

Building the Capabilities of Agricultural Asnaf Entrepreneurs through Practical Training and Mentor-Mentee Arrangements: Evidence from Zakat-Based Agricultural Programmes in Malaysia

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ABSTRACT

Zakat-based entrepreneurship programmes commonly provide capital, equipment and training to asnaf, yet the provision of these inputs alone does not explain how participants build the capability to manage agricultural enterprises independently. This study analyses the mechanisms of practical training and mentor-mentee arrangements in building the capabilities of agricultural asnaf entrepreneurs in Malaysia. The study adopts a qualitative approach based on a multi-site case study. Primary data were obtained through semi-structured interviews with 21 informants comprising officers from Islamic religious and zakat institutions, participants or operators, and representatives of Islamic financial institutions, cooperatives and agricultural agencies. The data were also supported by analysis of programme documents and official documents related to agriculture. Thematic analysis focused on learning experiences, technical guidance, farm operations, entrepreneurship, markets, technology and graduation. The findings show six interrelated mechanisms: early exposure, commodity-specific technical training, direct involvement throughout the production cycle, guidance from mentors and anchor firms, business and market learning, and a gradual transition towards more independent operations. Capability develops when participants perform actual tasks, receive feedback when problems arise and repeat the production process across several seasons. Mentors transfer knowledge, provide technical guidance, serve as entrepreneurial role models and connect participants with markets. Based on cross-case patterns, the study proposes an Agricultural Asnaf Entrepreneur Capability-Building Pathway that links exposure, operational mastery, entrepreneurial decision-making capability and graduation readiness. The study contributes by explaining training as a medium-term development process embedded in enterprise operations rather than a one-off course. The implication is that zakat institutions need to align training with commodity cycles, clarify the role of mentors, transfer responsibilities progressively and assess graduation on the basis of technical, commercial and independent decision-making capabilities.

Keywords: agricultural asnaf, practical training, mentor-mentee, productive zakat, capability building

INTRODUCTION

The economic development of asnaf through productive zakat aims to help recipients establish more stable sources of income and subsequently reduce dependence on repeated assistance. In the context of

entrepreneurship, zakat institutions in Malaysia provide various forms of support, such as capital, equipment, premises, training, monitoring and market networks. This approach positions asnaf as participants in the economic development process rather than merely recipients of assistance to meet current needs. However, the transition from assistance recipient to an operator capable of managing an enterprise and making decisions independently requires the development of knowledge, skills and entrepreneurial capability, which do not arise automatically from the provision of capital.

This need is more evident in the agricultural sector. Crop production depends on decisions that vary according to commodity type, weather, site conditions, disease, fertiliser application rates, irrigation, harvest timing and buyer demand. An error at one stage can affect the entire production cycle. At the same time, new participants need to connect technical tasks with cost calculations, produce grading, market schedules, working capital and relationships with wholesalers. Therefore, general courses or classroom-based explanations may provide basic knowledge, but are not sufficient to build the capability to act and make adjustments under actual farm conditions.

The literature on asnaf entrepreneur development has identified the importance of human capital, training, institutional support and monitoring. Shiyuti et al. (2021) propose an entrepreneurial ecosystem as a basis for developing asnaf programmes, while Syahid et al. (2024) find a positive relationship between entrepreneurial human capital and the empowerment of asnaf entrepreneurs in Selangor. At the same time, weaknesses in financial management, resilience, technology use and monitoring continue to be identified among implementation constraints (Ibrahim et al., 2023; Joremi et al., 2023). This literature confirms the importance of non-financial support, but provides limited explanation of the learning process linking training, practical work, mentor guidance and the development of capability for independent enterprise management.

The agricultural learning literature, in turn, shows the importance of experiential training, farmer-to-farmer learning and support sustained throughout the production season. Farmer Field School programmes build knowledge through observation, experimentation and decision-making under actual conditions (van den Berg et al., 2020). An extension experiment in Ethiopia also shows that farmer-to-farmer learning increases knowledge and the adoption of complex technology packages, although its effects on yields and income require assessment over a longer period (Hörner et al., 2022). This evidence is relevant to agricultural asnaf programmes because participants commonly enter programmes with limited resources, experience and capacity to bear risk.

However, training in zakat programmes cannot be equated entirely with conventional agricultural extension programmes. Participants are selected based on asnaf eligibility and development potential, while zakat institutions are responsible for ensuring that resources are distributed effectively and for supporting recipients towards self-sufficiency. Mentors are also involved in technical guidance, supervision of work, problem-solving, marketing and assessment of participants' readiness. Therefore, the mentor-mentee relationship is an important component in the implementation of agricultural asnaf entrepreneurship development programmes and not merely a voluntary advisory relationship.

