

Perspective of the Young Generation Towards the Agricultural Sector in Indonesia

Taufik Faturohman*

School of Business and Management, Institut Teknologi Bandung, Indonesia

Tarada Berlian Megananda

School of Business and Management, Institut Teknologi Bandung, Indonesia

Sudarso Kaderi Wiryono

School of Business and Management, Institut Teknologi Bandung, Indonesia

Raden Aswin Rahadi

School of Business and Management, Institut Teknologi Bandung, Indonesia

Kurnia Fajar Afgani

School of Business and Management, Institut Teknologi Bandung, Indonesia

Yulianti

School of Business and Management, Institut Teknologi Bandung, Indonesia

Gun Gun Indrayana

School of Business and Management, Institut Teknologi Bandung, Indonesia

Priskilla Buna Kristianto

School of Business and Management, Institut Teknologi Bandung, Indonesia

Rendy Franata

Technical Implementation Unit, Department of Food Security, Crop and Horticulture, Central Lampung Regency, Lampung Province

— *Review of* —
**Integrative
Business &
Economics**
— *Research* —

ABSTRACT

This study examines the willingness of young people to become farmers, typically by analyzing their intention to work in the agriculture sector. The study is based on primary data using questionnaires distributed online to 200 respondents. The descriptive analysis, Mann-Whitney and Kruskal-Wallis's rank were used to assess demographic factors associated with their willingness to be farmers. Only 26.5% of the total respondents wanted to make agriculture their main livelihood, 46% were still hesitant or may change their minds about working as a farmer, and 27.5% firmly refused to be a farmer. Research that raises the issue of young people's perspectives on the agricultural sector is still rare in Indonesia. Although Indonesia is an agricultural nation, the interest of the younger generation in becoming farmers is rapidly declining. This poses a unique challenge for the government in developing policies to encourage the younger generation to work in agriculture, where Indonesia needs them to continue developing the agricultural sector. Although the aforementioned factors may be predators of low youth participation, this study believes that the awareness and willingness of these youths to participate in agriculture are primary concerns that must be addressed before external factors established in previous studies can be properly resolved.

Keywords: Agriculture Sector, Young Generation, Willingness to Farm.

1. INTRODUCTION

Agriculture is one of the sectors expected to support the Indonesian economy because it can absorb a significant workforce, namely 34 percent of the Indonesian population. However, this number has been declining yearly for the last ten years (BPS, 2016). This decline has influenced national GDP; the agricultural sector contributed 13.28 percent to GDP in 2021, a figure expected to fall compared to the previous year, which reached 13.7 percent (BPS, 2021).

The government's policy of encouraging the agricultural sector by assisting in the provision of working capital is expected to improve the agricultural sector, while also encouraging equity and economic growth, particularly in rural areas. However, farmers' welfare continues to deteriorate; according to BPS data, the exchange rate of farmers in 23 provinces is lower than the national average (BPS, 2021). This indicates that farmers' earnings from selling agricultural products are insufficient to cover production costs while financing household consumption. As a result, they have only three options for covering the remaining costs: take out loans, save money, or sell assets.

Over the last two decades, the involvement of young people in agricultural production has decreased in several newly industrialized Asian countries. In Indonesia, the agricultural labor force under 35 years old fell from 20% in 2003 to 12.9% in 2013. (Susilowati, 2014). A comparable pattern has been observed in China (Ji et al., 2017; Zhang et al., 2018) and the Philippines (Moya et al., 2015). This trend, along with the aging of the general population (Chomik and Piggott, 2015), contributes to the aging of the farming population. The reasons commonly cited for the declining participation of young people in agricultural production in Asia's newly industrialized countries are 'pull' and 'push' factors. The availability of non-farm income-generating activities, such as temporary or permanent migration to work in factories, is a key pull factor (Li et al., 2013; Peou, 2016). Even young people living in rural areas in Thailand increasingly earn non-farming incomes (Rigg et al., 2019). Push factors include the difficulty of obtaining land, the desire to be independent of their parents, the general low profitability of farming (Rigg et al., 2016), and the willingness of farming parents to see their children work in non-farming jobs (Manalo and van de Fliert, 2013).

