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International Migrant Worker Remittances: Distribution and Use

Desak Putu Eka Nilakusmawati [1*], I Made Eka Dwipayana [2], Dewa Made Alit Adinugraha [3], Made Susilawati [4], Ratna Sari Widiastuti [5]

[1-2, 4-5] Department of Mathematics, Faculty of Mathematics and Natural Sciences, Udayana University, Indonesia

[3] Study Program Digital Business, Politeknik Internasional Bali, Indonesia

* Corresponding Author: **Desak Putu Eka Nilakusmawati**

Article Info

Abstract

The objectives of this study were to determine: the relationship between migrant workers and their regions of origin, as seen from the frequency and amount of remittances sent by international migrant workers to their countries of origin; the association between the demographic, social, and economic characteristics of international migrant workers and remittances sent to their regions of origin; the use of remittances sent to their regions of origin, both for investment and non-investment purposes; and the model of remittances sent by international migrant workers based on the demographic, social, and economic characteristics of migrants. The study was conducted in several locations with a large number of international migrant workers, namely Buleleng, Gianyar, and Klungkung Regencies, Bali Province, Indonesia. Sampling was conducted using purposive sampling of individuals who met the criteria for International Migrant Workers (PMI) from Bali working abroad, and whose households were located within the study locations. Data were collected through interviews using a questionnaire. The data collected included the following variables: demographic and socioeconomic characteristics; relationship with their regions of origin; remittances; use of remittances in their regions of origin; and the proportion of remittances sent to their regions of origin to their income. Research findings indicate that remittances sent by migrant workers to their countries of origin are used by their families in their home regions for various purposes. The primary use of remittances by families in their home countries is for non-investment purposes, specifically consumption, education costs, and social funds. Only a small percentage responded that their primary use of remittances in their home countries is for investment, including bank savings, bank deposits, stocks, and business capital. The variables that significantly influence the frequency of remittances sent to their home countries are age, gender, marital status, education level, household status, and length of stay in the destination country. The variables that significantly influence the proportion of remittances sent to their home countries are gender, marital status, education level, household status, length of stay, income in the destination country, and expenditures in the destination country. Based on the research findings, recommendations are made regarding the need for an evaluation of international migrant worker policies to select workers with secondary and tertiary education qualifications. Efforts are needed to improve the quality of human resources for workers sent through professional training programs tailored to the needs of the labor market in the destination country.

Introduction

International labor migration benefits both countries of origin and destination. According to the ILO (2021) [1], migration enables workers to engage in productive work in destination countries and contributes to their overall economic output and growth when migration systems are equitable and well-managed. Migrants often work in labor-intensive agriculture, manufacturing, construction, and the care economy. In destination countries with aging populations, the contribution of migrant workers is

crucial in addressing labor shortages, rejuvenating the workforce, and supporting social security systems.

For countries of origin, remittances increase national savings, stimulate investment, and improve overall economic well-being. At the individual level, migration enables workers to achieve higher living standards and improves the well-being of their families left behind through income transfers. Through diasporas and returnees, knowledge and skills are shared between countries, resulting in higher global productivity and output [1].

According to the ILO [1], in 2019, there were 169 million international migrant workers worldwide, representing 4.9 percent of the global labor force in destination countries. These international migrant workers accounted for approximately 69 percent of the working-age international migrant population (aged 15 and above). More job opportunities and higher standards of living are likely factors attracting migrants to high-income countries.

Ozel *et al*. [2] explain that the primary motivation behind international migration is crossing national borders for work, driven by economic disparities, job search, or both. Additional impacts of economic, political, and environmental crises, as well as demographic shifts, with aging populations in some parts of the world and a "youth bulge" in others, contribute to increased labor migration.

Overseas employment opportunities and substantial incomes are attractive to Indonesian workers who choose to migrate abroad. The large number of migrant workers abroad contributes to the country's foreign exchange earnings. This is because migrant workers' earnings abroad are remitted to Indonesia through remittance services provided by remitters from abroad to Indonesia, or vice versa. Remittances are a vital component of the economy.

International labor migration benefits migrants' countries of origin through remittances. In general, sending remittances to their home countries increases national savings, encourages investment, and contributes to economic well-being. At the individual level, migration enables workers to achieve a higher standard of living and improves the well-being of their families left behind through income transfers or remittances.

At the national level, international migrant worker remittances impact the economic growth of the migrant's country of origin. There is a significant positive relationship between migrant worker remittances and economic growth [3, 4] (Azam, 2015; Mariska *et al*., 2021). At the individual level, previous studies on international migrant worker remittances indicate that remittances sent to their home regions impact the economy of migrant households. This is supported by the research of Syamsuddin *et al*. [5] that found that migrant worker remittances contribute to development in their home regions. The majority (57.3%) of remittances are used to meet daily consumption needs, with 47.2 percent used for investment in education, health, landscaping, vehicles, and home construction. Similarly, research by Habib *et al*. (2021) [6] shows that remittances are used by families for daily consumption needs, investment in children's education, religious ceremonies, home improvements, production activities, and other purposes.

Based on the above background, this research is crucial to examine the role of international migrant worker remittances in improving the economy of migrant households and development in their home regions. The purpose of this study is to determine: The relationship between migrant workers and their areas of origin in terms of the frequency of sending and the amount of remittances sent by international migrant workers to their areas of origin; The association between the demographic, social and economic characteristics of international migrant workers and remittances sent to their areas of origin; The use of remittances sent to their areas of origin, both for investment and non-investment; and The model of sending remittances of international migrant workers based on the demographic, social and economic characteristics of migrants.

