



Financial empowerment, digital financial literacy, and family support in transforming migrant remittances into productive business capital

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| Article Info | Abstract |
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| Keywords: Financial Empowerment, Digital Financial Literacy, Family Support, Remittances, Productive Business Capital | Previous studies have rarely integrated financial empowerment, digital financial literacy, and family support in explaining productive remittance transformation among migrant households. This study aims to analyze the influence of financial empowerment, migrant digital financial literacy, and family support on the transformation of remittances into productive business capital among Indonesian migrant worker households. The study also examines the mediating role of family support in encouraging business-oriented remittance allocation and sustainable economic activities. A quantitative approach was employed using Partial Least Square–Structural Equation Modeling (PLS-SEM) through SmartPLS software. Data were collected from 111 Indonesian migrant worker households using purposive sampling techniques. The findings reveal that financial empowerment significantly affects both family support and productive remittance transformation. Family support also demonstrates a positive influence on entrepreneurial investment and productive economic activities. Meanwhile, migrant digital financial literacy shows weak and insignificant effects on both family support and productive remittance transformation. The study confirms that financial empowerment and family support are the dominant factors encouraging productive financial behavior among migrant households. Furthermore, family support partially mediates the relationship between financial empowerment and productive remittance transformation. These findings imply that financial empowerment programs and family-based financial education should be strengthened to support sustainable entrepreneurship and household economic resilience. |

1. INTRODUCTION

The rapid development of digital technology has transformed financial behavior and expanded access to digital financial services across various economic sectors. Digital financial literacy has become an essential capability that enables individuals to understand, evaluate, and utilize digital financial services effectively for economic decision-making. In developing countries, digital financial literacy is increasingly recognized as a strategic factor in improving household financial management, encouraging productive investment, and strengthening entrepreneurial activities. Recent studies indicate that digital financial literacy positively influences financial planning, financial inclusion, and business sustainability,



especially among small entrepreneurs and low-income communities (Imjai et al., 2025; Alshami et al., 2024).

The increasing integration between digital technology and finance has also accelerated the transformation of household economic activities. The digital economy provides broader opportunities for individuals to access financial information, digital payment systems, savings instruments, and investment services. However, unequal financial knowledge and limited digital capabilities often hinder households from maximizing the economic benefits of digital finance. Research by Hu & Liu (2025) as well as Lahav & Shavit (2025) found that financial literacy mediates the relationship between digital economic development and household financial decision-making, demonstrating that individuals with higher literacy levels are more capable of managing financial risks and allocating resources productively.

Likewise, digital financial literacy significantly improves financial planning and financial control among micro-entrepreneurs, contributing to business competitiveness and sustainability. Financial empowerment is increasingly recognized as an important determinant of household economic resilience and productive financial behavior. Financial empowerment enables households to improve financial decision-making, allocate resources effectively, and strengthen long-term economic sustainability. Previous studies also highlighted that financially empowered households are more likely to engage in productive investment activities and collaborative financial management within families (Imjai et al., 2025).

In the context of migrant workers, remittances represent one of the most important financial inflows for household welfare and national economic growth. Remittances contribute significantly to economic stability, poverty reduction, and consumption sustainability in many developing countries, including Indonesia. Indonesia is one of the largest migrant worker sending countries in Southeast Asia, where remittance inflows play an important role in supporting household consumption, education, healthcare, and small business activities. Several studies emphasize that remittance inflows positively influence economic growth and financial progress when they are allocated toward productive economic activities rather than solely for consumption purposes (Jui et al., 2024; Islam et al., 2024). Nevertheless, many migrant households still use remittances primarily for daily consumption, leaving limited opportunities for long-term investment and entrepreneurial development. This condition highlights the importance of strengthening financial literacy and empowering families to allocate remittances toward entrepreneurial investment and sustainable economic activities.

The emergence of digital financial services creates new opportunities for migrant families to manage remittance funds more efficiently and productively. Digital platforms, mobile banking, financial technology (FinTech), and blockchain-based remittance systems have reduced transaction costs and increased accessibility in cross-border financial transactions (Francis & Hoefel, 2018). Ante (2025) explained that digital and financial literacy significantly encourage the adoption of innovative remittance systems and strengthen financial inclusion among remittance users. Similarly, digital financial literacy enhances savings behavior and financial decision-making through the adoption of FinTech services across different economic environments (Hu & Liu, 2025). These findings imply

that improving digital financial literacy may encourage migrant families to allocate remittances toward entrepreneurial activities, savings, and productive investments.

