

DEVELOPING SUSTAINABLE BUSINESS THROUGH GREEN MSME DIGITAL LITERACY FOR INDONESIAN WORKERS IN MALAYSIA

Setyo RIYANTO^{1*}, Winda WIDYANTY², Uly Amrina³, Khozaeni Bin RAHMAD⁴

^{1,2,3} *Universitas Mercu Buana, Jakarta, INDONESIA*

⁴ *Pertubuhan Masyarakat Indonesia, Pulau Pinang, MALAYSIA*

**setyo.riyanto@mercubuana.ac.id*

ABSTRACT

This study explores the role of digital literacy and green entrepreneurship in advancing sustainable economic development among Indonesian migrant workers (TKI) in Malaysia. The primary objective is to build the capacity of TKI to establish and grow environmentally responsible micro, small, and medium enterprises (MSMEs) through comprehensive training in sustainable production, financial management, and digital marketing. Employing a participatory methodology, the program included needs assessments, interactive workshops, and follow-up mentoring sessions designed to equip participants with practical skills and knowledge. The initiative successfully fostered greater awareness of sustainable business practices and encouraged the use of digital platforms to enhance business operations and outreach. Moreover, it facilitated cross-institutional collaboration and provided valuable experiential learning opportunities for university students involved in the project. Overall, the study highlights the potential of combining digital literacy with green entrepreneurship to support a circular economy and long-term economic resilience within migrant communities, emphasizing the importance of continuous capacity building, supportive infrastructure, and access to broader markets.

Keywords: Sustainable Business, Green MSME, Digital Literacy, Indonesian Workers, Malaysia.

1. INTRODUCTION

In today's global economy, migrant workers play a crucial role in sustaining various industries across host countries. Among these, Indonesian migrant workers (TKI) in Malaysia constitute a significant labor force that contributes to sectors such as construction, manufacturing, domestic services, and plantations. Despite their substantial economic input, many TKI face persistent challenges that undermine their financial security and limit their prospects for upward mobility.

Indonesian workers (TKI) in Malaysia represent a significant labor force contributing to various economic sectors such as construction, manufacturing, domestic work, and plantations. However, many TKI face economic instability due to low wages, lack of financial literacy, and limited access to entrepreneurial education. While some TKI aspire to establish micro, small, and medium enterprises (MSMEs) to secure long-term financial independence, they encounter numerous challenges both upstream and downstream in their business journey.

Upstream Challenges: Before starting a business, many TKI lack digital literacy, which hinders their ability to leverage e-commerce, digital marketing, and fintech services for financial transactions. Additionally, they have minimal knowledge of business management, financial planning, and sustainable entrepreneurship, making it difficult to develop competitive and scalable enterprises. Capital constraints further limit their ability to invest in green business initiatives, while their unfamiliarity with sustainable business models prevents them from tapping into the growing market for eco-friendly products.

Downstream Challenges: For those who have already established businesses, several operational difficulties arise, including poor financial management, inefficient supply chains, and difficulties in maintaining sustainability practices due to cost concerns. Many TKI entrepreneurs struggle with branding, digital marketing, and expanding their market reach due to a lack of networking and strategic partnerships. Without adequate business mentoring and access to financing, these businesses face stagnation or failure, preventing TKI from achieving long-term economic empowerment.

To address these challenges, this program focuses on improving digital literacy, providing comprehensive entrepreneurship training, facilitating access to capital, and expanding market opportunities for TKI entrepreneurs. By promoting sustainable business practices and strengthening business networks, the program aims to empower TKI with the necessary tools to build successful, environmentally friendly enterprises that ensure financial security and long-term economic growth.

This paper presents the implementation and outcomes of an international community service program initiated by Universitas Mercu Buana in collaboration with Pertubuhan Masyarakat Indonesia Pulau Pinang (PERMAI). The initiative specifically targeted Indonesian migrant workers in Malaysia, aiming to build their capacity in green entrepreneurship and digital literacy. The study highlights how tailored interventions can address both upstream and downstream challenges, fostering a pathway toward sustainable economic development and reinforcing the principles of a circular economy.

