

CRYPTOCURRENCY (DIGITAL CURRENCY & BLOCKCHAIN TECHNOLOGY) FINANCIAL LITERACY. PROMOTING SDG GOAL FOR LIFELONG LEARNING

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ABSTRACT

Cryptocurrency is a rapidly growing sector, closely tied to marketing and branding strategies. Crypto projects thrive on community trust and engagement, with many gaining significant market capitalization despite lacking inherent utility. For example, Dogecoin, originally created as a joke, reached a market cap of USD 88.8 billion, while Pepecoin exceeded USD 1 billion despite explicitly claiming no value or utility. This phenomenon presents a concern: people—especially vulnerable communities—are investing without sufficient understanding. Financial literacy regarding crypto assets is therefore essential. This community service initiative seeks to address that gap. The goal is to increase cryptocurrency literacy and financial awareness among Indonesian migrant workers (TKI) in Malaysia through seminars and interactive discussions. Outputs include posters, videos, and scholarly articles, with a broader aim of contributing to SDG 4: Quality Education, particularly lifelong learning and financial decision-making skills.

Keywords: Cryptocurrency, Literacy, Investment, Blockchain, SDG

1. INTRODUCTION

The rapid rise of cryptocurrency in recent years has presented both financial opportunities and significant risks, particularly for populations with limited digital financial literacy. Unlike conventional financial assets, many cryptocurrencies derive value not from intrinsic utility, but from speculative momentum, branding strategies, and the viral behavior of online communities (Chakraborty, 2019; Cui & Li, 2024). Notably, meme-based tokens such as Dogecoin and Pepecoin—initially introduced for entertainment—have reached remarkable market capitalizations despite lacking any fundamental economic value or clear utility (Sham et al., 2023).

This phenomenon creates heightened risk for vulnerable groups, including Indonesian migrant workers (Tenaga Kerja Indonesia or TKI), who often rely on informal digital sources such as social media for financial information. Lacking structured financial education and critical media literacy, many TKI are susceptible to speculative investment behavior fueled by misleading online narratives (Bouri et al., 2019; Recskó & Aranyosy, 2024). Such exposure to hype-driven content, without a solid understanding of underlying risk, amplifies their financial vulnerability.

Research conducted by Universitas Mercu Buana indicates that the appeal of such crypto projects is largely driven by consumer perceptions of brand personality. According to Aaker’s Brand Personality Framework, cryptocurrencies like Dogecoin and Pepecoin are often perceived as possessing traits of excitement (e.g., fun, daring), sincerity (e.g., honest, friendly), and competence (e.g., reliable, successful)—despite lacking economic fundamentals (Giovanis & Athanasopoulou, 2018; Shukla et al., 2023). These personality traits, embedded in their branding and community narratives, foster trust and emotional connection among less-informed consumers.

To address this gap, a structured community service initiative has been launched, focusing on delivering digital financial literacy to TKI in Malaysia. In collaboration with Universiti Sains Malaysia and PERMAI (an Indonesian migrant worker support organization), this program combines research-based modules and participatory workshops to empower TKI with knowledge and critical evaluation tools regarding financial decision-making, especially in the cryptocurrency domain.

This initiative is directly aligned with Sustainable Development Goal (SDG) 4: Quality Education, which emphasizes inclusive, equitable, and lifelong learning opportunities. Specifically, it supports Target 4.4, which aims to significantly increase the number of youth and adults who possess relevant skills, including technical and vocational abilities for employment, entrepreneurship, and financial management (Silver & Lewins, 2014).

In the digital age, cryptocurrency literacy is becoming an essential life skill. However, such knowledge is often inaccessible to marginalized transnational labor communities, who lack access to formal or continuing education (Dymek et al., 2022). This program addresses that gap by delivering practical, context-aware financial education that enhances both awareness and behavior among TKI.

Furthermore, this initiative embodies the principles of lifelong learning by extending educational opportunities beyond formal schooling to adult populations engaged in international labor migration. Through this approach, the program contributes not only to the individual well-being of TKI but also to broader goals of social inclusion and economic resilience through informed financial participation

2. METHOD

The implementation of this community service program was designed as a structured and interactive seminar conducted in collaboration with Universiti Sains Malaysia (USM) and PERMAI, an organization dedicated to supporting Indonesian migrant workers (TKI) in Malaysia. The primary objective was to enhance the financial and cryptocurrency literacy of TKI through evidence-based modules rooted in adult education and participatory learning models (Silver & Lewins, 2014; Cui & Li, 2024).

