 e-ISSN 2682-7727 https://doi.org/10.17576/geo-2026-2203-16

Economic empowerment through targeted training: Insights from the underprivileged population in Kedah, Malaysia

Ida Normaya Mohd Nasir[1], Junaida Ismail[2], Nor Ardyanti Ahmad[2], Intan Syahriza Azizan[2], Etty Harniza Harun[3]

[1]Faculty of Computer and Mathematical Sciences,
Universiti Teknologi MARA Cawangan Kedah, Kampus Sungai Petani
[2]Faculty of Administrative Science and Policy Studies,
Universiti Teknologi MARA Cawangan Kedah, Kampus Sungai Petani
[3]Faculty of Business and Management, Universiti Teknologi MARA Cawangan Kedah, Kampus Sungai Petani

Correspondence: Ida Normaya Mohd Nasir (email: normaya@uitm.edu.my)

Received: 3 March 2025; Accepted: 1 May 2026; Published: 26 August 2026

Abstract

Vocational training is a critical tool for poverty alleviation. However, a research gap persists regarding how localized socioeconomic variations, and intersectional barriers affect program success in rural Malaysia. This study addresses this by analyzing the training needs of 748 underprivileged participants in Kedah, where 71.3% earn below RM2,208 monthly and encounter significant educational hurdles. Using a quantitative analysis, the research identifies that while 41.2% of participants aim to improve current employment, 36.2% seek to generate extra income. Regional differences are stark; for example, in the Sik district, 55.9% prioritize supplementary income. Vocational demand is highest for food preparation (49.20%), followed by agriculture (16.30%–18.05%) and technology-based skills (8.15%–10.63%). Entrepreneurship interests emphasize business opportunity identification (38.28%) and online business development (35.37%). The study contributes a "hyper-localized" framework for economic empowerment, reconciling traditional livelihoods with modern digital entrepreneurship. By mapping specific regional priorities, the findings provide a scalable blueprint for policymakers to design culturally responsive programs that advance United Nations Sustainable Development Goals 1 and 8. These insights are vital for reducing systemic disparities, addressing intersectional barriers, and fostering sustainable self-sufficiency within Malaysia's marginalized communities. Integrating digital tools and context-specific strategies ensures equitable access and long-term economic resilience for the underprivileged.

Keywords: Digital literacy, economic empowerment, entrepreneurship development, skill development programs, targeted training programs, underprivileged populations

Introduction

Economic empowerment is not just a pathway out of poverty, it is a cornerstone of sustainable development. Yet, for millions of underprivileged individuals worldwide, systemic barriers continue to block access to opportunities for growth and self-sufficiency. In Malaysia, despite decades of economic progress, disparities persist, with nearly 1 in 5 households in rural areas living below the national poverty line (Department of Statistics Malaysia, 2022). This is notably evident in Kedah, where high poverty rates are linked to limited vocational skills and entrenched inequality (Mohd Yusof et al., 2022). A significant research gap remains: existing literature focuses heavily on macro-level trends, failing to address the specific tension between traditional livelihoods and the emerging necessity for digital literacy in localized settings (Zawawi et al., 2024). Furthermore, current frameworks often overlook district-level nuances and intersectional barriers (Syahirah et al., 2025).

Kedah serves as a microcosm of broader challenges faced across Malaysia, making it a critical site for understanding how targeted interventions can address entrenched disparities. The state’s reliance on traditional agriculture and informal employment reflects wider trends in rural Malaysia, where economic transformation has lagged urban centers. This study examines the unique needs of Kedah's underprivileged populations to identify scalable strategies for reducing poverty and promoting inclusive growth. These efforts align with the United Nations Sustainable Development Goals (SDGs), particularly Goal 1 (No Poverty) and Goal 8 (Decent Work and Economic Growth), which stress the importance of equipping marginalized communities with the tools they need to thrive (United Nations, 2023).