The International Labour Organization (ILO) [1] defines migrant workers as:

"…all international migrants who are currently employed or unemployed and seeking employment in their country of residence."

The United Nations Statistics Division (UNSD) also provides a statistical definition of foreign migrant workers:

"Foreigners admitted by a receiving country for the specific purpose of carrying out a remunerated economic activity from within the receiving country. The length of their stay is usually limited, as is the type of employment they can hold. Their dependents, if admitted, are also included in this category."

According to Law Number 18 of 2017 concerning the Protection of Indonesian Migrant Workers, an Indonesian Migrant Worker (PMI) is any Indonesian citizen who will, is, or has performed work for remuneration outside the territory of the Republic of Indonesia.

According to the ILO [1], in 2019, there were 169 million international migrant workers worldwide, representing 4.9 percent of the global workforce in destination countries. These international migrant workers account for approximately 69 percent of the working-age international migrant population (aged 15 and above). Of the estimated 169 million international migrant workers, 67.4 percent live in high-income countries, 19.5 percent in upper-middle-income countries, 9.5 percent in lower-middle-income countries, and 3.6 percent in low-income countries. More job opportunities and a higher standard of living are likely factors attracting migrants to high-income countries.

International migration is a phenomenon that occurs due to global economic problems. The decision to migrate is based on differences in perceived benefits and high levels of poverty. De Jong & Gardner [8], in their theory called value expectancy theory, explain that the decision to migrate and the choice of migration destination are the result of various considerations of the values of the realities they will experience. In determining their destination, it is crucial for prospective migrants to understand the destination area so that an evaluation can be conducted. Decision-making is a series of emphasis on the relationship between attitudes, values, perceptions, and migration intentions.

A person's motivation to move is economic, and this motive develops due to economic disparities between regions [9-11]. Todaro (1979) [10] refers to this primary motive as rational economic considerations. On the other hand, developed countries offer extensive job opportunities with better wages, which is a factor attracting foreign workers.

In Indonesia, migrant workers are more commonly referred to as Indonesian Migrant Workers (TKI). Indonesian migrant workers (TKI) are still a livelihood option for most poor people in Indonesia because they do not require high-level work and receive higher salaries, thus improving the family's economic condition.

Pratiwi (2007) [12] explains that the concept of international

migrant workers refers to workers working internationally and differs from the general concept of labor. Migrant workers are one of the actors in international migration, categorized as temporary contract labor migration, also known as international contract workers. International migrant workers generally reside in their destination country for a specific period, typically a minimum of two years. Pigay (2005) [13] defines the term migrant worker as anyone who migrates internationally due to the globalization of human resources. This definition excludes groups of tourists and diplomatic communities not directly involved in economic production activities.

According to DataIndonesia.id [14] (February 27, 2023), in 2021, the number of Indonesian migrant workers was 3.254 million, increasing by 5.59% in 2022 to 3.436 million. Despite this increase, the number is still lower than the 3.742 million that occurred in 2019 before the COVID-19 outbreak. According to destination country, the largest number of Indonesian migrant workers are in the following countries, respectively, Malaysia, Saudi Arabia, Hong Kong, Taiwan, Singapore, Jordan, and the United Arab Emirates.

Based on a 2021 publication from the Data and Information Center (PUSDATIN) of the Indonesian Migrant Workers Protection Agency (BP2MI) (in the Center for Manpower Data and Information Technology, Manpower Planning and Development Agency, Ministry of Manpower, 2021) [15], the number of Indonesian Migrant Workers (PMI) placed between January and June 2021 was recorded at 36,018. Based on their destination countries, the three most common destinations were Hong Kong (74.12 percent), Taiwan (9.18 percent), and Singapore (4.68 percent). Based on formal and informal status, 78.99 percent of PMI worked in the informal sector, while 21.01 percent worked in the formal sector. Taiwan (42.73 percent) and Italy (22.76 percent) were the countries with the highest number of PMI working in the formal sector, while Hong Kong had the highest number of PMI working in the informal sector compared to other destination countries.

According to gender, the majority of PMI placed were female (89.46 percent), while only 10.54 percent were male. Indonesian Migrant Workers Placement by Province from January to June 2021, the three provinces that sent the most migrant workers abroad were East Java, Central Java, and West Java. Bali Province ranked fourth, followed by Lampung in fifth. The number of migrant workers in Bali Province was 2,531, consisting of 1,525 men and 1,006 women. Furthermore, when viewed by gender and province of origin, Bali Province sent the most male migrant workers compared to other provinces in Indonesia, namely 1,525 (40.18 percent of all male migrant workers). Meanwhile, East Java sent the most female migrant workers compared to other provinces in Indonesia, namely 13,747 people (42.66 percent).

Based on the explanation above, the term "international migrant worker" can be defined as an international migrant who resides and performs a specific (limited) economic activity or work paid for within the receiving country for a specific (limited) period of time. International migrant workers are generally bound by a specific employment contract for a predetermined and agreed-upon period. Upon termination, the international migrant worker leaves their migration destination and returns to their home country. These employment contracts generally vary depending on the destination country and the migrant's place of work. In this context, "migrant worker" refers to legal migrant workers who migrate through official placement requirements and procedures.