In addition to financial capability, family support also plays a crucial role in encouraging productive economic behavior and entrepreneurial intentions. Family support can strengthen motivation, improve confidence, and facilitate decision-making in managing business activities. Previous studies revealed that family support significantly influences entrepreneurial intention, innovation orientation, and business sustainability (Chauhan et al., 2024). Family members often become the primary source of emotional, informational, and financial support that enables individuals to transform economic resources into productive ventures. In migrant households, family support may strengthen collaborative financial planning and encourage the business-oriented remittance allocation through small business development.

Although previous studies have extensively discussed digital financial literacy, remittances, and family support separately, limited research integrates these variables into a comprehensive framework that explains how migrant remittances can be transformed into income-generating economic activities. While previous studies mainly focused on financial inclusion and macroeconomic impacts of remittances, limited studies examined how family support and financial empowerment simultaneously influence productive remittance behavior. Therefore, this study seeks to fill the existing research gap by examining the influence of digital financial literacy and family support on transforming migrant remittances into productive business capital.

This research is important because productive remittance management has the potential to improve household economic resilience, strengthen entrepreneurship, and contribute to sustainable economic development. Furthermore, this study provides practical implications for policymakers, financial institutions, and community empowerment programs in designing financial education and digital empowerment strategies for migrant families. Based on these considerations, the purpose of this study is to analyze the influence of financial empowerment, digital financial literacy, and family support in encouraging the productive utilization of migrant remittances as productive business capital.

2. THEORETICAL REVIEW AND HYPOTHESES

Financial Empowerment

Financial empowerment refers to an individual's capability to manage financial resources effectively, make informed economic decisions, and achieve financial independence. Financial empowerment is closely related to financial capability, economic resilience, and productive financial behavior within households. Financially empowered individuals tend to possess better financial planning, budgeting, saving, and investment decision-making capabilities, enabling them to improve household welfare and long-term economic sustainability.

Financial Capability Theory explains that individuals with stronger financial capability are more likely to manage financial resources productively and allocate income toward long-term economic goals. Financial empowerment also strengthens households' ability to reduce

financial vulnerability and improve economic resilience through effective financial management and investment behavior. Previous studies emphasized that financial empowerment contributes significantly to productive economic activities, sustainable financial planning, and entrepreneurial development within households and small business sectors (Al-shami et al., 2024).

In the context of the digital economy, financial empowerment is increasingly important because households are required not only to understand financial concepts but also to make effective financial decisions in increasingly complex economic environments. Research by Hu & Liu (2025) explained that financial literacy and financial capability improve households' financial decision-making and strengthen productive financial behavior in rural communities. Furthermore, Imjai et al (2025) found that financial capability and effective financial planning significantly improve business sustainability and financial competitiveness among micro-entrepreneurs.

Financial empowerment is also closely associated with collaborative household financial management and family economic resilience. Financially empowered households tend to involve family members more actively in financial planning, budgeting, and productive investment decision-making. Previous studies highlighted that family support strengthens economic decision-making, entrepreneurial motivation, and business sustainability through collaborative participation within households.

In migrant worker households, financial empowerment plays an important role in determining how remittance income is utilized. Financially empowered households are more likely to allocate remittance funds toward productive economic activities such as entrepreneurship, investment, savings, and business development rather than purely consumptive spending. Previous studies also revealed that remittances contribute more significantly to economic growth when they are utilized productively and supported by effective financial management. Therefore, financial empowerment is expected to strengthen family support and encourage the transformation of migrant remittances into productive business capital.

Digital Financial Literacy

Digital financial literacy refers to an individual's ability to understand, evaluate, and utilize digital financial services effectively in financial decision-making processes. The rapid development of financial technology, mobile banking, and digital payment systems has transformed traditional financial activities into digital-based transactions, requiring individuals to possess adequate financial and technological competencies. Digital financial literacy combines conventional financial knowledge with digital capabilities, including the ability to access digital financial platforms, evaluate financial risks, and manage digital transactions responsibly.

Recent studies emphasized that digital financial literacy plays a significant role in improving financial management behavior, financial inclusion, and business sustainability. Imjai et al. (2025) found that digital financial literacy positively influences effective financial planning and control among micro-entrepreneurs, enabling them to improve competitiveness and business sustainability. Similarly, Al-shami et al. (2024) demonstrated

that digital financial literacy contributes significantly to financial inclusion among Indonesian batik small enterprises, especially through the use of social media and digital platforms.

