e-ISSN: 2600-7274

Available online
https://journal.uitm.edu.my/ojs/index.php/EJSSH

ESTEEM Journal of Social Sciences and Humanities
Vol 9, April 2025, 139-153

ESTEEM JOURNAL OF SOCIAL SCIENCES AND HUMANITIES

The Relationship Between Social Perception, Peer and Parental Influence on Students Enrolment into Agriculture Programs in Polytechnic

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ARTICLE INFO

Article history:
Received 20 August 2025
Revised 28 September 2025
Accepted 6 October 2025
Published 9 October 2025

Keywords:
Technical and Vocational Education and Training (TVET): Enrolment factors: Agricultural programs

DOI:
10.24191/ejssh.v9i1.5020

ABSTRACT

This study examines the decreasing enrolment in agricultural education programs at Polytechnic Sandakan, Sabah, Malaysia, and analyses the principal factors affecting students' choices to engage in these programs. The study underscores the significance of agriculture in ensuring national food security and economic stability, while acknowledging the threats posed by diminishing interest among youth, which is linked to social factors. The study employed a quantitative methodology to survey 306 students enrolled in agriculture programs. Research indicates that students perceive agriculture favourably, acknowledging its capacity for reliable work. The average score for social perception was 3.92 (M=3.92, SD=0.99). Parental influence was identified as the most significant element (M=3.59, SD=0.99), with direct encouragement and emotional support being pivotal components. Peer influence was significant (M=3.41, SD=1.09), since students frequently depend on their social networks for affirmation in academic decisions. The Pearson correlation coefficient analysis revealed strong positive correlations among the three independent variables: social perceptions, peer influence, and parental influence. The correlation between social perception and parental influence was 0.68 ($p<0.001$), between social perception and peer influence was 0.50 ($p<0.001$), and between parental influence and peer influence was 0.70 ($p<0.001$). This signifies that these things are interrelated and mutually reinforcing. The study emphasises the necessity for focused initiatives, including awareness campaigns and curriculum revisions, to transform the perception of agriculture into a contemporary and esteemed professional option. Legislative reforms advocating for family and community participation, experiential learning, and peer mentorship are suggested to enhance youth engagement in agriculture education.

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1. INTRODUCTION

Agriculture is the science, art, and practice of cultivating soil, producing crops, and raising livestock, is a vital sector that modifies the Earth's surface to fulfill human needs for food, clothing, and other essential resources (Bengochea Paz et al., 2020). Harris and Fuller (2014) emphasize agriculture's crucial role in sustaining human populations by providing food and various by-products necessary for survival. Agriculture significantly contributes to the economy, providing food, income, and employment for its population (Zhang et al., 2023). The sector encompasses various sub-sectors, including livestock, crops, and fisheries. It is projected to employ approximately 15 million workers by 2021, with citizens making up about 63.6% of this workforce (Department of Statistics Malaysia, 2022). This underscores agriculture's importance in ensuring food security and as a key driver of economic development.

Despite agriculture's critical role, there has been a concerning decline in student enrolment in agricultural courses globally (Girdziute et al., 2022). The 2022 graduate verification report indicated that fields such as Agriculture, Forestry, Fisheries, and Veterinary accounted for only 1.5% of graduates across ten fields of study. This decline is alarming given the sector's importance for food security and economic development. Factors influencing students' lack of interest in pursuing agricultural studies include individual aspirations, academic interests, and social perceptions, including peer and parental influence (Ibañez et al., 2023). Urban youth often view agriculture as a "dirty job," while rural students may consider it a last choice (Chinsinga & Chasukwa, 2012).

The influence of social factors on educational decisions among students has gained increasing recognition. However, the role of social perceptions and peer and parental influence in agricultural program enrolment in Malaysia remains underexplored. This research aims to contribute to the existing literature on Technical and Vocational Education and Training (TVET) by examining these influences and providing insights to enhance enrolment patterns in agricultural programs. The agricultural sector is essential for economic, food, and employment security, necessitating increased youth participation. Agriculture is a primary income source for many, crucial in minimizing food insecurity risks. Historically, agriculture has been central to discussions on poverty alleviation and economic growth due to the employment opportunities it generates (Agricultural Federation Organisation). However, the global percentage of workers in agriculture has declined, with only 26.4% of workers in the sector in 2022 compared to 39.8% in 2000. In Malaysia, the percentage of agricultural workers decreased from 15.3% in 2000 to 10.0% in 2022 (World Bank, 2024). This trend poses challenges in meeting the increasing demand for agricultural products, necessitating effective strategies to attract and train a quality workforce, particularly among youth.

