Bulletin of Social Studies and Community Development

ISSN: 3025-6798 | Journal's DOI: 10.61436/bsscd

Homepage: https://imrecsjournal.com/journals/index.php/bsscd

The Impact of Environmental Awareness, Market Information Access, and Organizational Involvement on Students' Career Choices in the Agricultural Sector

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ARTICLE INFO

Article History:

Received: 02 June 2026

Accepted: 26 July 2026

Published: 30 July 2026

Keywords:

Environmental awareness;
Market information access;
Organizational involvement;
Students' career choices;
Perception of economic value.

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ABSTRACT

This study examines the influence of environmental awareness, market information access, and organizational involvement on students' career choices in the agricultural sector, with the perceived economic value of agriculture serving as a mediating variable. The study addresses the growing concern over declining youth interest in agricultural careers despite the sector's strategic role in food security and sustainable economic development. A quantitative research design was employed, using a survey of 100 undergraduate students from universities in the Karawang region, Indonesia, selected through purposive sampling based on their educational background and familiarity with agricultural issues. Primary data were collected using a structured questionnaire consisting of validated indicators measured on a five-point Likert scale to assess environmental awareness, market information access, organizational involvement, perceived economic value, and career choice intentions. Data were analyzed using Structural Equation Modeling–Partial Least Squares (SEM-PLS) to evaluate both the measurement and structural models. The findings indicate that environmental awareness and market information access have significant positive effects on students' career choices in the agricultural sector. In contrast, organizational involvement does not exert a significant influence. Furthermore, perceived economic value has a significant direct effect on career choice and partially mediates the relationship between market information access and career choice. However, it does not mediate the relationships between environmental awareness or organizational involvement and career choice. These findings suggest that improving access to reliable agricultural market information and strengthening students' understanding of the economic potential of modern agriculture can enhance their interest in pursuing agricultural careers. The study provides practical implications for universities, policymakers, and agricultural stakeholders to develop sustainability-oriented educational programs, digital agricultural information platforms, and career promotion initiatives that encourage greater youth participation in the agricultural sector.

To cite this article:

Heryadi, D. Y., Santosa, S., Amruddin, Suherlan, Mulyadi, & Okombo, M. O. (2026). The impact of environmental awareness, market information access, and organizational involvement on students' career choices in the agricultural sector. *Bulletin of Social Studies and Community Development*, *5*(3), 133-151. doi: https://doi.org/10.61436/bsscd/v5i3.pp133-151

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■ INTRODUCTION

Agriculture is one of the most strategic sectors in the global economy, serving as the main pillar of societal welfare in many countries, particularly in developing regions. Globally, this sector faces major challenges such as climate change, land degradation, declining water resources, and shifting preferences among young workers who increasingly opt for non-agricultural sectors.

The declining interest of younger generations in agriculture has become a serious issue that threatens the sustainability of food production and global food security. Regional reports in Asia indicate that the average age of farmers in many countries now ranges between 50–65 years, reflecting a slow regeneration of the agricultural workforce (Parpart, 2018). This problem is exacerbated by perceptions that agriculture does not provide sufficient economic returns, the lack of accurate market information, and low environmental awareness, which should be one of the foundations for developing sustainable agriculture. In developed countries such as Japan and the United States, strategies to attract young people to the sector include agricultural technology modernization, improved access to market information, and the integration of environmental issues into agribusiness education, making the sector more appealing and profitable for younger generations (Ohashi et al., 2024; Daniel et al., 2024; Usman et al., 2024).

In Indonesia, agriculture continues to be the fundamental pillar of the economy, playing a major role in both the GDP and employment. However, the 2023 Agricultural Census Report shows a decline in the proportion of young individual farm managers compared to 2013 (Riswan, 2023). The 15–24 age group accounts for only about 1.24%, while the 25–34 age group has dropped to 10.34%. This issue is further compounded by the lack of interest among university students—especially those outside agricultural faculties—in pursuing careers in the sector. Many students perceive agriculture as physically exhausting, lacking prestige, and offering lower income potential compared to the industrial or service sectors (Kharisudin & Irwandi, 2022). In reality, the economic potential of agriculture in Indonesia is substantial if managed with modern, technology-based approaches. Low environmental awareness among students also influences their perception of agriculture's role in sustaining ecosystems. Furthermore, limited access to market information means that many students are unaware of the real economic opportunities available in the sector (Ferlin, 2024). If left unaddressed, this situation will widen the generational gap among farmers, posing a serious threat to future national food security.

A similar phenomenon can be observed in Karawang Regency, known as one of the national rice barns in West Java Province. Despite its vast rice fields, adequate technical irrigation systems, and high agricultural productivity, local students' interest in engaging in the agricultural sector remains low. Most residents in Karawang prefer to work in the manufacturing industry, as the region is also home to the largest industrial area in Indonesia (Prabandaru, 2024). This creates a paradox where significant agricultural potential is not matched by the younger generation's willingness to manage it. The low participation of students in agricultural organizations or communities further limits their opportunities to gain a deeper understanding of agricultural business prospects (Putri & Kusumo, 2020). Additionally, the perception that agricultural profits are disproportionate to the effort required persists, and although market opportunities for agricultural products are quite broad, this has yet to significantly shift students' career preferences.

From an academic perspective, several previous studies have examined the factors influencing students' or young people's career choices in the agricultural sector. However, most have remained limited to analyzing specific variables in isolation. A study conducted in Ciamis Regency revealed that social factors, especially the community environment and social status, greatly impacted students' interest in pursuing careers in agriculture. In contrast, parents' income showed no significant effect, highlighting the crucial role of social perceptions regarding the profession (Isyanto et al., 2024). Research conducted at IPB also found that effective communication with teachers, parents, and peers positively influenced work values and career interest in agriculture, with communication with teachers having the strongest effect, reflecting the critical role of educational networks and organizations (Saputra et al., 2023). Furthermore, a study in Nigeria demonstrated that agricultural career information intervention programs were able to shift students' attitudes toward the sector in a more positive direction. However, changes in knowledge and economic perception were not yet significant, highlighting the urgency of improving access to accurate market information (Osuntade et al., 2021). Meanwhile, research involving agroecotechnology and agribusiness students at Universitas Brawijaya found that the perception of agriculture as less promising, having lower social status, and offering relatively low salaries was the main barrier to career interest in the sector, indicating that perceptions of agriculture's economic value play a crucial role in shaping career choices (Prasetyaningrum et al., 2022).

While previous studies have provided valuable insights into the determinants of

students' career choices in the agricultural sector, they exhibit several theoretical and methodological limitations. Theoretically, most studies have examined individual factors, such as social influence, communication, or economic perceptions, in isolation, without integrating internal factors (environmental awareness), external factors (market information access and organizational involvement), and perceived economic value into a comprehensive explanatory framework. As a result, the underlying mechanism through which these factors jointly shape career choice remains insufficiently understood. Methodologically, prior research has predominantly focused on direct relationships between independent variables and career choice, with limited attention to the mediating role of perceived economic value in explaining how students translate information, environmental concerns, and organizational experiences into career decisions. Addressing these limitations, the present study develops an integrated model that simultaneously examines the effects of environmental awareness, market information access, and organizational involvement on career choice through the mediating role of perceived economic value. Furthermore, the study is conducted in Karawang, a region characterized by its dual identity as both a national rice granary and a rapidly expanding industrial area, providing a distinctive context for understanding the challenges of attracting young people to agricultural careers amid increasing industrialization and concerns over farmer regeneration.

Based on this phenomenon, this study aims to provide an in-depth analysis of how environmental awareness, market information access, and organizational involvement influence students' career choices in the agricultural sector through perceptions of agriculture's economic value, with a case study of students in Karawang. The research is expected to contribute theoretically to the literature on young people's interest in agriculture and provide practical recommendations for local governments, universities, and industry stakeholders to develop effective strategies for attracting students to the sector.

To develop a comprehensive understanding of the factors shaping students' career decisions in agriculture, this study adopts the Theory of Planned Behavior (TPB) proposed by Ajzen (1991). According to TPB, an individual's intention to perform a behavior is determined by three key constructs: attitude toward the behavior, subjective norms, and perceived behavioral control. In the context of this study, attitude is represented by students' environmental awareness, which reflects their concern for environmental sustainability, appreciation of agriculture's contribution to ecological preservation, and positive evaluation of agricultural activities as a meaningful career. Subjective norms are operationalized through organizational involvement, measured by students' participation in student organizations, agricultural communities, or extracurricular activities that provide encouragement, social interaction, and normative support from peers, mentors, and organizational networks regarding agricultural careers. Meanwhile, perceived behavioral control is represented by market information access, which captures students' ability to obtain and utilize information related to agricultural markets, employment opportunities, technological developments, and business prospects, thereby strengthening their confidence in pursuing careers in the agricultural sector. In addition, the perceived economic value of agriculture is conceptualized as a mediating variable that reflects students' evaluation of agriculture as a financially rewarding and economically viable career. This perception explains how environmental awareness, organizational involvement, and market information access are translated into stronger career intentions and ultimately influence students' career choices in agriculture. Accordingly, the questionnaire indicators were designed to reflect the operationalization of each TPB construct, enabling the theoretical framework to be empirically tested through the proposed research model.