Targeted training programs have emerged as a promising intervention to bridge these gaps, offering pathways to improved livelihoods through vocational training, entrepreneurship development, and financial literacy. However, the success of such initiatives hinges on their ability to address the specific cultural, financial, and structural barriers faced by marginalized groups. For example, Patel and Kumar (2022) highlight that training programs must be culturally responsive and context-specific to ensure relevance and sustainability. Understanding the motivations, vocational interests, and entrepreneurship needs of underprivileged populations is therefore essential for designing interventions that are both impactful and scalable.

To better understand the dynamics of economic empowerment through targeted training, this study draws on existing literature that explores the motivations, vocational interests, and entrepreneurship needs of underprivileged populations. Recent research underscores the importance of aligning training programs with local economic conditions and individual aspirations, as well as integrating innovative approaches such as digital literacy and green economy skills (Smith & Lee, 2023). Additionally, studies emphasize the transformative potential of entrepreneurship training in empowering low-income households, particularly in rural areas, by equipping them with tools to navigate modern business environments (Othman et al., 2022). The following literature review synthesizes these findings to provide a comprehensive foundation for analyzing the role of targeted training programs in promoting economic empowerment among marginalized communities in Kedah, Malaysia.

Literature review

Training and economic empowerment

Training programs are widely recognized as critical tools for economic empowerment, particularly among underprivileged populations. These initiatives aim to enhance livelihoods by equipping individuals with skills to improve employability, foster entrepreneurship, and adapt to evolving labor market demands (Ahmad et al., 2023; Tan & Lim, 2022). Recent studies emphasize the importance of context-specific training that aligns with local economic conditions and individual aspirations. For instance, Smith and Lee (2023) argue that skill development must transcend traditional vocational training to incorporate digital literacy and green economy skills, reflecting global labor market trends. Similarly, Othman et al. (2022) highlight the transformative potential of entrepreneurship training in empowering low-income households, particularly in rural areas.

However, while these studies advocate for innovative approaches, there is a notable gap in addressing how such programs can be effectively scaled and sustained in resource-constrained settings. Additionally, contradictions arise regarding the balance between traditional livelihoods and emerging opportunities. For example, while Patel and Kumar (2022) stress the need to modernize traditional practices through technology, others caution against overshadowing culturally rooted skills that remain economically viable (Garcia et al., 2023). This tension underscores the need for hybrid models that integrate both pathways without alienating participants from their existing competencies.

Motivations for pursuing training

Economic advancement is consistently identified as the primary driver for training participation among marginalized communities. Studies by Ahmad et al. (2023) reveal that individuals prioritize training to enhance employability or generate supplementary income. Entrepreneurship training is also highlighted as a pathway out of poverty, fostering not only individual livelihoods but also broader community development. Regional variations in motivations further underscore the necessity of localized strategies. For instance, Smith and Lee (2023) emphasize tailoring programs to regional economic contexts, while Roberts and Khan (2022) highlight the influence of socio-cultural factors on training preferences.

Despite these insights, significant gaps remain in understanding the intersectional barriers faced by underrepresented groups, such as women and ethnic minorities. While some studies explore gender-responsive training (Wilson & Ahmed, 2023), few address systemic biases that limit access to resources for these populations. Furthermore, there is limited exploration of how motivations evolve over time, particularly in response to external shocks like economic downturns or technological disruptions.

Vocational interests and skills development

Vocational interests among underprivileged populations often reflect a blend of traditional livelihoods and emerging opportunities. Recent research highlights the effectiveness of integrating digital tools into vocational curricula, as demonstrated by Patel and Kumar (2022), who found improved learning outcomes and confidence among urban youth. Similarly, Anderson et al. (2023)

showcase the potential of virtual reality (VR) simulations in enhancing skill acquisition and retention.

Nevertheless, these advancements raise questions about accessibility and equity. While technology-driven approaches hold promise, they risk exacerbating disparities if not accompanied by measures to address infrastructure gaps and digital literacy deficits. Moreover, the focus on high-demand sectors like food preparation and agriculture (Williams et al., 2023) sometimes overlooks niche industries that could drive innovation within marginalized communities. This oversight suggests a need for more granular analyses of local economies to identify untapped opportunities.

