

## Agribusiness Behavior of Young Farmers in Coffee Farming Management in Bantaeng Regency, South Sulawesi Province, Indonesia

Nurliani<sup>1</sup>, Ida Rosada<sup>2</sup>, Farizah Dhaifina Amran<sup>3</sup>, Nirmala Dewi<sup>4</sup>, Siti Nurani Sirajuddin<sup>5</sup>

### Abstract

*The percentage of youth aged 16-30 years who work in the agricultural sector continues to decline. Currently, the number of young farmers is 3.95 million or 21.9% of the total farmers in Indonesia. This number is decreasing from year to year. Data on the number of farmers by age group shows that young people's interest in working in the agricultural sector is low. Even though there are quite a lot of business opportunities in the agricultural sector, both on-farm and especially off-farm. The sustainability of agriculture in the future is greatly influenced by the behavior of young farmers. Farmers are younger and better trained in business activities, are diverse, have a positive attitude toward new market opportunities, are more sensitive to customer needs, and are better prepared to engage in new ventures. The research aims to describe the entrepreneurial characteristics and agribusiness behavior of young farmers in the upstream, downstream, on-farm, and supporting institution subsystems, as well as analyze the relationship between entrepreneurial characteristics and agribusiness behavior. The research method uses a quantitative descriptive research design and correlation analysis, using a sample of 50 coffee farmers aged 16-30 years in Labbo Village, Tompobulu District, Bantaeng Regency. The results show that the dominant entrepreneurial characteristics of young farmers in coffee farming management are creative and innovative. There is a significant and positive relationship between entrepreneurial characteristics and young farmers' agribusiness behavior in upstream agribusiness, cultivation subsystem (on-farm), downstream agribusiness, and supporting institutions.*

**Keywords:** *Entrepreneurial characteristics; farmer's behavior; young farmers; coffee.*

### Introduction

The development of consumer preferences and the culture of coffee drinking has become a trend in society, making coffee plants of high economic value [1][2]. Coffee consumption in Indonesia in the 2022-2023 period has reached 5 million bags measuring 60 kg per bag [3]. This is marked by the outbreak of the coffee shop industry, causing demand for coffee to increase and has great opportunities for development. Indonesia, as a coffee-producing country, is also the second largest consumer in Asia. Indonesia's

---

<sup>1</sup> Agribusiness Study Program, Faculty of Agriculture, Universitas Muslim Indonesia, e-mail: nurliani.karman@umi.ac.id

<sup>2</sup> Agribusiness Study Program, Faculty of Agriculture, Universitas Muslim Indonesia, e-mail: ida.rosada@umi.ac.id

<sup>3</sup> Agribusiness Study Program, Faculty of Agriculture, Universitas Muslim Indonesia, e-mail: farizah.dhaifina@umi.ac.id

<sup>4</sup> Agribusiness Study Program, Faculty of Agriculture, Universitas Muslim Indonesia, e-mail: nirmaladewiahmad18@gmail.com

<sup>5</sup> Department of Socio Economic, Faculty of Animal Husbandry, Universitas Hasanuddin, e-mail: sitti.nurani@unhas.ac.id

coffee production in 2021 reached 774.69 thousand tons. This production comes from 1.26 million hectares of coffee plantation area, of which 95.64% comes from people's plantations, and the remaining 2.07% is cultivated by state-owned plantations and 2.29% is owned by large plantations of the private sector [4].

The role of coffee commodity in the Indonesian economy is quite important, which are as a source of income for coffee farmers, a source of foreign exchange, a producer of industrial raw materials, and a provider of employment opportunities through processing, marketing and trade (export and import) activities [4]. Due to Indonesia's very large coffee output and diverse demand for coffee products, farmers have several opportunities to increase the added value of coffee farming. Development is carried out starting from the on-farm subsystem or farming carried out by farmers to the off-farm subsystem which includes procurement of agricultural production facilities, marketing and processing of results. The success of coffee agribusiness requires the support of all parties involved in the coffee production process, processing and marketing of coffee commodities. Efforts to increase the productivity and quality of coffee continue to be made so that the competitiveness of coffee in Indonesia can compete in the world market.