2. METHOD

This study employed a participatory action framework designed to empower Indonesian migrant workers (TKI) in Malaysia by enhancing their capabilities in green entrepreneurship and digital literacy. The implementation followed a three-stage process.

In the first stage, a comprehensive needs assessment was conducted through surveys and focus group discussions to identify the specific challenges faced by TKI in sustainable production, financial management, and digital marketing. This stage established baseline data on participants' existing knowledge, practices, and business conditions.

The second stage comprised tailored capacity-building activities. Interactive workshops were organized in Pulau Pinang, Malaysia, focusing on sustainable production techniques, the use of digital tools for business management, and online marketing strategies. Practical exercises enabled participants to apply new concepts directly, such as developing sample eco-friendly products and setting up digital platforms for business operations.

The third stage involved post-training support through mentoring and advisory sessions to assist participants in implementing the acquired knowledge within their own businesses. This included guidance on market research, partnership building, and leveraging e-commerce channels to reach broader markets.

Throughout the program, data were collected using qualitative methods (participant observations, feedback forms, and informal interviews) to capture shifts in attitudes and perceived benefits, alongside simple quantitative tracking of adoption rates for specific skills and practices. The involvement of university students and local partner organizations ensured a collaborative approach that not only addressed community needs but also provided experiential learning aligned with academic objectives.

3. RESULTS AND DISCUSSION

The implementation of this community service initiative, titled "Developing Sustainable Business Through Green MSME Digital Literacy for Indonesian Workers in Malaysia," yielded several important outcomes. The program was successfully carried out in Pulau Pinang, Malaysia, through a structured approach involving needs assessments, tailored workshops, and post-activity support.

During the initial stage, participants engaged in surveys and discussions that revealed critical gaps in their knowledge and practices, particularly regarding sustainable production, financial literacy, and digital marketing. The workshops then addressed these gaps by providing hands-on training on eco-friendly production techniques, the use of digital tools for inventory and sales management, and strategies to establish an online presence.

As a direct impact, participants demonstrated improved understanding and practical application of sustainable business concepts. Many began exploring the use of local raw materials with lower environmental footprints and showed interest in leveraging e-commerce platforms to reach wider markets. The involvement of the local partner organization, PERMAI, proved essential for mobilizing participants, offering logistical support, and ensuring that the program was culturally and contextually relevant.

This activity also contributed to the university's key performance indicators by involving students in meaningful fieldwork, thereby aligning with MBKM goals (Merdeka Belajar Kampus Merdeka) and IKU targets related to community engagement and practical learning. Outputs of the program included a workshop video, a published mass media article, a drafted scientific paper, and an in-progress learning module on digital tools and green business models.



Figure 1. Interactive workshop session

The photograph captures a key moment during the implementation of the international community service program held in Pulau Pinang, Malaysia. In this session, lecturers from Universitas Mercu Buana formally opened the tailored workshop by addressing Indonesian migrant workers (TKI) who participated in the initiative. The activity reflects the second stage of the program's methodology, focusing on capacity building through direct engagement and practical training.

Participants gathered to receive in-depth instruction on sustainable production techniques, financial literacy, and strategies for utilizing digital platforms to manage and promote their micro, small, and medium enterprises (MSMEs). The involvement of local partner organization PERMAI ensured the event was culturally attuned and logistically supported, facilitating active participation and meaningful dialogue. This interactive atmosphere helped bridge academic expertise with the real-world experiences of the TKI, laying a strong foundation for the subsequent mentoring and implementation phases.



Figure 2. Hands-on training on sustainable production and digital marketing to Indonesian migrant workers

To assess the program’s effectiveness from the participants’ perspective, a questionnaire-based importance and performance analysis was conducted. Table 1 summarizes the statistical results, highlighting how participants perceived various aspects of the event.