The International Monetary Fund (IMF) defines remittances in Indonesia as divided into three categories: remittances in the form of cash transfers to family members in their home country, cash income paid to individuals legally working in another country, and money transfers from foreigners, which refer to capital transfers of financial assets created by foreigners as a result of their movement from one country to another and their residence for more than one year.

According to Bank Indonesia, remittances are defined as a portion of a migrant worker's salary that enters Indonesia through remittance channels or is brought back in person upon returning home. According to Bank Indonesia publications, the development of remittances from Indonesian Migrant Workers (PMI) tended to show a positive trend from 2010 to 2019. However, in 2020, there was a 17.56 percent decline in remittances from PMI, from USD 11,435 million to USD 9,427 million. The three regions with the highest remittances in 2020 were those in the Middle East, with USD 3,382 million. The three countries of placement with the highest remittances in 2020 were those in Saudi Arabia, followed by Malaysia, and Taiwan, with USD 2,990 million, USD 2,705 million, and USD 1,406 million, respectively.

An empirical study on the role of remittances by Syamsuddin et al. (2021) [5] found that migrant worker remittances contribute to development in their home areas in Parigi Moutong Regency, Central Sulawesi Province. The majority (57.3%) of migrant worker remittances are used to meet daily consumption needs. The remaining 47.2 percent is used for investment in education, health, landscaping, vehicles, and home construction.

An analysis of the utilization of international migration remittances by female migrant worker families in Tegalsari, Banyuwangi, conducted by Prayoga et al. [16], found that remittances used by migrant worker families are as follows: 1) consumptive use of remittances to meet primary, secondary, and tertiary needs; 2) productive use of remittances by some migrant worker families, through three remittance management strategies: direct use for investment and business, savings remittance management, and bank loan remittance management; and 3) social use of remittances for human capital development, particularly for educational and social purposes.

Azam (2015) [3] examined the macroeconomic impact of migrant worker remittances on economic growth in four developing countries in Asia: Bangladesh, India, Pakistan, and Sri Lanka, using annual time series data from 1976 to 2012. Empirical results support a significant positive relationship between migrant worker remittances and economic growth. Mariska et al. (2021) [4] explored the impact of remittances, consumption, and FDI on economic growth in 10 ASEAN countries using annual panel data from 2015 to 2019, using panel data regression analysis with a Random Effects Model (REM) approach. The study found that significant contribution of migrant remittances to economic growth, if directed to more productive sectors, such as investment, can help ASEAN economies maintain and increase economic growth. The government needs to improve the quality of migrant workers through education, as higher levels of education will affect the wages received by migrants and will impact remittances.

Mas'udah (2020) [17] examined the relationship between remittances and lifestyle changes in migrant workers' families in their hometowns. The results showed that remittances from

migrant workers significantly impacted their families' lives back home. As their families' financial conditions improved, their lifestyles also shifted in various ways. The money earned while working abroad was not systematically allocated as a long-term productive asset. Instead, they mostly spent it on achieving symbolic status while showcasing their success as migrant workers abroad through engagement in consumer culture.

Habib (2023) [18] examined remittances and labor supply (evidence from Tunisia), finding that increased remittances significantly reduced job demand and therefore increased unemployment. This positive correlation suggests that the impact of demographic change on remittances occurs through increased unemployment due to population aging, which coincides with Tunisia's demographic transition.

Habib et al. (2021) [6] examined the use of income sent to migrant families in Tulungagung, East Java, finding that remittances were used by families for daily consumption needs, investment in children's education, religious ceremonies, home improvements, production activities, and other purposes.

Alpaslan et al. [19] explained that the impact of remittances on economic outcomes depends on the context and is influenced by the heterogeneity of migrants, their motivations for migration, and the development status and institutional conditions in their countries of origin. A review of household-level research identified a positive impact of remittances on consumption in general, and on durable goods in particular for less-poor households. This also shows a positive impact on household agricultural production, household spending on education, physical capital investment, and entrepreneurial activity. Nilakusmawati & Srinadi (2019) [20] examined remittances from informal sector migrant workers (a case study from Denpasar, Bali, Indonesia). The study found that respondents' primary reasons for sending money or goods were predominantly for religious purposes. The variables that significantly influenced the proportion of remittances to their hometowns were education level, housing status, and frequency of visits

Research Method
The research was conducted in several locations with large concentrations of international migrant workers. According to the Data and Information Center of the Indonesian Migrant Workers Protection Agency (BP2MI) (2022), data on migrant worker placement in 2022 (as of May) by regency/city of origin for Bali Province shows that Buleleng Regency sent 812 migrant workers, and Gianyar Regency sent 496.

Based on the above data, three sampling locations were selected for this study: Buleleng, Gianyar, and Klungkung Regency, Bali Province, Indonesia. Respondents were not selected from all sub-districts within each regency, nor from all villages within each sub-district; instead, they were selected purposively.

Respondents in this study were individuals who met the criteria for Indonesian Migrant Workers (PMI) from Bali working abroad, and whose households were located within the study locations. Sampling was conducted purposively. The considerations used in selecting respondents were those who worked as international migrant workers in the formal or informal sectors in the destination country and who in the past year have worked or are working as PMI.