Coffee farming activities in Labbo Village, Tompobulu District, Bantaeng Regency face several problems, including limited capital and decreasing interest in young workers working as farmers. Labor is a significant factor influencing coffee production [5]. However, the problem is that the agricultural sector workforce in Indonesia has a demographic structure dominated by older farmers (55 years and above), the number of which is increasing, while the number of young workers is decreasing. The percentage of youth aged 16-30 years who work in the agricultural sector continues to decline [6]. According to BPS (2022), of Indonesia's 135.3 million population, 29.96% work in the agricultural sector or 40.64 million farmers. This figure is lower than the previous year. Meanwhile, the number of young farmers is 3.95 million farmers or 21.9% of the total farmers in Indonesia [7]. The strategy that can be used to attract young workers is to change the mindset from traditional farmers to entrepreneurs with breakthrough technological innovation support, and training to strengthen agribusiness characteristics and behavior.

The most common characteristic of young farmers is that they are passionate about agribusiness [8]. The individual characteristics (internal factors) of Gayo Arabica coffee farmers are on average at the productive age level, the majority of formal education levels are high school graduates, have sufficient experience, coffee farming is the main source of livelihood, have limited capital and the land area owned is on average 0.5–1 hectare. The individual characteristics of Gayo Arabica coffee farmers have a positive and significant effect on entrepreneurial behavior [9].

Farmers' behavior in managing coffee farming, namely farmers' knowledge, skills and attitudes, is considered quite good, but still needs to be improved [10]. The behavior of young farmers in running a horticultural agribusiness is no different from previous generations. However, the outstanding character of young farmers is their ability to seek information and be responsive to changes by taking innovative steps. The agribusiness behavior of young farmers in procuring production facilities (80%) is carried out independently, (63%) follows developments in cultivation technology, carries out post-harvest activities and seeks information on price developments, and (74%) joins farmer groups [11].

Farmer regeneration is very important and requires serious attention, because future generations will also feel the impact. It is necessary to immediately encourage the interest and interest of the younger generation to contribute and get involved in the plantation sector, so that they can become successful young farmers. The sustainability of agribusiness in the future is greatly influenced by the behavior of farmers in running their business. A description of the behavior of young farmers in running their agribusiness is

needed as an effort to improve and enhance agribusiness behavior as a whole from the production process to marketing.

## Research Methods

This research was carried out in Labbo Village, Tompobulu District, Bantaeng Regency. The choice of research location was based on the consideration that the majority of the people worked as young coffee farmers.

The research population was all coffee farmers in Labbo Village, Tompobulu District, Bantaeng Regency, totaling 348 farming households [12]. The age category of young farmers is between 16-39 years [7][13]. Based on these categories, the number of coffee farmers in the research location was 50 farmers. Sampling was carried out using purposive sampling based on the age criteria of coffee farmers.

The data analysis method used to test the hypothesis and answer the research objectives is quantitative descriptive analysis and chi-square correlation analysis. Quantitative descriptive analysis was used to describe the entrepreneurial characteristics of young farmers in coffee farming management using a Likert scale, namely creative and innovative characteristics, proactiveness, risk-taking behavior, self-efficacy, need for achievement, and locus of control. The Guttman scale is used to collect and analyze data on the agribusiness behavior of young farmers in managing coffee farming, namely agribusiness behavior in the upstream agribusiness subsystem, cultivation subsystem, downstream subsystem and supporting institutions subsystem. Data collected in the form of a frequency distribution table is presented, analyzed and interpreted to see the entrepreneurial characteristics of young farmers and agribusiness behavior in managing coffee farming. Chi-square correlation analysis was used to analyze the influence of entrepreneurial characteristics on the agribusiness behavior of young farmers in managing coffee farming.

