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The Role of Financial Literacy in Enhancing Remittance Utilization: A Study of Indonesian Migrant Workers

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ABSTRACT: Indonesian migrant workers (IMW) in Sabah, Malaysia, contribute significantly to the national foreign exchange through monthly remittances sent to their families back home. However, the magnitude of this cash flow is not necessarily proportional to the quality of its management. The majority of remittances are absorbed by daily consumption, debt repayment, and ceremonial expenses, with a very small portion allocated to savings or productive investments. This study aims to examine the role of financial literacy in shaping IMW remittance utilization patterns and to measure the effectiveness of financial education interventions on changing respondents' knowledge, attitudes, and practical skills. The study was conducted in Sabah, Malaysia, using a quantitative cross-sectional survey design. A total of 420 active Indonesian migrant workers from various employment sectors were recruited as respondents through purposive and snowball sampling techniques. The research instrument was a structured questionnaire adapting the "Big Three" measurement framework, supplemented by five contextual questions relevant to the financial lives of IMW, and a Likert scale to measure changes in financial attitudes and behavior. The results showed that the average financial knowledge score before the intervention was only 46 percent, with 72.4 percent of respondents having never received any financial training. After the training, the average score jumped to 88 percent, a 42-percentage-point increase. The average financial attitudes and behaviors score increased from 2.68 to 4.26 on a Likert scale, with the largest increase in the emergency fund dimension, which increased by 1.8 points. The practical ability to choose more efficient remittance services increased significantly, from 35 percent to 92.6 percent of respondents. These findings confirm that low financial literacy is a significant barrier to optimizing migrant worker remittances and that structured, contextualized interventions can produce measurable changes in a short time. This study recommends integrating a financial literacy module into the Post-Departure Briefing program managed by the Indonesian Migrant Workers Association, strengthening financial education in destination countries, and expanding similar programs to remittance recipient families in their home regions.

KEYWORDS: financial literacy, remittances, Indonesian migrant workers, Sabah, financial behavior

I. INTRODUCTION

Sabah frequently ranks as a top destination for labor migration in Southeast Asia. The Malaysian state bordering Kalimantan has attracted Indonesian Migrant Workers (hereinafter abbreviated as IMW) for valid reasons. Its proximity to abundant job opportunities in palm oil, construction, and domestic sectors, along with an extensive network of existing migrants, makes Sabah an attractive choice for those seeking better prospects (Aswan & Amiruddin, 2020). Indonesian Migrant Workers Association reports that by 2024, hundreds of thousands of Indonesian migrant workers, mainly from West Nusa Tenggara, East Java, and West Kalimantan, will be working in the region.

Remittances sent home are a significant amount. Indonesia receives over USD 14 billion annually from overseas workers' remittances (World Bank, 2025). This sum even exceeds the export value of some major commodities. However, a persistent question remains: what exactly is this money used for? The answer is not very promising. Research shows that most remittance funds are spent on daily necessities, paying off long-standing debts, or funding celebrations and other socially vital events(Habib, 2021; Ukhtiyani & Indartono, 2020). Savings, business investments, or long-term financial plans constitute only a small portion, and this trend has persisted for some time. This does not mean workers lack the desire to save; many genuinely want to. The real challenge lies in their ability, knowledge, and access to suitable financial tools.

Financial literacy plays a crucial role in managing money effectively. Lusardi & Mitchell (2014) have emphasized that understanding fundamental financial concepts like compound interest, inflation, and how investments work significantly

influences personal financial behavior. Those with financial literacy tend to save more consistently, choose financial products more wisely, and are less prone to poor decisions. In the context of IMW, this issue is more complex: it involves not only the workers but also their families in the village who receive regular remittances. When both parties lack sufficient financial knowledge, remittances are unlikely to have a truly meaningful impact (Rahman et al., 2020).

The situation of Indonesian migrant workers in Sabah clearly illustrates this issue. Many still rely on informal channels to send money, not because official options are absent but because banking processes seem complicated and unfamiliar. Although pre-departure training exists, it mainly covers work contracts and employer regulations and rarely addresses topics such as salary management, savings plans, or safe remittance methods (OECD, 2023). As a result, many migrants leave with strong technical skills but limited financial resources. Their families back home face a similar situation (Puspitasari et al., 2025; Sinambela et al., 2025).

Building on that background, this research takes a different approach. It was carried out in Sabah, Malaysia, in July 2025, involving migrant workers from diverse sectors. The main goal is to assess how financial literacy influences remittance behaviors, whether the funds primarily go toward consumption or are effectively directed toward savings and meaningful investments. The findings are anticipated to inform the Indonesian government in developing more targeted training programs and to guide stakeholders in Sabah (Aggarwal et al., 2011; Amyulianthy et al., 2021; Cole et al., 2011). This article is structured as follows: literature review and theoretical framework; research methods, results, and discussion; and conclusion with policy recommendations.

