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DETERMINANTS OF SAVINGS BEHAVIOR AMONG INDONESIAN MIGRANT WORKERS FROM KULON PROGO, YOGYAKARTA

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ABSTRACT

This research aims to determine the influence of age, length of work, formal education, income, remittances, number of dependents, marital status, determinants of money use, employment sector, informal education, and gender on the savings of Indonesian Migrant Workers (PMI) both partially and simultaneously. This quantitative study uses primary data collected through interviews and questionnaires, with a sample of 100 post-placement PMI individuals from Kulon Progo Regency. Multiple linear regression analysis was employed to evaluate the data. The t-test results indicate that age and income have a positive and significant effect on PMI savings, whereas length of work and remittances show a negative and significant impact. Formal education and the number of dependents exhibit a positive but insignificant relationship with PMI savings. Furthermore, the dummy variables for marital status, determinants of money use, employment sector, informal education, and gender do not significantly affect PMI savings, indicating no difference between the dummy categories. The F test reveals that all variables combined—age, length of work, formal education, income, remittances, number of dependents, marital status, determinants of money use, employment sector, informal education, and gender—significantly impact PMI savings.

1. INTRODUCTION

Poverty in Indonesia is a pervasive national issue that affects various social aspects of life. Poor individuals often experience a limited standard of living (Puspita, 2015). Addressing poverty has been a central focus of the Indonesian government's national development programs, though many efforts have yet to yield satisfactory results. In 2020, the poverty rate rose compared to 2019, with the percentage of the poor population increasing from 9.78% in the first quarter to 10.19% in the second quarter. This reflects the persistent challenges in effectively eradicating poverty. Poverty remains a complex issue, particularly in Java, a region with a high economic growth rate contributing significantly to the national GDP.

Despite its economic prowess, poverty continues to be a challenge on Java Island. In 2020, all provinces in Java experienced an increase in poverty levels, with the Yogyakarta Special Region (DIY) having the highest poverty rate. From 2017 to 2020, the average poverty rate in DIY was 11.56%. In 2020, this rate increased by 1.36% to 12.80%, indicating a uniform rise across all provinces.

Poverty is intricately linked to unemployment. High unemployment rates often result from limited job opportunities. The Indonesian government has sought to reduce unemployment by improving job creation planning. However, a gap remains between the labor market's supply and demand due to misalignment between job growth and workforce expansion (Mafruhah, Rahayu, et al., 2012). The government has promoted the deployment of migrant workers as a solution to alleviate poverty and unemployment (Afriska et al., 2018). Migration fosters dependency between host and home countries, as migrant workers contribute to economic productivity abroad and reduce unemployment rates at home. The limited skills of many Indonesians drive them to seek employment overseas, where they find better opportunities and wages (Mafruhah, Mulyani, et al., 2019).

Becoming a migrant worker significantly impacts the socio-economic welfare of the worker's family. Remittances from Indonesian workers abroad improve the economic status of their households. These remittances play an increasingly important role in the economy, contributing to growth and poverty reduction by enhancing family welfare. According to Bank Indonesia's SEKI documents, remittances consistently increased in 2018 and 2019. However, in 2020, they decreased by approximately 270 million USD in the first quarter and another 338 million USD in the second quarter, totaling 2,262 million USD for the year.

Two primary motives drive remittances which are altruism and self-interest. Altruistic motives involve concern for the welfare of family members in the home country, while self-interest motives focus on investment purposes. Research by Mafruhah, Sarsito, et al. (2012) shows that remittances are used for consumption, personal savings, and investments. Proper management of remittances can enhance migrant workers' welfare, positively impacting regional and national economic growth.
Currently, remittances are often used for consumption, though they could be more beneficial if allocated to productive activities such as savings and investments (Mafruhah, Sarsito, et al., 2012). Fisher's theory suggests that consumers have two consumption periods: current income and lifetime income through precautionary savings. The motivation to save remittances stems from the need to manage current income into lifetime income (Mafruhah et al., 2016). Studies in Egypt show that only 1% of pre-placement income is allocated for savings and investments, compared to 20% during the placement phase, which is invested in assets like property and micro-businesses (Mafruhah, Waridin, Iskandar, & Mudjahirin, 2019). Household income levels determine the proportion of remittances spent on consumption versus investment. Poor households often use remittances for consumption, while wealthier ones invest in business or human capital (Mafruhah et al., 2019).