Complementing this, the Value-Belief-Norm Theory (VBN) proposed by Stern et al. (1999) explains how personal values, environmental beliefs, and moral norms collectively drive pro-environmental behaviors. This theory suggests that students with strong environmental awareness are more inclined to choose agricultural careers that align with ecological sustainability, reflecting a moral commitment rooted in their personal values. Consequently, environmental awareness is not only an attitudinal component but also a key driver shaping perceptions of agriculture's economic and social worth.

Moreover, the Human Capital Theory articulated by Becker (1964) highlights the importance of skills, knowledge, and experiences as forms of capital that increase an individual's productivity and employability. In the context of this study, active participation in organizations serves as a form of human capital development, equipping students with

leadership, communication, and networking skills essential for agricultural careers. Likewise, access to accurate market information constitutes valuable knowledge capital, reducing uncertainties and improving students' confidence in the sector's economic prospects. Together, these components create a competitive advantage influencing students' career choices in agriculture.

Although the present study draws upon the Theory of Planned Behavior (TPB), the Value–Belief–Norm (VBN) Theory, and Human Capital Theory, these theories are employed as complementary rather than independent perspectives. TPB provides the primary behavioral framework by explaining that students' career choices are influenced by attitudes, subjective norms, and perceived behavioral control. The VBN Theory complements this perspective by explaining how environmental awareness shapes pro-environmental values and beliefs, thereby strengthening students' evaluation of agriculture as a meaningful and sustainable career. Meanwhile, Human Capital Theory explains that knowledge, skills, and access to relevant information enhance individuals' capacity to evaluate career opportunities. In the proposed model, market information access represents an important form of human capital that strengthens students' perceived behavioral control by reducing uncertainty regarding employment opportunities and economic prospects in agriculture. Likewise, organizational involvement contributes to the development of social networks and normative support, reinforcing subjective norms toward agricultural careers. Consequently, environmental awareness, market information access, and organizational involvement jointly influence students' perceived economic value of agriculture, which subsequently shapes their career choices in the agricultural sector. Therefore, the three theories collectively provide a comprehensive theoretical foundation for the proposed research model.

Based on the Value-Belief-Norm Theory, environmental awareness drives individuals to act in accordance with values and beliefs related to environmental preservation, including choosing professions that support sustainability, such as environmentally friendly agriculture (Stern et al., 1999). This is supported by studies showing that students with higher levels of environmental awareness tend to choose fields of work oriented toward resource sustainability (Sulich et al., 2021). Other research also indicates that environmental awareness plays a key role in influencing young people's interest in working in the organic farming sector (Munandar et al., 2023). Furthermore, agricultural students with high environmental awareness are more likely to pursue careers in sustainable agriculture compared to non-agricultural sectors (Sugiarto & Gabriella, 2020).

Referring to the Theory of Planned Behavior, market information access enhances students' perceived behavioral control in identifying business or employment opportunities in the agricultural sector, thereby influencing their career decisions (Ajzen, 1991). Previous studies show that students with adequate access to agricultural market information are more confident in choosing careers in the sector (Unay-Gailhard & Brennen, 2022). Other research reveals that broader market information access strengthens young people's motivation to develop modern farming enterprises (Guidimadjègbè et al., 2026; Mdoda et al., 2026). Moreover, information on prices, product demand, and agricultural market trends significantly shapes students' career interests in agriculture (Rojabi & Muksin, 2024).

Within the framework of the Human Capital Theory, organizational experience strengthens social skills, leadership abilities, and networks relevant to career opportunities, including those in the agricultural sector (Becker, 1964). Previous studies have confirmed that students actively involved in agricultural organizations possess knowledge and networks that support their career choices in the sector (Mukembo et al., 2014). Other research shows that organizational experience broadens perspectives on career opportunities in sustainable agriculture (Alrawashdeh et al., 2023). In addition, involvement in student organizations focused on agriculture encourages students to be more confident in selecting this sector as their career path (Yunandar et al., 2020).

According to the TPB, attitude toward behavior is influenced by beliefs about the outcomes obtained. If students perceive agriculture as having high economic value, they are more likely to choose a career in the sector. Previous studies found that a positive perception of agricultural profit prospects increases students' interest in entering the sector (Faradila et al., 2024). Other studies also reveal that students with a high assessment of the income potential in agriculture are more inclined to build a career in it (Anggriani et al., 2024). A positive perception of agriculture's economic value is therefore a crucial factor in students' career decision-making (Henning et al., 2022).

Referring to the Value-Belief-Norm

Theory and the TPB, environmental awareness can enhance students' perception that sustainable agriculture is not only beneficial for the environment but also economically profitable. Earlier research has demonstrated a positive connection between awareness of environmental issues and perceptions of the economic benefits of sustainable farming (Durán Gabela et al., 2022). Other research also indicates that economic perspectives strengthen the influence of environmental awareness on career choice (Atienza-Barba et al., 2025). Furthermore, the perception of economic value serves as an important mediating pathway between environmental awareness and students' career decisions (Barba et al., 2022).

From the perspective of the Theory of Planned Behavior, good market information access enables students to understand economic opportunities in the agricultural sector, which in turn influences their career choices. Previous research shows that market information increases perceptions of agriculture's income potential (Nakasone, 2013). Students who are aware of price and demand trends are more likely to view agriculture as a financially promising sector (Unay-Gailhard & Brennen, 2022). Other studies have also confirmed that the perception of economic value is an important mediator in the relationship between market information access and young people's career interests (Henning et al., 2022).

According to the Human Capital Theory, organizational experience not only enhances skills but also broadens insight into the economic potential of the agricultural sector. Previous studies have found that active student organization members hold positive perceptions toward the profitability of agricultural enterprises (Bisenio et al., 2025; Zulaikha et al., 2021). Other research states that organizational participation provides access to training and business opportunities that improve the perception of agriculture's economic value (Chen et al., 2020). The perception of economic value can serve as a significant mediator in the relationship between organizational involvement and young people's career choices (Boye et al., 2024).

The urgency of this research lies in the importance of increasing student interest in pursuing careers in the agricultural sector, which is crucial for supporting sustainable food security and rural economic development. Limited awareness of the environmental importance of agriculture, inadequate access to relevant market information, and low organizational involvement remain significant challenges that hinder students from considering agriculture as a viable and valuable career path. Therefore, this study highlights the role of environmental awareness, market information access, and organizational activeness as key factors that may influence

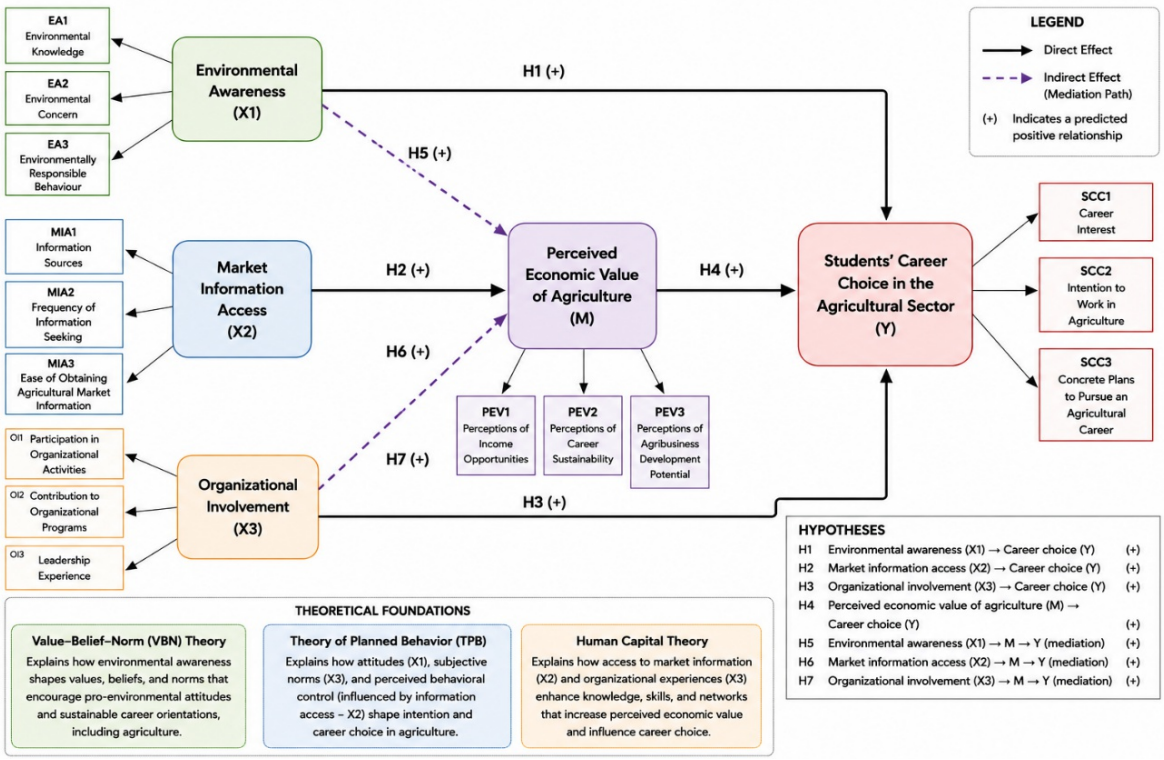


Figure 1. Research model

students' agricultural career choices through the mediating role of perceived economic value of agriculture. This emphasis is outlined in the Conceptual Framework (Figure 1), which systematically and comprehensively explains the relationships among the variables, based on the theoretical foundations of TPB, Value-Belief-Norm (VBN) Theory, and Human Capital Theory.