II. LITERATURE REVIEW

A. Financial Literacy

The term "financial literacy" is often used without a clear understanding of what it means. You notice it in bank brochures, government seminars, and social media posts, almost implying that merely saying it can resolve people's financial issues. However, beneath this seemingly straightforward phrase lies a much more complex and significant conceptual basis.

Lusardi & Mitchell (2014) are key figures in this field. In their detailed study in the Journal of Economic Literature, they define financial literacy as the ability to understand essential financial concepts such as simple and compound interest, inflation, and risk diversification, and to apply this knowledge in daily decisions. It is not just about memorizing terms; it involves applying this understanding when making choices, such as whether to save or spend immediately, take out a loan, or trust a financial offer. Their results are revealing, or perhaps not surprising. Even in developed countries with strong financial systems, many people find it difficult to answer three basic questions about interest, inflation, and diversification. This difficulty is even greater among migrant workers, who usually have only a secondary education, making the situation more understandable.

Moreover, Lusardi & Mitchell (2014) also highlight that financial literacy should be seen as an investment rather than a cost or burden, functioning as a type of capital. Financially literate individuals are generally more resilient during economic shocks because they have savings, understand risks, and are less vulnerable to scams. For migrant workers, who are often separated from their families and depend on unstable income, this skill is not a luxury but a vital necessity.

However, Cole et al (2011) conducted direct field tests in Indonesia and India. Their results were promising: structured financial education significantly increased interest in formal financial services, especially among populations with low levels of education. This suggests that many migrant workers do not avoid banking services out of disinterest but due to a lack of knowledge, and no one has previously explained this.

B. Remittance for Migrant Workers

Remittances are often viewed too simply as people working abroad, getting paid, and sending money home. However, the reality is more complex, involving layered motivations, trust issues, transnational family ties, and financial decisions made under difficult conditions (Farzana et al., 2024). According to Yang (2011), there are two main motives for migrants sending money home: altruism, or caring for family, and personal reasons such as building future assets or preparing for a return. Often, these motives are closely linked and hard to distinguish. Rapoport & Docquier (2006) highlight another important factor, especially for Indonesia: remittances often function as "installments" on an informal agreement between migrants and their families, who initially covered the costs of departure. Many migrant workers leave with debt, and their first remittance is usually aimed at debt repayment rather than savings.

From a development standpoint, the future looks promising on paper. Adams & Page (2005) analyzed data from 71 developing countries and found that higher remittance flows are linked to lower poverty rates. Ratha (2013) observed that remittances are usually more stable than foreign direct investment because migrants tend to send more support during crises in host countries. Overall, the evidence suggests a generally positive outlook. However, there is an important caveat. Meyer &

Shera (2017) warn that the effect of remittances on economic growth largely depends on how the funds are allocated. If the money primarily fuels consumption, the multiplier effect remains limited. In Indonesia, this is not just speculation. Findings from Ukhtiyani & Indartono (2020) demonstrated that over twenty years, IMW remittances did not significantly influence the country's economic growth. This is clear because a large portion was used for consumption, with little redirected toward investment.

C. Capture of Indonesian Migrant Worker in Sabah

Sabah is a significant part of Indonesia's migration history. This route has existed for a long time, with the connection between Kalimantan and Sabah predating formal regulations, fueled by genuine ethnic, cultural, and linguistic bonds. However, "established" does not necessarily mean 'acceptable." The IOM (2010) reported that most remittances from Sabah to Indonesia continue to be sent via informal personal channels, such as friends, unofficial agents, or carrying cash transfers. This is not because it offers higher profits; rather, it is because alternative options are neither affordable nor perceived as reliable.

Habib (2021) identified that the main uses of remittances are home improvements, children's school fees, and daily necessities, with only a small fraction allocated to business capital. Moreover, Puspitasari et al. (2025), who provided direct assistance to IMW in Penang, highlighted even more serious issues: many workers have almost no financial reserves, are easily lured by fraudulent investment schemes, and tend to spend impulsively. Sinambela et al. (2025) vividly depict a recurring cycle that involves saving little, incurring debt for urgent needs, and attempting to start a business that often fails. This cycle persists because no financial literacy program effectively addresses its underlying causes.

D. Does Financial Literacy Really Matter?

The main question of this study is straightforward: Do financially literate migrant workers utilize their remittances more effectively? The evidence consistently suggests that yes, there is indeed a difference. Rahman, Islam, and Sadique (2020), in a study of Bangladeshi migrant workers, found that higher financial literacy scores were associated with more frequent use of formal remittance channels, lower transfer costs, and a higher proportion of savings. Simple but meaningful, people who understand how finances work tend to be more careful in their every move.

De Arcangelis et al (2015) adopted a direct method in an experiment with Filipino migrants in Rome by offering them a commitment savings product that allowed senders to oversee how their families spent their money. When combined with financial education, this significantly increased the share of remittances allocated to savings and children's education. A study by Ashraf et al (2015) observed a similar trend in El Salvador. The key takeaway is that financial knowledge alone is not sufficient without appropriate tools; likewise, tools without knowledge are not very effective.