Entrepreneurship training needs

Entrepreneurship training has emerged as a powerful tool for fostering economic self-sufficiency among underprivileged populations. Recent studies highlight the importance of holistic approaches that go beyond traditional business skills to include financial literacy, digital tools, and resilience-building (Martinez et al., 2022). Mentorship and peer support systems are also emphasized as critical components, with Kumar and Singh (2023) demonstrating their role in sustaining entrepreneurial ventures over time.

Despite these advances, significant gaps persist in addressing the needs of underrepresented groups. For example, while Thompson and Lee (2023) explore mobile-based learning platforms for rural communities, fewer studies examine how such innovations can be adapted for individuals with limited digital literacy. Additionally, the lower prioritization of advanced topics like crowdfunding and digital payment technologies (Patel & Okafor, 2022) highlights a disconnect between training content and the skills required for global market participation. This gap points to the need for more inclusive and forward-looking curricula that anticipate future challenges and opportunities.

Methodology

The study employed a simple random sampling technique to select 748 participants from the underprivileged population across the Baling, Bandar Baharu, Kulim, and Sik districts in Kedah. The sample size was justified by significantly surpassed the minimum requirement of 384 respondents recommended by the Krejcie and Morgan formula for large populations at a 95% confidence level (Magli et al., 2021). It also exceeded the 398 respondents required by the Yamane formula often used in socio-economic research (Duasa & Thaker, 2016).

Data were collected using a structured questionnaire designed to capture information on training needs, preferences, and perceived barriers. The questionnaire was developed through a systematic and iterative process to ensure its relevance and alignment with the study’s objectives. This process began with a comprehensive literature review to identify key themes such as motivations for training, vocational interests, and intersectional barriers (Patel & Okafor, 2022; Smith & Lee, 2023). An initial draft underwent expert review who provided feedback on clarity and relevance, leading to the revision of ambiguous or redundant questions. To further refine the instrument, a pilot test was conducted with 30 participants from the target population to assess comprehensibility. Feedback from this phase highlighted the need to simplify technical terms to enhance accessibility for individuals with limited formal education.

To ensure the instrument's reliability and validity, content validity was established through expert review, while face validity was confirmed during pilot testing, where participants found the questions clear and meaningful. Reliability testing yielded a Cronbach's alpha of 0.87, indicating strong internal consistency, and exploratory factor analysis supported the construct validity of the questionnaire by confirming its hypothesized structure. Ethical considerations were rigorously upheld throughout the process; informed consent was obtained, participant confidentiality was maintained through unique identifiers, and sensitive topics were framed neutrally to minimize potential harm (Ahmad, 2023; Syahirah et al., 2025).

Results

The results of this study provide valuable insights into the motivations, vocational interests, and entrepreneurship training needs of underprivileged populations in Kedah, Malaysia. These results are discussed in the context of their implications for designing targeted economic empowerment initiatives.

Demographic profile

Table 1 provides a comprehensive demographic profile of the participants in the study, offering critical insights into the characteristics of the underprivileged population in Kedah. The demographic profile of the 748 participants revealed a population facing significant socioeconomic hurdles, predominantly characterized by female respondents and middle-aged individuals. Females accounted for the majority of the sample (59.0%), which suggested a higher degree of economic vulnerability or a greater inclination toward community-based empowerment initiatives among women in rural Kedah (Zawawi et al., 2024; Wilson & Ahmed, 2023). The age distribution skewed toward the 41 to 50 age bracket (27.8%), indicating that participants were largely in a life stage where securing long-term financial stability for their households was a critical priority (Yusof et al., 2022). Geographically, the strong representation from Kulim (40.6%) and Baling (25.1%) underscored the regional concentration of underprivileged households within both the industrial and rural fringes of the state (Mohd Yusof et al., 2022).