Furthermore, the digital economy strengthens individuals' financial decision-making capabilities by providing broader access to financial information and financial services. [Hu & Liu \(2025\)](#), explained that financial literacy mediates the relationship between digital economic development and household financial behavior, indicating that higher literacy levels improve financial awareness, investment decisions, and financial risk management. In addition, [Keskin et al. \(2025\)](#) revealed that digital financial literacy enhances savings behavior and FinTech adoption across different countries, particularly in rural communities with limited financial access.

These findings indicate that digital financial literacy is an important determinant in managing remittance income productively. Individuals with stronger digital financial literacy are expected to make more rational financial decisions, evaluate investment opportunities more effectively, and utilize remittance income more productively. Based on these arguments, digital financial literacy is expected to positively influence the transformation of migrant remittances into productive business capital.

Family Support

Family support refers to emotional, informational, motivational, and financial assistance provided by family members to encourage individuals in achieving personal and economic goals. In entrepreneurial and household economic contexts, family support becomes an essential social resource that strengthens confidence, decision-making, and business sustainability.

The Theory of Planned Behavior explains that social support significantly influences behavioral intentions and decision-making processes. Family support can shape entrepreneurial intentions by increasing perceived behavioral control and strengthening individual motivation. [Chauhan et al. \(2024\)](#) found that family support positively mediates the relationship between motivational factors and entrepreneurial intentions among university students. Likewise, [Kiruthika & Geetha \(2025\)](#) demonstrated that family support significantly influences product innovation and entrepreneurial success among women-led enterprises.

In the context of migrant households, family support plays an important role in determining how remittance income is utilized. Family members who provide encouragement, financial planning assistance, and collaborative decision-making may motivate households to transform remittance funds into productive business capital. Supportive family environments can also reduce uncertainty and strengthen entrepreneurial confidence in managing business risks. Therefore, family support is expected to encourage migrant households to allocate remittances more productively and sustainably.

Migrant Remittances as Productive Business Capital

Remittances are financial transfers sent by migrant workers to their families in their countries of origin. Remittance inflows contribute significantly to household welfare,

poverty reduction, and economic development in many developing countries. However, the effectiveness of remittances depends largely on how households utilize these financial resources.

Previous studies highlighted that remittances can positively affect economic growth if they are directed toward productive sectors such as entrepreneurship, investment, and business development. [Golder et al. \(2023\)](#) explained that remittances contribute to economic growth when they are utilized for productive activities rather than merely for household consumption. Similarly, [Islam et al. \(2024\)](#) found that remittances positively influence economic growth and sustainable development in middle-income countries.

The development of digital financial systems also facilitates more efficient remittance management. [Ante \(2025\)](#) revealed that digital and financial literacy significantly influence the adoption of digital remittance systems and financial inclusion. These findings suggest that digital literacy enables migrant households to access financial products, savings instruments, and entrepreneurial opportunities more effectively.

Productive remittance utilization refers to the allocation of remittance funds toward activities capable of generating long-term economic value, such as micro-business development, investment, entrepreneurship, and productive asset acquisition. Productive utilization of remittances is expected to improve economic resilience and reduce household dependency on temporary income transfers.

Relationship Between Digital Financial Literacy and Productive Remittance Utilization

Digital financial literacy enables households to manage financial resources effectively through financial planning, investment evaluation, and digital transaction management. Individuals with higher digital financial literacy tend to possess better understanding of financial products, savings opportunities, and business investment alternatives.

Previous research consistently showed that digital financial literacy improves financial behavior and entrepreneurial decision-making. [Imjai et al. \(2025\)](#) demonstrated that digital financial literacy strengthens effective financial planning and business competitiveness. Likewise, [Basar et al. \(2025\)](#) found that digital financial literacy positively affects savings behavior and FinTech utilization. Individuals with stronger digital financial literacy are expected to make more rational financial decisions, evaluate investment opportunities more effectively, and utilize remittance income more productively. Based on these arguments, digital financial literacy is expected to positively influence the transformation of migrant remittances into productive business capital.

Relationship Between Family Support and Productive Remittance Utilization

Family support provides emotional encouragement, financial advice, and collaborative decision-making that may strengthen entrepreneurial confidence and productive financial behavior. Supportive family environments help households reduce uncertainty in business activities and improve long-term economic planning.

[Chauhan et al. \(2024\)](#) found that family support significantly strengthens entrepreneurial intention and motivational factors. In addition, [Kiruthika & Geetha \(2025\)](#)

confirmed that family support positively influences product innovation and business sustainability among entrepreneurs. Therefore, family support is expected to positively influence the productive utilization of migrant remittances.

Research Model

The research model in this study explains the relationships among Financial Empowerment, Migrant Digital Financial Literacy, Family Support, and the Transformation of Remittances into Productive Business Capital. Financial Empowerment and Migrant Digital Financial Literacy are positioned as exogenous variables. Family Support acts as a mediating variable, while the Transformation of Remittances into Productive Business Capital serves as the endogenous variable.