On a larger scale, Aggarwal et al (2011) examined 109 developing countries and concluded that remittances promote financial sector development only where financial inclusion is already solid. Demirgüç-Kunt et al (2018) stated in the 2017 Global Findex that remittances will not foster participation in the formal financial system unless recipients are already connected to it. This connection requires understanding, which does not happen automatically. Naceur et al. (2020), from the IMF, noted that in middle-income countries like Indonesia, strong institutions and public financial education are essential. Similarly, Ajefu & Ogebe (2019) found that in Nigeria, remittances have a greater impact when the household head possesses better financial knowledge. It is not about the amount received but about who receives it and their understanding of how to manage it.

After reviewing the prior studies, a clear pattern appears financial literacy significantly influences remittance use, a finding well supported by empirical evidence. However, specific data for the Indonesian context, particularly the Sabah-Indonesia corridor with its unique traits, is limited. Most existing research concentrates on Bangladesh, the Philippines, El Salvador, or African regions. In Malaysia, studies on IMW tend to emphasize working conditions and legal protections rather than financial behaviors. Moreover, there is a scarcity of research that directly measures financial literacy and connects it to remittance utilization patterns in Indonesia.

This research aims to establish its own stance. Instead of copying existing findings, it seeks to generate data that accurately captures the true state of our IMW in Sabah in July 2025, with all its intricacies.

III. METHODS

A. Research Design

This study employed a quantitative cross-sectional survey design. This decision was made carefully. Since the main goal was to examine the relationship between financial literacy and remittance habits at a specific point in time, a cross-sectional approach was considered the most practical and efficient, particularly given participants' high mobility and limited fieldwork time. The quantitative method enabled systematic comparisons among respondents with varying backgrounds and facilitated more detailed statistical analysis of relationships among variables.

However, this study did not completely exclude qualitative data. Several brief interviews were conducted incidentally to deepen understanding of the findings emerging from the numerical data, especially when survey responses did not sufficiently explain the "why" behind a particular behavior pattern. The results were used for triangulation, not as primary data.

B. Time and Location of Research

The study took place in Sabah, Malaysia, in July 2025. Sabah was deliberately chosen because it is one of the busiest and longest migration corridors between Indonesia and Malaysia. It also presents a distinctive setting characterized by a large informal sector, a significant number of undocumented workers, and restricted access to formal financial services. These factors make Sabah an ideal environment for testing the research hypotheses.

Data collection took place at several key sites where Indonesian migrant workers (IMW) are concentrated. These included oil palm plantations in Sabah's interior, densely populated settlements on the outskirts of Kota Kinabalu, and various locations in Tawau and Sandakan, known for their significant IMW populations. The sites were chosen intentionally based on accessibility and the density of the target population.

C. Population and Sample

The study population comprised all Indonesian migrant workers currently employed in Sabah. Because there were no comprehensive sampling frame and data on Indonesian migrant workers in Sabah, especially in the informal sector, have never been entirely accurate, the study used purposive and snowball sampling techniques. Inclusion criteria were: (1) Indonesian citizenship, (2) actively working in Sabah for at least three months, (3) having sent remittances to Indonesia at least once in the past six months, and (4) voluntary participation. These broad criteria aimed to capture the diversity among Indonesian migrant workers.

The sample size was calculated using the Slovin formula with a 5% margin of error. Considering the estimated active population of Indonesian migrant workers in Sabah, ranging from 400,000 to 600,000, the minimum required sample size was 400 respondents. The research team collected data from 423 respondents, but 7 were excluded due to incomplete or inconsistent responses, leaving 420 respondents for analysis.

D. Research Instruments

The main instrument was a structured questionnaire comprising four sections. The initial section included questions about respondents' demographic and socioeconomic traits: age, gender, education level, duration of working abroad, employment sector, and monthly income. It was intentionally positioned at the start to provide information and help respondents settle into the survey before proceeding to more detailed questions.

The second section assessed financial literacy using a tool adapted from Lusardi & Mitchell's (2014) "Big Three" framework. This included questions about compound interest, inflation, and risk diversification. We added five more context-specific questions to mirror real-life scenarios relevant to IMW, such as comparing transfer fees, understanding how term savings accounts work, and grasping basic investment principles. In total, there were eight questions, with scores from 0 to 8.

The third section outlined remittance usage patterns. Participants were asked to assign a percentage to how their families usually spend their remittances, covering daily expenses, debt repayments, savings, children's education, home renovations, and business investments. This percentage-based approach was selected because it more accurately reflects the actual trade-offs in remittance use compared to single-choice questions.

The fourth section includes questions on access to and use of formal financial services, ownership of bank accounts, official remittance channels, and awareness of savings and insurance products. It is important to account for financial access factors in the regression analysis. Before field use, the questionnaire was piloted on 30 migrant workers (IMW) outside the main sample. The reliability test results showed a Cronbach's alpha of 0.81 for the financial literacy scale, which indicates good internal consistency.