This article aims to analyse how practical training and mentor-mentee relationships build technical and entrepreneurial capabilities among agricultural asnaf entrepreneurs. Two research questions are posed. First, what forms and sequences of training are used in zakat-based agricultural programmes in Malaysia? Second, through what mechanisms do practical training and mentor guidance support participants' transition towards more independent enterprise management? The study contributes by explaining training as a staged development process embedded in the production cycle and linking technical learning, enterprise decision-making capability and graduation readiness.

LITERATURE REVIEW

Productive zakat and asnaf capability building

Productive zakat refers to the use of zakat resources to enable recipients to develop economic activities that generate continuing benefits. In entrepreneurship programmes, assistance may include capital, equipment,

training, advisory services and market support. This approach is consistent with the aim of moving the poor and needy towards self-sufficiency through assistance suited to their circumstances and capabilities. Shiyuti et al. (2021) argue that the development of asnaf entrepreneurs requires an ecosystem involving zakat institutions, business advisers and other support actors.

Evidence from Malaysia shows that capital assistance alone has several limitations. Ibrahim et al. (2023) identify issues of attitude, financial management knowledge and programme structure in the implementation of zakat capital assistance. Joremi et al. (2023), meanwhile, show that fear of failure, limitations in the use of technology and family support affect the resilience of asnaf entrepreneurs. Syahid et al. (2024) report moderate levels of entrepreneurial competence and empowerment, as well as scope for improvement in financial management. Overall, this literature indicates that the provision of capital needs to be accompanied by a capability-building process tailored to recipients' level of readiness.

In this article, capability building refers to the development of participants' ability to perform technical tasks, solve problems, manage resources, engage with markets and make enterprise decisions with progressively less dependence. This definition distinguishes participation in training from mastery of capability. A participant may attend a course but still be unable to adapt techniques when actual conditions change. Development outcomes therefore need to be assessed through capabilities demonstrated in operations and decision-making, rather than on the basis of the number of courses or training hours alone.

Experiential learning in agriculture

Experiential learning theory explains learning as a process that begins with concrete experience, followed by observation and reflection, the formation of understanding and experimentation with new actions (Kolb, 1984). In agriculture, this cycle occurs when participants carry out tasks such as sowing or fertilising, observe crop responses, discuss problems with a mentor and adjust their actions in the next cycle. The process produces knowledge closely related to the site, commodity and actual problems faced by participants.

The Farmer Field School approach uses observation and experimentation throughout the season to help farmers make adaptive decisions. The review by van den Berg et al. (2020) shows that this approach can influence human, social, natural and financial capital, although the quality of implementation and evaluation methods varies across programmes. A field study in Malawi also reports effects on adaptive capacity, cropping practices, collective action and savings (van den Berg et al., 2023). Marennya et al. (2021) further show that community-embedded and practice-oriented education supports the adoption of conservation farming practices.

Experiential training becomes more important when agricultural technologies consist of several components that need to be used together. Hörner et al. (2022) find that farmer-to-farmer extension increases knowledge and adoption of complex agricultural technology packages. However, increased adoption does not necessarily lead immediately to higher yields or income. These findings indicate that learning, operational mastery and economic performance should be assessed as related but distinct outcomes. Participants may have mastered particular techniques but still require capital, markets, confidence and experience to manage risk more independently.

Mentor-mentee relationships and entrepreneurial learning

Entrepreneurial mentors help participants interpret experience, build confidence and develop the ability to exercise judgement in business. St-Jean and Audet (2012) explain that mentoring can support the cognitive and affective learning of novice entrepreneurs through the sharing of experience, feedback and role modelling. In agriculture, mentors also need to understand commodity operations because some knowledge is tacit and difficult to transfer through written modules alone.

Farmers' relationships with business partners and value-chain actors also shape entrepreneurial learning. Manyise and Dentoni (2021) show that value-chain partnerships can support learning when partners share resources, knowledge and market information. Scott and Richardson (2021) also show that advisory networks are associated with market access and the decisions of new agricultural entrepreneurs. Therefore, in agricultural

programmes, mentors can potentially function simultaneously as technical guides and links to buyers, suppliers and support agencies.