## Results and Discussion

### Respondents' Characteristics

The socio-economic factors that accompany coffee farming activities influence every farmer's decision. In this regard, the characteristics of respondents are presented which include farmer age, education level, land area and land ownership status. The following is presented in Table 1.

Table 1 Characteristics of Respondents Based on Age, Education, Land Area and Land Ownership Status in Labbo Village, Tompobulu District, Bantaeng Regency

No	Characteristics of Respondents	Frequency (people)	Percentage (%)
1.	Age (years)		
	a. 20 – 30	29	58
	b. 31 – 39	21	42
2.	Gender		
	a. Male	48	96
	b. Woman	2	4
	Education		
3.	a. SMP / Junior High School	8	16
	b. SMA / Senior High School	21	42
	c. Bachelor		

	Land Area (hectares)	21	42
4.	a. < 0.5		
	b. 0.5 – 1	2	4
	c. > 1	30	60
	Land Ownership Status		
5.	a. Owned	18	36
	b. Rent	48	96
		2	4

Source: Primary Data, 2023

Table 1 shows that the highest frequency in the 20-30 year age interval was 29 farmers (58%) with an average age of 30 years. This age is included in the productive age so that it can support coffee farming management activities. The gender with the highest frequency was male, 46 farmers (96%). The highest distribution of respondents based on formal education was high school and bachelor's degrees, 21 farmers (42%) respectively. The distribution of respondents based on land ownership shows that the majority are in the land area interval of 0.5 – 1 hectare, namely 30 farmers (60%). Furthermore, the land ownership status of 48 farmers (96%) is land owner. This means that coffee farmers have quite extensive land control.

#### Entrepreneurial Characteristics

A successful entrepreneur has entrepreneurial characteristics that are creative and innovative, proactive, achievement motivation, self-efficacy, locus of control, and the courage to take risks [14]. Achievement motivation is the dominant characteristic that determines business success. The ability to create, discover and form new ideas that have never existed before. The characteristics of a creative person are openness to new things, the ability to solve problems and the character of achievement motivation. Their creativity allows the individual to see problem solving from a different perspective. Meanwhile, innovativeness is the ability to realize creative ideas. Proactive individuals are not only able to take the initiative, but also proactively seek information about their business so that it can benefit themselves.

Individuals who dare to take the risk of running a business even though the possibility of success is low is a characteristic of an entrepreneur who has the character of a risk taker. Risk taking is an activity that may be dangerous but has the possibility of a profitable outcome. This risk taking is closely related to the achievement motivation of entrepreneurs. High achievement motivation gives the courage to take risks [15].

Table 2 Entrepreneurial Characteristics of Respondents Based on Index Values and Categories in Labbo Village, Tompobulu District, Bantaeng Regency

No	Entrepreneurial Characteristics	Total Score	Index Value (%)	Category
1.	Creative and Innovative	219	87.6	Very high
2.	Proactive	204	81.6	High
3.	Risk Taking Behavior	200	80.0	High
4.	Self-efficacy	197	78.8	High
5.	Need for Achievement	199	79.6	High
6.	Locus of Control	199	79.6	High

Source: Primary Data, 2023

The creative and innovative character of young farmers is in the very high category. These results show that young farmers think creatively and have taken innovative actions in managing coffee farming. For example, using coffee waste, such as processing coffee leaves into artisan tea and coffee soap, coffee skins being processed into organic fertilizer and coffee herbs for health.

The proactive character of young farmers is in the high category. The development of information technology really supports getting information either from the real world or via the internet. Young farmers obtain information about cultivation and marketing techniques through extension activities, the internet, seminars and information from successful entrepreneurs. The ability of young farmers to proactively seek information about coffee cultivation and marketing techniques is very much needed in developing coffee farming. The results of this research are in line with research by Kusumo, et al [11] that young farmers in horticultural agribusiness in West Bandung Regency, the character that stands out is the ability of young farmers to be responsive and proactive in seeking information.

