4

X_1 : Characteristics of human resources

X_2 : Marketing planning

X_3 : Product innovation

X_4 : Mastery of information technology and telecommunications

e : Standard error

The analytical tool used is SEM (Structural Equation Modeling).

3.4 Stages of Conclusions and Suggestions

After analyzing the data, the researcher determines conclusions and suggestions as a reference for further research and government policies.

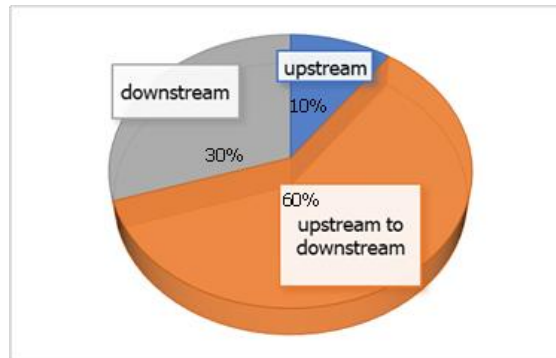
4. Results and Discussion

2.1 Distribution of respondents

The distribution of respondents is divided into 3 parts, namely the activities of agribusiness actors, the age of agribusiness actors, and agribusiness actors who are still doing business until after the Covid-19 pandemic.

- a. Distribution of Respondents by Carry out coffee agribusiness processes from upstream to downstream

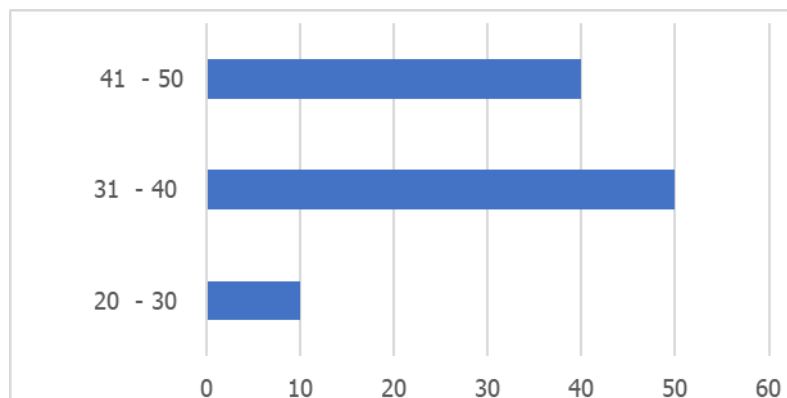
Figure 2. Distribution of Respondents Performing Coffee Agribusiness Processes From Upstream to Downstream



Based on the picture above, the distribution of 60% of respondents carried out the coffee agribusiness process from upstream to downstream. Upstream activities carried out are providing production facilities, maintaining plants to harvesting, for post-harvest only simple sorting and selling in the form of green beans and roasted beans in a distribution of 10%, mostly small farmers. Downstream activities carried out are post-harvest coffee processing (sorting and fermentation) and further processing into coffee products which vary by 30%.

- b. Distribution of Respondents by Age

Figure 3. Distribution of Respondents by Age



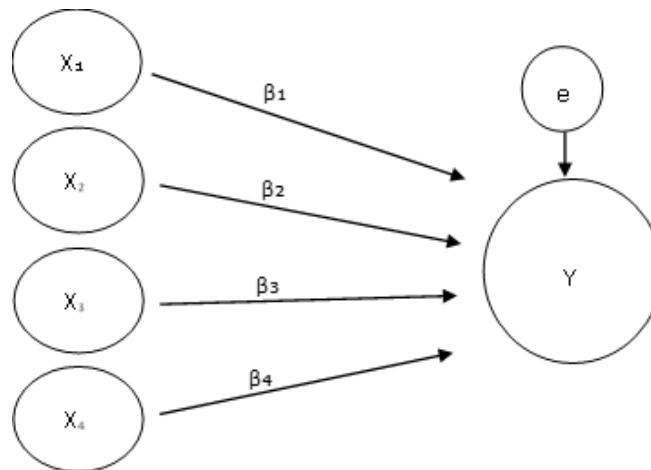
The age distribution of respondents for the age of 20-30 years is 10 people (10% of the population), 31-40 years is 50 people (50% of the population) and 41-50 years is 40 people (40% of the population). This proves that the most of coffee agribusiness actors are of productive age.

