

STUDENTS' PERCEPTIONS AND MOTIVATIONS OF URBAN AGRIPRENEURSHIP INTERESTS

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Abstract: This study aims to: Analyze students' perceptions and motivations towards urban Agripreneurship interests. The population in the study is active students of the Agribusiness Study Program, Faculty of Agriculture, UPN "Veteran" Jawa Timur. The sample was selected using a multistage random sampling method with a total of 100 respondents including students in semester 6 and 8. This research uses the SEM-PLS method with the help of Smart-PLS software. The results of this study show: Students have a positive perception, high motivation, and high interest in urban Agripreneurship in the city of Surabaya. This shows that there is great potential for the development and strengthening of urban agripreneurship in the academic environment and the wider community. Agripreneurship has significant potential to drive economic development, transform the agricultural sector, and promote rural livelihoods.

Keywords: *Urban Agripreneurship; Collage Student's Perception and Motivation; Interest*

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1. Introduction

The rapid urbanization in Indonesia has had a significant impact on the availability of agricultural land. Along with the continuous growth of urbanization, agricultural land is gradually becoming more limited (Wijayanti & Priyanto, 2022). This is due to the expansion of urban areas and reduced agricultural land due to rapid urbanization (Kusumaningsih & Tyas, 2019). The impact of urbanization is also seen from the rapid increase in food needs, poverty, and environmental degradation (Andari et al., 2022). However, the low influence of urbanization on increasing per capita income in Indonesia indicates that urbanization has not been significant in the welfare of the perpetrators until they are able to get out of poverty (Hadijah & Sadali, 2020). Therefore, it is important to note that urbanization not only has a negative impact, but can also make a positive contribution to the economy.

In addressing food security issues in urban areas, especially dependence on external food supplies and vulnerability to price fluctuations, it is important to consider the role of urban agriculture. Urban agriculture has been identified as a potential solution to improve food system resilience and improve food security in urban areas (Iida et al., 2023). Various studies have shown that urban agriculture can contribute significantly to household food security, especially in low-income families, and support urban development (Sant'Anna de Medeiros et al., 2020).

The contribution of urban agriculture to household food security has been the focus of research, especially in the context of small and medium-sized cities (Ayerakwa et al., 2020).

The findings suggest that urban agriculture can play an important role in improving the food security of urban households. However, it is important to note that the relationship between household involvement in urban agriculture and food security can vary among different urban areas (Crush et al., 2017). In addition, the impact of urbanization on food security has been studied, emphasizing the challenges faced by poor urban households in ensuring food security (Akoko et al., 2019).

Urban agriculture refers to the practice of producing, distributing, and consuming food or agricultural products in urban areas. Urban agriculture plays a strategic role in improving food security, especially in the post-pandemic scenario, by optimizing the empowerment of urban agricultural groups (Churiyah et al., 2022). In addition, urban agriculture includes various forms such as aquaponics, which relies on a landless culture for agribusiness, especially in countries such as Indonesia (Siti Sundari et al., 2023). The development mechanism of urban agriculture involves the commodification of rural space in the suburbs, as observed in a case study in Sunagawa Area, Tachikawa City (Toshio & Akira, 2016). In addition, the contribution of vegetable urban agriculture to household food expenditure is quite significant in cities such as Yogyakarta, where vegetable urban farming is an important part of household expenditure (Primaningrum et al., 2023).

Urban agripreneurship is an entrepreneurial practice in the agricultural sector carried out in an urban environment. Various forms of urban agripreneurship include urban farming, rooftop farming, and aquaponics. Urban farming is the practice of farming in the city, including in city parks, yards, or other open lands in urban environments. Rooftop farming is the practice of farming on the roof of buildings, which utilizes vacant land in urban environments for agricultural activities. Meanwhile, aquaponics is an integrated agricultural system that combines fish farming (aquaculture) and aquatic plants (hydroponics) in one closed environment.

Aquaponics is a form of urban agripreneurship that attracts attention because of the efficient use of resources and the potential to produce food sustainably in urban environments. Aquaponics systems allow the growth of plants and fish simultaneously, with water used for fish farming also used to fertilize plants, creating an environmentally friendly and efficient environment. In addition, aquaponics can also be integrated into education as a tool for studying agriculture and ecology, with the potential to engage thousands of participants annually.