The next characteristic of young farmers is in the high category of character who dares to take risks. These results show that young farmers are brave enough to take risks in developing coffee farming by considering the consequences. Self-efficacy is an entrepreneurial characteristic regarding the self-confidence or ability of young farmers to solve problems in managing coffee farming. The results show that young farmers have high self-confidence and are independent in developing their coffee farming. The knowledge gained from partnerships and various institutional activities increases farmers' self-confidence to develop their farming businesses independently.

The characteristics of need for achievement entrepreneurship explain the motivation of young farmers to increase production in managing coffee farming. Motivation for achievement can be obtained through other people or activities that can trigger the desire of young farmers to successfully manage coffee farming. Young farmers have a strong will to achieve success by seeing opportunities for coffee processing businesses that continue to increase at the Tompobulu Coffee Processing Center, assisted by the Bantaeng Regency Industrial Service. The characteristic of locus of control response is in the high category. These results show that young farmers are able to control themselves in carrying out their business and are even able to manage coffee farming from upstream to processing and marketing.

The highest score for entrepreneurial characteristics is the creative and innovative character with a very high category. In line with Burhanuddin's research [16] that the character of Creativity and Innovativeness (CAI) is correlated with all innovation adoption stage variables. This shows that coffee farmers are creative and innovative individuals, thereby encouraging farmers to open themselves to change.

#### Agribusiness Behavior

Agribusiness is the sum total of all operations involved in the manufacture and distribution of farm supplies, production activities on the farm, and storage, processing and distribution of farm, commodities and items made from them [17]. A series of business systems starting from procurement of production facilities, farming, post-harvest business, storage and packaging of agricultural products, processing and marketing as well as supporting institutions [18]. Agribusiness behavior is the activities carried out by coffee farmers starting from the upstream agribusiness subsystem, cultivation subsystem, downstream agribusiness subsystem to the supporting institutions subsystem for managing coffee farming.

### Upstream Agribusiness Subsystem

The upstream agribusiness subsystem is the agribusiness behavior of young farmers in procuring production facilities for coffee farming, namely procurement of inputs and procurement of financial capital. Procurement of inputs is carried out by purchasing or receiving assistance or subsidies from the government. Procurement of financial capital in the form of own capital or loan capital from financing service institutions.

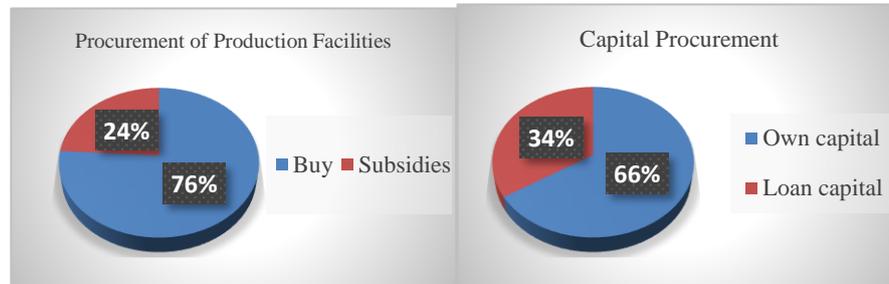


Figure 1. Behavior of Young Farmers in the Downstream Agribusiness Subsystem of Coffee Farming.

Figure 1 shows that in the procurement of production facilities, 38 farmers (76%) obtained production inputs such as fertilizer and pesticides by purchasing them from agricultural shops. Meanwhile, there are 12 farmers (24%) hoping for assistance or fertilizer subsidies from the government. Availability of capital is a challenge for coffee farmers in Labbo Village. Farmers are still young so it is difficult to access financial institutions, but this is a challenge in itself for young farmers. A total of 33 farmers (66%) used their own capital, while the remaining 17 farmers (34%) used loan capital from financial service institutions, banks or accessed capital through their business partners. In the case of young and novice farmers in the United States, limited access to credit is one of the obstacles for young farmers. Farmers need capital to expand the scale of business that farmers run [19].