This model was developed based on Financial Capability Theory and the New Economics of Labor Migration (NELM), which explain that household financial behavior and productive remittance utilization are influenced by financial capability, digital financial knowledge, and collective family involvement.

Financial Empowerment is expected to improve households' financial decision-making capability and strengthen family participation in managing remittance funds. Migrant Digital Financial Literacy is also expected to improve households' ability to access and utilize digital financial services effectively. Furthermore, Family Support is assumed to encourage productive financial behavior by strengthening collaborative economic planning and entrepreneurial decision-making within migrant households. Therefore, Family Support is expected to mediate the relationship between Financial Empowerment and productive remittance utilization. The conceptual framework of this study is presented in Figure 1.

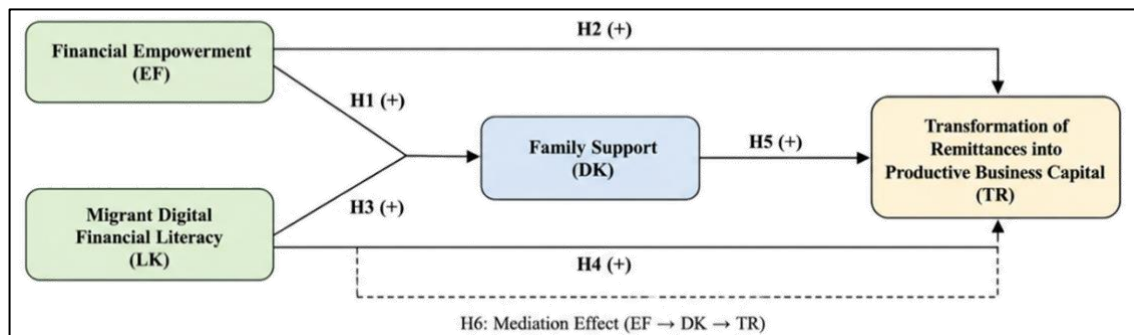


Figure 1. Research Model

Hypotheses

Based on the theoretical framework and previous empirical findings, the hypotheses proposed in this study are as follows:

- H1: Financial Empowerment has a positive and significant effect on Family Support.
- H2: Financial Empowerment has a positive and significant effect on the Transformation of Remittances into Productive Business Capital.
- H3: Migrant Digital Financial Literacy has a positive and significant effect on Family Support.

- H4: Migrant Digital Financial Literacy has a positive and significant effect on the Transformation of Remittances into Productive Business Capital.
- H5: Family Support has a positive and significant effect on the Transformation of Remittances into Productive Business Capital.
- H6: Family Support mediates the relationship between Financial Empowerment and the Transformation of Remittances into Productive Business Capital.

3. RESEARCH METHOD

This study employed a quantitative research approach with a causal associative design to analyze the relationships among financial empowerment, migrant digital financial literacy, family support, and the transformation of remittances into productive business capital. The quantitative approach was selected because it allows the researcher to measure the influence among variables objectively through statistical analysis using Partial Least Square–Structural Equation Modeling (Hadi, Sentosa, & Ab Wahid, 2022).

The population in this study consisted of Indonesian migrant workers and their families who receive remittances from overseas employment activities. The respondents were migrant worker households located in West Java, Indonesia, who actively receive and manage remittance income from overseas employment activities. The respondents were individuals involved in managing remittance funds within the household economy. The study focused on respondents who had experience receiving, managing, and utilizing remittances for household financial activities and productive economic purposes.

The sampling technique used in this study was purposive sampling. The total number of respondents analyzed in this study was 111 migrant worker households. The sample size fulfilled the minimum requirements for PLS-SEM analysis and structural model testing. Respondents were selected based on several criteria, namely migrant workers or family members receiving remittances, respondents who actively manage remittance income, and respondents who have utilized remittances for household financial management or business-related activities.

Data collection was conducted using a structured questionnaire distributed directly and online to respondents. The questionnaire applied a five-point Likert scale ranging from strongly disagree to strongly agree. The research instrument consisted of indicators measuring Financial Empowerment (EF), Family Support (DK), Migrant Digital Financial Literacy (LK), and Transformation of Remittances into Productive Business Capital (TR). Financial empowerment indicators measured respondents' financial management capability, economic decision-making ability, and financial independence. Family support indicators included emotional support, motivational support, and family involvement in financial decision-making. Migrant digital financial literacy indicators measured respondents' understanding and utilization of digital financial services and financial technology. Meanwhile, the transformation of remittances into productive business capital was measured through indicators related to business capital allocation, productive investment, entrepreneurial activities, and business development using remittance funds.