Educational attainment served as a stark indicator of systemic barriers, as nearly half of the respondents (43.6%) possessed only secondary-level qualifications, while a smaller but significant segment reported no formal schooling at all (Zawawi et al., 2024). This limited formal education correlated with the high prevalence of informal employment; the majority of participants were either self-employed (39.2%) or currently not working (24.7%) (Syahirah et al., 2025). Within the entrepreneurial group, the heavy concentration in the food and beverage sector (31.6%) highlighted a reliance on accessible, traditional vocational skills rather than specialized or high-tech industries (Smith & Lee, 2023; Tan & Lim, 2022). Most critically, the income data confirmed widespread economic distress, as 71.3% of participants earned less than RM2,208 monthly, placing them well below the national median and emphasizing the urgent necessity for the "hyper-localized" interventions explored in this study (Johnson & Ali, 2023). These findings suggested that any successful training framework must be accessible to individuals with limited educational backgrounds and tailored to support those already engaged in the informal economy (Syahirah et al., 2025).

Table 1. Demographic profile of participants

Characteristics	Frequency	Percentage (%)
Gender		
Male	248	34.8
Female	420	59.0
Age category		
<20	25	3.5
21-30	121	17.0
31-40	154	21.6
41-50	198	27.8
51-60	146	20.5
>60	59	8.3
District		
Baling	179	25.1
Bandar Baharu	86	12.1
Kulim	289	40.6
Sik	158	22.2
Marital status		
Single	109	15.3
Married	550	77.2
Divorced/Widow/Widower	46	6.5
Highest education attained		
No School	21	3.0
Primary School	103	14.5
LCE/SRP/PMR/PT3	110	15.5
MCE/SPM/SPMV	309	43.6
STPM/STAM/Sijil	54	7.6
Diploma	60	8.5
Bachelor's degree	48	6.8
Master's and above	3	0.4
Occupation		
Not working	176	24.7
Government Sector	34	4.8
Private Sector	63	8.8
Pensioner	31	4.4
Own Business	279	39.2
Others	118	16.6
Business sector (If own business)		
Retail/Wholesale	38	5.3
Manufacturing/Manufacturing	23	3.2
Services	60	8.4
Construction	12	1.7
Food/Beverage	225	31.6
Others	117	16.4

Monthly income (Individual)		
< RM2,208	508	71.3
RM2,209 to RM4,849	102	14.3
RM4,850 to RM10,959	17	2.4
Above RM10,960	3	0.4

Source: Authors' data analysis, 2025

Motivations for pursuing training

The distribution of responses regarding the motivations for pursuing training among the underprivileged population in Kedah, as detailed in Table 2, reveals a strong emphasis on economic advancement. A plurality of respondents (41.2%) indicated a desire to improve their current business or job performance, reflecting a focus on enhancing existing skills for career progression and professional growth. This motivation was the most prevalent among the surveyed population, with 283 individuals citing it as their primary reason for seeking training. A substantial proportion (36.2%) sought training to earn extra income, highlighting the pressing need for supplementary income streams to alleviate economic hardship and improve household financial stability.

Entrepreneurial aspirations were also evident, with 20.1% of respondents aiming to start a business. This indicates a desire for greater economic autonomy and self-reliance, which could serve as a pathway out of poverty through entrepreneurship. Additionally, a small percentage (2.5%) cited other reasons, suggesting a range of individual motivations beyond the primary economic drivers captured in the data. These findings collectively underscore the diverse economic needs of the underprivileged population in Kedah.

Table 2 provides a clear breakdown of these motivations, emphasizing the importance of designing training programs that address the varied priorities of the population. For instance, the high demand for improving existing businesses or jobs (41.2%) suggests the need for skill-enhancement programs tailored to specific industries or occupations. Similarly, the significant interest in earning extra income (36.2%) highlights the importance of equipping individuals with practical, income-generating skills, such as those related to micro-enterprises or part-time opportunities. The entrepreneurial aspirations of 20.1% of respondents further reinforce the need for business development support, including mentorship, financial literacy, and access to startup resources.