Table 1. The Questionnaire Statistical Analysis

No.	Statement	Importance	Performance	Gap
1	The event's materials fit the problems faced	36	37	+1
2	Methods suitable with theme & objectives	33	33	0
3	Facilities adequately provided	33	34	+1
4	The presenters united/dynamic	34	37	+3
5	The presenters have materials competency	38	39	+1
6	The presenters interested	38	38	0
7	Audience enthusiastic in participation	35	36	+1
8	Audience feels the benefits provided	32	34	+2
9	Audience interested & enthusiastic	33	42	+9
10	Audience feels satisfied	34	39	+5
11	The event ran as I expected	31	34	+3
12	The length of the event suited my expectation	34	38	+4

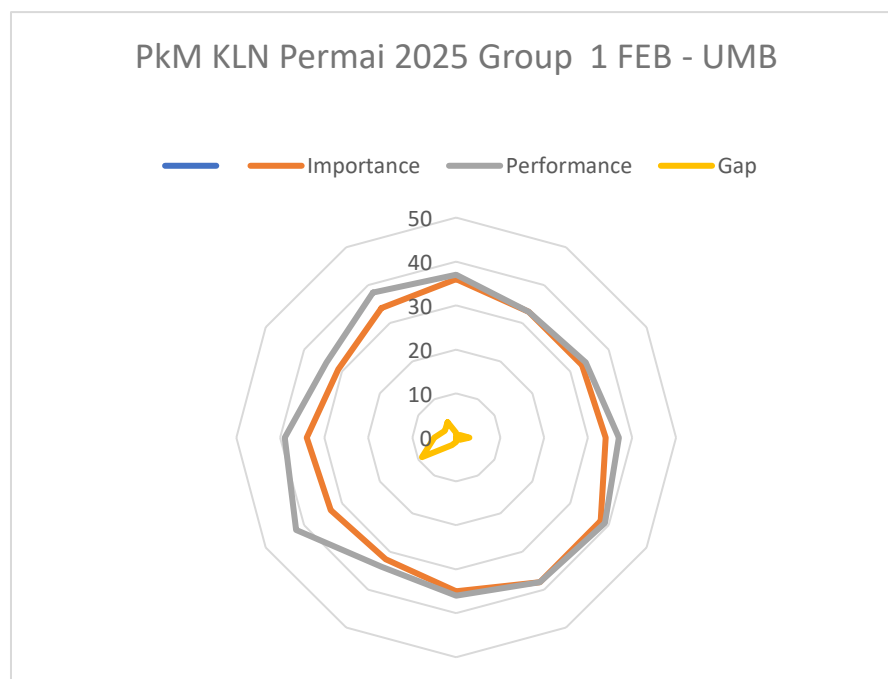


Figure 3. Radar chart of Importance, Performance, and Gap scores

The analysis reveals that the highest positive gap was found in “*Audience interested & enthusiastic*” (+9), indicating the program was highly engaging and captured strong participant interest. This was followed by “*Audience feels satisfied*” (+5), “*The length of the event suited my expectation*” (+4), “*The presenters united/dynamic*” (+3), and “*The event ran as I expected*” (+3). Other aspects such as relevance of materials, adequacy of facilities, presenter competence, and audience participation showed smaller but still positive gaps (+1 to +2), reflecting that expectations were generally met or exceeded. Two items—“*Methods suitable with theme & objectives*” and “*The presenters interested*”—showed a gap of 0, suggesting performance aligned exactly with participant expectations.

4. CONCLUSION

This international community service program, titled “Developing Sustainable Business Through Green MSME Digital Literacy for Indonesian Workers in Malaysia,” successfully addressed critical needs among Indonesian migrant workers by enhancing their capabilities in sustainable production, digital business management, and online marketing. Through participatory needs assessments, tailored workshops, and ongoing mentoring, the initiative equipped participants with practical skills to build environmentally responsible micro-enterprises.

The program also strengthened collaboration between Universitas Mercu Buana and the local organization PERMAI, ensuring cultural relevance and effective community engagement. Feedback from participants highlighted high levels of satisfaction, enthusiasm, and perceived benefits, indicating that the program’s approach resonated well with their needs.

Overall, this initiative demonstrates that integrating digital literacy with green entrepreneurship is a promising strategy for fostering a circular economy and sustainable economic resilience within migrant communities. Continued support through mentorship, infrastructure development, and market access will be essential to sustain these outcomes and maximize long-term impact.

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