Choosing to become a migrant worker is seen as a viable solution to issues like poverty, limited job opportunities, and wage disparities between Indonesia and destination countries (IOM, 2018). Poverty in DIY Province remains high, with the region having the highest percentage of poor individuals on Java Island. In 2020, the poverty rate in Kulon Progo Regency rose from 17.39% to 18.01%, marking it as the district with the highest poverty rate in DIY. Kulon Progo also had the highest number of migrant workers in DIY, with 1,381 migrant workers between 2017 and 2020.

The increasing poverty rate in 2020 and the substantial number of PMI in Kulon Progo Regency prompt an analysis of the factors influencing PMI savings in the region. This includes examining variables such as age, length of work, formal education, income, remittances, number of dependents, marital status, determinants of money use, employment sector, informal education, and gender to assess their impact on PMI savings.

2. RESEARCH METHODS

This research investigates the factors influencing the savings behavior of full-time migrant workers in the Kulon Progo district. The study focuses on several key variables, which are age, length of work, formal education, income, remittances, number of dependents, marital status, determinants of money usage, employment sector, informal education, and gender. The primary research objective is to analyze how these variables affect the amount of PMI savings.

The research was conducted in the Kulon Progo district, specifically targeting PMI Purna Placement workers. The sampling method employed is non-probability sampling, specifically purposive sampling, which involves selecting individuals based on specific characteristics or criteria relevant to the research. This technique was chosen to ensure that the sample accurately reflects the population of interest. A total of 100 full-time migrant workers from Kulon Progo district were selected for the study. The inclusion criteria for participants included having completed a placement as a migrant worker and residing in Kulon Progo district.

Data was collected using a structured interview method, supported by a detailed questionnaire designed to capture information on the specified variables. The questionnaire was administered to participants to gather quantitative data on their socio-demographic characteristics, work history, financial behavior, and savings patterns. The data collection process ensured that respondents understood the questions and provided accurate information.

The data analysis was performed using multiple linear regression techniques to explore the relationship between the dependent variable (PMI savings) and the independent variables. The analysis included several statistical tests. The regression model was developed using STATA 16 software, facilitating the analysis and interpretation of data. The model incorporated dummy variables to convert qualitative data into quantitative form, allowing for the inclusion of categorical variables such as marital status, determinants of money usage, employment sector, informal education, and gender.

The regression equation used in this study is:

$$Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 + \beta_7D_1 + \beta_8D_2 + \beta_9D_3 + \beta_{10}D_4 + \beta_{11}D_5 + \varepsilon$$

Where as:
Y = PMI savings
X_1 = Age
X_2 = Length of work
X_3 = Formal education
X_4 = Income
X_5 = Remittances
X_6 = Number of Dependencies
D_1 = Dummy Marital Status; with Bridegroom = 0, Not Bride = 1
D_2 = Dummy Determinant of Money Usage; with PMI = 0, Non-PMI = 1
D_3 = Dummy Sector Job; with Formal = 0, Informal = 1
D_4 = Dummy Informal Education; with course = 0, no course = 1
D_5 = Dummy Gender Type; with Male = 0, Female = 1
α = Constant
β = Regression coefficient
ε = Error term

This methodological framework provides a comprehensive approach to analyzing the factors affecting PMI savings among migrant workers in Kulon Progo district.

3. RESULTS AND DISCUSSION

3.1. RESULTS

The first analysis in this paper is t-test, which performed to determine whether there is a significant influence between an individual independent variable and a dependent variable. This test was performed using a significance of 0.05.