However, mentor-mentee relationships can create dependence if mentors control too many decisions. If mentors continue to determine inputs, solve every problem and manage all sales, participants may become competent in following instructions but may not develop autonomy. The effectiveness of mentor-mentee arrangements needs to be assessed through a reduction in the level of dependence over time. The mentor's role should develop from demonstration and close supervision towards guidance and consultation as participants demonstrate greater mastery.

Research gap

Existing literature confirms the importance of training, human capital, mentoring and networks in entrepreneurship development. However, two gaps remain clear. First, studies of asnaf entrepreneurs tend to position training and guidance as programme inputs without explaining in depth how these inputs are translated into the capability to manage operations and make decisions independently. Second, the agricultural extension literature gives limited attention to the zakat context, which involves vulnerable recipients, accountability in distribution, risk management and the objective of asnaf graduation. This article addresses these gaps by analysing the sequence of learning and the functions of mentors across several zakat-based agricultural programmes in Malaysia.

METHODOLOGY

Research design

This study used a qualitative approach with a multi-site case study design. This design is appropriate because zakat-based agricultural programmes are implemented within different institutional, commodity, site and partnership contexts. Cross-case analysis allows consistent patterns to be identified while retaining attention to variations in implementation across programmes.

Primary data were obtained through semi-structured interviews. This method allowed the researchers to use consistent guiding questions and to ask follow-up questions based on informants' experiences (DeJonckheere & Vaughn, 2019). Secondary data comprised official documents from zakat institutions, programme documents, agricultural guidelines and materials related to project implementation. These documents were used to support triangulation of information on training, operational structures, strategic partners and monitoring mechanisms.

Informants and locations

Purposive sampling was used to select individuals with direct experience in programme planning, implementation, management or participation. This approach is appropriate when a study requires information-rich informants who are closely related to the research questions (Palinkas et al., 2015). A total of 21 informants participated, comprising officers from Islamic religious and zakat institutions, participants or operators, and representatives of Islamic financial institutions, cooperatives and agricultural agencies. To maintain confidentiality, institutions and informants were identified using codes.

Table 1. Scope of programme cases analysed

Programme or commodity form	Location
Large-scale asnaf paddy farming	Kedah
Cucumber fertigation	Penang
Community-based agroeconomic programme	Kelantan
Chilli fertigation and agroeconomic project	Selangor

Programme or commodity form	Location
Asnaf development park	Perlis
Chilli fertigation	Kuala Lumpur
Chilli fertigation	Johor
Pineapple cultivation	Pahang
Agricultural income initiative	Selangor
Clustered zakat farm	Perak

Data analysis

Interview recordings were transcribed and organised for analysis. The data were analysed thematically through repeated reading, initial coding, grouping of codes, category development and theme review. Codes, categories and themes were organised in a thematic analysis matrix to facilitate comparison across informants and to identify similarities and differences in patterns of findings. This procedure is consistent with the thematic analysis approach, which emphasises the identification, organisation and interpretation of patterns of meaning in the data to answer the research questions (Braun & Clarke, 2006).

For this article, the analysis focused on the themes of practical training and mentor-mentee relationships. Data units related to pre-participation, technical training, farm operations, entrepreneurship, markets, technology and graduation were compared across cases. The analysis gave attention to three aspects: the form of training activities, the functions of mentors or implementation partners, and changes in capability shown or expected among participants. The capability-building pathway presented in the discussion is an analytical synthesis based on cross-case patterns and not a model stated verbatim by a single informant.

FINDINGS

Early exposure provides a foundation for participation

At the initial stage, programmes introduce participants to cultivation methods and the project environment before they assume operational responsibilities. In one chilli fertigation programme, participants attended a two-day basic course conducted by the Area Farmers' Organisation. At another location, asnaf youth were taken to a training site to observe the fertigation system and understand working conditions before intensive training began. This exposure helped participants form more realistic expectations of the physical demands, work schedules and technology that would be used.

Early exposure does not yet indicate that participants have mastered the required skills. Instead, this stage provides a basic technical understanding and helps institutions and participants assess suitability for participation. The findings show that participants do not necessarily have extensive agricultural experience when selected. Willingness to learn, discipline, health and time commitment are important because technical capability is developed progressively after participants enter the programme.

Technical training is tailored to the commodity

Technical training covers sowing, irrigation, fertilisation, nutrient application, disease control, crop care, and harvesting. Training content varies because each commodity has its own production cycle and associated risks. Chilli cultivation, for example, requires more frequent management of nutrients, diseases, and harvesting, whereas pineapple has a longer production cycle and involves different levels of mechanisation. Training content is therefore developed with the involvement of the Federal Agricultural Marketing Authority (FAMA), the Department of Agriculture, farmers' organisations, agricultural companies, consultants, and experienced mentors.