Data collection in the field uses a survey method. The data collected includes demographic, social and economic

characteristics, remittances, and relationships with the area of origin. Demographic, social and economic characteristics include the following variables: Age, Gender, Marital status, Last level of education, Number of dependents, Status in the household, Region of origin, Country where migrants work abroad, Type of work in the previous country of origin, Length of stay in the destination country, Length of work in the destination country until the time the survey was conducted, Type of work in the destination country, Employment status in the destination country, Income and expenditure in the destination country. Relationships with the area of origin include the following variables: Frequency of sending remittances to the area of origin in the past year, Total amount of remittances sent in the past year, Use of remittances in the area of origin for needs: Non-Investment and Investment. Use of remittances for Non-Investment includes: Consumption, Education, Health, and Social Funds. Use of remittances for Investment includes: Savings in Banks, Deposits in Banks, Stocks, Property (houses, rice fields, buildings), Collectibles (cars, motorbikes, antiques, etc.), Gold and gems, Foreign currency, Bonds, and Business Capital. Remittances are described in the following variables: 1) Use of remittances in the area of origin (non-investment and investment). 2) Proportion of remittances sent to the area of origin to income (in percent). The data analysis used is descriptive analysis and linear regression analysis. Linear regression analysis was conducted to find a model between socio-economic demographic characteristics variables and the variable Proportion of remittances sent to the area of origin to income (in percent).

Result and Discussion
General Overview of Demographic and Socioeconomic Characteristics of Respondents
The general overview of the demographic and socioeconomic characteristics of international migrant workers, based on data analysis, revealed an average age of 41.28 years, with a median age of 43 years. The gender distribution of respondents was dominated by males, representing 74.17 percent of the 120 respondents. This indicates a male preponderance in international migration participation among the respondents surveyed. This may be related to the employment sector or family responsibilities, which are generally assumed by men in certain contexts. The majority of respondents were married (67.5 percent), followed by single respondents (30.80 percent). The preponderance of married respondents in this survey may be due to family responsibilities that encourage them to work abroad for economic support.

The distribution of respondents' educational attainment was 50.80 percent with a high school education and 49.20 percent with a college education. Respondents' educational attainment was relatively high, with nearly half having attained a college education. This suggests that education may be an important factor in international migration opportunities. The average number of dependents in their home families was 2.49 (two to three people). Respondents' household status was dominated by head of household (60.00 percent), followed by child (23.30 percent), wife (15.00 percent), and other (1.70 percent). Respondents' responses regarding their destination countries for overseas work as Indonesian migrant workers (PMI) indicated that the United States and American Samoa were the most popular destinations for migrant workers. The top five destination countries for migrant workers are: American

Samoa (29.2 percent), the United States (25.8 percent), Japan (10.8 percent), Australia (10.0 percent), Hong Kong, and Turkey (4.2 percent). Meanwhile, other destination countries, including Germany, the United Arab Emirates, Canada, China, Europa Island, Italy, and Malaysia, were answered by 15.8 percent of respondents.

When examining the distribution of respondents by gender and destination country, it was found that men were more widely distributed across destination countries, with a predominance in American Samoa (38.20%) and the United States (28.09%). Women were more concentrated in countries such as Japan (32.26%), Hong Kong (16.13%), and the United States (19.35%). Men appeared to be more inclined to regions like American Samoa and the United States, while women were more concentrated in certain Asian countries, possibly related to the types of jobs available.

The relationship between education level and destination country. Based on data analysis, respondents with a high school education tended to predominantly migrate to American Samoa (42.62%) and the United States (29.51%). Respondents with a college education were more evenly distributed, with high concentrations in Japan (22.03%), the United States (22.03%), and American Samoa (15.25%). Education level influenced migration destination countries. Respondents with higher education had opportunities to migrate to countries with skilled labor markets, such as Japan and the United States.

Prior to working abroad, most respondents worked as hotel/villa employees (40.8 percent), while other types of employment included: unemployed (5.0 percent), self-employed (11.7 percent), Entrepreneur (9.2 percent), restaurant employees (8.3 percent), private sector employees (4.2 percent), travel services (7.5 percent), recreation and entertainment (5.0 percent), transportation (1.7 percent), civil servants (2.5 percent), and other/odd jobs (4.2 percent).

The average length of employment in the destination country as an Indonesian migrant worker up to the time of this survey was 8.57 years. Respondents' occupations while working abroad were mostly chefs (37.5 percent of the 120 respondents), followed by restaurant waiters (15.0 percent), cruise ship employees (10.0 percent), farmers/plantations (10.0 percent), recreation and entertainment (7.5 percent), domestic helpers (6.7 percent), spa therapists (4.2 percent), construction (2.5 percent), hotel employees (1.7 percent), accounting (1.7 percent), wharf workers (1.7 percent), and grocery store workers (1.7 percent). Regarding the employment status of respondents while working abroad, the majority were in the informal sector (63.3 percent), while the remainder worked in the formal sector (36.7 percent).

The average monthly income in the destination country is IDR 45,234,333 and the average monthly expenditure in the destination country is IDR 10,211,111. The average remittance per shipment is IDR 29,036,771. The average annual income of respondents is IDR 542,812,000 with an income range of IDR 108,000,000 to IDR 1,440,000,000 per year. The average annual expenditure of respondents in the destination country is IDR 122,533,340 with an expenditure range of IDR 24,000,000 to IDR 480,000,000 per year.

