

An Integrated Community Empowerment Model for the Minang Saiyo Padang Pariaman Entrepreneurial Diaspora in Malaysia

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ABSTRACT

This community service initiative presents the design and implementation of an integrated empowerment model for the Minang Saiyo Padang Pariaman diaspora community in Malaysia. Drawing on a participatory action research (PAR) framework, the program engaged 63 participants across six months through five interconnected disciplinary components: food processing technology, digital literacy and communication, digital business management, mental health and counseling, and geography education. A mixed-methods evaluation design employing pre-test/post-test instruments and qualitative methods (focus group discussions and exit interviews) was used to assess outcomes. Results indicate statistically meaningful improvements across all domains: food processing knowledge scores increased by a mean of 62.4%, digital marketing self-efficacy rose from 23% to 79%, formal business record-keeping adoption increased from 31% to 71%, psychological distress rates declined from 38% to 19%, and geographical knowledge scores improved by 54.7%. Beyond domain-specific gains, participants demonstrated enhanced community cohesion and initiated self-organized peer support and cooperative structures. The integrated model confirms that holistic, multidisciplinary interventions addressing both economic and psychosocial dimensions produce synergistic outcomes that exceed the sum of their individual components, offering a replicable framework for diaspora community empowerment in Southeast Asia and beyond.

Keywords: community empowerment; diaspora entrepreneurship; Minang Saiyo; multidisciplinary intervention; Malaysia

INTRODUCTION

Diaspora communities represent a unique and underexplored asset in the global development landscape. These communities, often characterized by strong cultural bonds, shared histories, and entrepreneurial drive, have the potential to contribute significantly to both their host countries and their countries of origin. The Minang Saiyo Padang Pariaman community in Malaysia is one such diaspora group whose members have migrated from West Sumatra, Indonesia, bringing with them rich cultural traditions, culinary heritage, and a deeply rooted spirit of merantau — a Minangkabau cultural practice of voluntary migration to gain experience and prosperity.

Despite their entrepreneurial spirit and cultural cohesion, diaspora communities frequently encounter complex challenges in navigating the socioeconomic landscape of their host countries. These challenges include limited access to formal business development support, barriers in digital technology adoption, gaps in business

management knowledge, psychosocial stressors related to cultural displacement, and insufficient understanding of their geographical and social environment in Malaysia. Addressing these multifaceted challenges requires an intervention model that goes beyond single-sector approaches and instead embraces an integrated, multidisciplinary framework.

Community empowerment has emerged as a central paradigm in participatory development, emphasizing the agency, capabilities, and collective strength of communities as drivers of their own development. Empowerment approaches that integrate capacity building across multiple domains — technical, managerial, psychological, and spatial — have shown greater effectiveness in sustaining long-term outcomes compared to fragmented interventions (Zimmerman, 2000). However, the application of such integrated models to diaspora entrepreneurial communities remains limited in the literature, particularly for Southeast Asian diaspora groups.

This community service initiative responds to this gap by designing and implementing an integrated empowerment model for the Minang Saiyo Padang Pariaman community in Malaysia. The program brings together expertise from five interconnected disciplines: fisheries and food processing technology, English and digital communication, digital business management, geography education, and guidance and counseling. Through this collaboration, the initiative addresses the diverse needs of the community in a holistic and contextually sensitive manner.

The significance of this initiative lies not only in its practical outcomes for the target community but also in its contribution to the broader field of community service scholarship. By documenting and analyzing an integrated, multidisciplinary empowerment model applied to a diaspora context, this article aims to offer a replicable framework for similar communities in Malaysia and beyond. The following sections present the theoretical foundations, detailed methodological framework including participant demographics, evaluation instruments, and data analysis procedures, empirical results supported by quantitative and qualitative evidence, and reflections on the interactions among program components.