In several cases, theoretical training is provided before participants enter the practical phase. Basic knowledge of sowing, seedlings, fertilisers and early management helps participants understand the rationale behind Standard Operating Procedures. However, informants emphasised that actual challenges arise when crop conditions, diseases or buyer demand change. In the pineapple project, theory and practice were not formally separated; the entire programme period was regarded as a process of on-the-job training. This variation shows that training design needs to be adapted to commodity complexity and operational structure rather than using one general module for all projects.

Farm operations become the actual learning environment

The most consistent element across cases is participants' involvement in actual farm tasks. Participants do not simply receive a completed farm, but are also involved in site preparation, installation of weed mats, arrangement of polybags, and installation of pipes and fertigation systems. Involvement from the early stage helps participants understand the structure of the system and carry out maintenance when breakdowns occur, knowledge that is difficult to develop if all facilities are completed by vendors before participants become involved.

After the site is developed, participants manage the crop cycle from sowing through to harvest. Standard Operating Procedures and work schedules regulate the timing of fertilisation, irrigation, pesticide application and maintenance. In this context, Standard Operating Procedures function as production guidelines and training tools. Repetition of tasks develops operational discipline, while observation of crops helps participants understand conditions that require adjustment.

Practical training also connects agronomic decisions with market requirements. Participants learn that planting time affects harvest timing and the risk of oversupply, while produce grade, quality and buyer demand affect prices. Therefore, farm operations are not merely a space for mastering cultivation techniques, but become a learning medium that links technical decisions with costs, yields and market acceptance.

Mentors provide guidance throughout the production cycle

Mentor guidance does not take place in a single isolated session. Mentors, supervisors or technical officers follow participants from the initial stage of cultivation through to harvest. In some programmes, monitoring is conducted through daily or periodic visits and supported by WhatsApp groups. Participants send photographs or information about crop conditions, while advisers provide guidance on fertilisers, diseases, water and corrective action. The use of digital communication shortens the time between problem identification and receipt of technical feedback.

Mentors comprise experienced agricultural entrepreneurs, agricultural officers, farmers' organisations or anchor companies. Entrepreneur mentors transfer knowledge from their own experience of managing farms, while anchor companies bring industry expertise, machinery, Standard Operating Procedures, inputs and market networks. In one chilli project, two mentors had different specialisations: overall operations management, and the management of fertilisers, pesticides and diseases. This division allows guidance to be provided according to the actual problems faced by participants.

The findings also show the use of asnaf alumni as mentors for new participants. This approach provides two benefits. First, mentors understand recipients' resource constraints and experiences because they have gone through the same programme. Second, alumni success provides role models that are closer to participants' realities. However, mentor effectiveness continues to depend on technical mastery, the ability to provide guidance and commitment, rather than on alumni status alone.

Mentors link training with enterprise and markets

Capability building does not end with production. Participants are also exposed to financial management, business registration, opening bank accounts, savings, branding, produce grading and marketing. In one programme, financial training was linked to the management of qard hasan financing for each season. In another

programme, part of the harvest proceeds was planned as working capital. This approach helps participants distinguish sales revenue, household expenditure and funds for operational continuity.

Mentors and anchor companies also reduce market uncertainty in the early stages through contract buyers or existing networks. This assurance allows participants to focus on production and quality while they are still learning. However, market relationships need to be transferred gradually to participants. If mentors manage all sales, participants do not gain experience in negotiation or in understanding buyer requirements. In one programme, participants were taken to a wholesale market and introduced to wholesalers, while some control over transactions was retained to reduce the risk of leakage of proceeds.

Mentors also act as role models in showing how operators assess risk, make decisions and seek profits. This function goes beyond technical instruction. Participants need opportunities to understand the judgement used by experienced operators, including decisions concerning planting time, input purchases, responses to disease and the management of produce that does not meet the main grade. This process helps build entrepreneurial decision-making capability when Standard Operating Procedures do not provide a complete answer.

Repeated seasons and reduced support build graduation readiness

Programme duration ranges from two to six years depending on programme design and the commodity cycle. Several programmes use a three-year incubation period, while one chilli programme covers six growing seasons during that period. Repetition allows participants to experience hot weather, rain, water shortages, disease outbreaks and market variation. Each cycle provides experience that cannot be fully simulated through short-term training.