International Migrant Workers' Relationships with Their Countries of Origin

This study examined the relationship between migrant workers and their countries of origin based on the frequency and amount of remittances sent by international migrant workers to their countries of origin. Data analysis revealed that, on average, respondents sent remittances to their countries of origin 10 times per year.

The range of remittances per remittance varied from IDR 4,000,000 to IDR 100,000,000. Multiplying the frequency of remittances by the average remittance amount per remittance yields the annual remittance amount. Analysis of respondents' responses revealed that the average annual remittance amount sent by migrant workers to their countries of origin was IDR 320,218,930, with a wide range ranging from IDR 7,000,000 to IDR 1,200,000,000.

The average annual income of respondents was IDR 542,812,000, with an income range of IDR 108,000,000 to IDR 1,440,000,000 per year. The average annual expenditure of respondents in their destination countries was IDR 122,533,340, with an expenditure range of IDR 24,000,000 to IDR 480,000,000 per year.

Analysis of the annual remittances sent by respondents to their countries of origin compared to their annual income in their destination countries revealed an average proportion of remittances sent to their countries of origin to their income in their destination countries of 53.11 percent, with a very wide range of 1.67 percent to 96.00 percent and a standard deviation of 23.62402.

The Relationship between Demographic, Social, and Economic Characteristics of International Migrant Workers and Remittances Sent to Their Home Countries

The correlation analysis revealed that the demographic, social, and economic characteristics of international migrant workers and the total amount of remittances sent in the past year significantly correlated with age, gender, marital status, educational attainment, number of dependents, household status, length of stay in the destination country, length of employment in the destination country, type of employment in the destination country, employment status in the destination country, income in the destination country, and expenditure in the destination country. However, there was no significant correlation with the type of employment in the previous country of origin. The complete analysis results are presented in Table 1.

The results of the correlation analysis also show that the variable proportion of remittances sent to the area of origin to income has a significant correlation with the variable length of stay in the destination country and the respondent's status in the household, as presented in full in Table 2.

Table 1: Correlation between Remittances and Demographic, Social and Economic Characteristics

			Remittances Sent	Age	Gender	Marital Status	Education	Number of Dependents	Status in Household	Employment in Origin	Length of Residence	Duration of Employment	Type of Employment	Employment Status	Income	Expenditure
Correlations																
Kendall	Remitta	Correlation Coefficient	1.000	.264**	-.307**	.166*	-.289**	.186**	-.333**	-.011	.442**	.425**	-.202**	.112	.655**	.356**
		Sig. (2-tailed)	.	.000	.000	.030	.000	.007	.000	.876	.000	.000	.003	.144	.000	.000
		N	120	120	120	120	120	120	120	120	120	120	120	120	120	120
. Correlation is significant at the 0.01 level (2-tailed).																
*. Correlation is significant at the 0.05 level (2-tailed).																

Table 2: Correlation between the Proportion of Remittances Sent with Length of Residence and Status in the Household.

		Proportion	Length of Residence	Status in Household
Correlations				
Proportion	Pearson Correlation	1	-.370**	-.370**
	Sig. (2-tailed)		.000	.000
	N	120	120	120
. Correlation is significant at the 0.01 level (2-tailed).				

Remittance Use in Regions of Origin

Remittances sent by migrant workers to their countries of origin are used by their families in their regions for various purposes. In this study, remittance use in regions of origin is categorized as investment and non-investment.

Table 3: 1st Order (Primary) Use of Remittances

Remittance Use in Country of Origin	Category	Subcategory	Frequency	Percent
Primary Use of Remittances	Non-Investment	Consumption	75	62.5
		Education	24	20.0
		Health	-	-
		Social Funds	2	1.7
	Investment	Savings in Banks	6	5.0
		Deposits in Banks	5	4.2
		Stocks	6	5.0
		Property (houses, rice fields, buildings)	-	-
		Collectibles (cars, motorcycles, antiques, etc.)	-	-
		Gold and gems	-	-
		Foreign currency	-	-
		Bonds	-	-
		Business Capital	2	1.7
		Total	120	100

Source: Data processed 2024

Analysis of respondents' answers to the question "What are the remittances sent to their home country used for? (Please list a maximum of three purposes, in order of importance)" revealed that the top priority (first-place choice) for remittance use by families in their home country is for non-investment purposes, namely consumption (62.5 percent), education costs (20.0 percent), and social funds (1.7 percent). Only 19 respondents (15.83 percent) answered that their top priority use of remittances in their home country is for investment, including bank savings, bank deposits, stocks, and business capital.

Analysis of respondents' answers regarding the second-highest priority use of remittances (second-place choice) revealed that 71 respondents used remittances for non-investment purposes, namely education costs (47.5 percent), and healthcare costs (14 respondents (11.7 percent). The use of remittances by migrant families for investment was answered by 49 respondents, including for savings in banks (19.2 percent), deposits in banks (9.1 percent), shares (1.7 percent), property (houses, rice fields, buildings) (9.2 percent), and collectibles (1.7 percent).