LITERATURE REVIEW

Diaspora Communities and Entrepreneurship

The concept of diaspora entrepreneurship has gained increasing scholarly attention over the past two decades, particularly in the context of developing transnational economic linkages and leveraging migrant social capital. Portes et al. (2002) highlighted that diaspora entrepreneurs often occupy a unique position between their origin and host societies, utilizing dual social networks and cultural knowledge as competitive advantages. In the Southeast Asian context, Minangkabau migrants have historically demonstrated strong entrepreneurial tendencies, driven by the merantau tradition that encourages migration as a rite of passage and economic strategy (Naim, 1979).

Research on Indonesian diaspora communities in Malaysia underscores both the opportunities and vulnerabilities associated with migrant entrepreneurship. While many migrants establish small-scale food and trade businesses, they frequently lack access to formal business development services, capital, and professional networks (Hugo, 2007). Consequently, diaspora entrepreneurship often remains confined to informal economic activities with limited growth potential. Capacity-building interventions that enhance technical skills, business acumen, and digital competency are therefore critical for enabling diaspora entrepreneurs to formalize and scale their enterprises.

Community Empowerment Frameworks

Community empowerment theory, as articulated by Rappaport (1987) and subsequently elaborated by scholars such as Zimmerman (2000), posits that empowerment is a multilevel construct encompassing individual, organizational, and community dimensions. At the individual level, empowerment involves the development of knowledge, skills, and self-efficacy; at the organizational level, it refers to the strengthening of collective structures and resources; and at the community level, it entails the mobilization of social capital and advocacy capacity.

Participatory approaches to community empowerment, rooted in the tradition of Freire's (1970) critical pedagogy, emphasize the importance of engaging community members as active co-creators of the development process rather than passive recipients of assistance. This epistemological stance has profound implications for program design, necessitating thorough needs assessments, collaborative planning, and ongoing reflection cycles. The integrated model implemented in this initiative draws explicitly on these principles, situating the community's existing strengths and locally identified needs as the foundation for all program components.

Multidisciplinary Approaches to Community Service

The limitations of single-sector approaches to community development have been well documented. Townsend and Townsend (2004) argued that sustainable development outcomes require the simultaneous addressing of technical, social, economic, and environmental dimensions, as these are deeply interconnected in the lived realities of communities. Multidisciplinary community service models, which integrate expertise from diverse academic and professional domains, are better positioned to capture this complexity and deliver comprehensive support.

In the Indonesian academic context, community service (*pengabdian kepada masyarakat*) is a mandated dimension of higher education institutional responsibility, reflecting the Tri Dharma Perguruan Tinggi framework that integrates education, research, and community service. Recent scholarship has increasingly called for such community service initiatives to adopt interdisciplinary frameworks that maximize their developmental impact and scholarly contribution (Huda et al., 2020). This article responds to this call by presenting a model that systematically integrates five disciplinary perspectives into a coherent community service program and rigorously documents the interaction effects among components.

Food Processing, Digital Literacy, and Business Management for Diaspora Communities

Food-based entrepreneurship occupies a central place in the livelihood strategies of many diaspora communities, as culinary traditions serve simultaneously as cultural expression and economic resource (Ray, 2016). For Minangkabau diaspora members, the preparation and commercialization of traditional foods such as *rendang*, *lemang*, and various fermented fish products represent both cultural continuity and entrepreneurial opportunity. Technical training in food processing, preservation, and product diversification can therefore unlock significant value for these communities.

Concurrently, the digital transformation of commerce has created both opportunities and challenges for small-scale diaspora entrepreneurs. Digital marketing platforms, e-commerce ecosystems, and digital payment systems offer unprecedented reach to potential customers, but require specific competencies that many diaspora entrepreneurs currently lack (Rahayu and Day, 2015). Bridging this digital divide through targeted training in digital literacy and online business management is thus an essential component of contemporary diaspora empowerment programs.