Table 2. Motivations for pursuing training

Motivations for pursuing training	Frequency	Percentage (%)
Improving the level of business or existing jobs	283	41.2
Earn extra income	249	36.2
Starting a business	138	20.1
Others	17	2.5

Source: Authors' data analysis, 2025

These motivations align with prior research emphasizing the role of skill development programs in addressing economic disparities and fostering sustainable livelihoods (Ahmad et al., 2023; Othman et al., 2022). Notably, regional variations in motivations, such as the higher emphasis on earning extra income in Sik (55.9%), highlighted how district-level economic stagnation influenced individual aspirations differently than in more industrialized areas like Kulim (Tan & Lim, 2022; Zawawi et al., 2024).

However, to better understand the variations in motivations across districts, further analysis was conducted. Table 3 provides a detailed breakdown of the motivations for training among individuals in four districts in Kedah: Baling, Bandar Baharu, Kulim, and Sik. Notably, in Sik, 55.9% of respondents identified earning extra income as their primary motivation, significantly higher than the overall average of 36.2%. In contrast, improving existing businesses emerged as the dominant motivation in Baling (40.9%) and Kulim (52.1%). The Chi-Square test confirms that these regional differences are statistically significant (p-value=0.000), indicating that the observed variations are not due to chance but reflect genuine disparities in motivations across districts (Table 5). These findings underscore the importance of adopting region-specific strategies when designing training programs to effectively address the unique needs and priorities of each district.

Table 3. Motivations for training among individuals in four districts

			District				**Total**
			Baling	**Bandar Baharu**	**Kulim**	**Sik**	
Motivations for training	Starting a business	Count	42	16	55	25	138
		%	23.9%	19.0%	19.4%	17.5%	20.1%
	Improving the level of business or existing jobs	Count	72	29	148	34	283
		%	40.9%	34.5%	52.1%	23.8%	41.2%
	Earn extra income	Count	59	34	76	80	249
		%	33.5%	40.5%	26.8%	55.9%	36.2%
	Others	Count	3	5	5	4	17
		%	1.7%	6.0%	1.8%	2.8%	2.5%
Total		**Count**	**176**	**84**	**284**	**143**	**687**
		%	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Authors' data analysis, 2025

To gain a deeper understanding of the variation of motivation among employment, further investigation is conducted. Table 4 provides a comprehensive analysis of the motivations for training among individuals across six distinct employment categories: not working, government sector, private sector, pensioner, own business, and others. The motivations for pursuing training are categorized into four groups: starting a business, improving the level of business or existing jobs, earning extra income, and others.

Key findings from Table 4 reveal that motivations varied across employment categories. Among unemployed individuals, 39.9% cited starting a business as their primary motivation, compared to only 7.9% of self-employed respondents. Conversely, self-employed individuals prioritized improving existing operations (70.8%), highlighting the need for skill enhancement and business development support. The motivation to earn extra income was most common among unemployed individuals (45.4%) and private sector employees (53.2%), reflecting the financial pressures these groups face. These findings align with prior research on the role of skill development programs in addressing economic disparities and fostering sustainable livelihoods (Ahmad et al., 2023; Othman et al., 2022).

Table 4. Motivations for training among individuals across six distinct employment categories

			Employment						Total
			Not working	**Government sector**	**Private sector**	**Pensioner**	**Own business**	**Others**	
Motivation	Starting a business		65	3	8	7	22	28	133
		%	39.9%	9.1%	12.9%	23.3%	7.9%	24.8%	19.6%
	Improving the level of business or existing jobs		22	8	18	10	196	26	280
		%	13.5%	24.2%	29.0%	33.3%	70.8%	23.0%	41.3%
	Earn extra income		74	20	33	10	57	55	249
		%	45.4%	60.6%	53.2%	33.3%	20.6%	48.7%	36.7%
	Others		2	2	3	3	2	4	16
		%	1.2%	6.1%	4.8%	10.0%	0.7%	3.5%	2.4%
	Total		**163**	**33**	**62**	**30**	**277**	**113**	**678**
		%	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: Authors' data analysis, 2025

Table 5 confirms that the observed differences in motivation across employment categories are statistically significant (p-value = 0.000). This indicates that the variations are not random but reflect genuine disparities in motivations based on employment status. Overall, the data underscores the importance of designing tailored training programs that align with the specific motivations and needs of individuals in different employment categories. For instance, programs targeting Not Working individuals could focus on fostering entrepreneurship and providing foundational business skills. In contrast, initiatives aimed at Own Business Owners should emphasize strategies for improving existing operations and enhancing professional competencies. By addressing these group-specific priorities, policymakers and training providers can ensure that interventions are both relevant and effective in meeting the diverse needs of the workforce.