The global population is projected to reach 9.4–10.1 billion by the mid-2050s, necessitating a robust agricultural sector to meet food demands (United Nations, 2019). Engaging youth in agriculture can introduce innovative ideas and technologies that enhance productivity and sustainability (FAO, 2021). Despite agriculture's potential to absorb young workers, youth participation remains low. Stereotypes about agricultural workers contribute to this issue, with many young individuals perceiving farmers as engaged solely in outdoor labor, which does not align with modern agricultural realities (Khan et al., 2021). This perception, coupled with a lack of awareness of diverse career opportunities in agribusiness and agricultural technology, deters youth from considering agriculture a viable career option (Girdziute et al., 2022).

Social influences on student enrolment decisions in agriculture programs are complex. Various personal and professional characteristics, including career aspirations, familial ties to agriculture, and socioeconomic status, significantly impact students' choices (Bettis et al., 2017; Cohen et al., 2014). Subjective norms, shaped by public opinion and close associates, can compel young individuals to participate in or abstain from the agricultural sector (Akpan, 2010). Negative societal views regarding agricultural careers can deter students from pursuing these fields (Sutphin et al., 2019). Friends and peers also shape students' interests and perceptions about agriculture, with positive discussions enhancing interest (Rashid et al., 2020).

https://doi.org/10.24191/ejssh.v9i1.5020

Parental involvement is critical, as parents who value agricultural education can motivate their children to pursue related studies (Esters & Bowen, 2004).

The background of this problem highlights the declining participation in agriculture, both globally and locally, despite the rising need for agricultural products. The determinants of interest and agricultural job selection are multifaceted, encompassing social perceptions and peer and parental influences. To address these challenges, stakeholders must implement curricular interventions emphasizing exciting career opportunities within agriculture and its relevance to contemporary issues such as food security and environmental sustainability.

Despite agriculture's crucial role in Malaysia's economy, food security, and employment, student enrolment in agricultural programs across polytechnic colleges remains critically low. The 2022 graduate verification report indicated that agriculture-related fields accounted for only 1.5% of total graduates, raising concerns about the future viability of the agricultural workforce. A complex interplay of factors, particularly social perceptions and peer and parental influences, drives this decline in student interest. Agriculture is often viewed as a low-status profession, especially among urban youth, and peers and family members often reinforce this perception. However, a significant gap exists in understanding how these social influences influence students' academic and career decisions related to agriculture. Existing literature has primarily focused on economic or policy-driven aspects of agricultural education, with insufficient emphasis on the psychosocial and cultural dimensions that may undermine student enrolment. Addressing these gaps is critical to developing targeted, culturally appropriate interventions. This study seeks to explore and identify the primary social and perceptual factors that dissuade students from pursuing agricultural education, generating insights that can inform strategic outreach and educational policy initiatives to rejuvenate interest in agriculture.

The study aims to explore the impact of social perceptions and peer and parental influence on students' decisions to enrol in agricultural programs at Polytechnic Sandakan, Sabah, and examine the relationship between these factors.

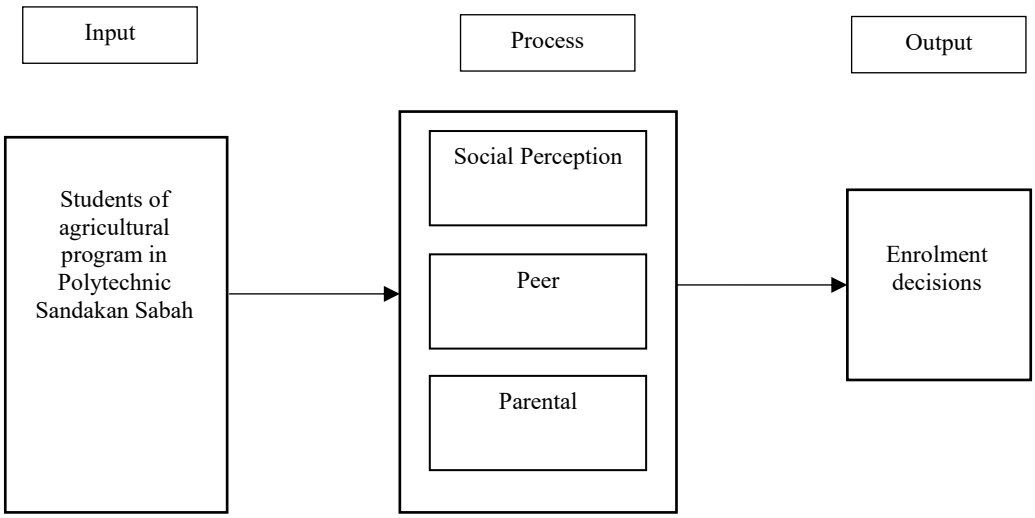

Fig. 1. Conceptual Framework of this Study

The study's conceptual framework, depicted in Figure 1, illustrates the relationship between various factors influencing students' enrolment decisions. The framework categorizes the independent