In the context of urban agripreneurship, aquaponics also offers attractive business potential. Studies show that aquaponics products have good market potential, with consumers willing to pay more for agricultural products produced through aquaponics systems. However, challenges faced in developing aquaponics as a business include government regulations, consumer perceptions, and system sustainability. Thus, urban agripreneurship offers various forms of innovative and sustainable agricultural practices, with aquaponics as one of the systems attracting attention in this context. Through the integration between fish farming and aquatic plants, aquaponics offers the potential to meet food needs in urban environments efficiently and sustainably.

In Indonesia, a successful example of urban Agripreneurship can be found in a study by (Arumugam & Manida, 2023), which discusses Agripreneurship for sustainable economic development. The article emphasizes the promising solutions offered by Agripreneurship through innovative practices, value-added techniques, and market-oriented approaches. This is in line with the concept of urban agripreneurship, where individuals or organizations in urban areas engage in agricultural activities using innovative and sustainable methods to contribute to economic development. Furthermore, research by (Siagian et al., 2019) provides insight into

the factors driving changes in rice farmland in Deli Serdang Regency, Indonesia. The study highlights the dynamic nature of agricultural activities in urban areas, demonstrating the successful adaptation and transformation of agricultural practices in response to changing urban landscapes.

Agripreneurship in urban areas offers many benefits to individuals, communities, and the environment. Urban agriculture, also known as Agripreneurship, has attracted attention globally for its potential to transform the agricultural sector and answer challenges in the modern world (Nachimuthu et al., 2018). It is important to recognize the multifunctionality of urban agriculture, as urban agriculture not only contributes to food production but also serves as a means of livelihood and encourages sustainable practices (Wadumestrigie Dona et al., 2021). Although relatively less known in some regions, such as in Poland, urban agriculture has the potential to bring positive change in metropolitan areas (Sroka, 2018).

In summary, urban agriculture, or Agripreneurship, offers a wide array of benefits to individuals, communities, and the environment. From addressing food security and promoting sustainable practices to contributing to community resilience and social capital, urban agriculture plays an important role in shaping the future of urban food systems. The younger generation, especially students, play an important role in the development of urban agricultural entrepreneurship. Their engagement spans cultural, social, educational, and economic dimensions, emphasizing the need for a comprehensive strategy to engage and empower young people in driving the advancement of Agripreneurship in urban areas.

Based on existing references, it can be observed that research on Agripreneurship in urban areas in Indonesia is still relatively new and limited. The existing literature mainly focuses on the participation of rural youth in agricultural entrepreneurship and the determinants of entrepreneurial intentions among youth in different regions. However, comprehensive research specifically addressing agricultural entrepreneurship in urban areas in Indonesia is still very lacking. Much of the available literature deals with broader agricultural and urban development issues, such as the gap between urban and rural areas in terms of antenatal services, the parameters of urban area expansion, and the impact of FDI on urbanization. These references do not directly address the specific context of agricultural entrepreneurship in urban Indonesia. The current literature on Agripreneurship in urban Indonesia is still limited, with a primary focus on agricultural activities in rural areas and broader urban development issues. Therefore, there is a clear need for more targeted research that specifically investigates the dynamics, challenges, and opportunities of Agripreneurship in urban areas in Indonesia.

Based on data from the Central Statistics Agency, the number of labor force in East Java Province in 2022 is 22,896,012 people. Of these, 2,222,576 people are the Workforce who have a history of Bachelor (S1) education. The labor force consists of a working labor force and an unemployed labor force. The number of unemployed labor force for Bachelor (S1) education in East Java Province in 2022 is 85,123 people. It is recorded that in 2022 in East Java there are 36,181 people with Bachelor (S1) educational backgrounds registered as job seekers (BPS, 2022). A country is said to be a developed country if the number of people who are entrepreneurs reaches 5% of the total population (Prayoga, 2021). According to data from the Ministry of Cooperatives and MSMEs in 2020, the Entrepreneurship Ratio in Indonesia has only reached 3.47% of Indonesia's population of around 270 million people. However, when compared to countries that are members of the Union of Nations in Southeast Asia, the percentage is quite low. Singapore has an entrepreneurial ratio of 8.76%, Malaysia 4.74% and Thailand 4.26% (Prayoga et al., 2021). Overcoming national welfare problems due to the large unemployment rate can be balanced with the large number of people who become

entrepreneurs. Entrepreneurship can change economic conditions and improve economic welfare through job creation (Teja & Pusat, 2015). Even the relatively high unemployment rate in East Java Province, especially Surabaya City, due to the unavailability of adequate employment, can be anticipated by increasing entrepreneurial opportunities for the surrounding population.

