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Article

Factors Influencing Agro-Entrepreneurship among Young Participants in the 'Hybrid Melon Incubation Programme' at Universiti Sultan Zainal Abidin (UniSZA)

Nurin Hadirah Abd Razak[1], Siti Hajar Kamaruddin[1*], Nur Jannah Jamil[2] & Suhaili Arifin[1]

[1]Faculty of Business, Economics and Social Development, Universiti Malaysia Terengganu, 21030 Kuala Nerus, Terengganu, Malaysia
[2]Centre for Fundamental and Continuing Education, Universiti Malaysia Terengganu, 21030 Kuala Nerus, Terengganu, Malaysia

*Corresponding Author: s.hajar@umt.edu.my

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Abstract: The agro-entrepreneurship sector is widely regarded as a crucial avenue for enhancing youth employment prospects and fostering sustainable economic growth. Despite substantial government investments in various agro-entrepreneurship initiatives, such as the Young Agropreneur Programme, the Agro Youth Exhibition, the Agro Youth Entrepreneur Incubator Programme, and the Youth Agropreneur Grant, youth participation in this sector remains relatively low. This study seeks to explore the underlying factors influencing youth involvement in agro-entrepreneurship, focusing specifically on participants of the Hybrid Melon Incubation Programme at Universiti Sultan Zainal Abidin, Terengganu, Malaysia. Employing a descriptive qualitative research design, data were collected through semi-structured interviews with five purposively selected respondents. The findings reveal that both internal factors, such as personal interest, motivation, and self-efficacy, and external factors, such as peer influence, adult mentorship, and programme characteristics, play significant roles in shaping the participants' engagement in agro-entrepreneurial activities. Moreover, the results highlight the importance of supportive social networks, effective training, and access to resources in encouraging entrepreneurial mindsets among youth. The study concludes that young people require continuous social and institutional support to realise their potential and sustain interest in the agro-entrepreneurship sector. These insights are expected to inform policymakers, educators, and programme developers in strengthening youth-oriented agricultural initiatives in Malaysia.

Keywords: Entrepreneurial tendency; agro-entrepreneurship; youth; self-efficacy; social support

Introduction

Economic instability and youth unemployment in Malaysia have created challenges for positive youth development. Despite a slight decline in unemployment to 3.3% by the end of 2023, youth unemployment remains the third highest in ASEAN (Department of Statistics Malaysia, 2024; Cheng, 2020). While entrepreneurship is increasingly popular among youth, agro-entrepreneurship attracts limited interest, particularly among university-educated youth, due to negative perceptions, low exposure, and perceived low profitability (Abdullah et al., 2012; Man, 2008; Fatimahwati et al., 2021). Government initiatives, including the Young Agropreneur Programme, Youth Agropreneur Grant, and various incubator programmes, aim to create viable career pathways in this sector (Kementerian Pertanian dan Keterjaminan Makanan, 2024)

Agro-entrepreneurship programmes, such as Universiti Sultan Zainal Abidin's Hybrid Melon Incubation Programme, Universiti Putra Malaysia's Inkubasi Usahawantani, and other similar initiatives, are

designed to enhance youth knowledge, skills, and self-reliance (Shaheera, 2018). These programmes provide practical exposure, mentorship, and access to resources, which are critical for nurturing successful agro-entrepreneurs. Alignment with youth needs is essential to improve engagement and ensure that programmes effectively address the challenges of limited creativity, innovation, and commercial viability (Vikas et al., 2015).

Both internal and external factors influence youth participation in agro-entrepreneurship. Internally, passion, self-efficacy, and entrepreneurial tendencies drive engagement, while externally, support from families, peers, programme implementers, and government agencies sustains participation (Maisarah & Sarmila, 2017; Jamaluddin & Hanafiah, 2021). Negative societal perceptions, limited access to capital and land, and insufficient exposure remain barriers to engagement (William et al., 2004; Murphy, 2012; Jamaludin, 2011). Early exposure to agro-entrepreneurship helps youth recognize long-term benefits, enhancing their readiness to pursue this sector as a viable career option.