variables into social perceptions and peer and parental influence, with the dependent variable being the enrolment decision influenced by these factors.

2. METHODOLOGY

Research methodology discusses the execution of the research and the use of techniques and specifies if the researcher has developed a novel approach or adapted an existing one (Tabuena et al., 2021). Research methodology is a systematic approach researchers employ to address research problems, encompassing methods, strategies, procedures, and tools (Mohajan, 2020). Furthermore, the research design incorporates several logical decision choices and should be presented comprehensibly. A study plan is a systematic framework that facilitates the connection between research inquiries and the practical implementation or execution of research. To accomplish the objectives mentioned, the researcher must gather results and information regarding how these factors impacted student choice to enrol in the Polytechnic Sandakan, Sabah agricultural program.

This study employs a quantitative research approach, namely descriptive and inferential statistics, using a cross-sectional survey approach to determine the relationship between factors influencing student enrolment. The quantitative research design refers to a systematic approach used to collect and analyse numerical data to answer research questions or test hypotheses involving the use of structured surveys, experiments, or other methods to collect data that can be calculated and analysed statistically to understand enrolment patterns and social influences (Neuman, 2013).

This design employs a survey method to collect information or data from a sample of individuals through their responses to questions regarding social factors influencing student enrolment in agriculture programs at one of the polytechnics in Sabah (Check & Schutt, 2012). The research sample was determined using the Krejcie and Morgan (1970) table, where 306 students were randomly selected from a total of 816 at Polytechnic Sandakan, Sabah. This sample was used to examine the social factors influencing student enrolment in the agriculture program. The findings are context-specific and mainly applicable to Polytechnic Sandakan, with limited generalization to other institutions.

The factor chosen for this questionnaire was developed based on a comprehensive literature review. It incorporates validated factors identified using the PRISMA method, ensuring the questions are relevant and grounded in existing research. Survey research was chosen as a research method due to its versatility in addressing various research questions (Chua, 2021). The characteristics of the survey method include a comprehensive study of enrolment issues, efficient data collection, and the ability to make general statements about the study population. Therefore, the survey method is particularly suitable for this study as it focuses on the student population at Polytechnic Sandakan, Sabah, who are enroled in the agriculture program.

2.1 Research Procedure

The research phase began by identifying the study problems and formulating the research objectives and questions. This initial phase also involved determining the appropriate sample size and developing the research instruments, specifically structured questionnaires. The second phase focused on refining the questionnaire. This included a validity assessment by three subject matter experts to ensure content and language accuracy. A pilot study was conducted to evaluate the instrument's reliability. Finally, the third phase involved collecting data using the refined questionnaire and distributing it online via Google Forms. The collected data were then analyzed using descriptive and inferential statistics, including mean scores, standard deviations, and Pearson Correlation Coefficients, to determine whether the study's hypotheses were accepted or rejected.

2.2 Research Instrument

The structured questionnaire research instrument was meticulously planned and executed in three phases. The initial phase involved identifying study problems, formulating research objectives and questions, determining the sample size, and developing the questionnaires. The second phase focused on refining the questionnaire. This included a validity assessment by three subject matter experts to ensure content and language accuracy. These experts had technical, vocational, and agricultural education backgrounds and expertise in teaching English as a second language with at least five years of experience. To evaluate the instrument's reliability, a pilot study was conducted with 20 Lahad Datu Vocational College respondents. The reliability of the questionnaire was assessed using Cronbach's Alpha, which yielded an overall value of 0.956, indicating excellent reliability. This crucial preliminary step aimed to refine the instrument, enhance its validity and reliability, and address potential issues before the main data collection.

The questionnaire was divided into parts, with Section B containing 30 questions across three components: social perceptions influence, parental influence, and peer influence. These were identified as key factors influencing student enrolment decisions. Participants were asked to indicate their level of agreement using a five-point Likert scale. The final phase involved collecting data using the refined questionnaire distributed online via Google Forms to 306 Polytechnic Sandakan, Sabah students. This study demonstrates that survey items can be included in the questionnaire without excluding any items. The questionnaire covers the three main factors: social perception, peer, and parental influence.