Agriculture is one of the Faculties at Universitas Pembangunan Nasional (UPN) "Veteran" East Java. This faculty has entrepreneurship-based courses, such as Basic Management, Microeconomics, Agribusiness Accounting, Farm Science, Macroeconomics, Agribusiness Marketing, International Business, Financial Management, Creative Economy, Business Negotiation and Advocacy and others (Faculty of Agriculture UPN "Veteran" East Java, 2020). One of the expected graduate profiles from the Faculty of Agriculture UPN "Veteran" East Java is to become an entrepreneur who is able to independently manage agricultural production professionally. Professionals who are expected are able to exert all resources and efforts in identifying new agricultural products to be able to produce something of high value.

Therefore, to find out how much interest students of the Agribusiness Study Program, Faculty of Agriculture UPN "Veteran" East Java have to become entrepreneurs, it is necessary to conduct an assessment through research entitled "Student Perceptions and Motivations of Urban Agripreneurship Interests". This research will examine more deeply related to student perceptions for entrepreneurship in urban agriculture. So, this perception can affect how much interest students have in running entrepreneurship. Urban Agripreneurship Entrepreneurship is a program that can be realized in a career that is expected to reduce unemployment which is mostly found in urban areas.

2. Research Method

The study used a survey design to collect data from respondents in the larger population. The survey can be conducted through questionnaires distributed to students of the Agribusiness Study Program, Faculty of Agriculture, Universitas Pembangunan Nasional "Veteran" East Java. The main variables measured in this study involve the level of perception, motivation and interest of students towards Agripreneurship. These variables can be measured using a valid and reliable scale.

The collected data will be analyzed using statistical analysis techniques, such as SEM-PLS and Warp-PLS analysis to measure the relationship between the independent variable (perception, motivation) and the dependent variable (urban agripreneurship interest). In this study, it is necessary to select a sample that represents the student population of the Agribusiness Study Program, Faculty of Agriculture, Universitas Pembangunan Nasional "Veteran" East Java. Sampling can be done multistage random sampling to ensure the representativeness of respondents.

Validity and Reliability Test

The validity test is used to measure the validity or validity of a questionnaire. A questionnaire is said to be valid if the questions on the questionnaire are able to reveal something that the questionnaire will measure. The significance test is performed by comparing the calculated r value with the table r for degree of freedom (df) = $n-2$, in this case n is the number of samples and $\alpha = 0.05$. If r count is greater than r table and the value is positive, then the item or question or indicator is declared valid (Ghozali, 2014).

Validity Test Formula:

$$r = \frac{\sum xy - \frac{(\sum x)(\sum y)}{n}}{\sqrt{(\sum x^2 - \frac{(\sum x)^2}{n})(\sum y^2 - \frac{(\sum y)^2}{n})}}$$

Information:

$\sum xy$: is the total product of x and y
 $\sum x^2$: is the total squared x
 $\sum y^2$: is the total squared y
 $(\sum x)^2$: is the total of x then squared
 $(\sum y)^2$: is the total of y then squared
n : is the number of respondents

Reliability test is a tool for measuring a questionnaire which is an indicator of a variable or construct. A questionnaire is said to be reliable if a person's answers to statements are consistent or stable over time. Reliability measurement is done by means of one shot or measurement only once then the results are compared with other questions or measure the correlation between question answers. SPSS provides facilities for measuring reliability with the Cronbach Alpha (α) statistical test. A construct or variable is said to be reliable if it gives a Cronbach Alpha value of > 0.6 (Ghozali, 2014).

The formula used to calculate Cronbach Alpha is as follows:

$$r_x = A = \left(\frac{n}{n-1} \right) \left(1 - \frac{\sum \sigma^2}{\sigma^2} \right)$$

r_x : is the apparent reliability
n : represents the number of statement items
 $\sum \sigma^2$: is the sum of the score variances of each item
 σ^2 : represents the total variance

SEM-PLS Test

SEM (Structural Equation Modeling) PLS (Partial Least Squares) is a statistical analysis method used to test relationships between latent variables in a structural model. This method is an alternative to covariance-based SEM analysis methods (for example, LISREL or AMOS methods) and is more suitable for use in data that are not normally distributed or in exploratory studies with small sample sizes (Ghozali, 2014).

Outer Model Testing

Outer model evaluation aims to determine the validity and reliability of measurement instruments in the research model.