Table 4: 2nd Order Remittance Usage

Remittance Use in Country of Origin	Category	Subcategory	Frequency	Percent
2nd Order Remittance Usage	Non-Investment	Consumption	-	-
		Education	57	47.5
		Health	14	11.7
		Social Funds	-	-
	Investment	Savings in Banks	23	19.2
		Deposits in Banks	11	9.1
		Stocks	2	1.7
		Property (houses, rice fields, buildings)	11	9.2
		Collectibles (cars, motorcycles, antiques, etc.)	2	1.7
		Gold and gems	-	-
		Foreign currency	-	-
		Bonds	-	-
		Business Capital	-	-
		Total	102	100

Source: Data processed 2024

The third priority use of remittances (ranked 3rd) was obtained that as many as 83 respondents answered that the third priority use of remittances was for investment and 37 respondents answered for non-investment use. Use for investment includes savings in banks (12.5 percent), deposits in banks (17.5 percent), shares (15.8 percent), property such as houses, rice fields, buildings (9.2 percent), collectibles such as cars, motorbikes, antiques, and others (8.3 percent), gold and gems 2.5 percent), and business capital (3.3 percent). Use for non-investment includes health costs (26.7 percent) and social funds (4.2 percent).

Table 5: 3rd Order Remittance Usage

Remittance Use in Country of Origin	Category	Subcategory	Frequency	Percent
3rd Order Remittance Usage	Non-Investment	Consumption	-	-
		Education	-	-
		Health	32	26.7
		Social Funds	5	4.2
	Investment	Savings in Banks	15	12.5
		Deposits in Banks	21	17.5
		Stocks	19	15.8
		Property (houses, rice fields, buildings)	11	9.2
		Collectibles (cars, motorcycles, antiques, etc.)	10	8.3
		Gold and gems	3	2.5
		Foreign currency	-	-
		Bonds	-	-
		Business Capital	4	3.3
		Total	120	100

Source: Data processed 2024

Data analysis on the main priority (1st order choice) of remittance use by families in the country of origin based on the destination country of migration of migrant workers obtained the following results: 1) for migrant workers working in American Samoa and the United States, the significant use of remittances by migrant families in the area of origin is for consumption. Respondents working in American Samoa, as many as 12 respondents stated that remittances sent to the country of origin were used by their families for consumption, for migrant workers working in the United States, 22 respondents stated the same thing. The use of remittances by migrant families for education was also seen, for migrant workers working in American Samoa and the United States each had several respondents who allocated remittances for education, namely 17 respondents for American Samoa and 7 respondents for the United States.

The use of remittances by migrant families in their home countries for migrant workers in Japan, Australia, and Europe also varies, but consumption remains the primary purpose. For migrant workers working in Japan, 10 respondents stated that

remittances are used by their families in their home countries for consumption, while for migrant workers working in other countries, such as Europe and Australia, remittance use by families in their home countries is more focused on consumption, with little allocation for education and savings. Remittances sent to their home countries are used by migrant families. Who uses remittances in their home countries? Based on respondents' answers, remittances are used by spouses/wives/children (65.0 percent), parents (26.7 percent), siblings/younger siblings (5.0 percent), and others (3.3 percent).

International Migrant Worker Remittance Model
A linear regression analysis was conducted to determine the remittance model of international migrant workers based on the migrants' demographic, social, and economic characteristics. The dependent variables analyzed for remittances were: 1) Frequency of remittances to their region of origin in the past year, and 2) Proportion of remittances sent to their region of origin to their income (in percent).

1) Remittance Model (Remittance Frequency)

The dependent variable for remittances in this model is the frequency of remittances sent to the region of origin in the past year. A linear regression analysis was conducted to determine the factors influencing the frequency of remittances sent to the region of origin, considering demographic, social, and economic characteristics.

The first hypothesis was tested simultaneously, or by comparing all independent variables with the dependent variable. The independent variables in this study were demographic and socioeconomic characteristics, and the dependent variable was the frequency of remittances sent to the country of origin. The hypotheses were formulated as follows:

Ho: There is no linear relationship between demographic, social, and economic characteristics and the frequency of remittances sent to the migrant's country of origin.

Hi: There is a linear relationship between demographic, social, and economic characteristics and the frequency of remittances sent to the migrant's country of origin.

The statistical test used in this simultaneous hypothesis testing was the F-test, compiled in an analysis of variance (ANOVA) table, as shown in Table 6.

Table 6:

Variables Entered/Removed[a]			
Model	Variables Entered	Variables Removed	Method
1	Expenditure, EmploymentStatusAbroad, StatusinHousehold, Education, EmploymentAbroad, Age, Income, NumberofDependents, LengthofResidence, Gender, MaritalStatus, DurationofEmployment[b]	.	Enter
a. Dependent Variable: FrekKirim			
b. All requested variables entered.			

Table 7:

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.585[a]	.342	.268	3.081
a. Predictors: (Constant), Expenditure, EmploymentStatusAbroad, StatusinHousehold, Education, EmploymentAbroad, Age, Income, NumberofDependents, LengthofResidence, Gender, MaritalStatus, DurationofEmployment				

Table 8: Results of the F-Test of the Relationship between Demographic, Social, and Economic Characteristics and the Frequency of Sending Remittances to the Country of Origin

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	527.993	12	43.999	4.635	.000[b]
	Residual	1015.707	107	9.493		
	Total	1543.700	119			
a. Dependent Variable: FrekKirim						
b. Predictors: (Constant), Expenditure, EmploymentStatusAbroad, StatusinHousehold, Education, EmploymentAbroad, Age, Income, NumberofDependents, LengthofResidence, Gender, MaritalStatus, DurationofEmployment						

The F-test results at a 5% significance level indicate that Ho is rejected or Hi is accepted. This is evident from the significance value of 0.000, which is less than the 5% significance level. This means there is a linear relationship between demographic, social, and economic characteristics and the frequency of remittances sent to the country of origin.