H1: Environmental awareness has a positive effect on students' career choices in the agricultural sector
H2: Market information access has a positive effect on students' career choices in the agricultural sector
H3: Organizational involvement has a positive effect on students' career choices in the agricultural sector
H4: Perceived economic value of agriculture has a positive effect on students' career choices in the agricultural sector
H5: Perceived economic value of agriculture mediates the effect of environmental awareness on students' career choices in the agricultural sector
H6: Perceived economic value of agriculture mediates the effect of market information access on students' career choices in the agricultural sector
H7: Perceived economic value of agriculture mediates the effect of organizational involvement on students' career choices in the agricultural sector

■ METHOD

Population and Sample

The target population consisted of 134 undergraduate students enrolled in agriculture-related study programs at Universitas Singaperbangsa Karawang and Universitas Pelita Bangsa, including Agribusiness, Agrotechnology, and Agricultural Product Technology. These universities were selected because they are among the major higher education institutions in the Karawang region and attract students from both urban and rural communities. Moreover, many of their students originate from agricultural households or regions where agriculture remains an important economic activity, making them appropriate representatives of the younger generation with the potential to participate in the future agricultural workforce.

This study employed a purposive sampling technique to select respondents who met the predefined research criteria. The inclusion criteria required respondents to be active undergraduate students enrolled in agriculture-related study programs at the selected universities and willing to participate voluntarily in the study. Purposive sampling was considered appropriate because the research specifically targeted students with educational backgrounds relevant to agriculture, enabling them to provide meaningful responses regarding environmental awareness, market information access, organizational involvement, perceived economic value of agriculture, and career choice in the agricultural sector. To ensure balanced representation, respondents were recruited proportionally from the selected study programs; however, the selection process remained based on purposive rather than probability sampling principles. Based on Slovin's formula with a 5% margin of error, the minimum required sample size was 100 respondents, all of whom met the established inclusion criteria.

Primary data were collected through structured questionnaires administered both offline and online using Google Forms between April and July 2025. Prior to completing the questionnaire, all participants received an informed consent statement explaining the objectives of the study, the voluntary nature of participation, their right to withdraw at any stage without penalty, and the confidentiality of their responses. No personally identifiable information was collected, and all responses were analyzed anonymously and reported only in aggregate form. Respondent characteristics, including gender, age, study program, semester, organizational experience, family background, and sources of agricultural market information, are presented in the Respondent Characteristics section.

Secondary data were obtained from official university records, government publications, statistical reports, and relevant academic literature related to agricultural development and students' career choices in the agricultural sector.

Research Design

This study employed a quantitative approach with an explanatory research design to examine the causal relationships among environmental awareness, market information access, organizational involvement, perceived economic value of agriculture, and students' career choices in the agricultural sector. This design was selected because it enabled the empirical testing of both direct and indirect relationships among variables within the proposed conceptual framework. The research was conducted in the Karawang region, one of Indonesia's major agricultural production centers that has simultaneously experienced

rapid industrial expansion. This dual characteristic makes Karawang an appropriate setting for investigating the factors influencing young people's career decisions between the agricultural and non-agricultural sectors.

Instruments

The study investigated five interrelated variables: Environmental Awareness (X1), Market Information Access (X2), Organizational Involvement (X3), Perceived Economic Value of Agriculture (M), and Career Choice in the Agricultural Sector (Y). The measurement instruments were adapted from previously validated studies and modified to fit the context of agricultural career choice among university students.

Environmental Awareness (X1) was measured using three indicators: environmental knowledge (EA1), environmental concern (EA2), and environmentally responsible behavior (EA3), adapted from the environmental awareness framework (Dunlap et al., 2000; Kaiser et al., 1999). Market Information Access (X2) was measured through information sources (MIA1), frequency of information seeking (MIA2), and ease of obtaining agricultural market information (MIA3), adapted from studies on agricultural information accessibility (Aker, 2011; Mittal & Mehar, 2016). Organizational Involvement (X3) was measured based on participation in organizational activities (OI1), contribution to organizational programs (OI2), and leadership experience (OI3), following the organizational participation framework proposed by Astin (1984) and subsequent higher education studies. Perceived Economic Value of Agriculture (M) was measured through perceptions of income opportunities (PEV1), career sustainability (PEV2), and agribusiness development potential (PEV3), adapted from studies examining youth perceptions of agricultural careers (Prasetyaningrum et al., 2022). Career Choice in the Agricultural Sector (Y) was measured using indicators of career interest (SCC1), intention to work in agriculture (SCC2), and concrete plans to pursue an agricultural career (SCC3), adapted from the Theory of Planned Behavior framework (Ajzen, 1991) and previous research on agricultural career intentions (Osuntade et al., 2021).

All questionnaire items were measured using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Prior to the main survey, the questionnaire was pilot-tested on 30 students who were not included in the final sample. Item validity was assessed using the Pearson Product-Moment correlation, with items considered valid when the calculated correlation coefficient exceeded the critical value (r-count > r-table at $\alpha = 0.05$). Instrument reliability was evaluated using Cronbach's Alpha, with values of 0.70 or above indicating acceptable internal consistency. The pilot test results were used to improve the wording, clarity, and contextual relevance of several questionnaire items before the full-scale survey was conducted.

Data Analysis Technique

Data were analyzed using Structural Equation Modeling–Partial Least Squares (SEM-PLS) with SmartPLS version 4.0. This method was selected because it is appropriate for analyzing complex causal relationships among latent constructs while accommodating relatively moderate sample sizes. The analysis began with evaluating the measurement (outer) model. Convergent validity was considered satisfactory when each indicator achieved a loading factor greater than 0.70 and an Average Variance Extracted (AVE) exceeding 0.50. Construct reliability was assessed using Cronbach's Alpha and Composite Reliability (CR), with both values required to exceed 0.70. The structural (inner) model was subsequently evaluated using the coefficient of determination (R^2), predictive relevance (Q^2), and path coefficients to examine the direct and indirect relationships among variables, including the mediating role of perceived economic value of agriculture. Hypothesis testing was performed using the bootstrapping procedure with a significance level of 5%, where path relationships were considered statistically significant when the t-statistic exceeded 1.96 ($p < 0.05$).

■ RESULTS AND DISCUSSION

Demographic of Respondents

Based on the respondents' demographic characteristics, most participants were male (53.0%) and aged 20–22 years (55.0%). Agribusiness and Agrotechnology each accounted for 40.0% of the sample, while most respondents were in semesters 5–6 (35.0%). Regarding organizational experience, 45.0% were active in campus organizations. Respondents were equally distributed between farming and non-farming family backgrounds (50.0% each). Social media was the primary source of agricultural market information (45.0%), followed by campus activities and seminars (35.0%). Most respondents enrolled in 2022 (30.0%), and the majority were from Universitas Singaperbangsa Karawang (80.0%). Overall, the respondent profile reflects students with relevant academic

backgrounds and organizational involvement, providing an appropriate sample for examining factors influencing career choices in the agricultural sector (see Table 1).

Descriptive Statistics of Questionnaire Responses

Before evaluating the measurement model, descriptive statistics were used to examine respondents' response patterns for each questionnaire item. Table 2 presents the percentage distribution of responses across the five-point Likert scale (Strongly Disagree, Disagree, Neutral, Agree, and Strongly Agree). Overall, the responses were predominantly concentrated in the Agree and Strongly Agree categories, indicating generally positive perceptions toward environmental awareness, market information access, perceived economic value of agriculture, and students' career choices in the agricultural sector. In contrast, the organizational involvement indicators exhibited relatively greater variation, with a higher proportion of neutral responses, suggesting that respondents differed in their level of participation in organizational activities.

Outer Model Evaluation

In Partial Least Squares Structural Equation Modeling (PLS-SEM) analysis, the Outer Model Evaluation, or Measurement Model Evaluation, is used to assess the validity and reliability of constructs as measured by their indicators. This evaluation aims to ensure that the indicators used can consistently and accurately represent the latent variables. There are two main stages in evaluating the outer model: *Convergent Validity* and *Reliability Test*.