According to a study conducted in Thailand by Salvago., et al (2019), young people are uninterested in farming because farming is not regarded as a high-status job that young people nowadays seek. However, this calls into question the most cited explanation for the lack of engagement: young people's disinterest in farming. When researching young people's willingness to farm, this study demonstrates an interest in investigating their plans under current conditions and their hopes and preferences if conditions change. Although the aforementioned factors may be predators of low youth participation, this study believes that the awareness and willingness of these youths to participate in agriculture are primary concerns that must be addressed before external factors established in previous studies can be properly resolved.

This study aims to seek the perspective of the younger generation towards agriculture. This considers the existing phenomenon that agriculture is no longer an occupation that young people are looking for because most farmers are still under financial welfare. The younger generation's desire to work in the agricultural sector is less promising than jobs that provide a monthly salary. This can be a benchmark for the government in making policies that can benefit farmers and help farmers increase

production and technology in farming so that farmers are more prosperous and can attract young people to work in the agricultural sector.

2. LITERATURE REVIEW

Agriculture plays an important role in Indonesia's economy, especially since it is an agricultural country where most of the population works as farmers. The agricultural sector still grew positively against GDP in 2020 amidst the turmoil of the COVID-19 pandemic. Although the agricultural sector experienced growth in the 2nd quarter of 2020, it decreased by 5.32% annually (BPS, 2020). Food crops and horticulture are indispensable in supporting current national food security.

Research conducted by (Chan & Sait, 2020) argues that the future of agricultural production is not only jeopardized by gradual rural depopulation but also by the increased average age of persons working in agriculture. The youth are the only thing that can turn this trend around. For this purpose, rural areas must be made more desirable to young people by improving social and economic prospects such as education, employment, health care, housing, and infrastructure in villages. If rural income and living conditions improve, young people will be less likely to migrate to the city and agriculture will become more appealing, playing a key role in rural development.

The research results show that students' top expectations from investing in agriculture are creating jobs and applying agricultural technologies, respectively. As a result, the youth prefer to engage in agriculture because it gives them job prospects and the opportunity to run their own business. Furthermore, today's youth are more interested in investments that allow them to use high-tech tools in agriculture because they keep up with cutting-edge technology. Agricultural technology has a significant initial investment cost. As a result, raising the amount of financial aid and streamlining the application process will encourage more agricultural students and investors.

According to (Roy., et al 2018), the willingness to part with land varies according to the extent of urbanization in the area rather than the size of the landholdings. The average landholding size in Haryana and Rajasthan was 3.4 ha and 2.85 ha, respectively. Despite having comparable landholdings, they did not exhibit the same "willingness" to sell. Farakka and Jangipur (rural) respondents did not show the same trend, with average landholdings of 1.5 ha and 1.4 ha, respectively. The extent of urbanization determined their "willingness" to sell their land.

The findings show that the youth's "willingness" to accept farming as a source of money and the family's reliance on agriculture revenue are statistically significant and adversely connected. This might be regarded as the youth's reaction to agricultural income insecurity. Probably, the youth do not want to tolerate the financial swings. When the youth's willingness to farm is compared to the extent of the landholding of the owners, however, no such tendency emerges. The association is minimal, which could be attributed to the fact that the youth's willingness to farm or not is more tied to money flows than to the landholding's earning potential.

3. METHOD

This study conducted an online survey using a Google form to distribute the questionnaire. There were several questions to assess the respondents' willingness to be a farmer and whether their family or relatives work in agriculture which could probably influence them to work in agriculture sector.

The data was then observed using descriptive analysis to describe the type and demography of the respondent. This study used the Mann-Whitney and Kruskal-Wallis's test. The Kruskal Wallis test is a nonparametric ranking test that determines whether there are statistically significant differences in two or more groups of independent variables on the dependent variable on a numerical data scale (interval/ratio) and an ordinal scale (a replacement for One Way Anova). The Mann-Whitney U Test, on the other hand, is a non-parametric test used to determine the difference in the median of two independent groups when the dependent variable data scale is ordinal or interval/ratio but not normally distributed (replacement for t test).