E. Collecting Data Procedures

Data collection was conducted face-to-face by four trained enumerators, all of whom were Sabah-based Indonesians. Employing local enumerators was crucial not only for logistical reasons but also to build trust with respondents, as some IMW remain wary of foreigners with questionnaires. Each participant was briefed on the study's purpose, data confidentiality, and their right to refuse or withdraw at any time. Consent was obtained either verbally or in writing, depending on what was most convenient for everyone (Candeias et al., 2021). Completing a questionnaire usually took 20 to 30 minutes. At some plantation sites, data collection was conducted in small groups with management's approval, as it was the most feasible method given mobility challenges.

F. Data Analysis Techniques

The collected data were analyzed using SPSS version 26 in three main stages. First, descriptive statistics provided an overview of respondent profiles and the distributions of key variables. Then, a Pearson correlation test assessed the direction and strength of the relationships between financial literacy scores and each remittance-use component. Lastly, a multiple linear regression was used to analyze how financial literacy affects the share of productive remittances, considering savings, investments, and business capital, while controlling for age, education level, length of service, and access to formal financial services (Gujarati, 2015).

The regression model's dependent variable was the share of remittances used for productive purposes. The primary independent variable was the overall financial literacy score. Control variables consisted of age, gender, education level, length of service, monthly income, and whether the individual owned a bank account. Prior to analyzing the results, tests for classical assumptions: normality, multicollinearity, and heteroscedasticity were performed to confirm the model's statistical validity.

IV. RESULTS AND DISCUSSION

A. Respondent Profile

Before exploring the main findings, it is useful first to understand the demographics of the study participants. A total of 420 active Indonesian migrant workers (IMWs) in Sabah were recruited; all met the inclusion criteria and participated in data collection in July 2025. Regarding length of service, the largest group consisted of those who had been in Sabah for 1 to 3 years, totaling 158 individuals, or 37.6% of the sample. The 4- to 6-year group comprised 126 individuals (30%), while 73 (17.4%) had been in Sabah for over 6 years. The remaining 63 individuals, or 15%, had less than one year of residence. This indicates that most respondents were not new arrivals; they had spent significant time in Sabah and had experienced multiple remittance cycles. However, as the subsequent data will reveal, years of experience do not necessarily equate to a thorough understanding of finance.

Regarding monthly remittance amounts, the distribution was balanced within the mid-range. Typically, 147 individuals, or 35 percent, remit between RM500 and RM1,000 each month, followed by 137 people, or 32.6 percent, sending between RM1,001 and RM1,500. Additionally, 83 individuals, or 19.8 percent, remit more than RM1,500, while 53 people, or 12.6 percent, send less than RM500. Nearly 90 percent of respondents regularly remit at least RM500 each month, an amount that, when multiplied by 12 months and converted to rupiah, represents a significant sum. This highlights why effective remittance management is so crucial.

A key highlight of this profile is the data on financial education history; of the 420 respondents, only 116, or 27.6 percent, have received any financial training. The other 304 people, or 72.4 percent, have never received any, representing over three-quarters of the sample. Interestingly, individuals who have worked abroad for years and regularly send millions of rupiah home have never had the chance to learn how to manage their money more effectively.

B. Financial Literacy Level: Before and After Training Lessons

This is where the numbers speak volumes. Before the financial literacy lessons, respondents' average score was just 2.30 out of 5, or 46%. Less than half the questions were answered correctly. After the training, the average rose to 4.40 out of 5, or 88%, marking a 42-percentage-point increase. This is a substantial improvement, happening within a short period. This study analyzes each question individually, where the pattern is consistent and quite revealing.

The first question, which tests understanding of compound interest, was answered correctly by 189 respondents (45 percent) in the pre-test and rose to 374 (89 percent) in the post-test. The second question on inflation saw an increase from 40 percent (168 respondents) to 86.9 percent (365 respondents). The third question, on the time value of money, rose from 50 percent (210 respondents) to 91.9 percent (386 respondents). The fourth question on risk diversification had the lowest score on the pre-test, with only 27.6 percent (116) answering correctly. However, after the training, this jumped to 79 percent, or 332. The fifth question on financial planning was better understood from the start, with 67.6 percent (284) answering correctly. After the training, almost all of them answered correctly, with 391 people, or 93.1 percent. Before the training session, the average respondent's knowledge score was only 2.3 out of 5 questions, or 46 percent. After the training, that figure rose to 4.4 out of 5, or 88 percent. The results are summarized in Table 1 below.

Table 1. Pre and Post Test Financial Literacy Result

Indicators	Pre-test	Post-test
Compound interest	45.0% (189 people)	89.0% (374 people)
Inflation	40.0% (168 people)	86.9% (365 people)

Indicators	Pre-test	Post-test
Time value of money	50.0% (210 people)	91.9% (386 people)
Risk diversification	27.6% (116 people)	79.0% (332 people)
Financial planning	67.6% (284 people)	93.1% (391 people)

Source: *Table by Author*

This pattern aligns closely with what has been found in the literature. Lusardi and Mitchell (2014) have long asserted that the concepts of compound interest, inflation, and diversification are the three most fundamental pillars of financial literacy, yet most frequently misunderstood by the general population worldwide. The lowest pre-test score, 27.6 percent, on risk diversification, demonstrates how far removed this concept is from the daily lives of migrant workers unfamiliar with investment instruments.