Table 1. t-Test Results

Variable	Coefficient	Prob.
X_1	50737.42	0.012
X_2	-121888	0.000
X_3	79047.22	0.303
X_4	0.577784	0.000
X_5	-0.60218	0.000
X_6	116627.1	0.184
D_1	200595	0.562
D_2	398831.1	0.164
D_3	-10588.8	0.969
D_4	153097.8	0.579
D_5	399997.5	0.188
C	-3454858	0.015

Source: Processed data (2021)

The t-test determines whether each independent variable significantly influences the dependent variable when controlling for other variables in the model. Table 1 above shows the coefficients and p-values (Prob.) for each variable, which are: 1) X_1 (Age): Coefficient = 50.737,42, p-value = 0,012. It means that the age of the migrant workers has a positive and statistically significant impact on their savings behavior; 2) X_2 (Length of Work): Coefficient = -121.888, p-value = 0,000. It means that the length of time that migrant workers have been employed has a significant negative impact on their savings, suggesting that longer employment may lead to decreased savings; 3) X_3 (Formal Education): Coefficient = 79.047,22, p-value = 0,303. It means that the impact of formal education on savings is positive but not statistically significant; 4) X_4 (Income): Coefficient = 0,577784, p-value = 0,000. It means that income has a positive and significant effect on savings, indicating that higher income leads to increased savings; 5) X_5 (Remittances): Coefficient = -0,60218, p-value = 0,000. It means that remittances have a significant negative effect on savings, possibly indicating that remittances are being used for consumption rather than saving; and 6) X_6 (Number of Dependencies): Coefficient = 116.627,1, p-value = 0,184. It means that the number of dependents has a positive but statistically insignificant effect on savings. Other variables, including marital status (D_1), origin (D_2), money-use determinants (D_3), employment sector (D_4), informal education (D_5), and gender, were found to be statistically insignificant, suggesting that they do not have a meaningful impact on the savings behavior of the migrant workers.

The second analysis in this paper is F-test, which performed to determine whether independent variables simultaneously or jointly significantly influence dependent variables. This test was performed using a significance of 0.05.

Tabel 2. F Test Result

Prob(F-statistic)	Conclusion
0.0000	Significant

Source: Processed data (2021)

The F-test assesses whether all the independent variables in the model, when considered together, have a significant effect on the dependent variable. As shown in Table 2 on the previous page, the Prob(F-statistic) is 0.0000, indicating that the model as a whole is statistically significant. This means that the combination of the independent variables significantly influences the savings behavior of Indonesian migrant workers.

The third analysis in this paper is determination coefficient (R^2). The value of the determination coefficient reflects how much variation of the Y-bound variable can be explained by the free variable X.

Tabel 3. R-squared Test Results

Variable	Value
R-squared	0.6988
Adjusted R-squared	0.6612

Source: Processed data (2021)

The determination coefficient (R^2) indicates the proportion of variance in the dependent variable that is explained by the independent variables. As shown as in Table 3 above, the R^2 value is 0.6988, meaning that 69.88% of the variation in savings behavior among Indonesian migrant workers can be explained by the variables included in the model. The adjusted R^2 value, which accounts for the number of predictors in the model, is 0.6612, slightly lower but still indicating a strong explanatory power. This high R^2 value suggests that the model is well-specified and that the independent variables provide a good fit for predicting the savings behavior of the target population.

3.2. DISCUSSION

The multiple regression analysis conducted in this study examines the influence of various factors, including age, length of work, formal education, income, remittances, number of dependents, marital status, determinants of money use, employment sector, informal education, and gender, on the savings behavior of Indonesian Migrant Workers (PMI). The regression results, as analyzed using STATA 16, provide insights into how these variables contribute to the amount of PMI savings, shedding light on the validity of the hypotheses proposed in this research. The model estimates after the regression analyses are as follows:

Table 3. Multiple Regression Analysis Results

Variable	Coefficient	Std. Error	t-Stat	Prob.
X_1	50737.42	19712.62	2.57	0.012
X_2	-121888	31889.08	-3.82	0.000
X_3	79047.22	76261.53	1.04	0.303
X_4	0.577784	0.0496891	11.63	0.000
X_5	-0.60218	0.064903	-9.28	0.000
X_6	116627.1	87128.33	1.34	0.184
D_1	200595	344763.3	0.58	0.562
D_2	398831.1	283915.2	1.4	0.164
D_3	-10588.8	275282.3	-0.04	0.969
D_4	153097.8	274703.6	0.56	0.579
D_5	399997.5	301558.4	1.33	0.188
C	-3454858	1399178	-2.47	0.015