4. RESULTS AND DISCUSSION

4.1 Respondent's characteristics

The total completed responses were 200 respondents and all were included in the analysis. Out of the total respondents, 70% were female and the majority were born in 2000-2002 (44%) and 1997-1999 (42%). More than half of the respondents had high school education (65%) and the majority ethnicity was Javanese (45%). Nearly half of the respondents were students (48.50%).

Table 1: Descriptive statistics

Gender :		Ethnicity	
Male	30%	Javanese	45%
Female	70%	Sundanese	13%
Year of birth		Batak	10%
1997-1999	42%	Madura	2%
2000-2002	44%	Chinese	6%
2003-2005	14%	Betawi	5%
Educational Status:		Minangkabau	3%
Primary School	1%	Bugis	4%
Secondary school	2%	Malay	2%
High School	65%	Banjar	3%
Associate Degree License	7%	Bali	1%
Bachelor	25%	Others	6%
Job Status			
Employee	27.50%		
Student	48.50%		
Unemployed	16%		
Entrepreneur	4.50%		
Freelancer	3.50%		

We also included several questions to obtain more information about the respondents. Agriculture is widely known in Indonesia, so it is very common to have family or relatives that work in the sector. According to the data survey, most respondents have family or relatives that work in the agricultural sector (66%). They mostly have private land to plant agriculture (54%), and mostly their family owns 1-2.9 hectares. The type of crop they planted was the rice plant. The young generation's

willingness to be a farmer was not as high as the previous results. Only 26.5% of respondents were willing to make the agriculture sector their main livelihood. The government needs to consider this issue and increase the youth's willingness to be involved or work in this sector.

Table 2: Specific for Agriculture

Family/relatives work in agriculture	
Yes	66%
No	35%
Land ownership	
Private land	54%
Rent land	5%
Work on someone else's land	10%
No family in agriculture	31%
Size of land owned	
<1 ha	19%
1-2.9 ha	25%
3-4.9 ha	13%
>5 ha	6%
No land	7%
No family in agriculture	30%
Type of agriculture family own	
Rice plant	29%
Vegetables	19%
Plantation	16%
Farm	5%
All of the above	3%
No family in agriculture	28%
Willingness to be a farmer	
Yes	26.5%
No	27.5%
Maybe	46%

4.2 Difference test

We conducted the difference tests of demography on the respondents' willingness to be a farmer. The results show a significance level of 10% that job status and ethnicity are significantly different in causing the willingness to be a farmer with a value of $0.063 < 0.10$ and $0.072 < 0.10$ each. The other demographic indicators, such as gender, year of birth and educational status, had no significant difference in causing the willingness of the youth to be a farmer.

Table 3: Difference Test

Category	Percent	Willingness to be a farmer score mean
Job Status		0.063***
Employee	27.50%	1.164
Student	48.50%	0.825

Unemployed	16%	1.031
Entrepreneur	4.50%	1.222
Freelancer	3.50%	0.857
Ethnicity		0.072***
Javanese	45%	1.043
Sundanese	13%	0.926
Batak	10%	1.105
Madura	2%	0.500
Chinese	6%	0.667
Betawi	5%	0.800
Minangkabau	3%	1.400
Bugis	4%	0.625
Malay	2%	1.750
Banjar	3%	0.667
Bali	1%	0.000
Others	6%	1.000

Table 4: Mean Score

Category	Percent	Willingness to be a Farmer Mean Score
Job Status		0.063***
Employee	27.50%	1.164
Student	48.50%	0.825
Unemployed	16%	1.031
Entrepreneur	4.50%	1.222
Freelancer	3.50%	0.857
Ethnicity		0.072***
Javanese	45%	1.043
Sundanese	13%	0.926
Batak	10%	1.105
Madura	2%	0.500
Chinese	6%	0.667
Betawi	5%	0.800
Minangkabau	3%	1.400
Bugis	4%	0.625
Malay	2%	1.750
Banjar	3%	0.667
Bali	1%	0.000
Others	6%	1.000