Convergent Validity

Convergent validity measures the extent to which indicators of a variable can consistently represent the construct being measured. The metrics used are *Outer Loading* and *Average Variance Extracted* (AVE). An *Outer Loading* value above 0.700 indicates that the indicator has a strong contribution to the

Table 1. Demographic characteristics of respondents (n=100)

Respondent Characteristics	Category	Number (n)	Percentage (%)
Gender	Male	53	53.0%
	Female	47	47.0%
Age	< 20 years	35	35.0%
	20–22 years	55	55.0%
	> 22 years	10	10.0%
Study Program	Agribusiness	40	40.0%
	Agrotechnology	40	40.0%
	Agricultural Product Technology	20	20.0%
Semester	1–2	15	15.0%
	3–4	25	25.0%
	5–6	35	35.0%
	7–8	25	25.0%
Organizational Experience	Not active	30	30.0%
	Active in campus organizations	45	45.0%
	Active in external organizations	25	25.0%
Family Background	Farmer	50	50.0%
	Non-farmer	50	50.0%
Sources of Agricultural Market Information	Social media	45	45.0%
	Campus activities/seminars	35	35.0%
	Family/friends network	20	20.0%
Year of University Enrollment	2021	25	25.0%
	2022	30	30.0%
	2023	25	25.0%
	2024	20	20.0%
Respondent's University	Universitas Pelita Bangsa	20	20.0%
	Universitas Singaperbangsa Karawang	80	80.0%

Table 2. Distribution of responses across likert scale categories

Indicator	Strongly Disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly Agree (%)
EA1	1	4	12	48	35
EA2	1	3	10	50	36
EA3	2	5	15	47	31
MIA1	1	2	9	49	39
MIA2	1	4	13	50	32
MIA3	2	4	15	48	31
OI1	3	8	24	43	22
OI2	2	9	26	42	21
OI3	3	10	23	44	20
PEV1	1	2	8	46	43
PEV2	1	3	10	47	39
PEV3	1	3	11	49	36
SCC1	1	4	12	49	34
SCC2	1	3	11	50	35
SCC3	2	5	13	48	32

construct. In contrast, an AVE value of at least 0.500 suggests that more than 50% of the variance in the indicators can be explained by the construct. In this study, all indicators have outer loading values ranging from 0.731 to 0.892, indicating that they are valid in terms of convergent validity. The AVE values for each construct are also above 0.500, such as Environmental Awareness (0.652), Market Information Access (0.681), Organizational Activeness (0.713), Students' Career Choice in the Agricultural Sector (0.669), and Perceived Economic Value of Agriculture (0.702), meaning that all constructs meet the convergent validity requirement (see Table 3).

Construct Reliability Test

Reliability assesses the internal consistency of indicators in representing a construct. This is measured using *Composite Reliability* (CR) and *Cronbach's Alpha* (CA). A CR value above 0.700 indicates good consistency, while a CA value above 0.600 indicates acceptable reliability. Based on the study results, all constructs meet these criteria with high CR values, such as Environmental Awareness (0.881), Market Information Access (0.895), Organizational Activeness (0.902), Students' Career Choice in the Agricultural Sector (0.887), and Perceived Economic Value of Agriculture (0.911). Cronbach's Alpha values are also above the minimum threshold, for example, 0.826 for Environmental Awareness and 0.854 for Perceived Economic Value of Agriculture, confirming that all constructs in the model demonstrate excellent reliability (Table 3).

To complement the numerical results

Table 3. Outer model evaluation

Variable	Indicator	Outer Loading	AVE	Composite Reliability	Cronbach's Alpha
Environmental Awareness (EA)	EA1	0.781	0.652	0.881	0.826
	EA2	0.842			
	EA3	0.731			
Market Information Access (MIA)	MIA1	0.892	0.681	0.895	0.841
	MIA2	0.803			
	MIA3	0.765			
Organizational Involvement (OI)	OI1	0.873	0.713	0.902	0.857
	OI2	0.892			
	OI3	0.804			
Students' Career Choice in the Agricultural Sector (SCC)	SCC1	0.821	0.669	0.887	0.832
	SCC2	0.842			
	SCC3	0.773			
Perceived Economic Value of Agriculture (PEV)	PEV1	0.892	0.702	0.911	0.854
	PEV2	0.873			
	PEV3	0.842			

presented in Table 3, the standardized outer loading values are visualized in Figure 3 using a horizontal bar chart arranged from the highest to the lowest loading values. This visualization provides a clearer overview of the relative contribution of each measurement indicator to its corresponding latent construct. It facilitates the identification of the most dominant indicators in the measurement model.

As illustrated in Figure 2, the standardized outer loading values ranged from 0.731 to 0.892, indicating that all indicators exceeded the recommended threshold of 0.70 and therefore satisfied the criterion for indicator reliability. The indicators MIA1, OI2, and PEV1 exhibited the highest loading values (0.892), suggesting that they were the strongest representatives of their respective latent constructs. Conversely, EA3 showed the lowest loading value (0.731); however, it remained above the acceptable threshold, indicating that it adequately represented the Environmental Awareness construct. Overall, the results confirm that all measurement indicators demonstrated satisfactory convergent validity and were retained for subsequent structural model analysis.

Inner Model Evaluation

The inner model evaluation in the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach aims to assess the predictive power and structural relationships among the latent variables proposed in the research model. This evaluation includes the assessment of the coefficient of determination (R^2), predictive relevance (Q^2), and the significance of the standardized path coefficients obtained through the bootstrapping procedure. The structural model illustrates how the exogenous variables influence the endogenous variables, either directly or indirectly through the mediating role of Perceived Economic Value of Agriculture.

Following the assessment of the measurement model, the structural model was evaluated to examine the hypothesized relationships among the latent constructs. Figure 3 presents the final structural model by simultaneously displaying the standardized outer loadings for each indicator, the standardized path coefficients among the latent constructs, and the R^2 values of the endogenous variables. This visual representation provides a comprehensive overview of the measurement and structural models before the detailed hypothesis testing results are presented.

As presented in Figure 3, the endogenous construct Perceived Economic Value of Agriculture achieved an R^2 value of 0.612,

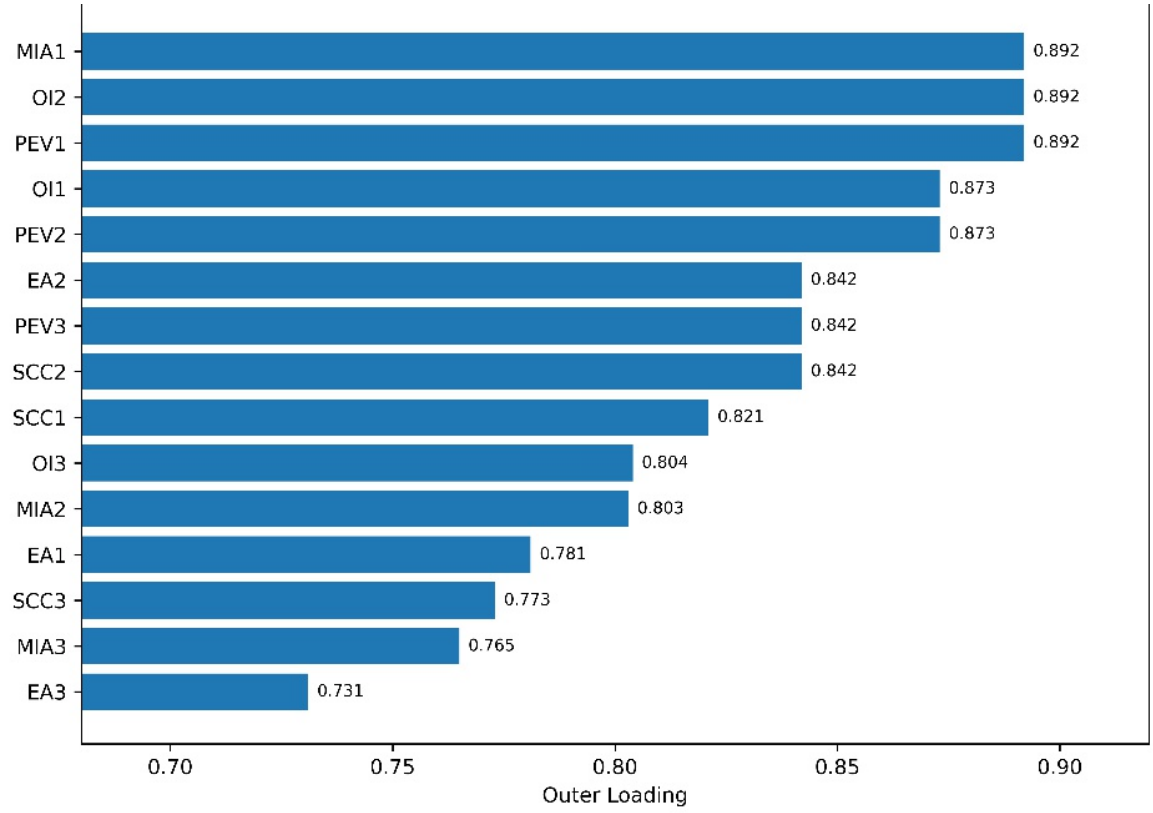


Figure 2. Standardized outer loading of measurement indicators arranged from highest to lowest values