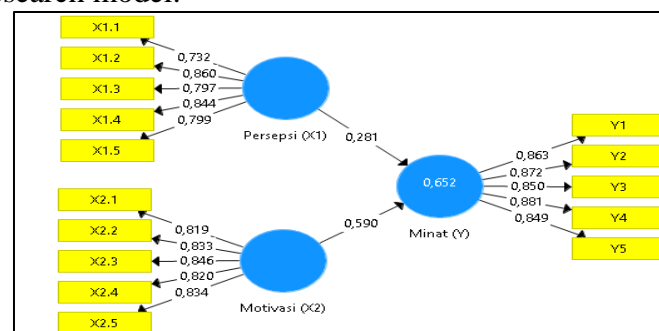


Figure 1. Convergent Validity, Construct Validity dan Composite Reliability

Source: Smart-PLS Data Processing, 2024

Table 1. Model Outer Test

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Interest Urban Agripreneurship (Y)	0,914	0,915	0,936	0,745
Motivation of Entrepreneurship (X ₂)	0,888	0,889	0,917	0,690
Perception of Entrepreneurship (X ₁)	0,867	0,874	0,903	0,652

Source: Smart-PLS Data Processing, 2024

Table 2. Result Chi-Square Test

	R Square	R Square Adjusted
Interest (Y)	0,652	0,645

Source: Smart-PLS Data Processing, 2024

Table 3. Significance Test Results

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Information
Perception of Entrepreneurship (X ₁) affects Interest urban Agripreneurship (Y)	0,281	0,281	0,082	3,431	0,001*	Significant and Positive
Entrepreneurial Motivation (X ₂) influences Urban Agripreneurship Interest (Y)	0,590	0,587	0,075	7,834	0,000*	Significant and Positive

Source: Smart-PLS Data Processing, 2024

Description:

(*) Meaning: Significant at $\alpha = 0.05 / 5\%$

3. Results and Discussion

3.1. Results

Based on Figure 1.the Rule of Thumb to assess convergent validity is that the loading factor value must be more than 0.7 for confirmatory research and between 0.6 - 0.7 from the figure above it can be seen that the loading factor is more than 0.7 which means the indicator is able to represent the construct. Overall, the results of the analysis show that all indicators have a significant contribution to the corresponding construct (Interest, Motivation, and Perception) and have high reliability, indicating that the measurement instruments used can reliably measure the construct in question. Based on table 1. overall, the results of the analysis show that all constructs (Interest, Motivation, and Perception) have a high level of reliability and validity, with values that support the use of indicator variables in representing the corresponding construct because they have values greater than 0.5. 2. Inner Model Testing: The second stage in model evaluation is the evaluation of the structural model (inner model). There are several component items that become criteria in the assessment of the structural

model (inner model), namely the R-Square value and the Significance of the Path Coefficient. The R-Square value is used to measure the degree of variation in change of the independent variable to the dependent variable (Jogiyanto, 2016).

Based on table 2. this model can be classified as having moderate power in explaining the relationship between Perception, Motivation, and Interest. Although the model provides a fairly good picture of how Perception and Motivation affect Interests, there may still be other factors outside the model that also influence Interests and are not considered in this analysis. Based on table 3. These results show that in the proposed model, both Perception (X1) and Motivation (X2) have a significant influence on Interest (Y), with Motivation (X2) having a stronger influence compared to Perception (X1). Discussion Analysis of Perception (X1) and Motivation (X2) of Students on Urban Agripreneurship Interest (Y) Based on the results of statistical descriptive analysis for the variables Perception (X1), Motivation (X2), and Interest (Y), it can be seen that respondents show high perception and motivation towards urban Agripreneurship in Surabaya City.

3.2. Discussion

1. Interest (Y)

The average score for the Interest variable (Y) was 3.96, indicating that respondents had a high interest in engaging in urban Agripreneurship; The relatively low standard deviation (0.894) indicates consistency in respondents' level of interest in urban agripreneurship; The statements with the highest average score are Y5. P2 (average 4.05), indicating that respondents have a high interest in helping others.

Overall, the results of the analysis show that students have a positive perception, high motivation, and high interest in urban agripreneurship in the city of Surabaya. This shows that there is great potential for the development and strengthening of urban agripreneurship in the academic environment and the wider community. Strategic measures are needed to optimally utilize this potential in supporting development and innovation in the urban agriculture sector.

Agripreneurship, or agricultural entrepreneurship, has become a topic of increasing interest among students in various cities, including Surabaya. Through statistical descriptive analysis, this study reveals students' perceptions, motivations, and interests in urban Agripreneurship, especially active students of the Agribusiness Study Program, Faculty of Agriculture, Universitas Pembangunan Nasional "Veteran" East Java. This research provides deep insight into how these factors affect students' readiness to engage in the agricultural sector in urban environments.