### Cultivation Subsystem (*On farm*)

The cultivation subsystem is coffee farming processing activities starting from planting, maintenance (pruning and shading), fertilizing to eradicating and controlling coffee plant pests and diseases. The management of the coffee cultivation subsystem can be improved through cultivation techniques as recommended by Agricultural Extension Officers. The agribusiness behavior of young farmers in the cultivation subsystem (onfarm) can be seen in Figure 2.

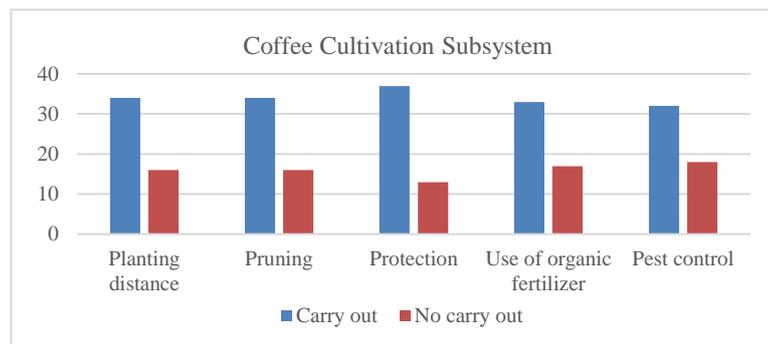


Figure 2. Behavior of Young Farmers in the Coffee Cultivation Subsystem.

Figure 2 shows that on average 34 people (68%) of young farmers apply coffee cultivation techniques according to recommendations from Field Agricultural Instructors (PPL), carry out plant spacing according to recommendations (fence system), carry out pruning, provide shade for plants, use organic fertilizer, and carry out pest control using

organic pesticides. Meanwhile, 16 people (32%) applied conventional cultivation techniques and had not followed PPL recommendations.

### Downstream Agribusiness Subsystem

The downstream agribusiness subsystem is post-harvest behavior carried out by young farmers, such as collecting farming products, processing, storing and marketing. The behavior of coffee farmers in the downstream agribusiness subsystem including sorting, fermentation, washing, drying, milling and warehousing is shown in Figure 3.

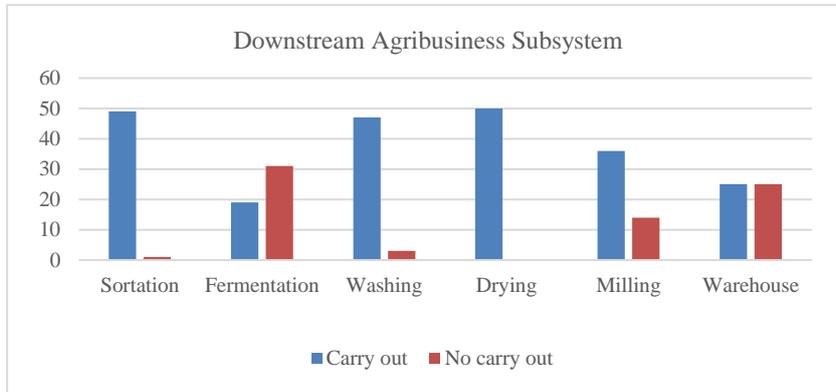


Figure 3. Behavior of Young Farmers in the Downstream Subsystem (Postharvest Treatment)

Figure 3 shows that in post-harvest coffee activities, 49 farmers (98%) carried out sorting activities, but only 19 farmers (38%) carried out fermentation activities, while farmers who did not carry out fermentation said they had not mastered fermentation skills well. There are 36 farmers (72%) who mill, the farmers who mill are in partnership with the Banyorang Coffee Processing Center. Farmers who do not mill sell their crops directly to collecting traders in the form of seeds. These results conclude that on average young farmers have carried out post-harvest activities.