The next step in the analysis is to conduct partial tests to determine which independent variables significantly influence the frequency of remittances sent to the country of origin. The hypotheses tested are:

Ho: $\beta_j = 0$

Hi: $\beta_j \neq 0$

The test used was the t-test. The results of the t-test are presented in Table 7.

Twelve demographic, social, and economic characteristics of international migrant workers are thought to explain the frequency of remittances sent to their countries of origin. The variables that significantly influence the frequency of remittances sent to their countries of origin are age, gender, marital status, education level, household status, and length of stay in the destination country. The best model explaining the frequency of remittances sent to their countries of origin is:

$Y = 0.652 + 0.085\text{Age} + 3.664\text{Gender} - 2.736\text{MaritalStatus} + 1.283\text{Education} - 1.200\text{StatusinHousehold} + 0.200\text{LengthofResidence}$ (3.1)

Table 9: Results of Partial Test of the Relationship between Social and Economic Demographic Characteristics and the Frequency of Sending Remittances to the Country of Origin.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.652	3.914		.167	.868
	Age	.085	.042	.229	2.009	.047
	Gender	3.664	1.005	.447	3.646	.000
	MaritalStatus	-2.736	1.048	-.374	-2.610	.010
	Education	1.283	.615	.179	2.088	.039
	NumberofDependents	.320	.275	.145	1.163	.247
	StatusinHousehold	-1.200	.593	-.297	-2.024	.045
	LengthofResidence	.200	.098	.370	2.033	.045
	DurationofEmployment	-.008	.116	-.015	-.073	.942
	EmploymentAbroad	-.022	.138	-.018	-.158	.875
	mploymentStatusAbroad	.428	.721	.057	.593	.554
	Income	1.342E-8	.000	.126	1.112	.269
	Expenditure	3.815E-8	.000	.086	.754	.452
a. Dependent Variable: FrekKirim						

Based on model 3.1, for the constant 0.652 explains that if there is no Age, Gender, Marital Status, Education Level, Status in Household and Length of Stay in the destination country variable then the frequency of sending remittances sent by migrant workers to the country of origin is increased by 0.652. The regression coefficient value of 0.085 indicates that a one-year increase in age will increase the frequency of sending remittances sent to the country of origin by 0.085% if other variables are constant. The regression coefficient value for gender of 3.664 indicates that gender differences will increase the frequency of sending remittances sent to the country of origin by 3.664% assuming other variables are constant. The regression coefficient value for marital status of -2.736 indicates that differences in marital status will decrease the frequency of remittances sent to the region of origin by -2.736% if other variables are constant. The regression coefficient value for education of 1.283 indicates that an increase in education will increase the frequency of remittances sent to the region of origin by 1.283% if other variables are constant. The regression coefficient for household status of -1.200 indicates that differences in household status will reduce the frequency of remittances sent to the country of origin by 1.200% if other variables are held constant. The regression coefficient of 0.0200 indicates that a one-year increase in length of stay in the destination country

will increase the frequency of remittances sent to the country of origin by 0.002% if other variables are held constant. Meanwhile, other characteristic variables do not significantly affect the frequency of remittances sent to the country of origin.

2) Remittance Model (Proportion of Remittances)
Remittances in this model are measured by the proportion of remittances sent to the region of origin relative to income (as a percentage). A linear regression analysis was conducted to determine the factors influencing the proportion of remittances sent, considering socioeconomic demographic characteristics. The first hypothesis was tested simultaneously, or by testing all independent variables against the dependent variable. The independent variables in this study are socioeconomic demographic characteristics, and the dependent variable is the proportion of remittances sent to the country of origin. The hypotheses are formulated as follows:

Ho: There is no linear relationship between socio-economic demographic characteristics and the proportion of remittances sent to migrants' countries of origin.

Hi: There is a linear relationship between socio-economic demographic characteristics and the proportion of remittances sent to migrants' countries of origin.

Table 10: The statistical test used in this simultaneous hypothesis testing is the F test which is arranged in an analysis of variance (ANOVA) table as in

Variables Entered/Removed[a]			
Model	**Variables Entered**	**Variables Removed**	**Method**
1	Expenditure, EmploymentStatusAbroad, StatusinHousehold, Education, EmploymentAbroad, Age, Income, NumberofDependents, LengthofResidence, Gender, MaritalStatus, DurationofEmployment[b]	.	Enter
a. Dependent Variable: Proporsi			
b. All requested variables entered.			

Table 11:

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.706[a]	.498	.442	17.64676

[a]Predictors: (Constant), Expenditure, EmploymentStatusAbroad, StatusinHousehold, Education, EmploymentAbroad, Age, Income, NumberofDependents, LengthofResidence, Gender, MaritalStatus, DurationofEmployment

Table 12: Results of the F-Test of the Relationship between Socio-Economic Demographic Characteristics and the Proportion of Remittances Sent to the Country of Origin

ANOVA[a]						
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	33092.512	12	2757.709	8.856	.000[b]
	Residual	33320.688	107	311.408		
	Total	66413.200	119			
a. Dependent Variable: Proporsi						
b. Predictors: (Constant), Expenditure, EmploymentStatusAbroad, StatusinHousehold, Education, EmploymentAbroad, Age, Income, NumberofDependents, LengthofResidence, Gender, MaritalStatus, DurationofEmployment						

The F-test results at a 5% significance level indicate that Ho is rejected or Hi is accepted. This is evident from the significance value of 0.000, which is less than the 5% significance level. This means there is a linear relationship between the demographic and socioeconomic characteristics and the proportion of remittances sent to the country of origin.