Youth development theories, including Lerner's positive youth development model, youth asset development, and systems theory, provide a framework for understanding the growth of agro-entrepreneurs (Delgado, 2002; Lerner et al., 2005; Catalano et al., 2004). Effective programmes strengthen internal assets, such as resilience, self-confidence, and skills, while external assets, including mentorship, resources, and societal support, reinforce engagement. This study highlights the importance of understanding these internal and external factors in shaping youth entrepreneurial tendencies through programmes like the Hybrid Melon Incubation Programme, offering insights for future programme design and policy development.

Youth and Agro-Entrepreneurship

Research on youth development has been extensive, with many scholars focusing on the challenges and potential of this demographic. Samsudin (2007) asserts that the challenges faced by youth must be addressed by honing their potential, which serves as an asset for youth development. The development of youth assets encompasses the changes and challenges that young people must navigate as they progress alongside the nation's modernisation. Youth development is a continuous process, rather than a one-time event, and it may encounter various conflicts as it seeks to balance investments in infrastructure and individual development in Malaysia. Abdul Kadir and Mohd (2021) explored the Five Cs model of Positive Youth Development (competence, confidence, connection, character, and caring) among Malaysian emerging adults and found these components to be strongly associated with purpose in life, hope, and overall well-being.

Youth development is a continuous process enhancing competencies to meet social and physical needs (Delgado, 2002). Positive youth development, supported by youth asset development and systems theory, realises youth potential through internal and external assets (Arabi et al., 2007; Sherrod, 2007; Bruum, 2009; Lerner et al., 2005). Key indicators include resilience, social, emotional, cognitive, behavioural, and moral competencies, aspirations, self-identity, future orientation, and social involvement (Catalano et al., 2004; Larson, 2006). Recent research has emphasised the importance of developmental assets in promoting youth well-being. Nouri et al. (2022) conducted a study among university students and found that *positive identity, social support, creativity,* and *thriving* were significantly correlated with mental health and overall well-being. The study suggests that higher education institutions should move beyond merely providing student support services and instead create nurturing environments that actively foster these internal and external assets. Such environments are vital in enabling young people to develop resilience, confidence, and a sense of belonging, which are essential components of positive youth development in the Malaysian context.

The relationship between youth and agro-entrepreneurship is further explored in research by Gani et al. (2020), who concluded that the interest and desire shown by youth in agro-entrepreneurship have a positive impact when supported by stakeholders' efforts to maintain youth engagement in this field. Azizah & Pahlevi (2021) also noted that many youths with high educational qualifications prefer to wait for opportunities in other sectors, such as the public and private sectors, rather than engage in agro-entrepreneurship. It is undeniable that entrepreneurship development is becoming increasingly important in Malaysia, particularly as agro-entrepreneurship is increasingly necessary due to the limited job opportunities caused by the nation's economic situation.

Agro-entrepreneurship programmes are designed to foster attitudes and tendencies among youth to participate in agro-entrepreneurship. Zainal and Noraini's (2009) study found that agro-entrepreneurship programmes, especially those involving special education students in Malaysia, aim to strengthen skills and expand knowledge to help students become self-reliant, particularly in the workforce after completing their education. The implementation of agro-entrepreneurship programmes should be planned according to the needs of youth (Cullen & Bradford, 2012). This means that all youth-related programmes must be well-planned to meet the requirements needed to determine the nation's direction. Agro-entrepreneurship programmes have the potential to increase youth knowledge and skills in agro-entrepreneurship, addressing the lack of positive youth development in Malaysia. However, gaps in knowledge, skills, creativity, and innovation have limited programme success and the commercial viability of agro-entrepreneurship in Malaysia (Vikas et al., 2015).