Table 1. Contents of the Questionnaire Instrument

Section	Item	No. Item	Amount
Demographic Information of Respondents	1. Age 2. Gender 3. Current Semester	A1 – A3	3
Factors	Social Perceptions Influence	B1 – B10	10
	Parental Influence	B11 – B20	10
	Peer Influence	B21 – B30	10

Participants were asked to indicate their agreement level using the five-point Likert scale presented in Table 2. Dykema et al. (2022) state that the Likert scale provides a standardized method for quantifying subjective opinions, making it easier to analyses and compare responses across a larger sample size. The fixed response options simplify data analysis by providing clear categories for responses, which can be quickly quantified and compared (Schatz, 2012).

Table 2. Likert Scale Agreement

Score	Indicator
1	Strongly disagree
2	Disagree
3	Undecided
4	Agree
5	Strongly agree

Based on Table 2, the respondents must mark the best statement that represents them, ranging on a 5-point scale from the lowest point, strongly disagree (1), to the highest point, strongly agree (5). Structured questionnaires are particularly advantageous for large-scale surveys, as they allow researchers to gather and process data efficiently from various respondents. Data analysis collected in Sections A and

B involved the computation of descriptive statistics, including means, standard deviations, frequencies, and percentages. These results were presented in tabular and graphical formats to enhance clarity and interpretability. The analysis specifically aimed to assess the influence exerted by social perceptions, peer influence, and parental influence on students' decisions to enrol in agricultural programs. To ensure accurate interpretation, responses from the five-point Likert scale were analyzed to determine the intensity of these influencing factors. The data were categorized into three levels: low, moderate, and high influence based on the mean values, which were deemed the most suitable central tendency measure for this study. The summary of the mean scores is presented in Table 3, providing a clear overview of how each factor contributed to students' enrolment decisions within the context of agricultural education at Polytechnic Sandakan, Sabah.

Table 3. Mean Score Interpretation Value

Interpretation Range	Mean Score
Low	1.00-1.66
Moderate	1.67-3.33
High	3.34 -5.00

Inferential statistical analyses were conducted to examine the relationships between social perception, peer influence, and parental influence, and their impact on students' enrolment in agricultural programs. The Pearson correlation coefficient was utilised to assess the strength and direction of the linear relationship between these variables, under the assumption of normal distribution of the data. Before conducting the correlation analysis, the normality of the data was assessed using skewness and kurtosis values, as suggested by Hair et al. (2010), in addition to a visual examination via histograms. Since the assumptions for normal distribution were satisfied, the Pearson correlation, a parametric test, was chosen as a suitable statistical method for evaluating relationships among the variables (Zikmund et al., 2013). Should the data fail to meet the normality criteria, the study would utilise the Spearman rank-order correlation, a non-parametric method appropriate for non-normally distributed data. The correlation coefficient, represented as r, varies from -1 to 1. Values close to ±1 indicate a strong relationship, while values near 0 suggest minimal or no relationship. This study interpreted a r value of 0.5 or higher as practically significant (Pallant, 2011). The correlation coefficient value, r, is interpreted in Table 4:

Table 4. The Interpretation of Correlation Coefficient Value

Correlation coefficient value, r	Strength of linear relationship
≥ 0.8	Very strong
$0.5 < r < 0.8$	Moderately strong
$0.3 < r < 0.5$	Fair
< 0.3	Poor

3. RESULTS

The collected data were systematically analyzed to assess how the study's objectives were achieved. The research findings are presented using descriptive statistical measures, including frequency, percentage, and mean values. The results and discussions are structured into three main sections. The first section provides a detailed overview of the respondents' demographic profile, offering insights into the background characteristics of the 306 students enroled in agricultural programs at Polytechnic Sandakan, Sabah. The second section focuses on the descriptive analysis of the study's core variables, social perception, peer, and parental influence, to determine their impact on students' enrolment decisions. The final section presents the inferential analysis, specifically examining the relationships between the three independent variables and the dependent variable of enrolment decision using Pearson correlation. These analyses

comprehensively understand how social and relational factors influence students' academic choices. Table 5 displays the frequency distribution of respondents based on gender.

Table 5. Frequency Distribution and Percentage of Male and Female Students.