2.2 Agribusiness Competency Factors Affecting Coffee Marketing Patterns

This agribusiness competence is influenced by internal and external factors of agribusiness actors, the results of the identification of Lee et al. (2016), namely opportunities (capability in identifying, developing, and assessing a business), capability in administrative management, capability in partnering, personal characteristics, and capability in commitment. These factors become absolute

requirements for successful marketing for coffee products. The more developed the culture of drinking coffee, the greater the challenge to build this coffee agribusiness. The literature review chosen by the researcher contains internal and external factors of coffee agribusiness competence so that the conventional marketing pattern shifts to digital, which involves a lot of growing telecommunications and information technology facilities.

Figure 4. The Influence of Agribusiness Competency Factors on Coffee Marketing Patterns



Based on the above pattern, the characteristics of human resources (X_1), marketing planning (X_2), product innovation (X_3), and mastery of information and telecommunications technology (X_4) affect coffee marketing patterns. From the analysis results, the four dependent variables have a positive influence on the independent variable, which is indicated by a positive value, as listed in the table below.

Table 2. Results of Data Analysis

No	Variable (X)	β	<i>P-Value</i>
1	X_1	0.4432	0.0548
2	X_2	0.4107	0.0217
3	X_3	0.6281	0.0511
4	X_4	0.6070	0.0397

* $\alpha=0.05$

Based on the table above, it can be explained that the value of β is the largest on the X_3 variable, namely coffee product innovation, while the smallest is X_2 , namely marketing planning. This shows that the marketing planning factor has the least influence on the coffee marketing pattern. The most dominant agribusiness competence factor is determined by the value of β and *P-Value*. The dominant factor influencing the marketing pattern is X_4 , namely the mastery of information technology and telecommunications which is determined by the value of 0.6070 and the *P-Value* of 0.0397 (smaller than).

In the era after the Covid-19 pandemic, increasing the competence of coffee agribusiness from an individual perspective is very necessary. The characteristic factor of human resources that influences the coffee marketing pattern is the motivation of business actors according to Frans and Narundana (2022) and Sari, et.al. (2020). This explains that the challenges and limitations of individuals in running a business are important for improving skills and references for developing their potential and business (Dias and Martens, 2019). According to Haggblade et.al. (2015) an indicator of having motivation for agribusiness is influenced by the mindset of families and individual farmers as an effort to increase income.

Farmers who are also business actors must always try to develop their agribusiness managerial skills so that they are able to face a failure (Minello et al, 2014). Mukti and Kusumo (2021) stated that the learning process of business actors starts from the smallest part of every individual, so that changes and shifts in business conditions that occur are ready to be faced. Moreover, the agribusiness sector has strong characteristics related to nature. So there is a lot of uncertainty in the context of running their business.

Described by Sari, et.al. (2020) and Frans and Narundana (2022), that it is very necessary to increase product innovation capabilities which include product uniqueness, distinctive taste and aroma, uniqueness, and sharpness of packaging, as well as variants of production raw materials in order to increase competitiveness in the market. This coffee product innovation experienced rapid development during and after the Covid-19 pandemic. The trend of millennials and Z generations to consume coffee products makes a wide open business opportunity. Consumers choose products that have good packaging, unique flavors, and attractive aromas. Increased ability and competence in coffee product processing technology as an effort to increase aesthetic value and selling value must be emphasized so that producers understand the importance of product development (Ikhwana, 2017).

Mastery of information technology and telecommunications from agribusiness entrepreneurs is an absolute requirement when they want to develop their business. Internet media assistance can expand marketing networks through digital marketing platforms. Eva (2022) said that 90% of coffee agribusiness actors use digital marketing platforms to expand their marketing.

According to Eva (2022), the Covid-19 pandemic has affected the growth and development of coffee agribusiness in all aspects ranging from human resources, production volume, marketing patterns, to infrastructure. Infrastructure is related to the smoothness of supporting transportation and production infrastructure facilities which in this case are related to the government. The government as the policy maker must have priority in agribusiness resilience. What can be done is to facilitate agribusiness actors so that they can grow and improve agribusiness capabilities. Strategic steps are needed so that the level of production, market competition, and innovation of agribusiness players are encouraged to grow. These strategic steps can be in the form of increasing infrastructure facilities, clear and strong legal protection, as well as assistance and creative and innovative institutional growth (Magar, *et.al.*, 2021).