Factors Influencing Agro-Entrepreneurial Participation

Internal factors refer to the individual attributes that affect a person's behaviour, attitudes, thoughts, and interactions with their environment (Nagarathanam, 2015). Studies in Malaysia show that youths' interest in agriculture is often linked to personal motivation, educational background, entrepreneurial skills, and perceptions of profitability (Ali et al., 2020; Chamhuri et al., 2022). Other research suggests that youth with higher self-efficacy, risk tolerance, and innovative mindsets are more likely to engage in agro-entrepreneurship (Sadikin et al., 2023). These internal drivers are crucial, as they determine whether individuals view agribusiness as a desirable and feasible career path. Internal factors largely relate to the personal characteristics, motivations, and perceptions of young people. The Theory of Planned Behavior (TPB) highlights how attitudes toward entrepreneurship, perceived behavioural control, and social norms influence entrepreneurial intentions (Ajzen, 1991).

Self-efficacy is also a strong determinant of agro-entrepreneurial participation. Youths who believe in their ability to succeed in agribusiness are more likely to take initiative and persist in overcoming challenges (Sadikin et al., 2023). For example, in Sub-Saharan Africa, youth with higher self-confidence and creativity were more willing to adopt modern farming technologies and innovative agribusiness models (Sadikin et al., 2023). Similarly, in Southeast Asia, entrepreneurial orientation including proactiveness and innovativeness has been identified as a key predictor of youth engagement in agriculture (Chamhuri et al., 2022). Buerah and Hussin (2014) identify that the evolution of entrepreneurial attitudes among Malay entrepreneurs in Malaysia is influenced by internal factors, including personal background, motivation, and individual skills, which significantly shape their entrepreneurial intentions.

Internal motivations are strengthened through positive learning experiences, exposure to entrepreneurial role models, and opportunities to apply skills. Entrepreneurial education enhances knowledge, confidence, and risk-taking in agribusiness (Ambad et al., 2021). Personal values and interests defined as voluntary engagement and enjoyment in an activity (Nugroho, 2021; Djaali, 2008; Putri et al., 2019) also drive agro-entrepreneurial pursuits. Many youths see agriculture as a source of income and a means to support community development, food security, and sustainability (Sadikin et al., 2023).

External factors play a significant role in enabling or constraining agro-entrepreneurial engagement. Access to land, capital, technology, and markets are frequently cited as barriers and opportunities for young agropreneurs (Sadikin et al., 2023). Incubation initiatives such as the Hybrid Melon Incubation Programme (PIMH) provide structured support that addresses these external challenges by offering skills development, networks, and business guidance. Furthermore, family and peer influence have been found to significantly affect students' entrepreneurial attitudes and intentions (Lingappa et al., 2020). Other research stated that successful youth engagement in agro-entrepreneurship depends on the interaction between internal dispositions and external enablers. While personal attitudes, knowledge, and aspirations drive initial interest (Ajzen, 1991).

In addition, government policies and national agricultural strategies are critical external factors that either promote or hinder youth involvement in agro-entrepreneurship. Supportive policies such as grants, subsidies, youth-focused agricultural schemes, and market protection can lower barriers to entry, while

bureaucratic inefficiencies and inconsistent regulations may discourage participation (Geza et al., 2021). The government provides numerous support programmes, particularly in the field of entrepreneurship, encouraging innovative ventures. Networks play a multifaceted role for women entrepreneurs and business owners by offering guidance, facilitating partnerships, providing secure financing, granting access to skilled management and employees, and helping build value chain connections (Hussain & Sheikh, 2020). Another important factor is market opportunities driven by consumer demand, particularly in relation to high-value crops, organic farming, and export-oriented agribusiness. The 'Hybrid Melon Incubation Programme' at UniSZA is an agro-entrepreneurship initiative conducted in collaboration with AgroBank and UniSZA's Centre for Investment Generation and Industrial Networking (P4P). The programme, which started in 2019, aims to produce agro-entrepreneurs among UniSZA graduates and alumni. It lasts for six months and is conducted at Universiti Sultan Zainal Abidin's Besut Campus.