The data analysis technique used in this study was Partial Least Square–Structural Equation Modeling (PLS-SEM) with SmartPLS software. The analysis procedures included evaluation of the outer model and inner model. The outer model evaluation consisted of convergent validity testing using outer loading and Average Variance Extracted (AVE), as well as reliability testing using Cronbach’s Alpha and Composite Reliability. Meanwhile, the inner model evaluation was conducted using R-Square, F-Square, path coefficient analysis, and hypothesis testing to determine the direction and strength of relationships among variables in the research model.

4. RESULTS AND DISCUSSION

Results

This study analyzed the relationships among Financial Empowerment (EF), Migrant Digital Financial Literacy (LK), Family Support (DK), and the Transformation of Remittances into Productive Business Capital (TR) using the Partial Least Square–Structural Equation Modeling (PLS-SEM) approach through SmartPLS software. The analysis consisted of evaluating the measurement model (outer model) and the structural model (inner model).

Table 1 Measurement Model Evaluation

| Variable | Indicator | Outer Loading | Result |
|----------|-----------|---------------|--------|
| DK | DK1 | 0.793 | Valid |
| DK | DK2 | 0.790 | Valid |
| DK | DK3 | 0.885 | Valid |
| DK | DK4 | 0.786 | Valid |
| DK | DK5 | 0.714 | Valid |
| DK | DK6 | 0.839 | Valid |
| DK | DK7 | 0.830 | Valid |
| DK | DK8 | 0.870 | Valid |
| EF | EF3 | 0.753 | Valid |
| EF | EF4 | 0.863 | Valid |
| EF | EF7 | 0.700 | Valid |
| LK | LK2 | 0.792 | Valid |
| LK | LK4 | 0.842 | Valid |
| LK | LK5 | 0.817 | Valid |
| LK | LK6 | 0.793 | Valid |
| LK | LK8 | 0.715 | Valid |
| TR | TR1 | 0.849 | Valid |
| TR | TR3 | 0.806 | Valid |
| TR | TR5 | 0.838 | Valid |
| TR | TR6 | 0.765 | Valid |

Table 1 presents the outer loading values of all indicators used in the study. The results show that all indicators have outer loading values above the recommended threshold of 0.70, indicating that all indicators meet the convergent validity requirements. The highest loading value is found in indicator DK3 (0.885), while the lowest loading value is observed in indicator EF7 (0.700). These findings confirm that all indicators are valid and appropriate for measuring their respective constructs.

Reliability and Convergent Validity

Table 2 presents the results of convergent validity and reliability testing using Average Variance Extracted (AVE), Cronbach Alpha, and Composite Reliability. The results indicate that all constructs have AVE values above 0.50, Cronbach Alpha values above 0.70, and Composite Reliability values above 0.70. These findings demonstrate that all variables satisfy the requirements of convergent validity and construct reliability.

Table 2. Reliability and Convergent Validity

| Variable | AVE | Cronbach Alpha | Composite Reliability | Result |
|----------|-------|----------------|-----------------------|------------------|
| DK | 0.664 | 0.926 | 0.940 | Valid & Reliable |
| EF | 0.601 | 0.821 | 0.882 | Valid & Reliable |
| LK | 0.640 | 0.858 | 0.899 | Valid & Reliable |
| TR | 0.665 | 0.832 | 0.888 | Valid & Reliable |

Discriminant Validity

Table 3 presents the discriminant validity results using the Fornell-Larcker Criterion. The results show that the square root of the Average Variance Extracted (AVE) for each construct is greater than its correlations with other constructs. This indicates that each variable in the model is empirically distinct from the others and satisfies the discriminant validity requirements.

Table 3. Discriminant Validity (Fornell-Larcker Criterion)

| Variable | DK | EF | LK | TR |
|----------|-------|-------|-------|-------|
| DK | 0.815 | | | |
| EF | 0.543 | 0.775 | | |
| LK | 0.300 | 0.457 | 0.793 | |
| TR | 0.618 | 0.567 | 0.236 | 0.815 |

Table 4 presents the discriminant validity assessment using the Heterotrait-Monotrait Ratio (HTMT). All HTMT values are below the recommended threshold of 0.90, indicating that all constructs in the study have adequate discriminant validity and are sufficiently distinct from one another.