Gender	Frequency (f)	Percentage (%)
Male	179	58.5
Female	127	41.5
Total	306	100

The descriptive analysis of how social perception influences students' decisions to enrol in agricultural programs reveals that the mean values for each item measuring this variable (SP1 to SP10) range from 3.21 to 4.19. The highest mean scores were recorded for SP1, achieving a value of 4.19, while the lowest mean was observed at SP5, with a value of 3.21. The standard deviation values for the items ranged between 1.19 and 1.46, indicating a relatively consistent response pattern among participants. These results suggest that students generally had a positive social perception of agricultural programs. A mean score approaching or exceeding 4.00 indicates a favorable perception, reflecting the respondents' agreement with the statements related to agriculture's relevance, value, and societal views. Table 6 displays the mean scores, standard deviations, and interpretations related to social perception influence on student enrolment.

Table 6. Calculation of Mean and Standard Deviation for Social Perceptions Influence

Item	The Level of Social Perceptions Influence	Mean	Standard Deviation	Interpretation
SP1	Agriculture is a profitable and growing sector in Malaysia.	4.19	1.23	High
SP2	Agriculture provides decent career opportunities for youth.	4.08	1.19	High
SP3	Not only less-educated people are involved in agriculture.	4.05	1.22	High
SP4	Agriculture is a suitable field for highly educated youth.	3.81	1.30	High
SP5	My friends may look down on me if I choose a career in agriculture.	3.21	1.46	Moderate
SP6	Agriculture is not only about planting and animal rearing.	3..99	1.31	High
SP7	Agriculture is a lucrative profession.	4.08	1.23	High
SP8	Agricultural work is not mainly for those who are underprivileged.	3.88	1.38	High
SP9	Agriculture is not only a career choice for the poor.	3.93	1.32	High
SP10	Agriculture is not only suitable for the elderly.	3.98	1.28	High
	Average	**3.92**	**0.99**	**High**

According to the findings of the descriptive analysis on peer influence, the mean values for each item measuring this component (P1 to P10) ranged between 3.29 and 3.61. The highest mean was recorded for P4, with a value of 3.61, indicating strong peer influence on students' enrolment decisions in agricultural programs. The lowest mean value was observed at P5, at 3.29. The standard deviation for each item fell from 1.32 to 1.40, reflecting a relatively stable and consistent response pattern among students. Table 7 presents the mean scores, standard deviations, and interpretations for peer influence.

Table 7. Calculation of Mean and Standard Deviation for Social Perceptions Influence

Item	The Level of Peer Influence	Mean	Standard Deviation	Interpretation
P1	Friends who studied agriculture influenced my decision to enrol.	3.45	1.35	High
P2	I became more interested in agriculture because of encouragement from my friends.	3.52	1.32	High
P3	Like my friends, I want to study or work in agriculture abroad.	3.52	1.32	High
P4	I usually consider my friends' opinions when making educational decisions.	3.61	1.34	High
P5	I am more likely to enrol if my friends also join the agriculture program.	3.29	1.4	Moderate
P6	My friends' suggestions influenced my decision to join the agriculture program.	3.48	1.36	High
P7	My friends are also studying in the same agricultural field.	3.55	1.33	High
P8	I joined the agriculture program because of my friends' encouragement.	3.31	1.39	Moderate
P9	I received strong encouragement from my friends to pursue agriculture.	3.42	1.37	High
P10	My friends help me in making academic decisions.	3.58	1.31	High
	Average	**3.41**	**1.09**	**High**

The descriptive analysis of how parental influence affects students' decisions to enrol in agricultural programs reveals that the mean values for each item measuring this variable (PA1 to PA10) range from 3.20 to 3.94. The highest mean score was recorded for PA2, with a value of 3.94, while the lowest mean was observed at PA6, with a value of 3.20. The standard deviation values for these items ranged between 1.28 and 1.39, indicating a generally consistent pattern of responses among the participants. Table 8 presents the mean scores, standard deviations, and interpretations of parental influence on students' enrolment.