Technical mastery does not necessarily indicate readiness to operate independently. One case shows that participants had gone through several harvests but were still concerned about proceeding without a mentor. Informants associated graduation with a combination of technical experience, capital, networks and confidence. Programme duration should therefore not be the sole criterion for completion. Participants need to demonstrate the ability to diagnose problems, plan production, manage records and capital, engage with markets and make decisions with progressively less supervision.

The transition to participants' own operations occurs through several mechanisms, including savings from proceeds, start-up grants, rental of sites after the incubation period, use of family land and referrals to other development agencies. These mechanisms reduce the risk of abrupt withdrawal of support. At the final stage, the mentor's role shifts from directing operations to serving as a source of reference, while participants assume greater responsibility for enterprise decisions and risks.

Table 2. Identified capability-building mechanisms

Mechanism	Form of implementation	Capability developed
Early exposure	Basic courses and site visits	Realistic expectations and basic understanding
Commodity-specific training	Theory, demonstrations and technical modules	Agronomic knowledge and Standard Operating Procedures
Operational practice	Site preparation through to harvesting	Operational and maintenance skills
Continuous guidance	Visits, site supervision and digital communication	Problem diagnosis and corrective action
Enterprise learning	Finance, markets, networks and grading	Commercial capability and resource management
Staged graduation	Repeated seasons and reduced supervision	Autonomy, confidence and operational readiness

DISCUSSION

Training as a capability-building process

The findings show that training should be understood not merely as a course activity, but as a development process embedded in enterprise operations. Basic knowledge provides initial understanding, while capability develops when participants perform tasks, receive feedback and adjust their actions. This sequence is consistent with Kolb's (1984) experiential learning, but the findings add an institutional dimension: participants' experiences are structured through Standard Operating Procedures, sites, inputs, mentors, monitoring and markets provided by zakat institutions and implementation partners.

The distinction between knowledge and capability has direct implications for programme evaluation. Course attendance is easy to measure, but it does not indicate whether participants can deal with water disruptions, disease or changes in market demand. Hörner et al. (2022) likewise distinguish gains in knowledge and technology adoption from economic outcomes. In the context of asnaf programmes, evaluation should move from input indicators towards evidence of task performance, problem-solving and participant performance across several production cycles.

Yusof et al. (2025), through a systematic literature review, identify business management training alongside financing, support during crises and spiritual strength as aspects of agricultural asnaf entrepreneur development. The findings of this article detail the training aspect at the implementation level. Knowledge needs to be applied in farm tasks and reinforced through mentor feedback before it can support enterprise decisions. In this way, training becomes the link between resources provided by the programme and participants' ability to use them. This alignment provides conceptual support rather than statistical confirmation of the effectiveness of each mechanism.

Repetition of tasks does not necessarily produce deeper understanding if participants simply follow instructions. Participants may memorise fertiliser quantities without understanding why the quantities need to change according to crop conditions. Practical training should therefore be accompanied by explanation and reflection on why an action is chosen and its effects on production. Mentors may ask participants to explain the problem, possible actions and the reasons for choosing a solution. Capability building therefore includes the ability to understand and explain decisions, rather than merely to perform tasks.

Mentors as technical guides and links to markets

The findings show that mentors perform at least five main functions: transferring technical knowledge, monitoring implementation, helping to solve problems, serving as entrepreneurial role models and connecting participants with markets. The breadth of these functions explains the importance of mentors' industry experience and networks in agricultural asnaf development programmes. The findings are also consistent with Manyise and Dentoni (2021), who show that agricultural entrepreneurial learning occurs through the sharing of resources, knowledge and information within value chains.

However, an overly dominant mentor role can create a new form of dependence. Mentors or anchor companies that control inputs, agronomic decisions and marketing can reduce the risk of errors in the early stages, but continued control can limit participants' opportunities to make decisions. Programme design needs to distinguish protection during learning from the assumption of participants' responsibilities by mentors. A progressive transfer of decisions allows mentors to control critical risks at the initial stage and hand over routine and commercial decisions when participants demonstrate sufficient mastery.

Knowledge transfer also needs to include the reasoning process used by mentors, not only final instructions. If participants only receive decisions, they may not understand how prices are negotiated, quality is assessed or buyers are selected. Within the training design, participants can be involved in grading discussions, preparation of cost estimates and interactions with buyers. Such involvement does not mean that all commercial decisions need to be handed over immediately, but provides the experience required to manage the same matters as participants move towards more independent operations.