Agricultural product marketing is a series of activities carried out by farmers to sell their production. Knowledge of market information makes it easier for farmers to carry out marketing activities for coffee production. The coffee marketing activities of young farmers can be seen in Figure 4.

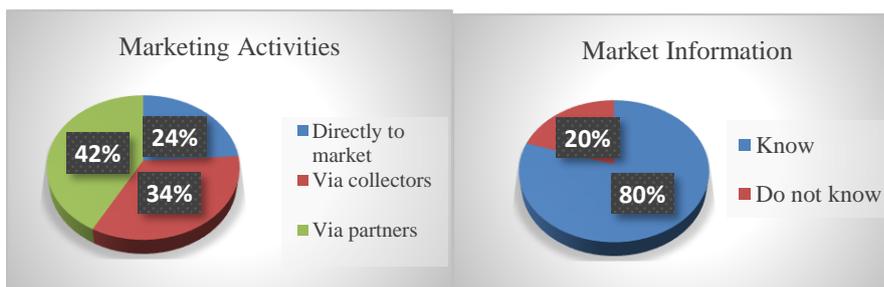


Figure 4. Young Farmer Behavior in the Downstream Subsystem (Marketing Activities)

Figure 4 shows that 21 farmers (42%) market their coffee through partners, namely the Banyorang Coffee Processing Center. There are 17 farmers (34%) who sell their crops to collectors. However, the interesting fact is that 12 people (24%) of young farmers pioneered direct marketing to markets or consumers. Young farmers find it relatively faster and easier to find market information using information technology. In line with the results of Sukayat & Supyandi's research, young farmers have a high economic orientation, actively seek information and carry out innovative businesses [20].

### Supporting Institution Subsystem

The agribusiness support services subsystem are all types of activities that function to serve and develop the activities of the upstream subsystem, farming subsystem and downstream subsystem. The support services subsystem includes farmer groups, financial institutions and extension services.

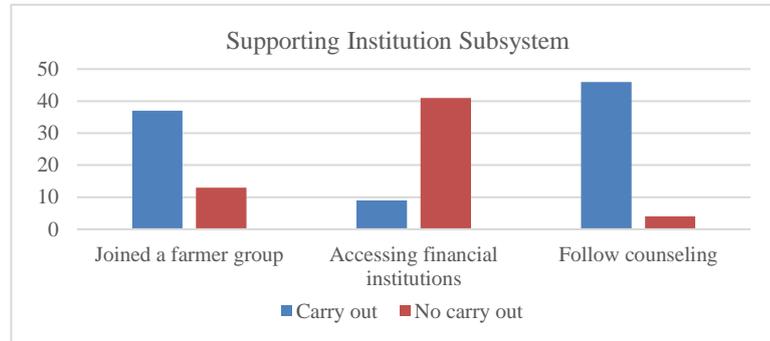


Figure 5. Behavior of Young Farmers in Accessing Supporting Institutions Activities

Figure 5 shows that 37 farmers (74%) are members of farmer groups. Farmers assess that farmer groups act as a forum for learning and exchanging information and expanding networks. There are 9 young farmers who have accessed financial institutions (18%), while 41 farmers (82%) do not want to access financial institutions because they use their own capital. In line with the research results of Mukti et al [21] that the behavior of young farmers in carrying out their farming activities is carried out in groups with the aim of making it easier to share information, share roles and also share farming risks.

### The Relationship Between Entrepreneurial Characteristics and Agribusiness Behavior

The relationship between entrepreneurial characteristic variables and young farmers' agribusiness behavior was analyzed using chi-square analysis. The entrepreneurial characteristics of young farmers are grouped into high and very high categories. Agribusiness behavior was analyzed based on respondents' behavior in the activities of the upstream agribusiness subsystem, cultivation subsystem, downstream agribusiness subsystem and supporting institutions subsystem.