Source: Processed data (2021)

Based on the regression results in Table 3 on the previous page. the following research model can be obtained:

$$Y = -3{,}454{,}858 + 50{,}737.42X_1 - 121{,}888X_2 + 79{,}047.22X_3 + 0.577784X_4 - 0.60218X_5 + 116{,}627.1X_6 + 200{,}595D_1 + 398{,}831.1D_2 - 10{,}588.8D_3 + 153{,}097.8D_4 + 399{,}997.5D_5 + \varepsilon$$

The age variable significantly and positively influences PMI savings, with a coefficient of 50.737,42. This indicates that with each additional year in age, PMI savings increase by 50.737,42 rupiah. This result supports prior research by Erryandaru (2018), which identified age as a significant factor in financial decision-making among Indonesian migrant workers. However, it contradicts the findings of Mafruhah, Waridin, Iskandar, & Thohir (2019), which suggested that age is not a significant predictor of saving behavior. The divergence in results may point to variations in sample demographics or the contexts in which these studies were conducted. Further research could explore whether specific age groups have different saving motivations or face distinct financial challenges.

The length of work negatively impacts PMI savings, with a regression coefficient of 121,888. This suggests that as the length of work increases by one year, PMI savings decrease by 121,888 rupiah. This finding is consistent with Liu et al. (2021), where the negative correlation may stem from the increased physical and mental exhaustion caused by extended working hours, which can limit the energy and motivation required to manage personal finances effectively. Additionally, workers with longer hours often have less time for financial planning and may prioritize immediate consumption over long-term savings, further exacerbating their financial vulnerability. Contrary to the initial hypothesis, the decrease in savings could also be due to higher expenditures or financial commitments that develop over time. Retno (2013) found no significant impact of work duration on investment rates, highlighting the complexity of this relationship. Additional studies could examine the role of spending habits and financial obligations in this dynamic.

The formal education variable, while positively related to PMI savings with a coefficient of 79,047.22, does not have a significant impact. This partially aligns with the hypothesis that higher education levels contribute to increased savings. The findings support Retno (2013) and Dwitariani and Rasmini (2019) indicating that education correlates with better financial decision-making. However, the lack of significance suggests that formal education alone may not be a strong determinant of saving behavior, possibly overshadowed by other factors such as income or financial literacy. Mafruhah, Mulyani, & Istiqomah (2019) also found no significant effect of education on saving behavior, which calls for a deeper investigation into how education influences financial attitudes and practices among migrant workers.

Income has a significant and positive influence on PMI savings, with a regression coefficient of 0.577784, meaning that an increase of 1 rupiah in income leads to an increase of 0.577784 rupiah in savings. This finding supports the hypothesis and is in line with the results of Erryandaru (2018) and Kowhakul (2016), which identified income as a crucial factor in saving behavior. Higher incomes provide more disposable income, making it easier for migrant workers to save. The significance of income in this context underscores the importance of policies aimed at increasing the earning potential of migrant workers to enhance their financial security and savings.

Contrary to the hypothesis, remittances negatively affect PMI savings, with a regression coefficient of -0.60218. This suggests that for every 1 rupiah increase in remittances, PMI savings decrease by 0.60218 rupiah. This result is unexpected, as remittances are typically viewed as a means to increase savings. The findings may indicate that remittances are being used for immediate consumption rather than savings. This contrasts with research by Laksono (2019) who found that remittance levels did not significantly affect financial literacy.

The negative relationship calls for further investigation into how remittances are allocated and whether they are used for savings, investment, or other financial purposes.

The number of dependencies has an insignificant but positive impact on PMI savings, with a coefficient of 116,627.1. This result partially supports the hypothesis and suggests that as the number of dependents increases, so does the amount of savings. However, the insignificance of the relationship contrasts with Retno (2013), who found that higher dependency leads to lower investment rates. The positive direction could imply that migrant workers with more dependents are motivated to save more to secure their family's future. The insignificant result may indicate that the effect of dependents on savings is complex and potentially moderated by other factors, such as income or financial responsibilities.