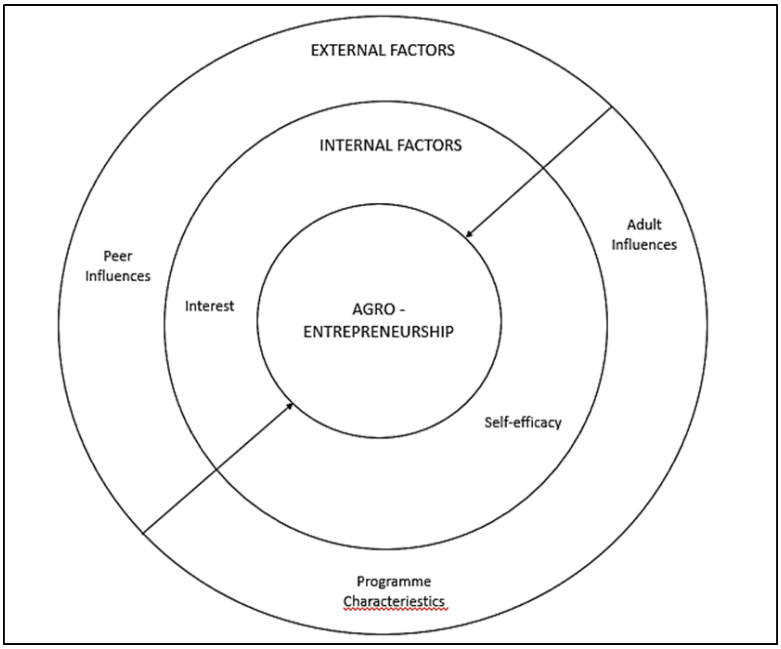

Figure 2. Factors influencing agro-entrepreneurial participation onceptual framework

Lerner et al. (2005, 2011) emphasize that positive youth development is built on nurturing youth strengths, with environmental resources further supporting their growth. Lerner et al. (2021) expanded the theory by incorporating the dimension of social justice and emphasizing the need for youth interventions and programs to consider cultural contexts and social structures, particularly in low- and middle-income countries. Similarly, Ajzen's (1991) Theory of Planned Behaviour (TPB) highlights that attitudes, subjective norms, and perceived behavioural control shape behavioural intentions. TPB has been applied to entrepreneurship, explaining individuals' entrepreneurial tendencies and highlighting gender differences in attitudes, control, and intentions (Rehan et al., 2019; Vamvaka et al., 2020).

Methodology

This study employed a qualitative research design to gain an in-depth understanding of the factors influencing youth participation in the Hybrid Melon Incubation Programme (PIMH) at Universiti Sultan Zainal Abidin (UniSZA), in line with their tendencies towards agro-entrepreneurship. A qualitative approach was chosen because it allows for rich, detailed exploration of concepts and everyday experiences (Sarwono, 2018). Data collection was conducted using multiple methods, with interviews serving as the primary approach. This indicates that the information gathered represented primary data obtained directly from authentic and firsthand accounts provided by the participants**.**

This study employed in-depth and semi-structured interview methods, which involved preparing a set of guiding questions for the respondents to facilitate the data collection process. The interview process was conducted in which the researcher provided an explanation regarding the study and obtained informed consent to ensure that all information provided by the informants remained confidential. The interview questions given to the informants comprised three sections which sections A, B, and C. Section A contained questions related to the informants' personal or demographic information, while sections B and C focused on the youths' or participants' inclination toward the field of agro-entrepreneurship.

According to Jasmi (2012), the observation method is divided into two types (direct observation and participant observation). In this study, the researcher applied these approaches by observing participants' behaviours and interactions during the interview sessions. All observations were carefully recorded and documented in the form of field notes, which captured both verbal and non-verbal cues relevant to the research context. Following each interview, the researcher transcribed the field notes into a comprehensive written report using Microsoft Word, ensuring that all observed details were systematically organised and preserved for subsequent data analysis.