Table 3 The Relationship between Entrepreneurial Characteristics and Agribusiness Behavior of Coffee Farmers in Labbo Village, Tompobulu District, Bantaeng Regency

No	Relationship between Entrepreneurial Characteristics and Agribusiness Behavior	Significant Level ( $\alpha=0,05$ )	Information
1.	Upstream Agribusiness	0.022	Significant and positive
2.	Cultivation Agribusiness (On farm)	0.014	Significant and positive
3.	Downstream Agribusiness	0.014	Significant and positive
4.	Supporting Institutions	0.022	Significant and positive

Source: Primary data analysis, 2023

Table 3 shows the results of the analysis of the relationship between entrepreneurial characteristics and the agribusiness behavior of young farmers in managing coffee farming. Of the four variables tested, namely the relationship between entrepreneurial characteristics and the agribusiness behavior of young farmers in the upstream, cultivation, downstream agribusiness and supporting institutions subsystems, showed significant and positive results. This means that young farmers' entrepreneurial

characteristics, namely creative and innovative, proactive, achievement motivation, self-efficacy, locus of control, and courage to take risks, can improve agribusiness behavior, from upstream to downstream agribusiness. In line with research by Febiana, M. F [23] that there are four entrepreneurial characteristics that are significantly related to the success of farming. These four characters are self-confidence, responsibility, future orientation, and organizational/leadership abilities.

## Conclusions

Based on the description on the results of the research it is concluded that:

1. Characteristics of young farmer entrepreneurship based on creative and innovative indicators with a total score of 219 is in the very high category.
2. The agribusiness behavior of young farmers in the upstream to downstream agribusiness subsystems are that they generally buy production facilities using their own capital, implement instructor recommendations, carry out sorting and fermentation, and sell production through business partners.
3. The agribusiness behavior of young farmers in the supporting institutions subsystem. Most are members of farmer groups, have accessed financial institutions, and actively participate in extension activities.
4. There is a significant and positive correlation between entrepreneurial characteristics and the agribusiness behavior of young farmers in managing coffee farming both in the upstream agribusiness subsystem, cultivation subsystem (on-farm), downstream agribusiness subsystem and supporting institutions.

## Recommendations

The agribusiness behavior of young farmers, especially in coffee cultivation activities, is to apply cultivation technology according to recommendations from instructors and in marketing activities it is recommended to expand market access outside Bantaeng Regency.

## References

- Viola, D. Y., Besti Lilyana., Suwandi., Eccca, N. (2022). Sikap Konsumen Generasi Milenial Terhadap Kopi Bubuk dan Kopi Instan di Kota Bandar Lampung. *Jurnal Ekonomi dan Ekonomi Syariah Jesya*, 5 (2) 217-226.
- Kusmaria, & Fitri, A. (2022). Sikap Konsumen Terhadap Atribut Produk Kopi Coffee Campus di Kota Bandar Lampung. *JIA (Jurnal Ilmiah Agribisnis): Jurnal Agribisnis Dan Ilmu Sosial Ekonomi Pertanian*, 7(6), 206–211. <https://doi.org/10.37149/jia.v7i6.81>
- International Coffe Organization (2023). Media Perkebunan, Jakarta. <http://mediaperkebunan.id.ico.indonesia>.
- Pusat Data dan Sistem Informasi Pertanian (2022). Outlook Komoditas Perkebunan. Sekretariat Jenderal Kementerian Pertanian. ISSN 1907-1507.
- Deny, P., Zulgani., Parmadi (2021). Analisis Determinan Produksi Kopi di Kecamatan Kuala Betara Kabupaten Tanjung Jabung Barat. *Jurnal Perspektif Ekonomi dan Pembangunan Daerah*. 10(2)147-156
- Arvianti, E. Y., Masyhuri., Waluyati, L. R., Darwanti, D. H. (2019) Gambaran Krisis Petani Muda di Indonesia. *Jurnal Sosial Ekonomi dan Kebijakan Pertanianq Agroekonomika*. 8 (2) 168-180
- Badan Pusat Statistik (2022). <https://www.bps.go.id>
- Arvianti., E. Y, Salbinus Abin (2018). Karakteristik Petani Muda Agribisnis dan Faktor yang Mempengaruhi Alih Fungsi Lahan di Malang. *Jurnal Agriekonomika* 7(1), 10-18.