However, its increase to 79 percent after the intervention demonstrates something important: this concept can be understood, provided it is explained appropriately and in ways relevant to their lives. This finding also reinforces the argument of Cole et al. (2011) that low participation in formal financial services among those with limited education is due not only to a lack of access but also to inadequate education. Low pre-test scores do not reflect respondents' inability to grasp financial concepts but rather the length of time they have been left without opportunities to learn.

C. Changes in Financial Attitudes and Behavior

While changes in knowledge can occur relatively quickly, changes in behavior are typically slower and more layered. However, data from this study demonstrate significant shifts, even in the short term. Table 2 below summarizes the results.

Table 2. Changes in Financial Attitudes and Behavior

Indicators	Pre-test	Post-test	Differences
Creating a monthly budget	2.8	4.3	Increase 1.5
Save at least 20% of your salary	2.5	4,1	Increase 1.6
Compare remittance costs and exchange rates	2.9	4.5	Increase 1.6
Have a 3–6 month emergency fund	2.2	4.0	Increase 1.8
Discuss remittances with family	3.0	4.4	Increase 1,4

Source: *Table by Author*

Five indicators of financial behavior were measured using a Likert scale of one to five, before and after the intervention. The average overall attitude and behavior score increased from 2.68 to 4.26, a 1.58-point increase. Breaking down by dimension: the habit of making a monthly budget increased from 2.8 to 4.3. The habit of saving at least 20 percent of one's salary each month increased from 2.5 to 4.1. The habit of comparing costs and exchange rates before sending money increased from 2.9 to 4.5. Awareness of having an emergency fund for three to six months of expenses recorded the largest increase, from 2.2 to 4.0, a 1.8-point difference. Moreover, openness to regularly discussing remittances with family increased from 3.0 to 4.4.

Before the lessons, all indicators were below 3, which on a Likert scale roughly reflects a condition of "rarely done" or "disagree." After the training, everyone jumped to a range of 4.0 to 4.5, reflecting "often" or "agree." The most dramatic change was in the dimension of having an emergency fund, and this is not surprising. The concept of an emergency fund is the most concrete and most directly relevant to the reality of migrant workers: when they suddenly fall ill while abroad, when their contract is not renewed, or when they have to return home suddenly because a family member is seriously ill without financial reserves, any of these situations can turn into crises that are difficult to overcome. Once migrant workers truly understand that no emergency fund means no safety net, that realization resonates strongly.

The increase in the dimension of comparing remittance services, from 2.9 to 4.5, also deserves special attention. Previously, many chose remittance agents out of habit or on friends' recommendations, without fully calculating which would be more profitable overall. After the training, that orientation began to shift to a more critical and calculating one. This finding aligns with Rahman, Islam, and Sadique (2020), who found that increased financial literacy directly shifts preferences toward more efficient delivery channels, and with De Arcangelis et al. (2015), who asserted that relevant and contextual financial education is most effective at driving short-term behavioral change.

D. Practical Skills: Selecting the Appropriate Remittance Service

In addition to knowledge and attitudes, this study also measured very concrete practical skills: were respondents able to choose the more efficient remittance service when faced with two concrete choices, with calculations they had to perform themselves? The practical questions compared two money transfer service options. Service A offered a transfer fee of RM20 at an exchange rate of RM1 equaling Rp3,500, so sending RM1,000 would yield Rp3,430,000. Service B offered a transfer fee of RM5 at an exchange rate of RM1 equaling Rp3,400, so sending RM1,000 would yield Rp3,383,000.

These questions were designed not simply to test mathematical skills but to gauge whether respondents could critically consider all cost components, rather than focusing solely on a single factor, such as the exchange rate. In practice, choosing a remittance service often involves more variables than just the exchange rate displayed on the board. The results were quite surprising and reflected the real-world conditions. In the pre-test, only 147 people, or 35 percent, answered correctly. This means that 273 people, or 65 percent of the respondents, most of whom had been sending money to Indonesia for years, did not truly understand how to evaluate service options comprehensively. They had been choosing based on habit, following the agent closest to them, or trusting the recommendations of fellow plantation workers, without ever actually sitting down to calculate for themselves.

After the training, the numbers reversed significantly. A total of 389 people, or 92.6 percent, answered correctly, and only 31, or 7.4 percent, were incorrect. This is one of the most concrete findings of this entire study: simple financial knowledge, when taught in a practical way and directly relevant to the decisions they face every month, can immediately transform decision-making abilities. This finding reinforces the argument of Ashraf et al (2015) that interventions targeting specific behaviors are far more effective than general, theoretical financial education.