The mentor-mentee relationship also needs to be assessed in terms of alignment between production objectives and participant development. Anchor companies may emphasise consistency of output and adherence to schedules, whereas participant development requires space to explain, try and assess mistakes. These two objectives can be aligned through clear training responsibilities and separate evaluation of production performance and skills transfer. This discussion is an analytical implication of the breadth of mentors' roles and is not a claim that conflicts of interest occur in all projects studied.

Repeated cycles build judgement and confidence

Training duration needs to take into account the biological and economic cycles of each commodity. Chilli participants require experience across several seasons to deal with disease, weather variation and fluctuations in harvests. Pineapple participants require a longer period because one production cycle may take 15 to 18 months. Using the same training duration for all commodities therefore risks producing unequal levels of exposure.

Repetition develops more than routine skills. It gives participants opportunities to compare decisions, understand the consequences of actions and build confidence. Dompreeh et al. (2024), in the context of aquaculture, similarly show that the duration of exposure influences intervention effects. In this study, experience across several seasons enables participants to move from following Standard Operating Procedures to adjusting operations according to actual conditions. However, confidence and willingness to bear risk need to be developed specifically because technical mastery alone is not sufficient to indicate graduation readiness.

Experience of failure also needs careful interpretation. Low yields may result from participant decisions, weather conditions, unsuitable inputs or market problems. Attributing all failures to participant attitudes would overlook constraints beyond their control. Therefore, post-season evaluation can be used to distinguish mistakes that can be addressed through training from risks that require institutional support. This approach allows repeated cycles to be used to improve decisions without placing full responsibility for structural problems on participants.

Agricultural Asnaf Entrepreneur Capability-Building Pathway

Based on cross-case patterns, this article proposes an Agricultural Asnaf Entrepreneur Capability-Building Pathway. The pathway is not entirely linear because participants may again require intensive guidance when faced with disease, technological changes or market problems. Nevertheless, it describes a progression from early exposure to operational mastery, decision-making capability and greater autonomy.

Table 3. Agricultural Asnaf Entrepreneur Capability-Building Pathway

Stage	Learning focus	Mentor role	Evidence of readiness
1 Exposure	Commodity basics and work realities	Explain and demonstrate	Understand requirements and comply with basic safety requirements
2 Guided practices	Technical tasks and Standard Operating Procedures	Direct and provide close feedback	Perform tasks to standard
3 Repeated operations	Full cycle and variation in problems	Monitor and assist diagnosis	Handle routine problems with minimal assistance
4 Enterprise decision-making	Costs, capital, quality, markets and networks	Demonstrate decision-making processes and facilitate access	Plan production and manage records and buyers
5 Progressive autonomy	Independent decisions and continuity	Consult when required	Manage cycles, risks and capital responsibly
6 Graduation	Post-programme operations	Selected follow-up support	Have a site or access to one, capital, networks and an operational plan

This pathway comprises three complementary forms of capability. Technical capability includes agronomy, technology and farm problem-solving. Enterprise capability includes costs, records, working capital, quality and markets. Self-management capability includes confidence, discipline, responsibility and the ability to make decisions. Sustainable graduation requires all three, as well as continued access to factors of production and markets.

Alignment of capital assistance with enterprise management capability

Wan Mohd Khair et al. (2025) conclude that capital assistance to asnaf entrepreneurs requires strategic implementation alongside entrepreneurship training, technical guidance and continuous monitoring. The findings of this study show why the provision of inputs in agricultural programmes needs to be integrated with the learning process. Capital enables participants to obtain production requirements, while management capability helps them determine the timing, amount and purpose of resource use. Capability building therefore functions as a mechanism supporting more planned use of assistance, although this article does not estimate the financial returns to training or its causal effect on profits.

In agricultural operations, sales proceeds cannot be treated entirely as income available for expenditure because part needs to be retained to finance the next season. Financial training based on actual transactions can help participants distinguish sales revenue, operating costs, household expenditure and remaining working capital. This approach connects technical skills with continuity of production. Participants who can produce crops but are not yet able to plan input purchases for the next cycle still require enterprise guidance. Graduation assessment should therefore take into account the relationship between farm management and cash-flow management.

Alignment of support needs to take into account differences in participants' starting points. Levels of experience, family commitments and access to sites can affect the ability to use learned skills. A longer need for guidance does not necessarily indicate a lack of potential. Institutions need to assess whether delays arise from competency gaps or a lack of complementary resources so that decisions to extend training, provide site access or adjust the scale of operations are based on the source of the constraint.