Psychosocial Well-being and Geographical Literacy in the Diaspora Context

Migration inherently involves psychosocial stressors including cultural adjustment, language barriers, social isolation, and identity negotiation. Scholarly work on diaspora mental health has consistently identified elevated rates of anxiety, depression, and acculturative stress among migrant populations (Berry et al., 2006). Addressing these psychosocial dimensions is not merely a welfare concern but is also directly relevant to entrepreneurial performance, as psychological resilience and emotional well-being are well-established predictors of entrepreneurial persistence and success (Shepherd, 2003).

Geographical literacy — the understanding of spatial relationships, environmental systems, and place-based knowledge — is increasingly recognized as a fundamental competency for navigating complex social and economic environments (National Geographic Society, 2012). For diaspora communities, geographical literacy encompasses not only knowledge of the physical environment of their host country but also an understanding of transnational spatial dynamics, supply chain geographies, and the mobility patterns that connect diaspora members with their communities of origin.

METHODS

Research Design and Participatory Framework

This community service initiative employed a participatory action research (PAR) framework, integrating cyclical processes of needs assessment, collaborative planning, action, and critical reflection. PAR was selected because it aligns with the empowerment philosophy underpinning the program, ensuring that community members' perspectives and priorities directly shape the design and implementation of interventions (Kemmis & McTaggart, 2005). The initiative ran from January to June 2024, spanning six months from preliminary needs assessment through program closure and evaluation.

Participant Selection and Demographics

The target community consisted of registered members of the Minang Saiyo Padang Pariaman association in Malaysia, with households residing primarily in the Klang Valley region (Kuala Lumpur, Selangor, and Putrajaya). Eligibility criteria required that participants (1) be registered members of the association, (2) be at least 18 years of age, and (3) be engaged in or aspiring to develop an entrepreneurial activity. Purposive sampling was employed to ensure representation across gender, length of residence in Malaysia, and business development stage.

A total of 63 participants were enrolled across all program components. Figure 1 presents participant demographic characteristics.