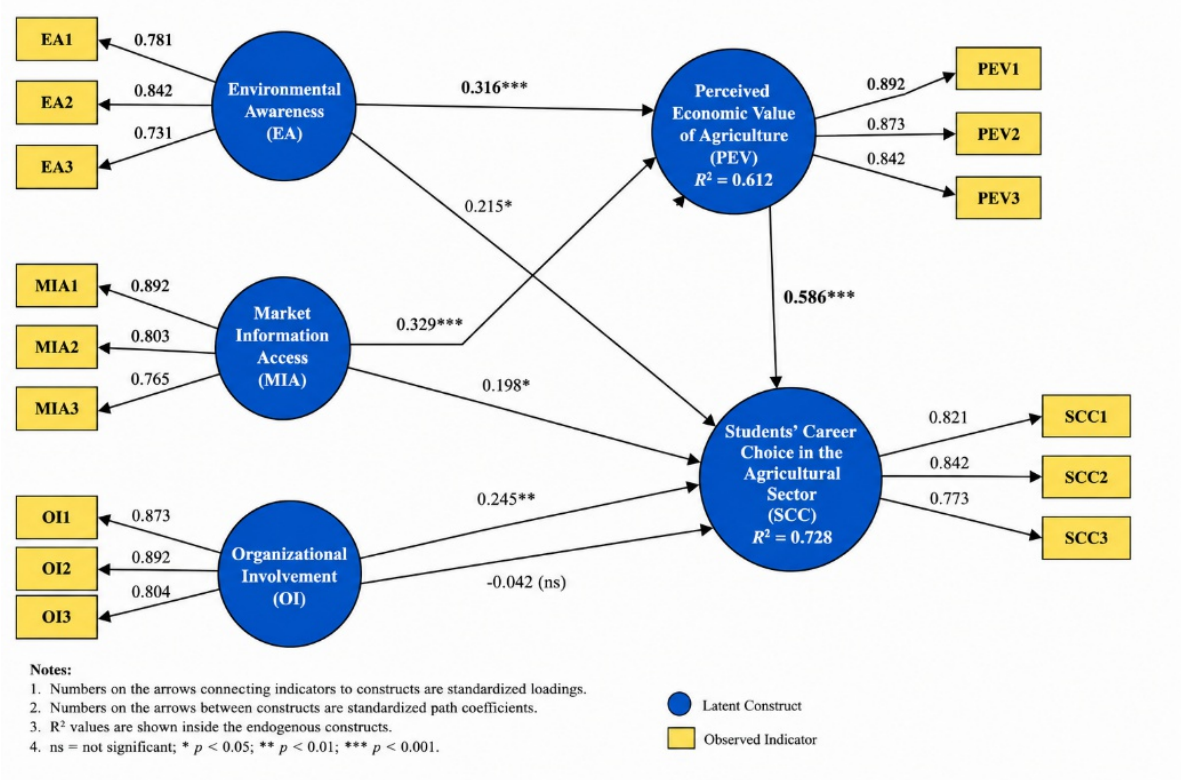


Figure 3. Final structural model with standardized path coefficients, outer loadings, and r² values

indicating that 61.2% of its variance is explained by the exogenous constructs included in the model. Meanwhile, Students' Career Choice in the Agricultural Sector obtained an R^2 value of 0.728, suggesting that the proposed structural model explains 72.8% of the variance in students' career choice. Furthermore, the Q^2 values of 0.386 and 0.521 indicate satisfactory predictive relevance for both endogenous constructs, demonstrating that the proposed model possesses adequate explanatory and predictive capability.

R-Square (R^2)

The coefficient of determination (R^2) indicates the proportion of variance in an endogenous construct explained by its predictor variables. Higher R^2 values indicate stronger explanatory power of the structural model. According to Chin (1998), R^2 values of 0.67, 0.33, and 0.19 indicate substantial, moderate, and weak explanatory power, respectively. As presented in Figure 3 and Table 4, the Perceived Economic Value of Agriculture construct achieved an R^2 value of 0.612, indicating that 61.2% of its variance is explained by the exogenous constructs included in the model. Meanwhile, Students' Career Choice in the Agricultural Sector obtained an R^2 value of 0.728, indicating that 72.8% of its variance is explained by the proposed structural model. These values indicate moderate to substantial explanatory power, suggesting that the model adequately explains the endogenous constructs.

Q-Square Predictive Relevance (Q^2)

The predictive relevance of the structural model was assessed using the blindfolding procedure in SmartPLS 4. According to Hair et al. (2021), a Q^2 value greater than zero indicates that the structural model has predictive relevance for the endogenous constructs. The Perceived Economic Value of Agriculture construct obtained a Q^2 value of 0.386, while Students' Career Choice in the Agricultural Sector achieved a Q^2 value of 0.521. Since both values exceed zero, the proposed structural model demonstrates satisfactory predictive relevance, indicating adequate predictive capability for the endogenous constructs.

Hypothesis Testing Results

The significance of the hypothesized relationships was evaluated using the bootstrapping procedure in SmartPLS 4. A relationship was considered statistically significant when the t-statistic ≥ 1.960 and the p-value ≤ 0.050. The detailed results of the

Table 4. R-square (r^2) value

Endogenous Variable	R-Square (R^2)	Interpretation
Perceived Economic Value of Agriculture (Z)	0.612	Moderate to substantial
Students' Career Choice in the Agricultural Sector (Y)	0.728	Moderate to substantial

direct and indirect effects are presented in Table 5. Of the seven proposed hypotheses, four were supported, and three were not supported. Specifically, H1, H2, H4, and H6 demonstrated positive and statistically significant effects, whereas H3, H5, and H7 were not statistically significant.

Environmental Awareness Has A Positive Effect on Students' Career Choices

Environmental awareness plays an important role in encouraging students to choose careers in the agricultural sector because it shapes their understanding of the importance of environmental sustainability and the contribution that agriculture can make to preserving natural resources. Students who possess higher environmental knowledge, stronger environmental concern, and more environmentally responsible behavior tend to perceive agriculture not merely as an economic activity but also as a meaningful profession that contributes to sustainable development. Consequently, they are more likely to develop an interest in pursuing careers related to sustainable agriculture.

The positive influence of environmental awareness on career choice can be explained through the Theory of Planned Behavior, which states that an individual's attitude toward a behavior (including attitudes toward the environment) significantly affects their intentions and actions (Ajzen, 1991). In this case, the choice of a career in agriculture. Environmental awareness, as part of a positive attitude toward environmental preservation, can form internal motivation for students to contribute to sustainable agriculture. Previous research has also found that knowledge and concern about the environment significantly increase individuals' interest in choosing careers that support sustainability and natural resource conservation (Song, 2023).

Additionally, demographic data show that most respondents are aged 20-22 years (55%) and that 50% come from farming families, which may support the development of strong environmental awareness through direct experience and education related to agriculture. Age and family experience in farming can strengthen students' understanding and concern about the importance of environmentally friendly agricultural practices. Thus, high environmental awareness, supported by relevant demographic backgrounds, becomes a primary driver in shaping career choices aligned with the needs of a sustainable agricultural sector.

Market Information Access Has A Positive Effect on Students' Career Choices

Access to market information encourages students to consider agriculture as a more attractive and promising career option because it reduces uncertainty regarding employment prospects, business opportunities, and income potential in the sector. Students who are frequently exposed to agricultural market information through digital platforms, educational activities, or professional networks tend to have a better understanding of current market trends, technological innovations, and emerging opportunities in modern agriculture. This broader knowledge enables them to evaluate agricultural careers more realistically and positively, thereby increasing their willingness to pursue employment or entrepreneurial opportunities in the sector.

The positive impact of market information access on students' career choices can be explained by the Theory of Planned Behavior, which states that a person's

Table 5. Hypothesis testing results

Code	Relationship	β	t	p	Result
H1	EA → SCC	0.215	2.543	0.011	Supported
H2	MIA → SCC	0.198	2.317	0.021	Supported
H3	OI → SCC	-0.042	0.812	0.417	Not Supported
H4	PEV → SCC	0.586	8.192	0.000	Supported
H5	EA → PEV → SCC	-0.027	0.654	0.513	Not Supported
H6	MIA → PEV → SCC	0.162	2.034	0.043	Supported
H7	OI → PEV → SCC	-0.019	0.482	0.630	Not Supported

knowledge and beliefs about a field influence their attitudes and intentions to perform behaviors (Ajzen, 1991), including career choice. Regular and easy access to market information strengthens the perception of benefits and career opportunities in the agricultural sector, motivating students to become more interested and intent on pursuing careers in this field. Previous studies also support this finding by showing that adequate access to information increases young people's interest in agribusiness as a promising and prospective career choice (Yunandar et al., 2024).

Furthermore, the demographic characteristics of respondents, where most are actively involved in campus organizations (45%) and come from farming family backgrounds (50%), provide additional context on how market information is obtained and utilized optimally. Students active in organizations tend to be more proactive in seeking and utilizing market information, while a farming family background supports a deeper understanding of agribusiness market dynamics. This combination of good information access and relevant backgrounds reinforces market information access as a key factor driving students' career choices in the agricultural sector.

Organizational Involvement Has A Negative Effect on Students' Career Choices

The findings indicate that organizational involvement does not have a statistically significant effect on students' career choices in the agricultural sector. Although the estimated path coefficient is negative, the relationship is not statistically significant; therefore, the results do not provide sufficient evidence to conclude that organizational involvement either increases or decreases students' intentions to pursue careers in agriculture. Consequently, Hypothesis 3 was not supported.