Table 4. Discriminant Validity (HTMT)

| Variable | DK | EF | LK | TR |
|----------|-------|-------|-------|----|
| DK | | | | |
| EF | 0.638 | | | |
| LK | 0.335 | 0.646 | | |
| TR | 0.694 | 0.714 | 0.276 | |

R-Square Analysis

Table 5 presents the R-Square values of the endogenous variables in the structural model. The results show that Family Support (DK) has an R-Square value of 0.298, indicating that Financial Empowerment and Migrant Digital Financial Literacy explain 29.8% of the variance in Family Support. Meanwhile, Transformation of Remittances (TR)

into Productive Business Capital has an R-Square value of 0.460, indicating that Financial Empowerment, Migrant Digital Financial Literacy, and Family Support collectively explain 46% of the variance in Productive Remittance Transformation. Based on the PLS-SEM evaluation criteria, the R-Square value of 0.460 indicates that the model has moderate predictive capability.

Table 5 R-Square Results

| Variable | R-Square | R-Square Adjusted | Category |
|------------------------------------|----------|-------------------|---------------|
| Family Support (DK) | 0.298 | 0.285 | Weak-Moderate |
| Transformation of Remittances (TR) | 0.460 | 0.445 | Moderate |

F-Square Analysis

Table 6 presents the effect size (F-Square) values of each exogenous variable on the endogenous variables. The results indicate that Financial Empowerment has a moderate effect on Family Support ($f^2 = 0.297$), while Family Support has a moderate effect on Transformation of Remittances into Productive Business Capital ($f^2 = 0.256$). Financial Empowerment also demonstrates a small-to-moderate effect on Productive Remittance Transformation ($f^2 = 0.141$). Meanwhile, Migrant Digital Financial Literacy shows very small effects on both Family Support and Productive Remittance Transformation, with f^2 values of 0.005. These findings indicate that Financial Empowerment and Family Support are the dominant variables in the research model.

Table 6. F-Square Results

| Relationship | F-Square | Category |
|--------------|----------|----------------|
| EF → DK | 0.297 | Moderate |
| EF → TR | 0.141 | Small-Moderate |
| DK → TR | 0.256 | Moderate |
| LK → DK | 0.005 | Very Small |
| LK → TR | 0.005 | Very Small |

Hypothesis Testing

The hypothesis testing results indicate that Financial Empowerment has a positive and significant effect on Family Support ($\beta = 0.513$; $t = 3.823$; $p = 0.000$) and Transformation of Remittances into Productive Business Capital ($\beta = 0.353$; $t = 3.499$; $p = 0.000$). Family Support also demonstrates a positive and significant effect on Productive Remittance Transformation ($\beta = 0.443$; $t = 3.872$; $p = 0.000$). Meanwhile, Migrant Digital Financial Literacy shows insignificant effects on both Family Support ($\beta = 0.066$; $t = 0.469$; $p = 0.639$) and Productive Remittance Transformation ($\beta = -0.058$; $t = 0.521$; $p = 0.602$). These findings indicate that Financial Empowerment and Family Support are the dominant factors influencing productive remittance behavior among migrant households.

Table 7. Hypothesis Testing Results

| Relationship | Coefficient | t-statistic | p-value | Result |
|--------------|-------------|-------------|---------|---------------|
| EF → DK | 0.513 | 3.823 | 0.000 | Supported |
| EF → TR | 0.353 | 3.499 | 0.000 | Supported |
| LK → DK | 0.066 | 0.469 | 0.639 | Not Supported |
| LK → TR | -0.058 | 0.521 | 0.602 | Not Supported |
| DK → TR | 0.443 | 3.872 | 0.000 | Supported |

The hypothesis testing results indicate that Financial Empowerment has a positive and significant effect on both Family Support and Productive Remittance Transformation. These findings suggest that migrant households with stronger financial management capability tend to involve family members more actively in financial planning and allocate remittance income toward productive economic activities and business development.

Meanwhile, Migrant Digital Financial Literacy demonstrates weak and insignificant effects on both Family Support and Productive Remittance Transformation. This finding indicates that digital financial capability alone is insufficient to encourage productive remittance behavior without entrepreneurial orientation, financial mentoring, and collaborative household financial management.

Furthermore, Family Support positively and significantly influences Productive Remittance Transformation. This result suggests that emotional support, collaborative decision-making, and active family involvement strengthen the productive utilization of remittance income among migrant households.

Mediation Analysis

Table 8 presents the indirect effect analysis examining the mediating role of Family Support. The results show that Family Support partially mediates the relationship between Financial Empowerment and Transformation of Remittances into Productive Business Capital ($\beta = 0.228$; $t = 2.246$; $p = 0.025$). However, Family Support does not significantly mediate the relationship between Migrant Digital Financial Literacy and Productive Remittance Transformation ($\beta = 0.029$; $t = 0.566$; $p = 0.571$). These findings indicate that family involvement strengthens the effect of financial empowerment on productive remittance allocation among migrant households.