Table 5. Chi-Square test

Chi-Square test	Value	df	p-value
District	49.819	9	0.000
Employment	214.168	15	0.000

Source: Authors' data analysis, 2025

Vocational interests

The analysis of training preferences among Kedah's underprivileged population, as detailed in Table 6, reveals a diverse range of vocational interests that can inform targeted poverty reduction interventions. Culinary arts, specifically food preparation and cooking skills, demonstrate the highest demand, with 49.20% of respondents expressing interest (338 individuals). This strong preference suggests significant potential for income generation through food-based enterprises, aligning with the broader interest in food production and agriculture. For instance, frozen product manufacturing (18.05%) and livestock farming (16.30%) also rank highly, reflecting the continued importance of agriculture in rural livelihoods.

Notably, there is growing recognition of the potential of digital tools to modernize these practices. For example, 10.63% of respondents favored technology-based agriculture, and 8.15% sought instruction in gadget and internet technologies. These findings resonate with Patel and Kumar’s (2022) argument that integrating digital literacy into traditional livelihoods can enhance productivity and open new opportunities. Interest in service-sector skills, such as personal care services (8.01%) and café management (7.42%), further suggests untapped potential in industries driven by consumer trends. Niche interests, such as photography, video, and publishing (6.11%) and specialized agriculture like honeybee/kelulut farming (5.97%), highlight the need for tailored interventions that cater to specific skill development needs.

Table 6 provides a clear breakdown of these preferences, emphasizing the diversity of vocational interests among Kedah's underprivileged population. Collectively, these findings underscore the importance of adopting a multi-faceted approach to skills development. By addressing both traditional vocational pathways and emerging opportunities driven by technological advancements and evolving market demands, policymakers and program developers can design targeted interventions. Understanding these diverse training preferences enables the creation of programs that not only align with the aspirations of underprivileged communities in Kedah but also facilitate sustainable economic empowerment and long-term poverty alleviation.

Table 6. Vocational interests

Vocational interests	Frequency	Percentage (%)
Food preparation and cooking skills	338	49.20
Manufacturing of frozen products	124	18.05
Fish/Goat/Chicken farming (Laying/Meat)	112	16.30
Sewing and fashion skills	90	13.10
Technology-based agriculture	73	10.63
Gadget technology and internet technology	56	8.15
Hairdressing, spa and personal care, beauty consultant	55	8.01
Hipster restaurant/Café business	51	7.42
Photography, video and publishing	42	6.11
Livestock honeybee/Kelulut	41	5.97

Source: Authors’ data analysis, 2025

Entrepreneurship training needs

An analysis of desired entrepreneurship training topics among the underprivileged population in Kedah, as detailed in Table 7, highlights a strong demand for core business skills, digital literacy, and market access. The most frequently cited topics include business opportunity identification (38.28%) and online business development (35.37%), reflecting a significant interest in leveraging digital platforms to enhance economic activity. Building a recognizable brand (34.06%) also emerged as a key area of focus, underscoring the importance of brand equity in competitive markets.

Additionally, there is considerable demand for training in financial management and accounting (23.44%) and halal certification (22.71%), which highlights the need for regulatory compliance and sound financial practices, particularly in culturally specific contexts like Malaysia. Digital marketing (20.52%) and innovation/creativity in business (16.30%) further emphasize the growing recognition of digital skills and innovative thinking as critical components of entrepreneurial success.

Other notable areas of interest include networking (12.52%) and supply chain management (12.08%), which point to the need for effective resource mobilization and logistical planning. Human resource management (11.35%) and customer service (8.44%) were also prioritized, indicating an awareness of the importance of human capital and customer relations in sustaining business operations.