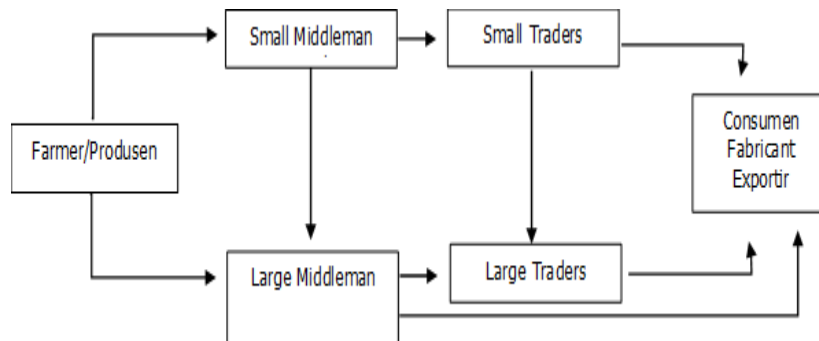
2.3 Coffee Marketing Patterns after the Covid-19 Pandemic in Indonesia

In addition to increasing the agribusiness competence of coffee business actors which includes internal and external factors, entrepreneurs of processed coffee products must also know global coffee product marketing information and be able to adjust to the needs of market standards (Ikhwana, 2017). The Covid-19 attack on all lines of life has become an explosion of enthusiasm for entrepreneurs to survive and try to increase the turnover of this coffee product, so according to Eva (2022) coffee marketing patterns have also changed.

The Covid-19 pandemic has an impact on exporting countries, namely a decrease in trade transactions due to an increase in trade costs between countries. This is due to the local government's policy of closing and limiting vital areas for trade that allow direct contact between regions. However, these problems can be solved with the development of telecommunications and information technology (Hayakawa and Mukunoki, 2021). Marketing patterns prior to the Covid-19 pandemic relying on extraordinary physical mobility underwent a significant shift.

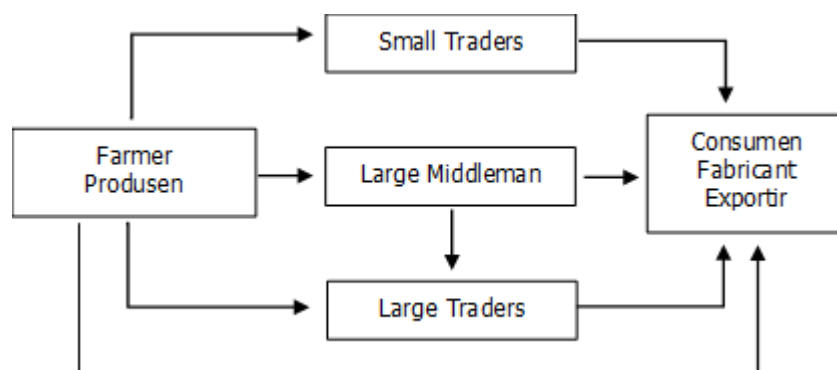
The pattern of marketing using e-commerce is increasing rapidly along with restrictions on social movements. The marketing pattern for old coffee products is illustrated below

Figure 5. Coffee Marketing Patterns Before the Covid-19 Pandemic



It is explained in the picture above that the marketing pattern of coffee and its products is only limited to producers, middlemen (small and large), traders (small and large), and ends up in exporters or consumers who use more physical touch when making transactions. E-commerce is a solution for conducting transactions, which has a wider reach than the old pattern, as shown in the image below.

Figure 6. Coffee Marketing Patterns After the Covid-19 Pandemic



In the picture above, it is explained that the change in marketing patterns is very large, producer farmers have access to more market information resulting in a wider marketing network. In addition, cutting the marketing chain which has been a fairly difficult problem in the agribusiness world, namely middlemen. Producers and agribusiness actors can set prices according to the goods being marketed and carry out direct transactions.

5. Conclusion

Based on an assessment of three literatures on the competence factors of coffee agribusiness that affect coffee marketing patterns after the Covid-19 pandemic in Indonesia, it can be concluded that:

- The dominant internal factors of coffee agribusiness competence in Indonesia that are challenged in the Covid-19 attack phase are competence in mastering information technology, product innovation, and motivation to face failure.
- The main external factor in the competence of coffee agribusiness in Indonesia is the role of the government in protecting and facilitating agribusiness actors to rise and increase their turnover.
- Coffee marketing patterns have shifted due to the Covid-19 attack from conventional methods (which rely a lot on physical) to digital platform methods (e-commerce).

6. Suggestion

The competence of coffee agribusiness actors in Indonesia deserves attention, considering that Indonesia is one of the largest coffee producers in the world. There is a need for further studies on the competence of coffee agribusiness and appropriate marketing patterns so that the even distribution of welfare of coffee agribusiness actors can be realized.

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