Table 8. Calculation of Mean and Standard Deviation for Parental Influence discussion

Item	The Level of Parental Influence	Mean	Standard Deviation	Interpretation
PA1	I would consider studying agriculture if my parents or guardians suggested it.	3.61	1.39	High
PA2	My father supports my decision to pursue a career in agriculture.	3.94	1.28	High
PA3	My mother supports my decision to pursue a career in agriculture.	3.92	1.34	High
PA4	My parents encourage me to enrol in an agriculture program.	3.92	1.26	High
PA5	My parents' occupation influences my interest in agriculture.	3.54	1.34	High
PA6	My parents have an academic background in agriculture.	3.20	1.37	Moderate
PA7	My parents influence most of my academic decisions.	3.58	1.37	High
PA8	I joined the agriculture program because other family members also studied agriculture.	3.33	1.39	Moderate
PA9	My parents hope I will pursue a career in agriculture.	3.65	1.35	High
PA10	My parents studied in the same agricultural field I am interested in.	3.23	1.37	Moderate
	Average	**3.41**	**1.09**	**High**

Inferential statistical analysis was conducted to address the fourth research question: "Is there a relationship between social perception, peer influence, and parental influence on students' decisions to enrol in agricultural programs at Polytechnic Sandakan, Sabah?" The Pearson correlation coefficient was employed to evaluate the strength and direction of these relationships, as it is suitable for assessing the association between normally distributed continuous variables (Zikmund et al., 2013).

Before applying for the Pearson correlation test, a normality test was conducted to ensure that the data met the assumptions for parametric analysis. Skewness and kurtosis values were examined to assess whether the data approximated a normal distribution. According to Hair et al. (2010), data are normally distributed if the skewness and kurtosis values fall within the acceptable range of ±2. Additionally, histogram plots were visually inspected to support the normality assessment.

The normality test results indicated that all variables, social perception influence, peer influence, parental influence, and students' enrolment decisions, fell within the acceptable range, confirming the suitability of using Pearson correlation. The Pearson correlation test evaluated the relationship between independent and dependent variables. The correlation coefficient (r) ranges from -1 to +1, with values closer to ±1 indicating a stronger linear relationship. As a general guideline, a correlation coefficient of 0.5 or higher was interpreted as a meaningful relationship (Pallant, 2011). The Skewness and Kurtosis values for each variable are displayed in Table 9.

Table 9. Skewness and Kurtosis Values in the Normality Test

Variable	Skewness	Kurtosis
Social Perception Influence	-1.09	0.91
Parental Influence	-0.592	0.13
Peer Influence	-0.37	-0.38

A correlation analysis determined the presence and strength of relationships between the independent variables, social perception, peer influence, parental influence, and the dependent variable, students' enrolment decision in agricultural programs. Prior to analysis, the assumptions for parametric testing were verified. The data were confirmed to be normally distributed, with no significant violations of the assumption of linearity, as supported by skewness and kurtosis values within the acceptable range (Hair et al., 2010).

The results of the Pearson correlation analysis are shown in Table 4.11. The analysis revealed a statistically significant positive relationship between social perception and enrolment decision, with a correlation coefficient of $r(306) = 0.46$, $p < 0.01$. This indicates that students who perceive agriculture more positively are more likely to enrol in agricultural programs. Similarly, peer and parental influence also positively correlated with enrolment decisions. These findings suggest that as social support and influence increase, so does the likelihood of students choosing to pursue agricultural education. According to Pallant (2011) and Zikmund et al. (2013), a correlation coefficient 0.46 reflects a moderate and meaningful association between the variables.

Table 10. Intercorrelations, Mean and Standard Deviations for Social Perception Influence, Parental Influence, and Peer Influence (n = 306)

Variable	Social Perception Influence	Parental Influence	Peer Influence	M	SD
Social Perception Influence	—	.68**	.50**	3.92	0.99
Parental Influence	—	—	.70***	3.59	0.99

Peer Influence	—	—	—	3.41	1.09

$P < 0.01$

The positive relationships identified between social perception, peer influence, and parental influence with students' enrolment decisions underscore the critical role of social and relational factors in shaping educational pathways. These findings suggest that when students are positively influenced by their peers and families and perceive agriculture as a valuable and respected field, they are more likely to pursue it at the tertiary level. This aligns with Rashid et al. (2020) and Solomonson et al. (2023), who assert that external support and social encouragement are key determinants in students' academic choices.

The implication of this relationship highlights the importance of strategic interventions by policymakers and educational institutions, especially in revitalizing enrolment in agriculture-related programs. As Zaremohzzabieh et al. (2022) recommended, targeted efforts such as public awareness campaigns, peer-led outreach, and parent-inclusive career counselling can shift societal attitudes and strengthen the appeal of agriculture as a modern, technology-integrated profession. Investing in these approaches can help rebrand agriculture as a relevant and future-focused career choice, ultimately contributing to a sustainable and skilled workforce for Malaysia's agrofood sector.