Participation in student organizations provides opportunities to develop leadership, communication, teamwork, and problem-solving skills. However, these competencies do not necessarily translate into stronger intentions to pursue careers in the agricultural sector. This finding suggests that the influence of organizational involvement depends not only on the level of participation but also on whether organizational activities are relevant to students' professional interests and career aspirations in agriculture.

From the perspective of the Theory of Planned Behavior (Ajzen, 1991), organizational involvement may contribute to the formation of subjective norms through interactions with peers, mentors, and organizational networks. Nevertheless, when these social environments do not actively promote agricultural professions or provide meaningful exposure to agribusiness opportunities, their influence on students' career intentions may remain limited. Therefore, organizational participation alone may be insufficient to encourage students to choose careers in the agricultural sector.

This finding is consistent with Denault et al. (2019), who argued that participation in extracurricular organizations does not automatically influence career decisions when organizational activities are not closely aligned with students' academic disciplines or long-term career goals. However, the present finding differs from studies by Fish et al. (2026) and Liu et al. (2026), which reported that organizational participation contributes to leadership development, interpersonal competence, and career readiness. These differences may be explained by the context of organizational activities. While organizational experience generally enhances transferable skills, such experience may not directly influence students' career choices unless the organizations provide agriculture-related learning opportunities, professional networks, or direct exposure to careers in the agricultural sector.

The respondent profile further supports this interpretation. Although 45% of respondents reported participating in campus organizations and 25% were active in external organizations, many of these organizations were likely focused on social, cultural, or general student development rather than agriculture-related activities. Consequently, organizational participation may have strengthened students' generic employability skills without significantly shaping their perceptions of agriculture as an attractive career option.

These findings suggest that simply encouraging students to participate in organizations may not be sufficient to increase interest in agricultural careers. Instead, higher education institutions should facilitate students' involvement in organizations, professional associations, internships, and community engagement programs that are directly connected to agriculture and agribusiness. Such activities are more likely to provide relevant experiences, expand professional networks, and strengthen students' interest in pursuing careers in the agricultural sector.

Perception of Agriculture's Economic Value Has A Positive Effect on Students' Career Choices

Students' perceptions of the economic

value of agriculture play a crucial role in shaping their career choices because they influence how attractive and rewarding the sector is perceived to be. When students believe that agriculture offers competitive income, long-term career stability, and promising opportunities for agribusiness development, they are more likely to view the sector as a viable and desirable career path. These positive economic perceptions encourage students to move beyond traditional stereotypes of agriculture as a low-income occupation and instead recognize its potential as a modern and innovative industry.

From a theoretical perspective, this effect can be explained by the Theory of Planned Behavior (TPB), which states that a positive attitude based on beliefs about favorable outcomes influences an individual's intention to perform the corresponding behavior, in this case, choosing a career in agriculture. The Value-Belief-Norm (VBN) Theory reinforces that individuals' values regarding the importance of economic and social sustainability motivate personal norms supporting responsible career decisions. Furthermore, according to Human Capital Theory, perceptions of economic potential and career development opportunities encourage individuals to develop the skills and knowledge necessary to enhance competitiveness in the agricultural sector. These three theories complement each other in explaining how perceptions of agricultural economic value can shape students' career interests and intentions.

Previous studies also support these findings, showing that positive perceptions of income potential and agribusiness sustainability significantly increase students' career interests in agriculture (Pervez et al., 2024). Additionally, other research confirms that economic value perception is a key factor in determining career choices oriented toward the agribusiness sector (Shaibu, D.O., 2024). Demographic data in this study show that the majority of respondents are aged 20–22 years (55%) and come from farming family backgrounds (50%), providing a strong context for their understanding of agricultural economic potential. This demographic condition supports the analysis results indicating that perception of economic value is a primary driver in students' career choices in the agricultural sector.s

Perception of Agriculture's Economic Value Mediates The Effect of Environmental Awareness on Students' Career Choices

The findings indicate that the perceived economic value of agriculture does not mediate the relationship between environmental awareness and students' career choices in the agricultural sector. This suggests that students with strong environmental awareness are likely to develop an interest in agricultural careers regardless of whether they perceive agriculture as economically attractive. In other words, environmental values appear to influence career decisions directly rather than through economic considerations.

This analysis can be understood through the perspectives of the Theory of Planned Behavior and Value-Belief-Norm Theory, which imply that environmental awareness has a more direct impact on students' attitudes and intentions to choose careers oriented toward sustainability and social responsibility, without passing through the perception of economic value (Ajzen, 1991; Stern et al., 1999). In other words, students with high environmental awareness may prioritize environmental and social aspects in their careers, making the perception of agricultural economic value an ineffective mediating factor in their career decision-making process. This suggests a separation between value-based environmental motivation and economic considerations in the context of career choice.

Additionally, previous studies support this finding by stating that environmental awareness directly influences sustainable career preferences without economic factors acting as mediators (La Rosa & Zammitti, 2025). The demographic data of respondents, showing a majority aged 20–22 years and a balanced farming family background (50%), indicate that although students have experience and knowledge related to the environment and agriculture, they may not yet fully associate environmental awareness with the economic value aspect in agribusiness careers. This factor reinforces the result that economic value perception does not serve as a significant mediator between environmental awareness and students' career choices in agriculture. Therefore, other approaches that directly integrate social and environmental values may be more appropriate to understand students' career motivations in this context.

Perception of Agriculture's Economic Value Mediates The Effect of Market Information Access on Students' Career Choices

The findings demonstrate that the perceived economic value of agriculture serves as an important mechanism through which market information access influences students' career choices in the agricultural sector. This suggests that access to reliable and up-to-date market information does not merely increase students' awareness of agricultural

opportunities but also enhances their perceptions of the sector's economic potential. As students gain better information regarding market demand, technological innovation, employment prospects, and agribusiness opportunities, they become more likely to perceive agriculture as a profitable, sustainable, and future-oriented profession, which subsequently strengthens their intention to pursue careers in the sector.

This discussion is supported by the Theory of Planned Behavior, which emphasizes that information acquired by individuals shapes positive beliefs and attitudes that affect intentions and behaviors—in this case, career choices in agriculture (Ajzen, 1991). Furthermore, Human Capital Theory is relevant since access to market information improves students' understanding of the potential for skill development and economic opportunities in agribusiness, encouraging them to invest in self-development and choose promising careers in agriculture. The Value-Belief-Norm Theory also explains that obtained market information can strengthen individuals' values and beliefs about the importance of agribusiness as a sustainable livelihood source. Thus, the perception of agricultural economic value mediates the influence of market information access on students' career choices in agriculture (Anggriani et al., 2024).

Demographically, the majority of respondents who are active in campus organizations (45%) and come from farming family backgrounds (50%) likely have better access to and a deeper understanding of agribusiness market dynamics. This condition facilitates effective access to and processing of market information, leading to a positive formation of the perception of agricultural economic value. Therefore, the perception of agricultural economic value mediated by market information access is an important factor in enhancing students' interest and intention in pursuing careers in the agricultural sector.

Perception of Agriculture's Economic Value Mediates The Effect of Organizational Involvement on Students' Career Choices in The Agricultural Sector

The findings indicate that the perceived economic value of agriculture does not mediate the relationship between organizational involvement and students' career choices in the agricultural sector. This suggests that participation in student organizations alone is insufficient to shape students' perceptions of the economic attractiveness of agriculture or to encourage them to pursue careers in the sector. Although organizational involvement may enhance leadership, communication, teamwork, and problem-solving skills, these competencies do not automatically translate into more favorable perceptions of agriculture's economic potential.

This result can be discussed from the perspective of the Theory of Planned Behavior, which states that although organizational involvement can shape attitudes and intentions (Ajzen, 1991), in the context of the agricultural sector, such involvement does not effectively influence the perception of economic value as a motivator for career choice. Moreover, Human Capital Theory suggests that organizational involvement not directly related to the development of agribusiness skills or understanding of agricultural economic value may not significantly contribute to enhancing economic value perception as a basis for career decisions. The Value-Belief-Norm Theory further adds that the norms and personal values formed through organizational involvement tend to focus more on social or leadership aspects that do not strongly correlate with economic perception in the agricultural sector.

Previous research supports this finding, stating that general organizational involvement not specifically related to agribusiness does not significantly affect career interest in the agricultural sector (Roy, 2023). Additionally, other studies indicate that organizational activities lacking focus on developing agribusiness competencies fail to increase the perception of agricultural economic value among students (Feldpausch et al., 2019). Therefore, although 45% of respondents are active in campus organizations and 25% in external organizations, the connection of these organizations to the agricultural field remains weak, making the influence of organizational involvement on career choices through economic value perception insignificant. This demographic data highlights the need to develop organizations or programs more specifically aimed at enhancing agribusiness economic value so that organizational involvement can more effectively encourage students' career interest in the agricultural sector.