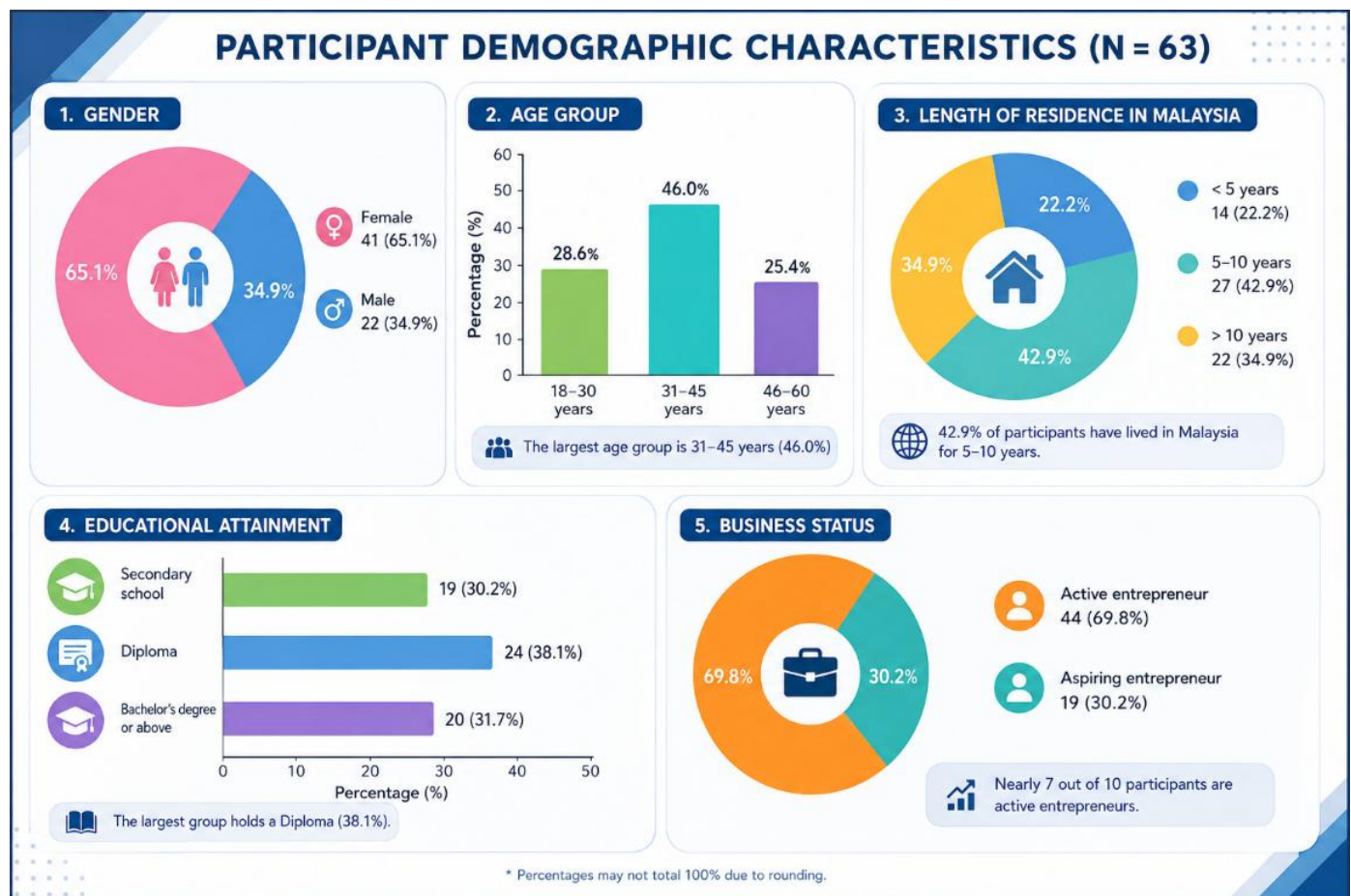


Figure 1. Participant Demographic Characteristics (N = 63)

Needs Assessment

A comprehensive needs assessment was conducted during January 2024 using a mixed-methods approach. Quantitative data were gathered through a 45-item structured questionnaire covering: (a) food processing

knowledge and practices, (b) digital literacy and online marketing competency (adapted from the Digital Competence Framework, DigComp 2.1), (c) business management practices, (d) psychological well-being assessed using the validated Kessler Psychological Distress Scale (K-10; Kessler et al., 2002), and (e) geographical knowledge of Malaysia’s administrative, economic, and environmental features.

Qualitative data were gathered through three focus group discussions (FGDs), each lasting approximately 90 minutes, with homogeneous groups: established entrepreneurs (n = 15), emerging entrepreneurs (n = 12), and community members not yet engaged in entrepreneurial activities (n = 10). FGDs were audio-recorded with participants’ consent and transcribed verbatim for thematic analysis.

Needs assessment findings provided the empirical foundation for program design. Key findings included: 74% of participants had limited knowledge of systematic food processing and preservation; 77% reported minimal experience with social media marketing and e-commerce; only 31% maintained any form of financial records; K-10 scores placed 38% of participants in the moderate-to-high distress category; and geographical knowledge assessments revealed limited familiarity with supply chain routes, regional market dynamics, and environmental regulations in Malaysia.

These findings are consistent with documented challenges among fisheries-based MSME communities in other parts of Gorontalo provinces, where surveys have similarly revealed limited experience in implementing sanitation and hygiene standards across processing units, including the handling of raw materials, cross-contamination prevention, cleaning facility management, and waste disposal (Nento et al., 2024). Such systemic gaps underscore the necessity of integrating food safety and hygiene education as a non-negotiable foundation of any fisheries processing capacity-building program.

Program Components, Duration, and Activities

Based on the needs assessment, the program was structured around five integrated components delivered across 5 total sessions. Each component was led by a disciplinary expert from the collaborative team but was implemented with deliberate cross-referencing to other components, reinforcing integrative learning. Table 1 provides a detailed overview.