The document analysis method was employed to gain insights, develop empirical hypotheses, and interpret meanings within the qualitative research study (Corbin & Strauss, 2008; Rapley, 2007). Document analysis also includes documents such as texts (words) and images that are either manually recorded or obtained by the researcher from websites (Bowen, 2009). Meanwhile, the records and information provided by the programme participants through the WhatsApp application were utilised as supporting evidence in the written report. The use of triangulation across these methods enhanced the credibility and reliability of the findings (Patton, 2002). Purposive sampling was applied, with a criterion-based strategy to ensure that selected participants met the study's objectives (Bailey, 2007; Patton, 2002). Ultimately, five informants who were directly involved in the PIMH were selected, as data saturation was achieved with this number.

Member-checking was used to validate the accuracy of responses, with participants providing consent through a combination of initial WhatsApp communication and follow-up phone calls to ensure credibility (Birt et al. 2016). Ethical considerations were prioritized by providing informed consent forms, ensuring participants' rights to confidentiality, voluntary withdrawal, and secure handling of data. Interviews were recorded with permission, supported by detailed field notes documenting observations and participant interactions. Thematic analysis was employed to identify recurring patterns and key themes within the data (Braun & Clarke, 2006).

This approach is flexible in identifying and interpreting patterns in qualitative data (Nowell et al., 2017). The process involved six steps: becoming familiar with the data through repeated readings, generating initial codes, grouping codes into broader categories, reviewing and refining themes, naming the themes, and finally reporting them with supporting quotations (Braun & Clarke, 2006). In addition, supplementary records and information shared by participants via WhatsApp were integrated as supporting evidence in the analysis. This multi-layered approach not only minimized researcher bias but also strengthened the depth, validity, and rigor of the study's findings. The research was conducted at Universiti Sultan Zainal Abidin's Besut Campus, specifically at the UniSZA Melon Farm. Figure 1 illustrates the location within the UniSZA campus where the interviews were conducted, with red arrows indicating the focus areas of the study.

The Findings

This study involved five youth participants from the 'Hybrid Melon Incubation Programme' at Universiti Sultan Zainal Abidin (UniSZA). The informants consisted of three males and two females. Table 1 presents the demographic profile of the five respondents, identified as informants A to E, who were aged between 23 and 32 years, representing the young adult group actively engaged in the Hybrid Melon Incubation Programme at Universiti Sultan Zainal Abidin (UniSZA). This age range reflects individuals in the early stages of their careers, who are likely exploring opportunities for professional and entrepreneurial development within the agricultural sector. The study involved two males and three females, indicating a fairly balanced representation of both genders. Regarding marital status, two respondents (A and B) were married, while three (C, D, and E)

were single. The diversity in marital status may influence their perspectives on entrepreneurship, particularly in balancing personal and professional commitments.

Table 1. Summary of Respondent Demographics

Informant	Age	Gender	Marital Status	Education Level	Family Income
A	31	Female	Married	Master's Degree	< 2000
B	31	Male	Married	Diploma	< 2000
C	32	Female	Single	Master's Degree	< 2000
D	23	Male	Single	Bachelor's Degree	> 5000
E	23	Female	Single	Bachelor's Degree	> 3000

The participants also exhibited a range of educational backgrounds, with two (A and C) holding master's degrees, two (D and E) holding bachelor's degrees, and informant B possessing a diploma qualification. This demonstrates that the program attracts individuals with strong academic credentials, suggesting a well-educated group with potential for knowledge-based agricultural innovation. Informants A, B, and C reported monthly incomes below RM 2000, while two earned above RM 3000 and RM 5000, respectively. This variation indicates a mix of lower- and middle-income backgrounds, suggesting that the program includes participants from diverse socioeconomic levels. The combination of different ages, genders, educational levels, and income groups contributes to a broad understanding of youth participation in agro-entrepreneurship. Such diversity enriches the study by providing multiple perspectives on the motivations, challenges, and aspirations of young people involved in agricultural innovation.

Factors Influencing Youth Participation in Hybrid Melon Entrepreneur Incubation Program

Youth participation in the program is influenced by both internal and external factors. Youth's tendency to engage in the agro-entrepreneurship sector reflects their ability to continue contributing to national youth development. Internal factors include personal interest and self-efficacy, while external factors encompass peer influence, the influence of adults, and the characteristics of the program. These factors are critical in determining why a young person is inclined to participate in the Hybrid Melon Incubation Programme at UniSZA.