■ CONCLUSION

This study found that environmental awareness and market information access have a positive and significant influence on students' career choices in the agricultural sector. In contrast, organizational involvement does not have a significant effect, either directly or through the perceived economic value of agriculture. The perceived economic value of agriculture plays an important role in

influencing students' career choices and mediating the effect of market information access on career choices. However, it does not mediate the relationship between environmental awareness or organizational involvement and career choice. These results indicate that understanding market opportunities and perceptions of agricultural economic benefits have a greater impact on career interest compared to organizational participation that is not directly relevant to agriculture.

The findings provide practical implications for local governments and agricultural agencies to expand digital-based agricultural market information systems and integrate environmental awareness initiatives with education on sustainable economic opportunities. Higher education institutions are encouraged to strengthen curricula, experiential learning, and extracurricular programs that are closely aligned with modern agribusiness practices while fostering partnerships with agriculture-related student organizations. Likewise, industry stakeholders should enhance collaboration with universities through internships, professional training, direct market engagement, and the provision of real-time agricultural market information to improve students' understanding of agricultural career opportunities. From a theoretical perspective, this study supports the application of the Theory of Planned Behavior (TPB) in explaining how environmental awareness, market information access, and perceived economic value contribute to students' career intentions in the agricultural sector. Furthermore, the findings enrich the literature on agricultural career decision-making by demonstrating that perceived economic value serves as an important mediating mechanism between market information access and career choice. In contrast, environmental awareness exerts a direct influence on students' career decisions.

This study has several limitations, including a sample restricted to students in the Karawang area, which may limit the generalizability of the findings to other regions, the use of a cross-sectional design that cannot capture long-term dynamics in career interest, the measurement of organizational involvement without distinguishing the type or its relevance to agriculture, and potential subjective bias as data collection relied on respondents' perceptions through questionnaires. Future research is recommended to expand the study area to regions with different socio-economic characteristics, adopt a longitudinal design to capture changes in students' perceptions and career interests over time, include moderating variables such as family background, fieldwork experience, or exposure to agricultural technology, categorize the types of organizations students are involved in to measure their influence more accurately, and combine quantitative methods with in-depth interviews to explore non-economic motivations influencing career choices in the agricultural sector.

■ DECLARATION OF GENERATIVE AI IN SCIENTIFIC WRITING

During the writing of this manuscript, the author(s) employed ChatGPT (OpenAI) to assist with language refinement, grammar checking, and improving the clarity of academic expression. The use of this tool was limited to linguistic and editorial support, and it did not contribute to the research design, data analysis, interpretation of results, or the formulation of conclusions. The author(s) have carefully reviewed and edited all outputs generated by the tool and take full responsibility for the accuracy, integrity, and originality of the content of the published article.

■ REFERENCES

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-T

Aker, J. C. (2011). Dial "A" for agriculture: a review of information and communication technologies for agricultural extension in developing countries. *Agricultural Economics*, *42*(6), 631–647. https://doi.org/10.1111/j.1574-0862.2011.00545.x

Alrawashdeh, G. S., Lindgren, S., Reyes, M., & Pisey, S. (2023). Engaging youth at school to advance sustainable agriculture and inspire future farming: evidence from Cambodia. *The Journal of Agricultural Education and Extension*, *29*(5), 539–556. https://doi.org/10.1080/1389224X.2022.2117213

Anggriani, L., Budiwati, N., & Azis, Y. (2024). *Persepsi mahasiswa agribisnis terhadap minat pekerjaan di sektor pertanian* [Agribusiness students' perceptions of job interest in the agricultural sector]. *Frontier Agribisnis*, *8*(1), 225. https://doi.org/10.20527/frontbiz.v8i1.12283

Astin, A. W. (1984). Student Involvement: A Development Theory for Higher Education. *Journal of College Student Personnel*, *25*(4), 297–308.

Atienza-Barba, M., del, B.-G. J., Mitre-Aranda, M., & Barba-Sánchez, V. (2025). Gender differences in the impact of ecological awareness on entrepreneurial intent. *International Entrepreneurship and Management Journal*, *21*(1), 79. https://doi.org/10.1007/s11365-025-01084-7

Barba, S. V., Mitre, A. M., & Brío, G. J. del. (2022). The entrepreneurial intention of university students: An environmental perspective. *European Research on Management and Business Economics*, *28*(2), 100184. https://doi.org/10.1016/j.iedeen.2021.100184

Becker, G. S. (1964). *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*. National Bureau of Economic Results.

Bisenio, J. E., Moreno, J. E., Love, B. M. C., & May, A. R. G. (2025). Students' Perspective, Interest, and Awareness Towards Organic Agriculture Farming. *International Journal of Research Publications*, *165*(1), 67–71. https://doi.org/10.47119/IJRP1001651120257485

Boye, M., Ghafoor, A., Wudil, A., Usman, M., Prus, P., Fehér, A., & Sass, R. (2024). Youth Engagement in Agribusiness: Perception, Constraints, and Skill Training Interventions in Africa: A Systematic Review. *Sustainability*, *16*(3), 1096. https://doi.org/10.3390/su16031096

Catur Saputra, M. H., P. Lubis, D., & Tri Wibowo, C. (2023). The Influence of Senior High School Students' Communication on Work Values and Career Interest in the Agriculture Sector. *Interdisciplinary Journal and Humanity (INJURITY)*, *2*(9), 768–783. https://doi.org/10.58631/injurity.v2i9.117

Chen, T.-P., Lee, K.-Y., Kabre, P. M., & Hsieh, C.-M. (2020). Impacts of Educational Agritourism on Students' Future Career Intentions: Evidence from Agricultural Exchange Programs. *Sustainability*, *12*(22), 9507. https://doi.org/10.3390/su12229507

Chin, W. W. (1998). The partial least squares approach for structural equation modeling. In G. A. Marcoulides (Ed.), *Modern Methods for Business Research* (pp. 295–336). Lawrence Erlbaum Associates Publishers.

Daniel, N. A., Masambuka-Kanchewa, F., & Martin, M. (2024). Future Workforce for America: Exploring Ecological Impacts on Youth Motivations to Pursue Careers in Agriculture. *Journal of Agricultural Education*, *65*(4), 209–223. https://doi.org/10.5032/jae.v65i4.2829

Denault, A.-S., Ratelle, C. F., Duchesne, S., & Guay, F. (2019). Extracurricular activities and career indecision: A look at the mediating role of vocational exploration. *Journal of Vocational Behavior*, *110*, 43–53. https://doi.org/10.1016/j.jvb.2018.11.006

Dunlap, R. E., Van Liere, K. D., Mertig, A. G., & Jones, R. E. (2000). New Trends in Measuring Environmental Attitudes: Measuring Endorsement of the New Ecological Paradigm: A Revised NEP Scale. *Journal of Social Issues*, *56*(3), 425–442. https://doi.org/10.1111/0022-4537.00176

Durán Gabela, C., Trejos, B., Lamiño Jaramillo, P., & Boren-Alpízar, A. (2022). Sustainable Agriculture: Relationship between Knowledge and Attitude among University Students. *Sustainability*, *14*(23), 15523. https://doi.org/10.3390/su142315523

Faradila, V., Pangemanan, L. R. J., & Tambas, J. S. (2024). *Persepsi Dan Minat Mahasiswa Fakultas Pertanian Universitas Sam Ratulangi Terhadap Profesi Petani* [Perception and Interest of Students of the Faculty of Agriculture, Sam Ratulangi University Towards the Farming Profession]. *Journal of Agribusiness and Rural Development (Jurnal Agribisnis dan Pengembangan Pedesaan)*, *6*(2), 89–96. https://doi.org/10.35791/agrirud.v6i2.57085

Feldpausch, J. A., Bir, C. L., Olynk Widmar, N. J., Zuelly, S. M., & Richert, B. T. (2019). Agriculture Student Perceptions of Career Success Factors: Ranking Attributes of Collegiate Experiences. *Journal of Agricultural Education*, *60*(1), 234–267. https://doi.org/10.5032/jae.2019.01234

Ferlin, F. (2024). *Persepsi Generasi Muda Perkotaan Terhadap Pekerjaan Sebagai Petani di Lampung Selatan* [Urban Youth's Perceptions of Farming in South Lampung]. *Jurnal Agribisnis*, *26*(2), 54–60.