The next step in the analysis is to conduct partial tests to determine which independent variables significantly influence the proportion of remittances sent to the region of origin. The hypotheses tested are:

Ho : $\beta_j = 0$

Hi : $\beta_j \neq 0$

The test used is the t-test. The results of the t-test are presented in Table 9.

Table 13: Results of Partial Test of the Relationship between Social and Economic Demographic Characteristics and the Proportion of Remittances Sent to the Country of Origin.

Coefficients[a]						
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	**Std. Error**	**Beta**		
1	(Constant)	105.921	22.416		4.725	.000
	Age	.099	.242	.041	.408	.684
	Gender	21.487	5.756	.400	3.733	.000
	MaritalStatus	-18.153	6.005	-.378	-3.023	.003
	Education	-12.267	3.520	-.261	-3.484	.001
	NumberofDependents	1.942	1.575	.134	1.233	.220
	StatusinHousehold	-14.155	3.395	-.534	-4.170	.000
	LengthofResidence	1.461	.563	.413	2.594	.011
	DurationofEmployment	-.860	.662	-.240	-1.298	.197
	EmploymentAbroad	-.106	.788	-.013	-.135	.893
	mploymentStatusAbroad	-.724	4.130	-.015	-.175	.861
	Income	2.826E-7	.000	.403	4.087	.000
	Expenditure	-6.281E-7	.000	-.215	-2.168	.032
a. Dependent Variable: proportion of remittances						

There are twelve demographic and socioeconomic characteristics of international migrant workers that are thought to explain the proportion of remittances sent to their countries of origin. The variables that significantly influence the proportion of remittances sent to their countries of origin are gender, marital status, education level, household status, length of stay, income in the destination country, and expenditure in the destination country. The best model that can explain the proportion of remittances sent to their countries of origin is:

$$Y = 105.921 + 21.487Gender - 18.153MaritalStatus - 12.267Education - 14.155StatusinHousehold + 1.461LengthofResidence + 2.826E\text{-}7Income - 6.281E\text{-}7Expenditure \quad (3.2)$$

Based on model 3.2, the constant 105,921 explains that if the variables gender, marital status, education level, household status, length of stay, income in the destination country, and expenditure in the destination country are not included, the proportion of remittances sent by migrant workers to their countries of origin increases by 105,921.

The variables gender, marital status, education level, household status, length of stay in the destination country, income in the destination country, and expenditure in the destination country have a significant effect, while the other characteristic variables do not significantly affect the proportion of remittances sent to their countries of origin.

Conclusion

The correlation analysis revealed that the amount of remittances sent to the country of origin was significantly correlated with age, gender, marital status, educational level, number of dependents, household status, length of stay in the destination country, length of employment in the destination country, type of employment in the destination country, employment status in the destination country, income in the destination country, and expenditure in the destination country. However, there was no significant correlation with the type of employment in the previous country of origin. The correlation analysis also showed that the proportion of remittances sent to the country of origin relative to income was significantly correlated with length of stay in the destination country and the respondent's household status.

Remittances sent by migrant workers to their countries of origin were used by migrant families in their countries of origin for various purposes. The top priority (ranked as the first choice) for the use of remittances by families in the country of origin was for non-investment purposes, namely consumption (62.5 percent), education costs (20.0 percent), and social funds (1.7 percent). Only 19 respondents (15.83 percent) answered that the primary use of remittances in their home country was for investment, including bank savings, bank deposits, stocks, and business capital.

The second-highest priority (ranked second) was 71 respondents who used remittances for non-investment purposes, namely education and healthcare expenses. Forty-nine respondents answered that remittances by migrant families were used for investment, including bank savings, bank deposits, stocks, property (houses, rice fields, buildings), and collectibles.

The third priority use of remittances was found to be for investment, with 83 respondents using them for investment purposes, and 37 respondents responding to non-investment purposes. Investment uses include bank savings, bank deposits, stocks, property such as houses, rice fields, buildings, collectibles such as cars, motorcycles, antiques, and other items, gold and gemstones, and business capital. Non-investment uses include healthcare and social funds. Remittances sent to the country of origin were used by spouses/wives/children (65.0 percent), parents (26.7 percent), siblings/younger siblings (5.0 percent), and others (3.3 percent).

The variables that significantly influence the frequency of remittances sent to the country of origin are age, gender, marital status, education level, household status, and length of residence in the destination country.

The variables that significantly influence the proportion of remittances sent to the country of origin are gender, marital status, education level, household status, length of stay, income in the destination country, and expenditure in the destination country.

The research findings obtained indicate that the variables that significantly influence the sending of remittances to the region of origin are gender, marital status, education level, household status, and length of stay in the destination country. Based on these findings, it can be suggested that there is a need for an evaluation of international migrant worker policies for the selection of workers to be sent by considering the highest level of education of migrant workers, meaning that the quality of human resources sent must have secondary and higher educational qualifications. Efforts are needed to improve the quality of human resources for workers to be sent through professional training efforts in accordance with the needs of the labor market in the destination country.

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