The internal factors identified in this study include interest and self-efficacy. Interest is one of the internal factors driving the respondents' involvement in the 'Hybrid Melon Incubation Programme' at UniSZA. Informants agreed that their deep interest motivated them to participate in the programme. They stated:

> *"When I decided to join this programme, I was genuinely interested in agriculture. Although at that time, I had zero knowledge about it." (Informant 1)*

> *"I interned for the programme before this one. Because I was genuinely interested, I continued to join many more programmes." (Informant 3)*

> *"Honestly, I initially joined this programme because of the money. But over time, I developed a genuine interest." (Informant 5)*

In the context of this study, *informant*s were asked several questions regarding the main factors that motivated them to join the 'Hybrid Melon Incubation Programme' at UniSZA. The findings are consistent with MZ and Hussin's (2017) study, which found that many entrepreneurs enter the field of entrepreneurship due to deep interest. This suggests that an individual is unlikely to pursue a field they do not desire without interest. This is further supported by Adam et al. (2011), who found that students and youth who are highly active in agro-entrepreneurship do so because of their interest. This finding indicates that interest, as an internal factor, prompts individuals to pursue agro-entrepreneurship and participate in related programmes.

The second internal factor is self-efficacy, which refers to an individual's initiative in taking action. Informants in this study demonstrated self-efficacy in their actions to join the agro-entrepreneurship programmes, particularly the 'Hybrid Melon Incubation Programme' at UniSZA. Informants mentioned:

"I asked the relevant parties how I could join this programme." (Informant 1)

"I tried to participate in the programmes offered, and even before becoming an asnaf (eligible for aid), I had been involved in agricultural activities on my own." (Informant 2)

"I continued to join many more agro-entrepreneurship programmes." (Informant 3)

Each question posed to the informants was related to the study's context, particularly their desire and efforts to participate in agro-entrepreneurship through the programmes offered. The findings align with Zailani et al. (2019), who noted that a strong belief in one's abilities motivates youth to successfully undertake entrepreneurship-related roles and tasks. In this study, each informant was aware of their level of self-confidence in continuing to participate in the programmes. Zailani et al. (2019) also emphasised that students are driven to engage in agro-entrepreneurship by their desire and effort, coupled with strong confidence. This highlights that self-efficacy is an essential internal factor for youth participants in the 'Hybrid Melon Incubation Programme' at UniSZA, consistent with the study's objectives.

External factors also significantly influence youth participation in the 'Hybrid Melon Incubation Programme' at UniSZA. These factors encompass relationships with adults or external individuals, including family or community members, who can encourage youth involvement in agro-entrepreneurship. The critical external factors identified in this study include peer influence, adult influence, and the characteristics of the programme. Peer influence was identified as a key factor during interviews with informants, impacting their participation in the 'Hybrid Melon Incubation Programme' at UniSZA. Informants indicated that peer influence plays a crucial role in shaping their actions, whether positively or negatively. Generally, peers are the closest and most influential group in a person's life (Shahruddin et.al, 2018). Many informants stated:

"A friend of mine really enjoys farming, and he has a small farm. I frequently visit his farm, and that's where I started learning bit by bit." (Informant 4)

"I learned about this programme from a friend. He posted about it on his WhatsApp status, and that made me want to join." (Informant 5)

Based on these statements, peer support is a key factor in encouraging youth participation in the programme. Friends can shape interests and motivate others to develop a stronger interest in agro-entrepreneurship (Sidek & Bakar, 2010). Positive peer relationships influence behaviour, personality, skill development, and determination. This is consistent with Hamzah (2013), who found that peers can affect individual behaviour, including tendencies toward hedonism.