E. Discussion

The data from these 420 respondents reveals two clear impressions: one positive and one concerning. On the positive side, the improvements following the intervention were significant, consistent, and seen across nearly all areas, from knowledge and attitudes to practical skills. However, the concerning aspect is the baseline: hundreds of individuals who had worked in Sabah for years, regularly sending money home, began the training with an average knowledge score of just 46 percent. More than 70 percent of them had never received any formal financial education.

This issue goes beyond mere low figures. It highlights a longstanding systemic gap between the substantial financial contributions of migrant workers to their families and nations, and the minimal efforts by governments to provide them with the knowledge needed to manage these contributions effectively. Remittances are not isolated; they rely on a series of small, monthly financial choices, such as selecting a remittance method, saving a portion of the funds, or deciding whether to invest or send the money immediately. When individuals lack the necessary knowledge to make these decisions, money might be sent without proper management. Worst case, it can be depleted by unnecessary expenses or short-term consumption, leaving little lasting impact on well-being.

This study's findings generally align with existing research. Lusardi and Mitchell (2014) have argued for over ten years that financial literacy goes beyond academic knowledge; it is a skill that directly influences the quality of financial decisions, including income management and future planning. The data from Sabah support this view, not from large-scale cross-national surveys but from individuals living under the conditions studied. The IOM (2010) and OECD (2017) have consistently stated that PMI training programs lack sufficient financial content, and these findings provide more specific empirical evidence: the educational gap is real and measurable, as reflected in respondents' low pre-test scores despite their years of experience.

What distinguishes these findings from mere confirmation of theory is their context. While Cole et al (2011) initially showed through field experiments that structured financial literacy interventions can effectively boost participation in formal financial services, including in Indonesia, the Sabah data adds a new perspective. It demonstrates that the impact extends beyond abstract knowledge, influencing specific decision-making skills, such as choosing a remittance service based on total cost rather than just the exchange rate. The jump from 35 percent to 92.6 percent in respondents' ability to answer practical questions provides clear evidence that targeted interventions relevant to respondents' daily lives can lead to tangible, measurable improvements rather than just slight changes in average scores.

An area for further investigation is whether the effects of these interventions are just temporary or genuinely lasting. In financial education research, this question remains unresolved. Fernandes et al (2025) conducted a comprehensive meta-analysis showing that the impacts of financial literacy programs often fade over time, especially without ongoing reinforcement, such as access to financial services, community support, or regular follow-ups. This leaves an open question that this study cannot resolve: how long do the improvements in knowledge and attitudes last, and do they lead to actual changes in remittance behavior in the months following the intervention? Another limitation to note is that using a self-administered Likert

scale to assess attitudes can be affected by social desirability bias, in which respondents may choose answers they believe are "correct" rather than those that truly reflect their behaviors. The notable increases across all attitudinal areas could partly stem from increased normative awareness gained during training, rather than real behavioral changes. To address this, future studies should include more objective measures, such as actual remittance transaction data from financial institutions or in-depth interviews several months after the intervention. Despite these limitations, the significance of these findings remains undeterred. They convincingly demonstrate that low financial literacy is not an irreversible condition and that investing in financial education for migrant workers does not take years to yield results. Change can start with a single, well-designed session. Next, ensure that such sessions are no longer the exception but an integral part of every migrant worker's departure preparation.

V. CONCLUSION AND RECOMMENDATION

A. Conclusion

This research does not begin with a complex paradigm. The main question is straightforward: do Indonesian migrant workers in Sabah have enough financial literacy to manage and use their remittances effectively? If the answer is no, can targeted interventions improve their situation? Data from 420 respondents collected in Sabah in July 2025 offers a clear answer to both questions. Initially, the financial literacy level among migrant workers in Sabah was quite low and fairly uniform across all measured aspects. The average knowledge score was only 2.30 out of 5, or 46 percent, with the weakest area being risk diversification; only 116 individuals, or 27.6 percent, answered correctly. This is not surprising because 304 people, or 72.4 percent, had never received any financial training, even though most had worked abroad for over a year and regularly sent remittances. Experience abroad, therefore, does not automatically lead to sufficient financial capacity. There is a gap between the departure process and working life in the destination country, and this gap remains unaddressed.

Next, structured and contextual financial literacy programs have proven highly effective. The average knowledge score rose from 46% to 88%, marking a 42-percentage-point increase. All key areas saw improvements: compound interest increased from 45% to 89%, understanding of inflation from 40% to 86.9%, the time value of money from 50% to 91.9%, risk diversification from 27.6% to 79%, and financial planning knowledge from 67.6% to 93.1%. Third, the changes extended beyond knowledge. The average financial attitudes and behavior score rose from 2.68 to 4.26 on a Likert scale, with the largest gain in awareness of having an emergency fund, increasing by 1.8 points. The habit of comparing remittance costs and exchange rates improved from 2.9 to 4.5. The practice of saving at least 20 percent of salary increased from 2.5 to 4.1. Openness to discussing financial planning with family grew from 3.0 to 4.4. The training affected not just respondents' knowledge but also their attitudes toward money management. Lastly, the practical capability to select more efficient remittance services rose from 35 percent (147 individuals) to 92.6 percent (389 individuals). This shift is tangible; it results in more rupiah reaching families in the village, rather than being lost to transfer fees that could have been avoided through better knowledge.