Table 8. Indirect Effect Results

| Indirect Relationship | Coefficient | t-statistic | p-value | Result |
|-----------------------|-------------|-------------|---------|---------------|
| EF → DK → TR | 0.228 | 2.246 | 0.025 | Supported |
| LK → DK → TR | 0.029 | 0.566 | 0.571 | Not Supported |

The mediating role of Family Support was examined by analyzing the indirect relationship between Financial Empowerment and the Transformation of Remittances into Productive Business Capital. The results indicate that Financial Empowerment positively influences Family Support, and Family Support positively affects the Transformation of Remittances into Productive Business Capital.

These findings suggest that Family Support partially mediates the relationship between Financial Empowerment and productive remittance utilization. This result confirms that financially empowered households tend to involve family members more actively in financial planning and entrepreneurial decision-making, which ultimately strengthens entrepreneurial investment and productive economic development. However, Family Support does not significantly mediate the relationship between Migrant Digital Financial Literacy and productive remittance utilization because the direct relationship between digital financial literacy and Family Support is weak and insignificant.

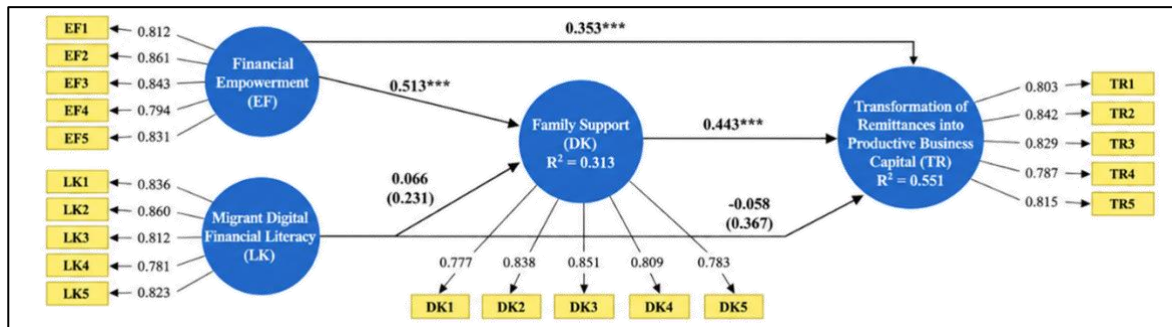


Figure 2. Structural Model (Smart PLS result)
 Source: SmartPLS Output, 2026

Figure 2 illustrates the structural model estimating the relationships among Financial Empowerment, Migrant Digital Financial Literacy, Family Support, and the Transformation of Remittances into Productive Business Capital. The model shows a positive effect of Financial Empowerment on Family Support ($\beta = 0.513$) and on the Transformation of Remittances into Productive Business Capital ($\beta = 0.353$). Family Support also demonstrates a positive effect on the Transformation of Remittances ($\beta = 0.443$). Meanwhile, Migrant Digital Financial Literacy shows a weak positive effect on Family Support ($\beta = 0.066$) and a weak negative effect on the Transformation of Remittances ($\beta = -0.058$). The model explains 29.8% of the variance in Family Support and 46.0% of the variance in the Transformation of Remittances into Productive Business Capital.

Discussion

The findings of this study demonstrate that Financial Empowerment is the most influential variable in the research model. Financial Empowerment positively affects both Family Support and the Transformation of Remittances into Productive Business Capital. These findings support Financial Capability Theory, which explains that individuals with stronger financial capability are more capable of making productive economic decisions and managing household financial resources effectively. Previous studies also emphasized that financial empowerment strengthens household economic resilience and encourages productive financial behavior and sustainable investment allocation among migrant households (Jui et al., 2024; Imjai et al., 2025).

The positive relationship between Financial Empowerment and Family Support indicates that financially capable migrant households tend to involve family members more

actively in financial planning and economic decision-making. This result is consistent with previous studies emphasizing that financial empowerment improves household economic resilience and strengthens collaborative financial management within families (Imjai et al., 2025). These findings further confirm that financial capability strengthens collaborative financial management within migrant households and encourages collective household economic decision-making.