Finally, participants expressed forward-looking interests in digitizing business operations (5.82%), accessing international markets (4.51%), crowdfunding (3.64%), and adopting digital payment technologies (3.35%). These preferences suggest a willingness to embrace modern business practices and explore diverse funding and market expansion strategies. Collectively, these findings underscore the need for comprehensive entrepreneurship training programs that equip underprivileged individuals with the skills necessary to navigate the complexities of the modern business environment, both online and offline, while leveraging emerging technologies and market opportunities for economic empowerment.

Despite these promising insights, significant gaps remain in addressing the needs of underrepresented groups, such as women and ethnic minorities, who may face intersectional barriers to accessing training resources (Patel & Okafor, 2022). For instance, the lower prioritization of advanced digital skills, such as crowdfunding and digital payment technologies, suggests that additional efforts are needed to equip individuals with tools required for global market participation. These findings are corroborated by Wilson and Ahmed (2023), who advocate for gender-responsive entrepreneurship training programs that address systemic biases and promote equitable access to resources.

Table 7. Business management and entrepreneurship training

Entrepreneurship training	Frequency	Percentage (%)
Business opportunity	263	38.28
Online business	243	35.37
Own brand products	234	34.06
Financial management and accounting	161	23.44
Halal certificate and certification	156	22.71
Digital marketing	141	20.52
Innovation and creativity in business	112	16.30
Build a business network	86	12.52
Supply chain management / Suppliers	83	12.08
Human resource management	78	11.35
Customer service	58	8.44
Communication and personal skills	52	7.57
Digitization of business operations	40	5.82
Product market abroad	31	4.51
Crowdfunding	25	3.64
Digital payment technology	23	3.35

Source: Authors' data analysis, 2025

These findings highlight the need for inclusive, equitable, and sustainable training programs that address both individual aspirations and regional socioeconomic conditions. By prioritizing culturally responsive and localized solutions, policymakers and program developers can create interventions that enhance livelihoods and foster long-term community resilience and economic growth (United Nations, 2023). For example, integrating virtual reality (VR) simulations and artificial intelligence (AI)-driven tools into vocational and entrepreneurship training could enhance skill acquisition and retention among underprivileged learners (Anderson et al., 2023). Furthermore, combining skill development with financial inclusion initiatives, such as microfinance integration, could amplify the effectiveness of these programs, enabling marginalized groups to overcome systemic barriers and achieve greater economic autonomy (Chen & Martinez, 2022; Roberts et al., 2023).

Conclusion

This study contributes valuable insights to the discourse on poverty alleviation and economic empowerment by identifying the training needs of underprivileged populations in Kedah, Malaysia. The findings highlight the importance of designing inclusive, equitable, and sustainable training programs that address both individual aspirations and regional socioeconomic conditions. Culturally responsive and localized solutions are essential to creating interventions that enhance livelihoods and foster long-term community resilience.

To drive meaningful progress, policymakers should prioritize context-specific training programs tailored to regional needs. For example, initiatives in Sik could focus on income-generating opportunities, while those in Kulim might emphasize skill enhancement for existing businesses. Integrating digital tools like virtual reality (VR) simulations and AI-driven platforms can modernize training and equip individuals with advanced skills such as crowdfunding and digital payment technologies. Combining entrepreneurship training with microfinance and mentorship is also critical to ensuring business sustainability and profitability.

Addressing intersectional barriers is equally important. Gender-responsive and culturally sensitive programs can reduce systemic biases and promote equitable access to resources for women, ethnic minorities, and other marginalized groups. Researchers should conduct longitudinal studies to evaluate the long-term impacts of these programs and explore innovative strategies like AI-driven tools, microfinance integration, and digital literacy frameworks. Additionally, fostering collaborative ecosystems through peer-to-peer learning and community networks can support entrepreneurial ventures, particularly in rural areas.

While this study provides actionable insights, it has limitations. The sample size of 748 participants may not fully represent all marginalized groups, and the reliance on quantitative data limits understanding of lived experiences. Future research should incorporate mixed methods and expand geographic scope to enhance generalizability. By addressing these gaps, stakeholders can create scalable, inclusive, and sustainable programs that reduce poverty and advance progress toward achieving the United Nations Sustainable Development Goals (SDGs), particularly Goal 1 (No Poverty) and Goal 8 (Decent Work and Economic Growth).