5. CONCLUSION AND RECOMMENDATIONS

Young people preferred to study other subjects because, given their opportunity space, they could not imagine being able to access enough land and capital (without which acquiring knowledge of farming would be irrelevant). Furthermore, researching other subjects would provide more employment opportunities in the future, assisting them in broadening their opportunities. However, this also contributes to 'deskilling,' or the loss of farming knowledge among younger generations in rural areas (White, 2012). Farm profitability is essential to those whose parents farmed. Their parents' farms influence not only their vision of farming, but also their aspirations.

The profitability of their parents' farms appeared to have far more influence on the views and plans of the young people than gender or education level. This finding on the importance of parents' farms' profitability is consistent with findings in studies of young farmers worldwide, which found that the prospect of profit is a key factor in young people's engagement in farming (Nag et al., 2018; Utami et al, 2021). Domingo (2021) suggests increasing awareness by conducting training or seminars for the young generation to build interest in the agriculture sector.

This study also shows that to encourage more young people to become farmers in Asia's newly industrialized countries, public policies should support not only those who are already planning to farm, but also those who would be willing to do so if their opportunities were expanded. Similarly, the hopes of the young people should not be taken for granted, as should their departure from farming. There was no assistance available to the young people in the villages surveyed to begin farming, so these young people rarely considered the types of farms they would be willing to farm if such assistance were available.

REFERENCES

- [1] Adebo, G M., & Sekumade, A B. (2013) "Determinants of career choice of agricultural profession among the students of the faculty of agricultural sciences in Ekiti state university," Nigeria, *Journal of agricultural extension and rural development*, 5(11):249-255.
- [2] Adeyemo, R., J.T.O. Oke & A.A.Akinola. (2010) "Economic efficiency of small-scale farmers in Ogun state," Nigeria, *Tropicultura*, 28(2):84-88.
- [3] Amujoyegbe, B J. (2012) "Farming system analysis of two agro ecological zones of southwestern Nigeria," *Agricultural science research journal*, 2(1):13-19.
- [4] Ayanda, I.F., F. Olooto., A. Motunrayo., G.T. Abolaji., O.J. Yusuf & S.K. Subair. (2012) "Perception of Kwara state university agricultural students on farming as means of future livelihood," *International journal of Agriscience*, 2(11):1053-1061.
- [5] *Badan Pusat Statistik*. (2016) "*Statistik Indonesia 2016*," Available online: <https://www.bps.go.id/publication/2016/06/29/7aa1e8f93b4148234a9b4bc3/statistik-indonesia-2016.html>
- [6] *Badan Pusat Statistik*. (2020) "*Pendapatan Nasional Indonesia 2016-2020*". Available online:

- <https://www.bps.go.id/publication/2021/06/08/bcb06430a707226bff9f8d99/pendapatan-nasional-indonesia-2016-2020.html>
- [7] Badan Pusat Statistik. (2021) "Nilai Tukar Petani 2021" Available online: <https://www.bps.go.id/subject/22/nilai-tukar-petani.html>
- [8] Chan, B A., & Sait E. (2020) "A Research on The Opinions and Suggestions of The Youth Who Study Agriculture in Turkey on the Young Farmer Grant Project. New Medit : Mediterranean Journal of Economics, Agriculture and Environment," *Revue Méditerranéenne d'Economie Agriculture et Environnement*, 19 : 4.
- [9] Chomik R & Piggott J. (2015) "Population ageing and social security in Asia," *Asian Economic Policy Review*, 10(2): 199–222.
- [10] Domingo, Crisel C. (2021) "Utilization of the Department of Agrarian Reform Common Service Facilities in Isabela Philippines: Effects to Agrarian Reform Beneficiaries Organization Members Productivity Yield and Income," *Review of Integrative Business and Economics Research*, Publisher: GMP Press & Printing Co.
- [11] Li Q, Huang J, Luo R, et al. (2013) "China's labor transition and the future of China's rural wages and employment," *China & World Economy*, 21(3): 4–24
- [12] Manalo J A. & Van de Fliert E. (2013) "Push and pull factors in rural Filipino youth's outmigration from agricultural communities," *Asian Journal of Agriculture and Development*, 10(2): 59–73.
- [13] McKight, Patrick & Najab, Julius. (2010) "Kruskal-Wallis Test," *Wiley Online Library*. <https://doi.org/10.1002/9780470479216.corpsy0491>
- [14] Morais M., Binotto E. & Borges J. A. R. (2017) "Identifying beliefs underlying successors' intention to take over the farm," *Land Use Policy*, 68: 48–58.
- [15] Morarji K. (2014) "Subjects of development: teachers, parents and youth negotiating education in rural North India," *The European Journal of Development Research*, 26(2): 175–189.
- [16] Moya P, Kajisa K, Barker R, et al. (2015) "Changes in Rice Farming in the Philippines: Insights from Five Decades of a Household-Level Survey," *Los Banos (Philippines): IRRI*.
- [17] Nag A, Jha S. K, Mohammad A, et al. (2018) "Predictive factors affecting Indian rural farm youths' decisions to stay in or leave agriculture sector," *Journal of Agricultural Science & Technology*, 20(2): 221–234.
- [18] OECD. (2016) "PISA 2015 Assessment and Analytical Framework: Science, Reading, Mathematic and Financial Literacy," *PISA, OECD Publishing*, Paris.
- [19] Palameta, B., Nguyen, C., Hui, T. S., & Gyarmati, D. (2016) "The Link between Financial Confidence and Financial Outcomes among Working-Aged Canadians for the Financial Consumer Agency of Canada," *The Social Research and*

- Demonstration Corporation*, (May), 1–63.
- [20] Paramasivan, C., & Subramanian, T. (2009) “Financial Management” (1st ed.). *New Age International (P) Ltd.*, Publishers.
- [21] Reider, R. & Heyler, P. (2003) “Managing Cash Flow. An Operational Focus,” *John Wiley & Sons, Inc.*, Hoboken, New Jersey
- [22] Remund, D. L. (2010) “Financial literacy explicated: The case for a clearer definition in an increasingly complex economy,” *Journal of Consumer Affairs*, 44(2), 276–295. <https://doi.org/10.1111/j.1745-6606.2010.01169.x>
- [23] Rigg J, Phongsiri M, Promphakping B, et al. (2019) “Who will tend the farm? Interrogating the ageing Asian farmer,” *The Journal of Peasant Studies*. doi: 10.1080/03066150.2019.1572605.
- [24] Roy, Tapas, Jayaraj, R and Anil Kumar (2018) “Amendment to the LARR Act, 2013 and the Aspirations of the Rural Youth of India,” *Economic and Political Weekly*.
- [25] Sanglay, P. D., Apat, E. C., Sumague, J. A. & Tec, E. T. (2021) “Financial Literacy and Income Distribution of Rice Farmers,” *International Journal of Accounting, Finance and Education*, Volume 2, Issue 3, pp. 1- 21.
- [26] Susilowati S. H. (2014) “Attracting the young generation to engage in agriculture. Enhanced Entry of Young Generation into Farming. In: Proceedings of the International Seminar on Enhanced Entry of Young Generation into Farming,” *Food and Fertilizer Technology Centre*, Jeonju (Korea), 21–23 October 2014, pp. 105–124.
- [27] Utami, Sri P., et al (2021) “Prisoners Empowerment Through Industrial Working in Indonesia,” *Review of Integrative Business and Economics Research*, Vol. 7, Supplementary Issue 4, Publisher: GMP Press & Printing Co.
- [28] White B. (2012) “Agriculture and the generation problem: rural youth, employment, and the future of farming,” *IDS Bulletin*, 43(6): 9–19