Students' interest in urban Agripreneurship shows their strong interest in taking part in agricultural activities in urban environments. These interests can be influenced by personal experiences, values held, or perceptions of the relevance and value of agripreneurship. Theories of interests and preferences highlight the importance of previous experience and personal aspects in shaping an individual's interest in a subject. Students who have positive experiences in urban agriculture or have values that support sustainability and entrepreneurship may be more likely to have a high interest in Agripreneurship.

The results of the study are relevant to the results of the study entitled "Agrosociopreneur in Indonesian Agricultural Students: Opportunities and Challenges". With the results of the study showing that 95% of respondent students expressed interest in entrepreneurship in agriculture. Most respondents explained that many agricultural commodities can be developed and are able to create high added value. Students are also worried about the increasingly poor condition of Indonesian agriculture so that youth participation is needed in reviving agricultural

businesses. In addition, by looking at the increasing need for food, the business in agriculture is a promising business. The types of agricultural businesses that students want to engage in include farming (on farm), food and beverage processing industries, trading businesses for agricultural production facilities, souvenir businesses from plants, and so on (Haryati et al., 2018).

2. Perception (X1)

A. The average score for the Perception variable (X1) is 3,854, which indicates a high perception of respondents towards urban agripreneurship; B. A relatively low standard deviation (0.925) indicates that respondents' responses to statements regarding urban agripreneurship tend to be stable or homogeneous; C. The statements with the highest average scores were X1.2 (average 3.88) and X1.4 (average 3.96), indicating that students have a positive perception of certain aspects of urban agripreneurship, such as potential benefits and their positive impact on the environment.

Students' perceptions of urban agripreneurship, as revealed in the study, are crucial to understanding how they view the opportunities and challenges in this field. Positive perceptions of profit and environmental impact aspects show that students recognize the economic and sustainability value of Agripreneurship activities. According to motivation theory, a positive perception of an action or activity can increase an individual's motivation to engage in it. The theory of social perception is also relevant in this context. Students can be influenced by perceptions of peers, lecturers, or industry figures about Agripreneurship. Positive perceptions of this group can strengthen students' beliefs about the potential success and positive impact of Agripreneurship.

The results of the study are relevant to the results of the study entitled "Perceptions of Village Youth Related to Work in the Agricultural Sector (Case Study: Sewor Village, Sukorame District, Lamongan Regency, East Java)". With the results of research showing that rural youth's views on jobs in the agricultural sector are in the good category. Internal factors such as gender, age, recent education, marital status, and current employment, as well as external factors such as parental income and socialization of agricultural work that have been tested overall have no relationship with youth perceptions of employment in the agricultural sector as well as perceptions of positive/significant influence on entrepreneurial interest (Dwiyana & Hasan, 2021).

3. Motivation (X2)

A. The average score for the Motivation variable (X2) is 3.92, indicating that students have high motivation to engage in urban Agripreneurship; B. The relatively high standard deviation (0.916) indicates variation in respondents' level of motivation towards different aspects of urban agripreneurship; C. The statements with the highest average score were X2.5 (average 4.07), indicating that students are highly motivated to keep up with the latest technology developments in agriculture.

The high motivation of college students to engage in urban Agripreneurship, as revealed in the study, reflects their internal drive to achieve goals and overcome obstacles that may arise. Motivation theory emphasizes the role of internal and external drives in encouraging individuals to act. Students who are motivated intrinsically by the desire to create positive change in their communities or extrinsically by the drive to achieve financial success can become agents of change in the development of Agripreneurship.

The results of the study are relevant to the results of the study entitled "Strengthening Food Sovereignty and Community Income in the New Normal Era through Agripreneurship". With the results of the study showing that participants were very enthusiastic about Agripreneurship material and asked if counseling is not only theoretical but also there are mentoring activities so that farmers really understand and are able to apply the knowledge. Target is very enthusiastic and motivated in business management. The community needs assistance so that knowledge transfer can run well and the community is able to run the business profitably. People are aware of their natural potential, but are limited in mastering technology (Utami et al., 2021).

4. Conclusion

Student Perception and Motivation: The results of the analysis show that students in Surabaya have a positive perception of urban agripreneurship. They see the profit potential and its positive impact on the environment as factors driving their interest. Student motivation is also high, especially in following the latest technological developments in agriculture; Urban agripreneurship has great potential to address future food security issues. Increasing student interest in urban Agripreneurship through various efforts and appropriate solutions can help realize this potential.

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