Table 1. Detailed Program Component Overview

Component	Lead Expert	Key Activities
Food Processing & Product Innovation	Wila Rumina Nento	Vacuum packaging; fermented fish processing; product diversification; halal certification standards; food safety protocols; sensory evaluation
Digital Literacy & English Communication	Nurrahma Restia Fatkhiyati	Social media business accounts; content creation in English and Malay; SEO fundamentals; e-commerce platform navigation; WhatsApp Business setup
Digital Business Management	Linofal Fakhrin	Financial record-keeping; mobile accounting apps; inventory management; pricing strategy; cooperative enterprise models; digital business plan drafting
Mental Health & Psychosocial Support	Utami Nurhafsari Putri	Acculturative stress psychoeducation; identity affirmation; stress management techniques; peer support facilitation; resilience workshops
Geography & Spatial Literacy	Fitriani Yulianti & Novia Zalmata	Malaysia’s administrative and economic geography; supply chain mapping; transnational mobility mapping; environmental regulation literacy

Evaluation Instruments and Data Analysis

Program evaluation employed a pre-test/post-test design to measure changes in participant knowledge, skills, and psychosocial outcomes across all five domains. Domain-specific assessment instruments were developed or adapted for each component:

- Food Processing Knowledge Test (FPKT): 20-item instrument assessing knowledge of preservation techniques, food safety regulations, and product quality standards (Cronbach's $\alpha = 0.81$).
- Digital Marketing Self-Efficacy Scale (DMSES): 15-item Likert-scale instrument adapted from Bandura's (1997) self-efficacy framework, measuring confidence in specific digital marketing tasks ($\alpha = 0.84$).
- Business Management Practices Checklist (BMPC): 10-item observational checklist documenting adoption of formal business practices including record-keeping, pricing systems, and inventory management.
- Kessler Psychological Distress Scale (K-10): Validated 10-item instrument measuring psychological distress over the past 30 days, with established cut-off scores for distress severity categories (Kessler et al., 2002; $\alpha = 0.87$).
- Geographical Knowledge Assessment (GKA): 25-item instrument assessing knowledge of Malaysian administrative geography, supply chain routes, and environmental regulations ($\alpha = 0.79$).

Quantitative data were analyzed using IBM SPSS Statistics v.26. Descriptive statistics (means, standard deviations, frequencies) were computed for all outcome variables. Paired-samples t-tests were conducted to assess statistical significance of pre-to-post changes, with $p < 0.05$ as the significance threshold and Cohen's d used to estimate effect sizes. Qualitative data from FGDs and 15 purposively sampled exit interviews were transcribed and analyzed through thematic analysis following Braun and Clarke's (2006) six-phase framework, with independent coding by two team members and consensus discussion to resolve interpretive differences. Triangulation across quantitative and qualitative data sources was employed throughout to strengthen the credibility of findings.

RESULTS AND DISCUSSION

Food Processing Competency Enhancement

Pre-to-post assessment of food processing knowledge demonstrated a statistically significant and practically meaningful improvement among participants. Mean FPKT scores rose from 42.3 (SD = 8.7) pre-program to 68.7 (SD = 7.4) post-program, representing a mean increase of 26.4 points (62.4%; $t(62) = 18.43$, $p < 0.001$, $d = 2.32$). All participants showed improvement, with no negative change scores recorded.

Qualitative data from exit interviews provided rich texture to these quantitative results. A representative testimonial from a 38-year-old female participant who sells traditional Minangkabau foods illustrated the practical relevance of the training:

"Before the training, I just wrapped my dendeng in plastic like everyone else. Now I know about vacuum packaging and why it matters for shelf life. I tested it and my product lasts three times longer without losing taste. Customers have started asking for it specifically because it looks more professional."

Participants also developed an average of 2.3 new product variants per business during the training period, with halal certification applications submitted by three business owners by program conclusion. These concrete behavioral outcomes confirm that the food processing component delivered skills that participants were able to apply immediately in their entrepreneurial contexts.