4. DISCUSSION

A descriptive analysis was performed to assess the impact of social perception, peer influence, and parental influence on students' enrolment in agricultural programs. The descriptive and inferential findings indicate that all three factors were perceived at a high level of influence, and each demonstrated a moderate, positive, and statistically significant relationship with enrolment decisions. The descriptive analysis revealed that students' social perception of agriculture was high, suggesting that students generally view agricultural education as relevant, future-focused, and socially acceptable. This perception is pivotal in motivating students to enrol in the program. These findings align with Solomonson et al. (2023), who emphasized that students' positive views of agriculture correlate with higher participation and commitment in agricultural studies. Similarly, Rashid et al. (2020) found that students are more inclined to pursue agriculture when associating it with technology, innovation, and meaningful career prospects. The current study reinforces these results, indicating that enhancing public and student perceptions of agriculture as a modern and vital sector is essential for increasing enrolment.

The influence of peers was also rated at a high level and was significantly correlated with student enrolment. Peer groups often serve as important sources of encouragement, social comparison, and information sharing, especially in collective cultures like Malaysia. This finding is consistent with the work of Zaremohzzabieh et al. (2022), who found that peer influence strongly affects students' decisions in career and academic pathways, especially when reinforced through group identity and shared goals. Moreover, Putra et al. (2020) also reported that students are more likely to explore and choose agriculture when their peers actively discuss or express interest in the field. The present study strengthens evidence that peer-driven motivation is a crucial entry point for outreach and promotional efforts.

Parental influence was also high and positively associated with enrolment decisions. In the Malaysian context, parents play a central role in guiding students' academic and career choices. The study findings agree with Zaremohzzabieh et al. (2022) and Rashid et al. (2020), both of whom observed that parental expectations, support, and approval are key determinants in students' choice of education programs, particularly for technical and vocational education (TVET). Additionally, Rou, Rahman, and Surat (2022) emphasized that students whose parents actively support education in agriculture are more confident and committed to their academic direction. The current study suggests that engaging parents through counselling sessions, community programs, or direct institutional outreach could enhance enrolment sustainability.

Inferential research utilising Pearson correlation further substantiated that all three independent variables, social perception, peer influence, and parental influence, exhibit a moderate and positive link with students' enrolment decisions. The Pearson correlation coefficient between social perception and parental influence was 0.68 ($p<0.001$), between social perception and peer influence was 0.50 ($p<0.001$), and between parental influence and peer influence was 0.70 ($p<0.001$). These correlations are all statistically significant at the 0.01 level (2-tailed), demonstrating that these factors positively and significantly influence students' decisions to enrol in agricultural programs. These findings correspond with Pallant's (2011) view that correlation coefficients ranging from 0.3 to 0.5 signify a moderate association. The research shows that enhancing students' attitudes and external support systems can increase enrolment in agriculture programs.

This triangulated relationship also aligns with the Theory of Planned Behavior (Ajzen, 1991), which posits that behavior is influenced by attitudes (social perception), subjective norms (peer and parental expectations), and perceived behavioral control. In this context, students' enrolment decisions are shaped by how acceptable agriculture is perceived socially, how their close networks view it, and whether they feel encouraged and supported to pursue it. Zaremohzzabieh et al. (2022) affirmed that such interwoven psychosocial influences significantly shape youth intentions toward vocational education, especially in agriculture. Their findings also suggested that students embedded in supportive peer and parental environments are more likely to view agriculture positively and act on that perception.

Moreover, this pattern of mutual reinforcement among the three variables aligns with previous studies emphasizing the collective nature of educational decision-making in Asian societies, where family and peer approval hold considerable weight (Rashid et al., 2020; Solomonson et al., 2023). In collectivist cultures like Malaysia, students often seek consensus or approval from their parents and peers before making significant life choices, such as career paths. This reinforces the importance of designing interventions targeting students and their social ecosystems rather than treating them as independent decision-makers. For example, Teo et al. (2021) found that educational campaigns were most effective when they included parental and peer engagement strategies, as these had a multiplicative effect on students' willingness to consider non-traditional fields like agriculture.

Furthermore, the current findings support the Social Cognitive Career Theory (Lent et al., 1994), which emphasizes the role of self-efficacy and outcome expectations shaped by environmental factors. When students perceive agriculture positively, and peers and parents reinforce that perception, their belief in their capacity to succeed in the field increases. Alston et al. (2020) and Henning et al. (2022) found that social support significantly boosts student confidence, particularly when paired with exposure to success stories, hands-on learning, and visible employment outcomes.