Digital learning linked to tasks and markets

The digital dimension extends capability building from mastery of tools to the ability to use information to support enterprise operations. Ahmad Rosli et al. (2023) examined business digitalisation among 155 asnaf micro-entrepreneurs and reported a significant influence of cost-effectiveness value and interactivity on performance, while compatibility and trust in technology were not significant in their model. These findings provide a basis for assessing the practical usefulness of technology, but do not mean that the same pattern necessarily applies in agricultural asnaf programmes or that digitalisation alone is sufficient to improve performance.

In the programmes studied, the use of technology and digital marketing can be developed through tasks directly related to daily operations. These include recording inputs and harvests, keeping photographs of crop symptoms for discussion with mentors, and organising buyer orders. Such use helps participants see the relationship between digital tools and actual problems that need to be solved. Training assessment can examine whether the records are subsequently used to plan production and follow up sales. The number of applications installed or accounts created alone is not sufficient as a measure of mastery because these indicators do not yet show changes in enterprise practices.

Digital guidance needs to take into account device capability, internet access and participants' literacy levels. Systems that are too complex can increase documentation burdens and reduce continued use. Institutions can begin training with simple record-keeping methods and provide manual options where necessary. Access to buyer information and enterprise records also needs to be handled responsibly. These suggestions are measures to strengthen programmes because the present study does not measure digital literacy levels or compare performance based on the applications used.

Assessing autonomy and continuity after training

The capability-building pathway requires measures that distinguish learning progress from current production performance. A farm may achieve good yields while key decisions are still made by mentors, but such performance does not show that participants can reproduce it without close assistance. Conversely, participants may demonstrate sound judgement in an unfavourable season because of external factors. Assessment should therefore combine observation of tasks, reasons for decisions, operational records and the level of assistance still required, rather than rely on yield alone.

Graduation needs to be distinguished from completion of training, readiness to manage an enterprise and changes in eligibility status for assistance. These are different decisions and do not necessarily occur at the same time. In this article, graduation refers primarily to the transition towards more independent operations and not evidence that every participant has exited the asnaf category. Determination of assistance status requires a separate institutional assessment. This distinction is important so that training achievements are not reported as verified poverty reduction without sufficient longitudinal data.

Autonomy does not mean that participants need to sever all relationships with institutions or mentors. More independent operators may still seek advice, share marketing arrangements and participate in farmer peer networks. The difference lies in participants' ability to identify needs, choose appropriate forms of assistance and take responsibility for their own decisions. Follow-up support can therefore shift from routine supervision to consultation when required. This form of autonomy is more suitable for clustered farming, which still requires coordination among operators while allowing participants greater scope to control enterprise decisions.

From a research evaluation perspective, the proposed pathway remains an analytical synthesis based on case patterns. The article does not show that all participants pass through every stage in the same sequence or at the same rate. Future research needs to record changes in competence, the level of mentor intervention and continuity of operations after support is reduced. Participants who withdraw or have not yet succeeded should also be included so that evaluation does not focus only on graduates who remain active. This approach allows researchers to identify conditions under which training and mentor-mentee arrangements support independence and conditions under which other constraints continue to impede the transition.

For operational purposes, assessment can be organised according to the level of assistance required to complete a task. At the initial stage, participants require demonstrations and step-by-step instructions. At the next stage, participants perform tasks with periodic review. A higher level of mastery is shown when participants can identify problems, propose actions and explain the limits of their knowledge before seeking advice. However, the level of autonomy needs to be adjusted to the risk of the task. Supervision in handling hazardous materials, for example, should not be reduced merely to demonstrate autonomy. This proposed assessment approach is intended to make the concept of capability easier to observe without replacing safety standards or technical assessments by the relevant agencies.

Participants' self-assessment can complement mentor observations, but the two sources do not necessarily produce the same assessment. Participants may feel confident before they have fully mastered a task, whereas mentors may assess them differently based on experience and expectations. These differences can be used as a basis for learning discussions. Task records, examples of decisions and participants' explanations allow both parties to assess progress more clearly. Institutions may also involve other technical assessors at the transition stage to reduce dependence on the judgement of a single mentor. However, such assessment designs need to be tested before being adopted as formal graduation requirements.

Overall, the relationship between training and participant independence depends on the combination of learning processes and environmental support. Training provides experience, guidance helps participants interpret that experience, while opportunities to make decisions allow skills to be applied responsibly. However, the benefits of learning may be limited if access to land, inputs or markets ceases. Testing the framework should therefore take into account both individual change and the conditions of institutional support so that participants' achievements or failures are not interpreted without considering the programme facilities that remain available.