Overall, this study confirms that financial literacy plays a real and measurable role in shaping migrant workers' remittance management behavior. The low literacy levels before the intervention reflect a systemic failure in workforce development programs that do not adequately focus on financial education. The high response to the intervention demonstrates that the capacity for change exists. It simply requires the right opportunity and relevant materials. These findings align with those of Lusardi and Mitchell (2014), Rahman et al. (2020), and Cole et al. (2011), all of whom emphasized that financial literacy is not merely an academic variable but rather a lifelong capacity that directly determines whether a person's hard work yields well-being.

One caveat is that the measurements were taken immediately after the intervention, so it is unclear whether these changes will persist over the long term. The risk of social desirability bias in completing the Likert scale cannot be eliminated. Additionally, although the sample of 420 individuals is representative of this context, it cannot be generalized to the larger population of migrant workers in Sabah. These limitations do not undermine the findings but highlight the need for further research with a more robust and comprehensive approach.

B. Recommendation

The most pressing issue is integrating financial literacy into the Post-Departure Briefing program managed by the Indonesian Migrant Workers Association. This program already exists, is mandatory, and reaches nearly all migrant workers before they depart, but its content barely touches on financial management. There are no planning simulations, no explanations of how to choose a remittance service, and no contextual savings modules. The solution does not need to be ambitious: add at least 4 hours of practical financial literacy modules to the existing PAP curriculum, using visual approaches and real-life simulations relevant to migrant workers' lives in their destination countries.

However, a pre-departure briefing alone is not enough. Migrant workers already in Sabah, who face real-life financial decisions every month, also need access to ongoing education. The labor attachés at the Indonesian Embassy in Kuala Lumpur and the Indonesian Consulate General in Kota Kinabalu are strategically positioned to fill this role: organizing regular training in IMW areas, partnering with official financial institutions in Sabah, and leveraging established informal channels such as community WhatsApp groups, regular meetings at the Indonesian Consulate General, or short Indonesian-language video content accessible via mobile phone at any time.

A frequently overlooked aspect is the recipient side. Remittances go to families in their villages, who often have limited financial literacy. Local governments in IMW regions such as Lombok, West Nusa Tenggara, East Java, and West Kalimantan should prioritize financial literacy programs for these families. The necessary channels, such as the Community Empowerment Office, Family Welfare Movement, Integrated Health Posts, and neighborhood association officials, already exist; what is needed is a dedicated effort to utilize them.

C. Implication

However, even good knowledge will have a limited impact if access to formal financial services remains challenging. Strengthening coordination among the Financial Services Authority (OJK), Bank Indonesia, and national banks is essential to ensure migrant workers can easily open bank accounts, access appropriate savings options, and use affordable remittance services. While expanding fintech remittance initiatives should be further supported, they must be complemented by proper education rather than simply launching apps and neglecting ongoing support.

Finally, establishing a follow-up research agenda is essential. Conducting a longitudinal study that monitors migrant workers' behaviors from before the intervention through several months afterward would offer a deeper understanding of the medium-term impact of financial literacy programs. Additionally, broadening the scope to include other regions such as Taiwan, Hong Kong, and Saudi Arabia would help determine whether the patterns observed in Sabah are unique to Indonesian migrant workers or indicative of a broader trend among Indonesian migrants.

The story of Indonesian migrant workers contains a certain irony. They contribute billions of dollars annually to Indonesia, endure hardships away from loved ones, and often work under poor conditions. However, they are the least likely to receive proper financial education. Data from Sabah indicate that this situation can improve and that it does not require a large budget to begin. The priority now is not more research confirming the issue, but a commitment to ensure that the next generation of IMWs is not left without the financial provisions they deserve long ago.

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REFERENCES

1) Aswan, Amiruddin MZ Bin. Gerakan Literasi Sekolah Berbasis Pendidikan Karakter untuk Anak Pekerja Migran Indonesia di Sabah Malaysia. Jurnal Pendidikan Bahasa dan Sastra. 2020;20(1). https://www.researchgate.net/publication/344950260
2) Bank W. CREATING JOBS, GROWING ECONOMIES ANNUAL REPORT 2025. 2025. https://www.worldbank.org/en/about/annual-report/world-bank-
3) Habib M. Utilization of Migrant Workers' Revenues (Remittance) for the Family Economy. Journal of Urban Sociology. 2021;4(1).
4) Ukhtiyani K, Indartono S. Impacts of Indonesian Economic Growth: Remittances Migrant Workers and FDI. JEJAK: Jurnal Ekonomi dan Kebijakan. 2020;13(2):280-291. doi:10.15294/jejak.v13i2.23543
5) Lusardi A, Mitchell OS. The Economic Importance of Financial Literacy: Theory and Evidence. J Econ Lit. 2014;52(1):5-44. doi:10.1257/jel.52.1.5
6) Rahman MdS, Islam MdT, Sadique MdZ. Financial Literacy and Remittance Utilization Among Migrant Workers: Evidence from Bangladesh. Int J Soc Econ. 2020;47(11):1425-1442. doi:10.1108/IJSE-04-2020-0223
7) OECD. OECD Guidelines for Multinational Enterprises on Responsible Business Conduct. 2023. doi:10.1787/81f92357-en
8) Sinambela LP, Firlana U, Mastur A. Survival Strategies, Remittance Management Models, and Micro Businesses of Migrant Worker Families: A Literature Review. International Journal of Social Science and Human Research. 2025;8(1).