The influence of adults represents external support that benefits and shapes the actions of youth, particularly in decision-making processes and in dealing with challenges. Informants can make wise decisions through positive relationships with adults that bring personal benefits. For example, Informant 4 stated:

"Dr. Fakhrul (a lecturer at UniSZA) introduced me to this programme. After he convinced me, I decided to join." (Informant 4)

Lecturers, as educators, play a vital role alongside parents in influencing the decisions made by youth. Jantan and Piaw (2017) found that educators are essential as they act as guardians, role models, mentors, and disciplinarians, providing motivation that strengthens each student's resolve and identity. This finding aligns with Yusof et. al's (2022) research, which indicates that lecturer support can enhance positive behaviour and commitment in individuals.

The characteristics of a programme also influence youth's decisions to continue participating in agro-entrepreneurship. The characteristics of an entrepreneurship programme are emphasised in the Theory of Educational and Training Programme Framework developed by Valerio, Parton, and Robb (2014). The effectiveness of an entrepreneurship programme is demonstrated by the outcomes achieved by its participants. These characteristics include programme design, the role of facilitators, and programme content. In this study, the role of supervisors as mentors is crucial in motivating each participant. The guidance provided by mentors offers valuable experiences to participants. Informants agreed that the motivation provided by mentors encourages them to remain engaged in agro-entrepreneurship and to complete the programme. Most informants stated:

> *"During the six-month period, I never thought about quitting. Besides, all participants receive motivation from the supervisors." (Informant 1)*
>
> *"It's true that at times I felt like quitting because the work was tough and the weather was hot, which reduced my motivation. So, the role of the supervisor is essential to keep us motivated." (Informant 2)*
>
> *"The motivation given by the supervisors made me reconsider quitting because I would have felt like I wasted an opportunity." (Informant 3)*

These statements highlight the importance of mentors in providing motivation to participants. Abdullah et al. (2020) noted that a mentor's ability to fulfil their role effectively can increase the resilience and motivation of mentees in any field. This finding is supported by Lee et al. (2016), who emphasised that mentors must play a crucial role in providing guidance and appropriate advice to boost students' enthusiasm. Marjonet et al. (2020) also stressed that the presence of mentors in a programme is vital for enhancing the participants' resilience in facing challenges. Mentors play an essential role in offering guidance, support, motivation, and professional assistance, which aligns with the programme's objectives (Amin & Othman, 2019).

The provision of allowances is another factor influencing informants' participation in the 'Hybrid Melon Incubation Programme' at UniSZA. According to to Tajuddin et al. (2023) an allowance is a payment made to an individual for services rendered in performing a task or job. Allowances can also be seen as a reward given to participants who commit to and remain in the programme. Informants mentioned that external support, especially the provision of allowances, is essential alongside self-motivation to ensure full commitment throughout the programme. Respondents expressed:

> *"One of the reasons I joined was the allowance provided. We didn't have to spend any money, which made it easier for us during the six-month period." (Informant 2)*
>
> *"Knowing that this programme provides allowances for participants, we were ready to commit fully." (Informant 4)*

External support, especially financial incentives like allowances, strongly influences participation in agro-entrepreneurship programmes (Wan et al., 2024; Jaafar, 2017; Kassim et al., 2018). Such support enhances engagement, motivation, and willingness to complete programmes, highlighting the need for agro-entrepreneurship initiatives to offer clear, tangible benefits (Jamaluddin & Hanafiah, 2021).

For the knowledge and skills in agro-entrepreneurship, the Hybrid Melon Incubation Programme provides basic agro-entrepreneurship education to all participants. The programme is also designed to impart knowledge and skills in agro-entrepreneurship, covering everything from the basics of agro-entrepreneurship to the completion of the programme. Informants also noted that the programme focuses on producing agro-entrepreneurs who can stand on their own, equipped with strong self-identity and capable of achieving success. They mentioned:

"It's not just about learning how to plant; we were taught everything from A to Z." (Informant 2)

"In this programme, we were taught everything from the basics of agriculture to the final processes." (Informant 5)

The knowledge and skills in agro-entrepreneurship provided through the programme are crucial elements of the programme's content, aimed at achieving the objectives and goals of the 'Hybrid Melon Incubation Programme' at UniSZA. This enables participants to enhance their knowledge and skills in agro-entrepreneurship. This statement is supported by Vikas et al. (2015), who found that a lack of knowledge and skills in crop management prevented some programmes from achieving their objectives. Moreover, the level of education among entrepreneurs, particularly in agro-entrepreneurship, influences their ability to comprehend the training provided (Shipra et al., 2018). As a result, participants are more likely to persevere in agro-entrepreneurship programmes, ultimately becoming successful agro-entrepreneurs.