The program was informed by prior research on brand influence in crypto investment, financial behavior in migrant populations, and digital education strategies (Giovanis & Athanasopoulou, 2018; Chakraborty, 2019). It consisted of six key modules:

1. Wise Financial Planning

This foundational session introduced participants to the essential principles of financial planning. TKI were encouraged to reflect on their income flows and develop structured approaches to financial goal-setting. The module emphasized the importance of distinguishing between fixed needs (e.g., remittances for family, housing) and variable wants (e.g., lifestyle purchases), along with the habit of allocating income for both short-term stability and long-term growth. The session stressed the psychological shift required to move from consumption-driven behavior to goal-based financial management—a critical adjustment for migrant workers handling irregular income patterns or remittance obligations (Bouri et al., 2019).

2. Comprehensive Wealth Management

Building upon the planning framework, this module addressed the strategic management of earnings. It guided participants through the process of building an emergency fund, creating a personal investment plan, and understanding risk diversification. Key financial concepts—such as inflation protection, asset allocation, and capital preservation—were introduced using simple language and real-life examples. For TKI, this knowledge is especially vital due to the lack of formal financial safety nets in host countries and the dual financial responsibilities they often manage across borders (Giovanis & Athanasopoulou, 2018). The session also introduced ethical considerations around remittance usage, planning for dependents, and preparing for financial emergencies.

3. Understanding the Life Financial Cycle

This module explored the human financial lifecycle and its implications for long-term financial well-being. Participants were taught that financial priorities evolve over time: while younger migrants may focus on saving and asset acquisition, older individuals must consider retirement planning, health care costs, and estate management. The session used age-based scenarios and migration-specific illustrations to highlight transitions from the productive to the unproductive phase, urging TKI to start early in building retirement buffers. Emphasis was placed on aligning financial planning with life events—marriage, children's education, and returning to Indonesia—which often go unplanned in migrant contexts (Bouri et al., 2019).

4. Personal Financial Literacy Skills

This interactive segment offered practical tools for managing day-to-day finances. Participants learned to construct monthly budgets, track income and expenses, assess debt levels, and set financial priorities. These fundamental skills are often overlooked in migrant worker education despite being vital to everyday survival. Participants were also introduced to user-friendly financial apps, manual logbooks, and visual spending maps to increase transparency and accountability. The session aimed to demystify financial management and empower TKI to take control of their money, particularly in environments where financial services may be unfamiliar or inaccessible (Shukla et al., 2023).

5. Utilizing Media for Financial Learning

This module emphasized the transformative role of media in continuous financial education. Participants were introduced to platforms such as YouTube, Coursera, and Khan Academy as low-cost or free learning resources. However, more critically, the session focused on teaching media literacy—the ability to distinguish between trustworthy educational content and manipulative investment propaganda. Given that many TKI learn about finance through WhatsApp groups or TikTok influencers, they are particularly vulnerable to misinformation. Through real

case examples and mock content evaluations, participants practiced identifying red flags in financial promotions (Chakraborty, 2019; Silver & Lewins, 2014).

6. Cryptocurrency Risk Awareness

The final module presented a research-informed exploration of the opportunities and dangers in the cryptocurrency ecosystem. It clarified the differences between established digital assets (e.g., Bitcoin, Ethereum) and speculative or meme-based coins (e.g., Dogecoin, Pepecoin), emphasizing the role of branding, influencer culture, and herd behavior in driving market irrationality (Sham et al., 2023). Participants learned to assess projects based on whitepapers, community transparency, developer credibility, and regulatory compliance. The session also explored common scam structures—such as Ponzi schemes, fake exchanges, and “rug pulls”—equipping participants with defensive strategies to protect their assets (Recskó & Aranyossy, 2024). For many TKI, who may be targeted through informal networks, this awareness is vital to reducing risk exposure.

This multi-stage method, rooted in research and participatory education, allowed the program to not only deliver relevant knowledge but also to promote critical thinking and lifelong learning. It reinforced the relevance of SDG 4 by equipping TKI with skills to make informed financial decisions in a complex and increasingly digital global economy.