These interconnected influences suggest that agricultural education cannot be marketed solely based on individual benefits; it must also be repositioned socially and culturally through collaborative messaging. As noted by Zikmund et al. (2013), persuasive communication strategies that resonate across social structures—families, peer groups, and communities—are crucial to effect meaningful change in enrolment behaviors. This underscores the importance of holistic outreach models that encompass parental seminars, peer ambassador programs, and student success narratives as tools for realigning public perception and increasing enrolment in agriculture-related fields.

These findings underscore the necessity for deliberate communication and engagement activities to alter public and familial perceptions of agriculture. Zikmund et al. (2013) assert that successful messaging can impact significant social constructs, influencing students' educational decisions. Rashid et al. (2020) advocate for institutions to strengthen collaboration among parents, students, and institutions to advance agriculture as a contemporary and promising academic discipline.

This study emphasizes the pivotal role of social perception influence, peer influence, and parental influence in shaping students' decisions to enrol in agricultural programs within Malaysian polytechnics. The findings reveal that students who perceive agriculture as a modern, stable, and socially valued field are more inclined to pursue it academically (Solomonson et al., 2023; Rashid et al., 2020). Such positive perceptions are crucial to counteract longstanding stereotypes that depict agriculture as labor-intensive and low in prestige. Additionally, peer influence was found to be a significant factor; students are more likely to enrol when surrounded by peers who express interest in agricultural studies, reflecting the collective nature of decision-making in Malaysian culture (Zaremohzzabieh et al., 2022; Putra et al., 2020). Parental influence also emerged as a dominant factor, with parental expectations, support, and approval strongly associated with students' academic and career choices (Rashid et al., 2020; Rou, Rahman, & Surat, 2022). Beyond these primary influences, the study underscores the impact of cultural norms and gender stereotypes, which often portray agriculture as unsuitable for women or as a career of last resort—thereby limiting the diversity and inclusivity of enrolment (Henning et al., 2022; Chipfupa & Tagwi, 2021). These interconnected social dimensions—perceptions, peer dynamics, and family expectations—form a mutually reinforcing framework that critically shapes enrolment behavior.

The findings indicate that elevated degrees of social, peer, and parental influence substantially affect students' decisions to register in agricultural programs. To maintain and enhance interest in the agro-industrial sector, policymakers and educators must prioritise public awareness initiatives, parental involvement in counselling, and digital educational outreach. These programs correspond with Malaysia's National Agrofood Policy (NAP 2.0) and the TVET transformation goal, ensuring that students are motivated and prepared to contribute to the future of agriculture.

5. CONCLUSION

The study investigated how social perceptions, peer influence, and parental influence affect students' decisions to enrol in agricultural programs at Polytechnic Sandakan, Sabah. The findings reveal that social perceptions of agriculture among the sampled polytechnic students are generally high, indicating a positive outlook on the economic viability and career opportunities within the sector. While still positive, both peer and parental influences were moderate, with direct parental encouragement being highly perceived, even if broader familial ties or agricultural occupations had a simpler influence. Crucially, the study established significant positive interrelationships among social perceptions, peer influence, and parental influence. This indicates that these factors are not isolated but mutually reinforcing, collectively shaping students' enrolment decisions in agricultural programs. The positive correlation suggests that efforts to enhance the social image of agriculture can positively influence both parental and peer support, thereby contributing to increased student enrolment. Despite the declining trend in agricultural enrolment globally and locally, this research offers valuable insights into the specific social dynamics within Malaysian polytechnics, providing a foundation for targeted interventions.

ACKNOWLEDGEMENTS/FUNDING

This research was supported by Universiti Tun Hussein Onn Malaysia (UTHM) through Tier 1 (Vot Q531) and GPPS (Vot J066). We would also like to thank UTHM-Labtech Digital Innovation Centre of Industry for their efforts in assisting this project.

CONFLICT OF INTEREST STATEMENT

The authors agree that this research was conducted in the absence of any self-benefits, commercial or financial conflicts and declare the absence of conflicting interests with the funders.

AUTHORS' CONTRIBUTIONS

Suhaizal Hashim: Conceptualisation, methodology, formal analysis, investigation and writing-original draft; **Nurhani Khamis**: Conceptualisation, methodology, and formal analysis; **Nelina Anak Edmond**: Conceptualisation, formal analysis, and validation; **Danakorn Nincarean**: Conceptualisation, supervision, writing- review and editing, and validation.

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https://doi.org/10.24191/ejssh.v9i1.5020