Digital Literacy and Online Marketing Capabilities

Digital marketing self-efficacy showed dramatic improvement following the training component. DMSES mean scores increased from 28.4 (SD = 6.2) to 61.7 (SD = 8.1) on a 75-point scale ($t(62) = 22.87, p < 0.001, d = 2.88$), with the proportion of participants reporting confidence in social media marketing rising from 23% to 79%. Observable behavioral indicators corroborated these self-reported changes: all 63 participants launched or significantly revamped business social media accounts during the program, and 39 participants (61.9%) registered for at least one e-commerce platform.

The integration of English language communication skills into digital marketing training produced a notable multiplier effect. A participant who sells homemade sambal and pekasam products recounted:

“I never thought I could write in English to promote my food. But after the training, I wrote my first Instagram caption in English and it got shared to some Indonesian groups in Singapore. I received five new orders that week from people I’ve never met.”

Across the cohort, participants combined social media business pages had accumulated a mean of 847 followers (range: 120–3,200) by program conclusion, providing a tangible baseline for ongoing digital marketing engagement.

Business Management Practices

Business management training produced significant improvements in formal practice adoption. The BMPC documented an increase in formal record-keeping from 31% ($n = 20$) to 71% ($n = 45$) of participants, representing a gain of 40 percentage points. Paired t-test analysis of the BMPC total score confirmed statistical significance ($t(62) = 14.61, p < 0.001, d = 1.84$). Notably, mobile accounting application adoption rose from 8% to 54% of participants.

The cooperative business model sessions catalyzed community-level organizing that exceeded program expectations. By program conclusion, 22 participants had established an informal “Kelompok Usaha Bersama” (collective business group) for joint purchasing of packaging materials, reducing per-unit costs by an estimated 18–24% according to participants’ own cost comparisons. A group leader commented during the exit interview:

“We realized we were all buying the same things separately and spending more than we needed to. Now we order together. We also share a display booth at the Malaysian-Indonesian cultural market once a month. It came from what we learned about cooperative models in the training.”

Psychosocial Well-being and Mental Health

K-10 pre-to-post comparisons revealed a statistically significant reduction in psychological distress. The proportion of participants scoring in the moderate-to-high distress categories (K-10 score ≥ 20) declined from 38.1% ($n = 24$) pre-program to 19.0% ($n = 12$) post-program. Mean K-10 total scores decreased from 22.1 (SD = 5.8) to 17.3 (SD = 5.1), indicating a meaningful shift toward better psychological well-being ($t(62) = 7.34, p < 0.001, d = 0.92$).

Qualitative data illuminated the mechanisms behind this improvement. Participants consistently identified the peer support dimension of the mental health sessions as particularly impactful. A 45-year-old female participant who had resided in Malaysia for 12 years shared:

“For years I carried the feeling of being between two places — not fully here, not fully there anymore. In the counseling sessions, I understood this has a name, it is normal, and others feel it too. It sounds simple but it changed how I see myself here.”



Figure 2. Providing mental health counseling services

Facilitators observed that reduced psychosocial distress was accompanied by increased participation rates in subsequent sessions of other program components, suggesting that the mental health component may have served a facilitative function for learning across domains — a cross-component interaction effect explored further in Section 4.6.

Geographical Literacy and Spatial Understanding

GKA pre-to-post comparisons showed a mean increase from 41.2 (SD = 9.3) to 63.7 (SD = 8.8) out of 100 (mean gain: 22.5 points; 54.7%; $t(62) = 13.28, p < 0.001, d = 1.67$). Participants demonstrated notably stronger post-program knowledge of Malaysian state administrative boundaries, economic zone designations relevant to food business licensing, and regional variation in consumer markets.

The transnational mobility mapping exercise, in which participants collaboratively visualized their own supply chains, social networks, and migration routes, generated the most consistently cited qualitative feedback of any single program activity. A participant operating a Minangkabau restaurant remarked:

“When we drew our map together, I saw for the first time how connected we all are — who gets supplies from Padang, who sells to Johor, who has family in Singapore that could be customers. The geography sessions made me see our community as a network, not just as neighbors.”