Marital status does not have a significant influence on PMI savings, indicating no difference in savings behavior between married and unmarried workers. This finding challenges the hypothesis and contradicts research by Mafruhah, Mulyani, & Istiqomah (2019) and Retno (2013), who found that marital status influences saving and investment decisions. The insignificance may suggest that other factors, such as income or employment stability, play a more crucial role in determining savings than marital status. This result invites further exploration into how marital status interacts with other variables in shaping financial behaviour.

This study finds that the determinant of money use has an insignificant impact on PMI savings. Whether the migrant worker or their family determines the use of money does not seem to influence the amount saved. This finding contrasts with the hypothesis and prior research by Astiti et al. (2019) and Laksono (2019), which emphasized the role of financial decision-makers in influencing saving behavior. The insignificance could imply that the decision-making process is more nuanced, possibly involving joint decisions or other factors that were not captured in this study. Understanding the dynamics of financial decision-making within migrant families could provide deeper insights.

The employment sector also shows no significant effect on PMI savings, indicating no difference in savings between workers in the formal and informal sectors. This finding challenges the hypothesis and contrasts with Erryandaru (2018), who found that the employment sector influences financial decisions. The lack of significance may suggest that sector-specific factors, such as job security or income levels, are not as impactful on savings as previously thought. Further research could examine other aspects of employment, such as job stability or benefits, that might influence saving behavior;

The informal education variable, representing training or courses undertaken by migrant workers, has no significant impact on PMI savings. This finding is contrary to the hypothesis and to research by Mafruhah, Mulyani, & Istiqomah (2019), which highlighted the importance of informal education in influencing saving behavior. The lack of significance may suggest that while training enhances skills, it does not directly translate into increased savings. This result could prompt a reevaluation of the effectiveness of training programs in enhancing financial literacy and savings among migrant workers.

Lastly, the gender variable is found to be insignificant in relation to PMI savings, indicating no difference in savings behavior between male and female workers. This result is consistent with Retno (2013) and Safitri & Sukirman (2019), who found no significant gender differences in financial behavior. However, it contradicts research by Erryandaru (2018) and Montford and Goldsmith (2016), which reported gender differences in savings and investment decisions. The insignificance in this study suggests that gender may not be a primary determinant of saving behavior, and other factors such as income or financial literacy may play more crucial roles.

4. CONCLUSION

The study concludes that age, length of work, income, and remittances significantly impact the savings of former Indonesian migrant workers (PMI) from Kulon Progo district. Formal education and the number of dependents, along with marital status, determinants of money usage, employment sector, informal education, and gender, do not individually affect savings. However, when analyzed collectively, these variables show a significant impact on savings behavior.

The findings suggest that selecting destination countries with higher income potential and improving skills could enhance savings outcomes for migrant workers. Encouraging the use of remittances for productive activities, such as investments and savings, rather than consumption, can further improve economic stability for workers' families. Future research should explore the role of financial literacy and access to financial services in shaping savings behaviors among migrant workers. Additionally, examining the effectiveness of government policies in facilitating better financial planning and support for migrant workers could provide valuable insights. Expanding the scope to include comparative studies with other regions could also help identify broader trends and inform policy-making efforts aimed at maximizing the benefits of migration for economic growth and poverty reduction.

5. REFERENCES

Afriska, A. E., Zulham, T., & Dawood, T. C. (2018). Pengaruh Tenaga Kerja Indonesia di Luar Negeri dan Remitansi terhadap PDB Per Kapita di Indonesia. *Jurnal Perspektif Ekonomi Darussalam*, *4*(2), 231–248. https://jurnal.usk.ac.id/JPED/article/view/12947

Astiti, N. P. Y., Warmana, G. O., & Hidayah, M. (2019). Financial Literation and Investment Decision Behavior of Entrepreneurs in Bali. *International Journal of Applied Business & International Management*, *4*(3), 64–68. https://ejournal.aibpmjournals.com/index.php/IJABIM/article/view/683

Dwitariani, I. G. A., & Rasmini, N. (2019). The influence of education level and individual character in deciding financial report establishment. *International Research Journal of Management, IT and Social Sciences*, *6*(1), 95–102. https://doi.org/10.21744/irjmis.v6n1.593