- Zainura, U & Kusnadi, N. (2016). Perilaku Kewirausahaan Petani Kopi Arabika Gayo di Kabupaten Bener Meriah Provinsi Aceh Entrepreneurial. *Jurnal Penyuluhan*, 12 (2), 126-143.
- Mardiah, S, H., Dalmyatun, T., Satmoko, S (2020), Perilaku Petani Kopi Kelompok Tani Makarti Utomo di Dusun Genting, Desa Ketas Kecamatan Singorojo, Kabupaten Kendal. *Jurnal Sosial Ekonomi Pertanian Soca*. 13 (2), 218-233.
- Kusumo, R. A. B., Mukti, G. W., & Djuwendah, E. (2020). Perilaku Petani Muda Dalam Agribisnis Hortikultura Di Kabupaten Bandung Barat. *Jurnal Pemikiran Masyarakat Ilmiah Berwawasan Agribisnis*, 6(1), 43-53. <https://doi.org/10.25157/ma.v6i1.2623>
- Kantor Balai Penyuluhan Pertanian Kecamatan Tompobulu, Kabupaten Bantaeng, Sulawesi Selatan, 2023.
- Upland Project (2023) Indonesia Krisis Petani Milenial. <https://upland.psp.pertanian.go.id>
- Nadhira, D., & Kurnia, G. (2020). Karakteristik Wirausaha Petani Sukses (Studi Biografi pada Pemilik Agrowisata Kebun Edukasi Eptilu). *Jurnal Ekonomi Pertanian Dan Agribisnis*, 4(3), 561–575. <https://doi.org/10.21776/ub.jepa.2020.004.03.11>
- Essel, Kwamena Bernard Cibbina, Faisal Adams, dan Kwadwo Amankwah (2019). Effect of Entrepreneur, Firm and Institutional Characteristics on Small Scale Firm Performance in Ghana. *Journal of Global Entrepreneurship Research*. 9 (1) DOI:10.1186/s40497-019-0178-y
- Burhanuddin, B., Pambudy, R., Wahyudi, A. F (2019). Analisis Karakteristik Kewirausahaan dan Adopsi Inovasi Petani Kopi di Provinsi Lampung. *Jurnal Agribisnis Indonesia*, 6(2) 73-86
- Davis, John H., and Ray A. Goldberg (1957). *A Concept of Agribusiness*. Division of Research. Graduate School of Business Administration. Harvard University, Boston.
- Bayu Krisnamurthi (2020). *Pengertian Agribisnis*. Puspa Swara & Fakultas Ekonomi dan Manajemen. Departemen Agribisnis, IPB. ISBN 978-602-216-075-5
- Katchova, A. L., & Ahearn, M. C. (2016). Dynamics of Farmland Ownership and Leasing: Implications for Young and Beginning Farmers 1. *Applied Economic Perspectives and Policy*, 38(2), 334–350. <https://doi.org/10.1093/aep/ppv024>
- Sukayat, Y., & Supyandi, D. (2017). Perilaku Pemuda Desa Dalam Kegiatan Pertanian (Beberapa Kasus Pemuda Desa di Agroekosistem Dataran Tinggi, Dataran Medium dan Dataran Rendah). *Jurnal Agrivet*, 5(1), 49–55.
- Mukti, G. W., Kusumo, R. A. B., & Qanti, S. R. (2017). Perilaku Sukses Petani Muda Wirausaha Lulusan Fakultas Pertanian Universitas Padjadjaran. *Jurnal Agribisnis Terpadu*, 10(2), 221–234