9) Puspitasari DM, Utami EM, Amaliawiati L. Empowering Indonesian Migrant Workers in Penang, Malaysia Through Financial Literacy and Micro-Enterprise Training. ICCD: International Conference on Community Development. 2025;6(1). doi:10.33068/iccd.v6i1.969
10) Cole S, Sampson T, Zia B. Prices or Knowledge? What Drives Demand for Financial Services in Emerging Markets? Journal of Finance. 2011;66(6):1933-1967. doi:10.1111/j.1540-6261.2011.01696.x
11) Amyulianthy R, Muda R, Said J, Setyaningrum D. Examining The Moderating Role Of Performance Measurement System On Relationship Between Audit Results And Performance Of Indonesian Local Authorities. Journal of Contemporary Issues in Business and Government. 2021;27(1):2040-2058.
12) Aggarwal R, Demirgüç-Kunt A, Pería MSM. Do Remittances Promote Financial Development? J Dev Econ. 2011;96(2):255-264. doi:10.1016/j.jdeveco.2010.10.005
13) Farzana N, Qamruzzaman M, Mindia PM. Interplay of Digital Financial Inclusion, Technological Innovation, Good Governance, and Carbon Neutrality in the Top 30 Remittance-Receiving Countries: The Significance of Renewable Energy Integration. International Journal of Energy Economics and Policy. 2024;14(4):408-425. doi:10.32479/ijeep.16097
14) Yang D. Migrant Remittances. Journal of Economic Perspectives. 2011;25(3):129-152. doi:10.1257/jep.25.3.129
15) Rapoport H, Docquier F. The Economics of Migrants' Remittances. Handbook of the Economics of Giving, Altruism and Reciprocity. 2006;2:1135-1198. doi:10.1016/S1574-0714(06)02017-3
16) Adams RH, Page J. Do International Migration and Remittances Reduce Poverty in Developing Countries? World Dev. 2005;33(10):1645-1669. doi:10.1016/j.worlddev.2005.05.004
17) Ratha D. The Impact of Remittances on Economic Growth and Poverty Reduction. Migration Policy Institute; 2013.
18) Meyer D, Shera A. The Impact of Remittances on Economic Growth: An Econometric Model. EconomiA. 2017;18(2):147-155. doi:10.1016/j.econ.2016.06.001
19) (IOM) IO for M. International Migration and Migrant Workers' Remittances in Indonesia. IOM Publications; 2010.
20) De Arcangelis G, Joxhe M, McKenzie D, Tiongson E, Yang D. Directing Remittances to Education with Soft and Hard Commitments: Evidence from a Lab-in-the-Field Experiment and New Product Take-Up Among Filipino Migrants in Rome. J Econ Behav Organ. 2015;111:197-208. doi:10.1016/j.jebo.2014.12.013
21) Ashraf N, Aycinena D, Martinez C, Yang D. Savings in Transnational Households: A Field Experiment Among Migrants from El Salvador. Review of Economics and Statistics. 2015;97(2):332-351. doi:10.1162/REST_a_00462
22) Demirgüç-Kunt A, Klapper L, Singer D, Ansar S, Hess J. The Global Findex Database 2017: Measuring Financial Inclusion and the Fintech Revolution. World Bank Group; 2018. doi:10.1596/978-1-4648-1259-0
23) Naceur S Ben, Chami R, Trabelsi M. Do Remittances Enhance Financial Inclusion in LMICs and in Fragile States? International Monetary Fund; 2020. doi:10.5089/9781513545394.001
24) Ajefu JB, Ogebe JO. Migrant Remittances and Financial Inclusion Among Households in Nigeria. Oxford Development Studies. 2019;47(3):319-335. doi:10.1080/13600818.2019.1575349
25) Candeias AA, Galindo E, Rocha A. Adaptation and psychometric analysis of the Emotional Intelligence View Nowack's (EIV) questionnaire in the Portuguese context. PSICOLOGIA. 2021;35(1):11-22. doi:10.17575/PSICOLOGIA.V35I1.1477
26) Gujarati D. Econometrics By Example. PALGRAVE; 2015.
27) Fernandes GB, de Lima Baldam R, Costa L, de Souza Nogueira MAF, de Paiva Coelho Junior T. Supreme Audit Institutions Promoting the Sustainable Development Goals: A Subnational Case Study From Brazil. Glob Policy. 2025;16(5):989-1003. doi:10.1111/1758-5899.70079

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