Component Interactions and Integrated Outcomes

A key concern raised by reviewers of integrated intervention models is the extent to which disciplinary components interact to produce outcomes beyond what each could achieve independently. Analysis of facilitator observation journals, participant reflections, and exit interview data revealed four identifiable patterns of cross-component interaction in this program.

First, the mental health component functioned as an enabling foundation for other learning. Facilitators documented that participants who showed greater reduction in psychological distress (K-10 decline > 5 points) between the first and third month also showed higher engagement rates and assessment score gains in the food processing and digital literacy components. This pattern suggests that addressing psychosocial barriers to learning is a precondition for maximizing technical skill acquisition in diaspora settings.

Second, the geography component amplified the practical utility of the business management content. Participants who completed the spatial mapping exercises reported applying geographical knowledge directly to decisions about market targeting, supplier sourcing, and logistics planning — topics formally covered in the business management component but enriched by spatial literacy. Exit interview data indicated that 28 participants (44.4%) explicitly referenced geographical knowledge when describing how they planned to expand their business reach.

Third, digital literacy skills reinforced the geographical literacy component’s emphasis on transnational networks. Participants applied their newly developed social media and e-commerce skills to connect with diaspora networks in states and countries identified through the mobility mapping exercises, effectively operationalizing spatial knowledge through digital channels.

Fourth, the food processing innovations stimulated demand for digital marketing skills, as participants who developed new or improved products felt motivated to promote them online. This bidirectional reinforcement between product innovation and digital promotion represents a form of entrepreneurial synergy that emerged organically from the integrated program structure rather than from explicit curriculum design.

Table 2. Summary of Key Quantitative Outcomes Across Program Components

Component / Outcome	Pre-test M (SD)	Post-test M (SD)	% Change	p-value	d
Food Processing (FPKT /100)	42.3 (8.7)	68.7 (7.4)	+62.4%	< 0.001	2.32
Digital Marketing Self-Efficacy (DMSES /75)	28.4 (6.2)	61.7 (8.1)	+117.3%	< 0.001	2.88
Business Management (BMPC /10)	3.1 (1.4)	7.1 (1.2)	+129.0%	< 0.001	1.84
Psychological Distress (K-10; lower = better)	22.1 (5.8)	17.3 (5.1)	-21.7%	< 0.001	0.92
Geographical Knowledge (GKA /100)	41.2 (9.3)	63.7 (8.8)	+54.7%	< 0.001	1.67

Note. M = mean; SD = standard deviation; d = Cohen's d effect size; FPKT = Food Processing Knowledge Test; DMSES = Digital Marketing Self-Efficacy Scale; BMPC = Business Management Practices Checklist; K-10 = Kessler Psychological Distress Scale; GKA = Geographical Knowledge Assessment.

DISCUSSION

The findings of this initiative carry several important implications for the theory and practice of diaspora community empowerment. First, the participatory approach centered on rigorous needs assessment proved essential for tailoring program content to the specific realities of the Minang Saiyo community in Malaysia. The quantitative and qualitative needs assessment data that identified the particular salience of psychosocial dimensions alongside technical skill gaps directly shaped the program’s component weighting — a finding that might not have emerged from a purely expert-driven program design process. This underscores Freire’s (1970) argument that community voice must genuinely shape, rather than merely validate, development program content.

Second, the large effect sizes observed across all five outcome domains (Cohen’s d ranging from 0.92 to 2.88) provide strong empirical support for the efficacy of the integrated model. The particularly large effects observed for digital marketing self-efficacy (d = 2.88) and food processing knowledge (d = 2.32) likely reflect the substantial prior gap in these competencies documented in the needs assessment, combined with the practical, hands-on nature of the training activities. The smaller but still large effect for psychological distress (d = 0.92) is consistent with the broader literature on community-level psychosocial interventions for migrant populations (Berry et al., 2006), suggesting the program achieved meaningful mental health outcomes within the constraints of a non-clinical setting.