Policy And Management Implications

First, zakat institutions should specify learning outcomes based on capabilities that can be demonstrated in actual operations. Modules for each commodity should list competencies such as site preparation, water management, disease diagnosis, cost calculation, grading and financial record-keeping. Assessment can be conducted at several points in the production cycle rather than only after participants attend a course.

Second, programme duration should be aligned with commodity cycles and levels of risk. Minimum requirements can be set based on the number of cycles or seasons participants need to complete, with provision for extension for those who have not yet demonstrated the required level of mastery. This approach is more appropriate than using the same calendar duration for all types of projects.

Third, mentor contracts or terms of reference should clarify responsibilities for knowledge transfer. Mentor performance indicators should not be based only on output volume, but should also include frequency of guidance, response time, demonstration of techniques, opportunities for participants to make decisions, access to buyers and reduction in mentee dependence.

Fourth, programmes should have a plan for the progressive transfer of responsibilities and decisions. In the initial phase, mentors may set Standard Operating Procedures and control critical risks. In the middle phase, participants make routine decisions with mentor review. Towards graduation, participants should be given scope to plan production, manage records, engage with buyers and make operational decisions with minimal monitoring.

Fifth, graduation strategies should be planned from the participant selection stage. Institutions need to identify pathways for access to sites, capital, networks and follow-up assistance. Participants with family land can prepare to transfer operations, while those without land require rental options or medium-term access. Graduation should not be determined solely by the end of the programme period if participants lose access to factors of production once support ends.

Sixth, programmes may develop asnaf alumni as mentors, but selection should be based on performance and the ability to provide guidance. Mentor training should cover communication, demonstration, feedback, documentation of progress and boundaries of responsibility. Experience as a former participant provides an understanding of programme context but does not replace pedagogical and technical competence.

Study Contributions

This study makes three main contributions. First, it explains the mechanisms linking training with capability building through practical work, feedback, repetition and the transfer of responsibility. Second, it extends discussion of mentor-mentee arrangements by showing mentors as technical guides and links to markets within the zakat programme ecosystem. Third, the Capability-Building Pathway distinguishes technical mastery, enterprise management capability and autonomy as outcomes that need to be assessed before graduation.

These contributions also refine the understanding of productive zakat. The effectiveness of assistance depends not only on the assets or capital provided, but also on recipients' capability to use these resources continuously. In this context, zakat institutions play a role in creating a learning environment that enables asnaf to gain control over factors of production, improve their capability to manage enterprises and gradually reduce dependence on assistance.

Limitations And Recommendations for Future Research

This study uses qualitative data and purposive sampling. The findings therefore explain implementation mechanisms and are not intended to represent success rates across all zakat-based agricultural programmes in Malaysia. The depth of evidence also varies across cases, and the study does not measure changes in competence or income before and after training. Assessment also relies substantially on informants' experiences, although document analysis was used to support data triangulation.

Future studies may develop a competency instrument to test the Capability-Building Pathway. A longitudinal design could assess changes among participants at programme entry, after each season and after graduation. Comparisons between entrepreneur mentors, extension officers and anchor companies are also important for identifying the most effective forms of guidance. Further research could test whether progressive transfer of decisions reduces dependence and improves enterprise continuity after institutional support is reduced or ended.

CONCLUSION

This study shows that capability building among agricultural asnaf entrepreneurs occurs through a staged process based on actual experience. Early exposure provides basic understanding, technical training builds commodity-specific knowledge, while farm operations enable participants to master tasks and learn to solve problems under real conditions. Mentors, supervisors and anchor companies reinforce the learning process throughout the production cycle and connect participants with resources, technology and markets.

The effectiveness of training should not be measured solely by the number of courses. Participants need to demonstrate the ability to manage operations, exercise commercial judgement, manage capital and act with progressively less supervision. Experience across several seasons is important because variation in weather, disease, production and markets cannot be learned through a single demonstration or one training cycle.

The proposed Capability-Building Pathway provides a basis for designing programmes that link training with graduation readiness. Zakat institutions need to specify clear competencies, align training duration with commodity cycles, clarify mentor functions and transfer responsibilities progressively. Through such a design, practical training and mentor-mentee arrangements can help move asnaf from programme participants to agricultural operators capable of managing enterprises more independently and responsibly.

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