Discussion

The findings of this study highlight that youth participation in the Hybrid Melon Incubation Programme at Universiti Sultan Zainal Abidin (UniSZA) is strongly influenced by a combination of internal and external factors, which collectively determine the level of motivation, engagement, and commitment among participants. Internal factors, namely interest and self-efficacy, were found to be crucial in shaping participants' decisions to join and persist in the programme. Most informants indicated that a genuine interest in agriculture and the confidence to take initiative motivated them to participate. This aligns with past studies by MZ and Hussin (2017) and Zailani et al. (2019), which revealed that individuals with strong personal interest and self-belief are more likely to succeed in agro-entrepreneurship. These intrinsic motivations are essential for sustaining long-term participation and innovation in the agricultural sector. External factors including peer influence, adult guidance, and programme characteristics were also significant in encouraging participation. *Peers* played a vital role in promoting awareness and motivating youth through shared experiences, consistent with findings by Sidek and Bakar (2010). Meanwhile, adult influence, particularly from lecturers and mentors, provided moral and informational support that reinforced the participants' decisions. This supports Jantan and Piaw's (2017) assertion that educators and mentors serve as guiding figures in shaping positive youth behaviour and professional development.

Furthermore, the programme's characteristics such as mentorship, financial allowances, and skill-based training proved instrumental in sustaining youth participation. Mentorship motivated participants to overcome challenges and maintain perseverance, reflecting the views of Abdullah et al. (2020) and Lee et al. (2016) on the importance of mentor roles in nurturing resilience. The provision of allowances acted as a key external motivator, reducing financial constraints and enhancing commitment, as supported by Wan et al. (2024) and Jaafar (2017). Finally, the programme's comprehensive content on knowledge and agro-entrepreneurial skills fostered competence and readiness for real-world application, echoing Vikas et al. (2015) and Shipra et al. (2018).

In summary, this study demonstrates that youth participation in agro-entrepreneurship requires a balance between internal motivation and external support. While personal interest and self-efficacy initiate engagement, continuous guidance, structured training, and tangible incentives ensure retention and success. The findings imply that effective youth agro-entrepreneurship programmes should integrate both psychological and structural components cultivating personal motivation while providing mentorship, financial support, and hands-on experience. Such an integrated approach is crucial for strengthening Malaysia's youth development and fostering a sustainable generation of agro-entrepreneurs.

Conclusion

This study finds that both internal factors (interest, self-efficacy, passion, self-confidence) and external factors (family, peers, programme support, and government initiatives) influence youth participation in UniSZA's Hybrid Melon Incubation Programme. Properly designed programmes enhance youth potential and encourage

future agro-entrepreneurship careers. Early exposure to agro-entrepreneurship is especially important, as it helps youth recognise career opportunities and long-term benefits in this field. Limitations include a narrow participant group and logistical constraints. Implementing agro-entrepreneurship programmes that meet the needs of youth has been found to enhance internal potential, thereby increasing the likelihood of youth pursuing agro-entrepreneurship in the future. However, this study has certain limitations, as it did not encompass all youth groups and focused only on those who participated in the 'Hybrid Melon Incubation Programme' at UniSZA. The researcher also faced challenges regarding costs and time required to interview each programme participant due to the distance between the researcher and the study location. Future research should include a broader youth demographic, while programmes should be further developed to reduce youth unemployment and promote agro-entrepreneurship as a viable career.

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Conflicts of Interest*: The author declares no conflict of interest.*

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