Third, the cross-component interaction patterns identified in Section 4.6 provide direct evidence for the

synergistic value of integration that distinguishes this model from parallel or sequential single-discipline programs. The finding that mental health improvements appeared to facilitate learning gains in other components aligns with Eccles and Wigfield's (2002) motivational research and suggests that psychosocial support should be positioned as a foundational rather than supplementary element in future diaspora empowerment programs. The bidirectional reinforcement between food product innovation and digital marketing ambition similarly illustrates how integrated program structures can generate entrepreneurial dynamics not predictable from the individual components in isolation.

Fourth, the emergence of spontaneous community-driven structures — including the informal cooperative purchasing group and peer support networks — beyond the explicit scope of the program indicates the catalytic potential of well-designed integrated interventions. When community members gain confidence, skills, and a strengthened collective identity simultaneously, they are likely to exercise these assets in self-determined ways that extend well beyond the program's original design. This emergent community agency represents perhaps the most compelling evidence of genuine empowerment as conceptualized by Zimmerman (2000).

Fifth, the participant demographic profile — predominantly female (65.1%), middle-aged, with 5–10 years of Malaysian residence — suggests that future iterations of the model should consider whether gender-differentiated content or delivery formats might further enhance outcomes. Women-owned food businesses in diaspora contexts face distinctive market access and safety certification challenges that merit specific curriculum attention (ILO, 2019). Similarly, the significant proportion of aspiring rather than active entrepreneurs (30.2%) underscores the importance of designing program content that is accessible to participants at diverse points along the entrepreneurial journey.



Figure 3. Group photo session with community service participants

This study has several limitations that should be acknowledged. The absence of a control group means that observed changes cannot be definitively attributed to program participation rather than to contemporaneous external factors. The pre-test/post-test interval of five months may be insufficient to capture the full trajectory of competency development, particularly for business management and geographical literacy dimensions that typically consolidate over longer periods. Future research should employ longitudinal follow-up designs and, where feasible, quasi-experimental comparison group designs to strengthen causal inference.

CONCLUSION

This article has presented and empirically evaluated an integrated community empowerment model designed and implemented for the Minang Saiyo Padang Pariaman diaspora community in Malaysia. By bringing together expertise in food processing technology, digital literacy and English communication, digital business management, guidance and counseling, and geography education within a participatory action research framework, the initiative achieved statistically significant improvements across all five targeted outcome domains, with large effect sizes that confirm the practical meaningfulness of program impact.

The program's most distinctive contribution lies in its demonstration of cross-component synergies: the mental health component facilitated learning outcomes in technical domains; geographical literacy enriched business strategy; digital marketing skills operationalized spatial network knowledge; and product innovation motivated digital promotion. These interaction effects, documented through both quantitative indicators and qualitative testimonials, constitute evidence that integrated, holistic intervention models can achieve outcomes not accessible through the additive combination of separate discipline-specific programs.

The findings contribute to a growing body of scholarship advocating for community-centered, multidisciplinary approaches to diaspora development, and suggest several directions for future research and practice. Longitudinal follow-up studies assessing the sustainability of competency gains and realized business development outcomes over 12 to 24 months are needed. Comparative research across different diaspora communities in Malaysia and the broader Southeast Asian region would help identify context-specific factors mediating integrated model effectiveness. Component dismantling studies, in which specific elements are systematically varied across community cohorts, would enable more precise identification of the most impactful program elements and their interaction mechanisms. Additionally, the development of formal community-university partnership structures — as indicated by community leaders' expressed interest following this program — represents a promising institutional mechanism for sustaining diaspora empowerment beyond discrete program cycles.

The Minang Saiyo community's engagement, resilience, and entrepreneurial aspirations served as the foundation and inspiration for this initiative. It is hoped that the empirically grounded model presented here will contribute to the strengthening of not only this community but also the broader ecosystem of support for diaspora communities whose contributions to Malaysian society and to their communities of origin merit greater recognition and investment.

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