3. RESULTS AND DISCUSSION

The implementation of this community service seminar in Penang, Malaysia, produced substantial improvements in the financial literacy and digital investment awareness of participating Indonesian migrant workers (TKI). Through pre- and post-session reflections, as well as informal feedback and group discussions, participants reported a clearer understanding of core financial concepts such as budgeting, wealth management, and investment risk evaluation. This aligns with findings from similar interventions highlighting the importance of structured learning in improving adult financial behavior (Silver & Lewins, 2014).

One of the seminar’s most impactful sessions was on cryptocurrency literacy. Participants expressed both surprise and concern upon learning about the speculative nature of meme-based tokens such as Dogecoin and Pepecoin—assets that have achieved massive market capitalizations despite having limited intrinsic value or utility (Sham et al., 2023). This contrasted with their assumptions about established cryptocurrencies like Bitcoin, and illuminated how marketing narratives and viral digital communities shape investor behavior (Chakraborty, 2019). Many participants admitted to previously considering crypto investments based on hearsay and social media promotion. The seminar gave them a conceptual framework to evaluate branding strategies, volatility risks, and the legitimacy of digital assets, which is consistent with research on brand trust and decision-making in emerging markets (Shukla et al., 2023).

Sessions on personal budgeting and the financial life cycle also resonated strongly. Participants acknowledged, often for the first time, the necessity of preparing for life transitions—from productive earning years to unproductive or vulnerable phases such as retirement or illness (Bouri et al., 2019). The concept of building an emergency fund and ensuring income continuity across life stages was particularly eye-opening for many.

Another area of strong engagement was the use of free media platforms—such as YouTube—for financial education. Participants were introduced to the concept of media literacy, learning to distinguish between legitimate financial advice and hype-based promotional content. This intervention was especially important for TKI who often depend on informal digital sources for financial information (Cui & Li, 2024).

Most notably, this initiative validated the importance of integrating academic research—particularly studies on branding, crypto perception, and consumer behavior—into grassroots education programs. By translating academic insights into community-focused interventions, the program successfully bridged the gap between research and real-world impact (Giovanis & Athanasopoulou, 2018).

Deliverables from this seminar included educational posters, multimedia recordings, and working manuscripts for journal publication. These outputs serve not only as documentation of outreach but also as a foundation for future expansion. With proper support and institutional collaboration, the model is well-suited for replication across other TKI communities in Southeast Asia—advancing both financial empowerment and SDG 4 objectives through scalable, research-based community education.

4. CONCLUSION

This community service initiative has proven to be an effective intervention in strengthening the financial and digital investment literacy of Indonesian migrant workers (TKI) in Malaysia. Through structured seminars, participatory learning, and culturally relevant examples, the program succeeded in bridging the gap between academic research and real-world financial empowerment. Participants demonstrated measurable improvements in their understanding of core financial principles such as budgeting, wealth preservation, and risk assessment in the context of emerging financial technologies like cryptocurrency.

The module on cryptocurrency risk awareness was especially impactful. By unpacking the speculative nature of meme-based tokens and contrasting them with more established assets, the program enabled participants to critically examine digital assets beyond superficial branding and online hype. This was particularly important given the vulnerability of TKI to misleading promotions spread via social media, where informal financial narratives often dominate.

A key success factor of the initiative was the integration of research findings—particularly those relating to branding, consumer perception, and media literacy—into community education materials. This approach not only enriched the learning content but also validated the role of academic institutions in developing solutions that are responsive to the needs of marginalized populations.

Furthermore, the program aligns directly with Sustainable Development Goal (SDG) 4: Quality Education, particularly Target 4.4, which emphasizes equipping youth and adults with skills for employment, entrepreneurship, and informed citizenship. The focus on financial and digital literacy supports this mandate by fostering critical thinking and lifelong learning competencies—key tools for navigating the rapidly evolving digital economy.

Looking forward, the results of this program offer a scalable model for future community service projects across other migrant communities in Southeast Asia. With the support of universities, local NGOs, and government stakeholders, the program has strong potential to be replicated and expanded to create a wider impact. By institutionalizing this form of evidence-based financial education, we can build more resilient communities and empower individuals to make sound economic decisions in an increasingly complex financial landscape.

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