Fish, N., Bertone, S., & van Gramberg, B. (2026). Improving student engagement in employability development: recognising and reducing affective and behavioural barriers. *Studies in Higher Education*, *51*(1), 181–196. https://doi.org/10.1080/03075079.2025.2461271

Guidimadjègbè, A. N., Adéoti, R., Aoudji, A. K. N., & Mignouna, D. B. (2026). Economic viability of youth agribusiness as a key issue for effective development of the agricultural sector in developing

countries. *Journal of Innovation and Entrepreneurship*, *15*(1), 27. https://doi.org/10.1186/s13731-026-00639-4

Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R* (3rd ed.). Springer International Publishing. https://doi.org/10.1007/978-3-030-80519-7

Henning, J. I. F., Matthews, N., August, M., & Madende, P. (2022). Youths' Perceptions and Aspiration towards Participating in the Agricultural Sector: A South African Case Study. *Social Sciences*, *11*(5), 215. https://doi.org/10.3390/socsci11050215

Isyanto, A. Y., Fatimah, A. T., & Amalia, L. N. (2024). Factors influencing agricultural vocational high school students' interest in working in the agricultural sector. *Agric*, *36*(1), 131–140. https://doi.org/10.24246/agric.2024.v36.i1.p131-140

Kaiser, F. G., Ranney, M., Hartig, T., & Bowler, P. A. (1999). Ecological behavior, environmental attitude, and feelings of responsibility for the environment. *European Psychologist*, *4*(2), 59–74. https://psycnet.apa.org/doi/10.1027/1016-9040.4.2.59

Kharisudin, A., & Irwandi, P. (2022). *Perspektif Mahasiswa Bekerja di Bidang Pertanian sebagai Upaya Peningkatan Pembangunan SDM Indonesia* [Student Perspectives on Working in the Agricultural Sector as an Effort to Improve Human Resource Development in Indonesia]. *Sigmagri*, *2*(01), 35–48. https://doi.org/10.32764/sigmagri.v2i01.677

La Rosa, V. L., & Zammitti, A. (2025). Future Thinking and Sustainable Career Perceptions in Emerging Adults: The Mediating Role of Environmental Concern. *Sustainability*, *17*(11), 5146. https://doi.org/10.3390/su17115146

Liu, Y., Hussain, A., Zhao, C., & Qasim, M. (2026). Events that matter: how extracurricular activities influence employability through event strength and skill development from an event system theory perspective. *Higher Education, Skills and Work-Based Learning*, 1–17. https://doi.org/10.1108/HESWBL-10-2025-0459

Mdoda, L., Loki, O., Zantsi, Y., Mvelase, L., Nontu, Y., & Madende, P. (2026). Youth aspirations and entrepreneurial motivation in agriculture: insights from smallholder farmers in OR Tambo District, Eastern Cape. *Frontiers in Sustainable Food Systems*, *9*. https://doi.org/10.3389/fsufs.2025.1727042

Mittal, S., & Mehar, M. (2016). Socio-economic Factors Affecting Adoption of Modern Information and Communication Technology by Farmers in India: Analysis Using Multivariate Probit Model. *The Journal of Agricultural Education and Extension*, *22*(2), 199–212. https://doi.org/10.1080/1389224X.2014.997255

Mukembo, S. C., Edwards, M. C., Ramsey, J. W., & Henneberry, S. R. (2014). Attracting Youth to Agriculture: The Career Interests of Young Farmers Club Members in Uganda. *Journal of Agricultural Education*, *55*(5), 155–172. https://doi.org/10.5032/jae.2014.05155

Munandar, F. A., Krisnamurthi, B., & Burhanuddin, B. (2023). *Persepsi Generasi Muda Tentang Pertanian Organik dan Pengaruhnya Terhadap Minat Berwirausaha* [Young Generation's Perception of Organic Farming and Its Influence on Entrepreneurial Interest]. *Forum Agribisnis*, *13*(1), 110–120. https://doi.org/10.29244/fagb.13.1.110-120

Nakasone, E. (2013). The Role of Price Information in Agricultural Markets: Experimental Evidence from Rural Peru. *Agricultural and Applied Economics Association*, 1–75.

Ohashi, T., Saijo, M., Suzuki, K., & Arafuka, S. (2024). From conservatism to innovation: The sequential and iterative process of smart livestock technology adoption in Japanese small-farm systems. *Technological Forecasting and Social Change*, *208*, 123692. https://doi.org/10.1016/j.techfore.2024.123692

Osuntade, O. B., Babalola, D. A., & Ogunseitan, O. (2021). Impact of information on secondary school students' knowledge, perception and attitude towards agricultural career in Ogun State, Nigeria. *Agro-Science*, *20*(3), 9–13. https://doi.org/10.4314/as.v20i3.2

Parpart, E. (2018). *Green but greying*. Bangkok Post. https://www.bangkokpost.com/business/general/1399934/green-but-greying

Pervez, A. K. M. K., Kabir, M. S., Saha, A., Hossain, M. I., & Haque, M. A. (2024). Students' interest in agribusiness as a future career. *Agricultural and Resource Economics: International Scientific E-Journal*, *10*(2), 271–289. https://doi.org/10.51599/are.2024.10.02.11

Prabandaru, N. (2024). *Sektor Jasa Jadi Penyerap Tenaga Kerja Terbesar di*

Karawang, Disusul Manufaktur. Awesh.Id. https://awesh.id/sektor-jasa-jadi-penyerap-tenaga-kerja-terbesar-di-karawang-disusul-manufaktur

Prasetyaningrum, D., Ruminar, H., & Irwandi, P. (2022). The Perception and Interest of Career Choices in Agriculture: Case of Agroecotechnology and Agribusiness Students. *HABITAT*, *33*(2), 186–200. https://doi.org/10.21776/ub.habitat.2022.033.2.19

Putri, H., & Kusumo, R. A. B. (2020). *Minat Mahasiswa Anggota International Association of Student in Agricultural and Related Sciences (Iaas) Indonesia Untuk Bekerja Di Sektor Pertanian* [Interest of Students Members of the International Association of Students in Agricultural and Related Sciences (Iaas) Indonesia to Work in the Agricultural Sector]. *Mimbar Agribisnis: Jurnal Pemikiran Masyarakat Ilmiah Berwawasan Agribisnis*, *6*(2), 567. https://doi.org/10.25157/ma.v6i2.3287

Riswan, K. K. (2023). *BPS sebut umur petani yang menua jadi tantangan pertanian*. ANTARA. https://m.antaranews.com/amp/berita/3854064/bps-sebut-umur-petani-yang-menua-jadi-tantangan-pertanian

Rojabi, M. N., & Muksin. (2024). Understanding What Drives Youth Interest in Agribusiness Jobs: A Study from Dukuh Dempok Village. *Jurnal Manajemen Agribisnis Dan Agroindustri*, *4*(2), 76–82. https://doi.org/10.25047/jmaa.v4i2.105

Roy, S. K. (2023). Influencing factors for pursuing agriculture as a career for agriculture undergraduates: a two-stage approach. *Entrepreneurship Education*, *6*(2), 169–203. https://doi.org/10.1007/s41959-023-00096-0

Song, X. (2023). Environmental Sustainability as a Determinant in Career Decisions: An Exploration among Recent University Graduates. *International Journal of Sustainable Development and Planning*, *18*(8), 2623–2627. https://doi.org/10.18280/ijsdp.180835

Stern, P. C., Dietz, T., Abel, T., Guagnano, G. A., & Kalof, L. (1999). A Value-Belief-Norm Theory of Support for Social Movements: The Case of Environmentalism. *Research in Human Ecology*, *6*(2), 81–97.

Sugiarto, A., & Gabriella, D. A. (2020). *Kesadaran dan perilaku ramah lingkungan mahasiswa di kampus* [Environmental awareness and behavior of students on campus]. *Jurnal Ilmu Sosial Dan Humaniora*, *9*(2), 260. https://doi.org/10.23887/jish-undiksha.v9i2.21061

Sulich, A., Rutkowska, M., & Singh, U. S. (2021). Decision Towards Green Careers and Sustainable Development. *Procedia Computer Science*, *192*, 2291–2300. https://doi.org/10.1016/j.procs.2021.09.002

Unay-Gailhard, İ., & Brennen, M. A. (2022). How digital communications contribute to shaping the career paths of youth: a review study focused on farming as a career option. *Agriculture and Human Values*, *39*(4), 1491–1508. https://doi.org/10.1007/s10460-022-10335-0

Usman, M., Gayman, J. J., Sawaya, A., Horiguchi, K., Igarashi, M., & Malik, A. (2024). The right information for the right career selection: can it assist Japan to achieve agricultural sustainability? *Environment, Development and Sustainability*, *27*(5), 11563–11578. https://doi.org/10.1007/s10668-023-04369-5

Yunandar, D. T., Hariadi, S. S., & Raya, A. B. (2020). *Nilai Keyakinan Diri dan Sikap Pemuda Terdidik terhadap Wirausaha Pertanian* [Self-Confidence Values and Attitudes of Educated Youth towards Agricultural Entrepreneurship]. *Prosiding Seminar Nasional Pembangunan Dan Pendidikan Vokasi Pertanian*, *1*(1), 282–289. https://doi.org/10.47687/snppvp.v1i1.147

Yunandar, D. T., Nuryanti, N., & Parasdya, S. D. (2024). *Peningkatan Minat Generasi Petani Muda Melalui Program Digitalisasi Guna Peningkatan Kewirausahaan Pertanian dan Implikasinya Terhadap Ketahanan Wilayah di Bogor, Jawa Barat* [Increasing the Interest of Young Farmers Through Digitalization Programs to Enhance Agricultural Entrepreneurship and Its Implications for Regional Resilience in Bogor, West Java]. *Jurnal Ketahanan Nasional*, *30*(2), 243. https://doi.org/10.22146/jkn.94965

Zulaikha, Y., Martono, E., & Himam, F. (2021). Perceptions of students of the faculty of agriculture on the social status and career prospects in the agricultural sector. *Agrisocionomics: Jurnal Sosial Ekonomi Pertanian*, *5*(1), 11–18. https://doi.org/10.14710/agrisocionomics.v5i1.6043