Acknowledgement

We thank the anonymous reviewers for their useful suggestions.

References

Anderson, J., & Carter, L. (2023). Entrepreneurship training for marginalized groups: Beyond traditional business skills. *Journal of Entrepreneurship Education, 26*(1), 45-67.

Chen, H., & Martinez, L. (2022). Enhancing entrepreneurial sustainability: The role of microfinance and mentorship. *Journal of Development Studies, 58*(4), 789-805.

Duasa, J., & Thaker, M.A.B.M.T. (2016). A cash waqf investment model: An alternative model for financing micro-enterprises in Malaysia. *Journal of Islamic Monetary Economics and Finance*, *1*(2), 161–188.

Department of Statistics Malaysia. (2022). Household income and basic amenities survey report 2022. https://www.dosm.gov.my

Johnson, D., & Ali, S. (2023). Hyper-localized strategies for skill development in rural areas. *World Development*, *161*, 106-120.

Kumar, R., & Singh, P. (2023). The role of mentorship in sustaining entrepreneurial ventures: A longitudinal study. *International Journal of Entrepreneurial Behavior & Research, 29*(4), 567-583.

Magli, A. S., Sabri, M. F., Rahim, H. A., Othman, M. A., Nurul Shahnaz, Ahmad Mahdzan, Mohd Satar, Nurulhuda, Zakaria, R. H., & Janor, H. (2021). Mediation effect of financial behaviour on financial vulnerability among b40 households. *Research Publications, 2021-2025*, 10462.

Martinez, A., Brown, T., & Taylor, E. (2022). Beyond business skills: Holistic approaches to entrepreneurship training. *Journal of Small Business Management, 60*(3), 345-362.

Mohd Yusof, A., Ahmad, N., & Abdullah, S. (2022). Socioeconomic challenges in rural Malaysia: A case study of Kedah. *Asian Journal of Social Sciences*, *45*(3), 112-130.

Patel, R., & Kumar, A. (2022). Bridging the digital divide in vocational education: Insights from urban youth. *Journal of Vocational Education Research, 47*(3), 210-225.

Patel, S., & Okafor, C. (2022). Intersectionality in entrepreneurship training: Addressing the needs of underrepresented groups. *Entrepreneurship Theory and Practice*, *46*(5), 789-810.

Roberts, M., Khan, N., & Liu, X. (2023). Combining entrepreneurship training with microfinance: Evidence from South Asia. *Journal of Development Economics, 160,* 102-118.

Smith, D., & Lee, P. (2023). Skill development beyond traditional vocational training. *Journal of Vocational Education and Training, 75*(1), 45-62.

Syahirah, S., Ishak, N., & Ahmad, Md. S. (2025). Exploratory issues and challenges in strengthening the governance of rural development training in Malaysia. *Kajian Malaysia*, *43*(1), 95–116.

Tan, K., & Lim, H. (2022). Regional economic priorities in training program design. *Journal of Regional Development, 30*(4), 78-95.

Thompson, K., & Lee, H. (2023). Mobile-based entrepreneurship education: Bridging the gap for rural communities. *Technovation, 121*, 102-115.

United Nations. (2023). The Sustainable Development Goals Report 2023. https://www.un.org/sustainabledevelopment

Williams, T., Brown, K., & Taylor, E. (2023). Long-term impacts of vocational skills training on rural women in sub-Saharan Africa. *International Journal of Educational Development, 91*, 102-115.

Wilson, J., & Ahmed, N. (2023). Gender-responsive entrepreneurship training programs. *Gender, Work & Organization, 30*(2), 156-178.

Zawawi, A. A., Salamat, A. S. A., Yusoff, S. N., & Abidin, N. Z. Z. (2024). Socioeconomic profiling and dynamics: Insights from a rural community study in Kedah. *Information Management and Business Review*, *16*(3(l)S), 1063-1072.