Erryandaru, K. G. (2018). *Literasi Keuangan dan Perilaku Keuangan Pekerja Migran Indonesia* [Universitas Islam Indonesia]. https://dspace.uii.ac.id/handle/123456789/10933

IOM. (2018). *Organisasi Internasional untuk Migrasi*. Jakarta: International Organization for Migration. https://www.migrationdataportal.org/dashboard/compare-indicators

Kowhakul, M. (2016). Personal Factors Affecting to the Saving Behavior of People in Bangkok Metropolitan Region, Thailand. *Proceedings of the 25th International Academic Conference, OECD Headquarters, Paris*. https://doi.org/10.20472/IAC.2016.025.036

Laksono, B. A. (2019). Literasi Finansial Keuangan Pekerja Migran Indonesia Ditinjau Dari Pengelolaan Remitan. *Jurnal Pendidikan Nonformal*, *14*(2), 68–75. https://doi.org/10.17977/um041v14i2p68-75

Mafruhah, I., Istiqomah, N., Mulyani, N. S., & Raharjo, M. (2016). The Placement Model for Indonesian Migrant Workers to Improve their Economic Welfare. *Journal of Business and Economics Review*, *1*(1), 42–50. https://ideas.repec.org/p/gtr/gatrjs/jber116.html

Mafruhah, I., Mulyani, N. S., & Istiqomah, N. (2019). *Migrasi dan Permasalahan Sebuah Over View Kondisi di Indonesia* (1st ed.). Surakarta: CV. Djiwa Amarta Press.

Mafruhah, I., Rahayu, S. A. T., & Istiqomah, N. (2012). Potensi Tenaga Kerja Indonesia Purna Penempatan dalam Upaya Peningkatan Ekonomi melalui Pemberdayaan TKI Purna Mandiri di Subosukawonosraten. *Semnas Fekon: Optimisme Ekonomi Indonesia 2013 Antara Peluang Dan Tantangan*, 210–223.

Mafruhah, I., Sarsito, T., & Gravitiani, E. (2012). The Welfare of the Indonesian Migrant Workers (TKI) in the Land of a Malay Nation: A Socio-Economic Analysis. *Southeast Asian Journal of Social and Political Issues*, *1*(2), 246–271. https://core.ac.uk/download/pdf/20335735.pdf

Mafruhah, I., Waridin, W., Iskandar, D. D., & Mudjahirin, T. (2019). Social Engineering Strategy of Entrepreneurship Behavior of Indonesian Migrant Workers During the Placement Period. *International Journal of Economics and Business Administration*, *7*(2), 50–60. https://doi.org/10.35808/ijeba/214

Mafruhah, I., Waridin, W., Iskandar, D. D., & Thohir, M. (2019). Formulating post placement empowerment of Indonesian migrant workers policy: What are the roles of stakeholders? *International Journal of Trade and Global Markets*, *12*(1), 72–93. https://ideas.repec.org/a/ids/ijtrgm/v12y2019i1p72-93.html

Montford, W. J., & Goldsmith, R. (2016). How gender and financial self-efficacy influence investment risk taking. *International Journal of Consumer Studies*, *40*(1), 101–106. https://doi.org/10.1111/IJCS.12219

Puspita, D. W. (2015). Analisis Determinan Kemiskinan di Provinsi Jawa Tengah. *Journal of Economics and Policy*, *8*(1), 100–107. https://doi.org/10.15294/jejak.v8i1.3858

Retno, R. N. H. (2013). Analisis Keputusan Investasi oleh Tenaga Kerja Indonesia (Studi Kasus di Kecamatan Watulimo Kabupaten Trenggalek). *Jurnal Ilmiah Mahasiswa FEB*, *2*(2). https://jimfeb.ub.ac.id/index.php/jimfeb/article/view/1003

Safitri, N. A., & Sukirman. (2019). Analisis Faktor-Faktor yang Mempengaruhi Financial Behavior. *Economic Education Analysis Journal*, *7*(2), 511–524. https://journal.unnes.ac.id/sju/eeaj/article/view/28255