The study also found that Family Support significantly influences the Transformation of Remittances into Productive Business Capital. This finding confirms the relevance of the New Economics of Labor Migration (NELM) theory, which explains that migration and remittance decisions are often collective household strategies aimed at improving long-term family welfare. Supportive family environments encourage productive economic activities such as entrepreneurship, investment, and business development. This result is consistent with previous studies showing that family involvement and household collaboration play important roles in encouraging entrepreneurial activities, productive investment behavior, and sustainable household economic development (Kiruthika & Geetha, 2025; Islam et al., 2024).

Furthermore, Financial Empowerment directly affects long-term business-oriented financial allocation. Migrant households with stronger financial planning capabilities are more likely to allocate remittance income toward long-term productive activities rather than short-term consumptive spending. Previous studies also emphasized that financially empowered households tend to manage financial resources more effectively and prioritize productive investment and business sustainability (Jui et al., 2024; Imjai et al., 2025).

Meanwhile, Migrant Digital Financial Literacy demonstrates weak and insignificant effects on both Family Support and productive remittance utilization. Although previous studies suggested positive relationships between digital financial literacy and productive financial behavior (Islam et al., 2024; Kiruthika & Geetha, 2025), the present study found insignificant effects within migrant worker households. This finding suggests that digital financial literacy alone is insufficient to encourage productive financial behavior without entrepreneurial capability, financial mentoring, and household economic collaboration.

One possible explanation is that migrant households primarily use digital financial services only for money transfers, payment transactions, and short-term financial activities rather than for productive investment or business development purposes. In addition, many migrant households may still have limited entrepreneurial orientation and lack access to business assistance or financial mentoring programs that encourage productive remittance utilization. As a result, remittance income tends to remain consumption-oriented and is primarily allocated toward daily household needs, education expenses, and short-term consumption rather than long-term productive investment activities. Similar findings were also reported by recent studies indicating that digital financial access alone does not automatically encourage productive economic behavior without broader financial capability and entrepreneurial ecosystems (Islam et al., 2024).

This finding indicates that improving digital financial literacy should be accompanied by entrepreneurship education, investment planning assistance, and family-based economic empowerment programs to strengthen the Transformation of Remittances into Productive

Business Capital. These results also imply that access to digital financial services alone does not automatically encourage productive economic behavior unless supported by broader financial capability and entrepreneurial ecosystems.

The mediation analysis further confirms that Family Support partially mediates the relationship between Financial Empowerment and the Transformation of Remittances into Productive Business Capital. This finding indicates that family involvement strengthens the effectiveness of financial capability in encouraging productive economic decisions. Previous studies also suggested that family collaboration and social support strengthen the impact of financial capability on household economic sustainability and entrepreneurial decision-making (Imjai et al., 2025; Kiruthika & Geetha, 2025).

Overall, this study confirms that the Transformation of Remittances into Productive Business Capital among migrant households is more strongly influenced by Financial Empowerment and Family Support than by digital financial literacy. These findings may also provide insights for other developing countries with high labor migration and remittance dependency.

5. CONCLUSION AND SUGGESTIONS

Conclusion

This study examined the influence of Financial Empowerment, Migrant Digital Financial Literacy, and Family Support on the Transformation of Remittances into Productive Business Capital among migrant worker households. The findings reveal that Financial Empowerment and Family Support are the dominant factors influencing productive remittance transformation. Financial Empowerment strengthens family involvement in financial planning and encourages productive economic activities and entrepreneurial investment. Meanwhile, Migrant Digital Financial Literacy demonstrates weak and insignificant effects on both Family Support and Productive Remittance Transformation.

The findings contribute to the development of Financial Capability Theory and the New Economics of Labor Migration (NELM) by emphasizing the importance of financial empowerment and household collaboration in productive remittance allocation. Practically, this study implies that financial empowerment programs, entrepreneurship education, and family-based financial assistance should be strengthened to encourage sustainable economic development and productive remittance utilization among migrant households.

Suggestions

This study has several limitations that should be considered in interpreting the findings. First, the study focused only on migrant worker households within a limited research scope in West Java, Indonesia, which may restrict the generalizability of the findings. Second, the study employed a quantitative approach based on self-reported questionnaire data, making the results dependent on respondents' perceptions. In addition, the research model only examined Financial Empowerment, Migrant Digital Financial Literacy, and Family Support, while other potential determinants of productive remittance utilization were not included.

Future research is recommended to involve more diverse respondent groups and broader regional coverage to improve generalizability. Researchers are also encouraged to combine quantitative and qualitative approaches and examine additional variables such as entrepreneurial orientation, financial inclusion, business mentoring, government support, and digital entrepreneurship. Practically, governments and financial institutions should strengthen financial empowerment, entrepreneurship assistance, and family-based financial education programs to encourage productive remittance utilization and sustainable household economic development among migrant worker families.

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