REFEREED ARTICLE

An Analysis of Gendered Labor Migration in Rural Indonesia: A Case Study of the Indramayu Regency, West Java, Indonesia

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Abstract

Indramayu Regency is one of major sources of international female labor migrants in Indonesia. The gender pattern of these migrants inspired us to ask what conditions are driving households to choose this gender pattern. Focusing on international female labor migration, this paper discusses the current labor migration situation in Indonesia and examines the determinants of gendered labor migration based on data obtained from a field survey. After considering geography, poverty level, and labor migration prevalence, we selected six sub-districts in Indramayu Regency, West Java, from which to collect data. In this paper, in contrast to most existing studies, the gender of the migrants is not analyzed as a factor that influences the migration decision. The analysis shows that education and economic conditions significantly influence household migration decisions about the gender of their migrant member. This research seeks to fill the gaps in the study of household migration decisions, which remains limited in Indonesia.

Keywords: Determinants of migration, international female labor migration, gendered labor migration, household migration decision

1. Introduction

In migration studies, gender and labor movements are prominent issues. The International Labour Organization (ILO) estimated that in 2013, there were about 232 million international migrants in the world, and 150.6 million, or 65%, of these were labor migrants. Out of these labor migrants, the proportion of female labor migrants was significant, at 44.3% (ILO, 2015). The number of female labor migration highlights the importance of gender in the study of migration. The patterns, causes, consequences, and policy implications of female labor migration may differ from those of males (Hugo, 2005). The examination of these aspects can contribute to creating comprehensive knowledge of gendered labor migration. A better understanding of the determinants of gendered labor migration on the micro-level will provide basic information about this critical issue.

The studies on gendered labor migration show complicated and interesting relationships. Studies conducted in rural Thailand indicate that migration intentions and expectations, in addition to individual, household, and

community characteristics, are significant determiners of gendered labor migration (Jong, et.al., 1996 & Jong, 2000). In China, a study confirms that male and female labor migration are influenced in different ways by individual, household, and community characteristics (Yang & Guo, 1999). Another study focusing on the Mexico–U.S. migration corridor shows that migration networks and border control expenditures have a more important effect on gendered migration decisions than macroeconomic and policy variables (Richter & Taylor, 2008). In the Philippines, where female migration predominates over male migration, family characteristics are more important in explaining female migration than in explaining male migration (Lauby & Stark, 1988). These examples show that various approaches can be used to analyze the determinants of gendered labor migration. It is also interesting to investigate the issue within an Indonesian context because Indonesia is one of the major labor-sending countries in South East Asia.

There are numerous studies on international migration from an Indonesian perspective. However, there are only very limited studies focusing on the determinants of gendered migration. One study conducted by Hugo (1995) shows that the family has more influence on female labor migration than on male labor migration and that females list family-related matters as the main reason for their departure. A quantitative analysis conducted by Syafitri (2012), shows the case of the Malang Regency, East Java. The study, conducted at the individual and village levels, investigates the forms of human, physical, and social capital that determine migration decisions. Gender appears as a dummy variable in the analysis, but this study cannot explain what factors influence gendered labor migration. A more recent study by Yen et al. (2014) further examines the issue of gendered labor migration in the Ponorogo Regency, East Java. Using individual- and household-level data, it examines the determinants of gendered labor migration. The results show that the determinants of migration in Indonesia are significantly different for males and females. However, the results should be compared with those of other regions in Indonesia because the pattern of migration may be different from one region to another. International migration in the eastern part of Indonesia shows more equal numbers of male and female migrants than in the western part, which is highly dominated by female migrants (BNP2TKI, 2016). In addition, the migrants' destination countries also differ among the regions, which may lead to different models of determinants.

One method of investigating the determinants of migration explains how migration decisions and the characteristics of individuals, households, and other social units are related within the framework of a cost–benefit analysis (Pfeiffer, et.al, 2008). The decision to choose a female to be a migrant may be the most beneficial strategy for such a household. Even though migration is performed by an individual, the decision is not made by the migrant alone. Furthermore, the family context is particularly significant for the study of female migration because women are usually subordinate to the male authority within the household (Lim, 1995). The importance of the household as the unit of analysis in migration studies gained attention in early 1990s after the new economics of labor migration theory was proposed by Stark and Bloom (1985). This theory states that migration decisions are typically made by both the migrants and groups of non-migrants because together they share in the costs and profits of migration.

Despite the subject's importance, only a few studies of the determinants of Indonesian migration exist. To fill the gap, the current paper seeks to contribute to the study of migration by analyzing the determinants of gendered labor migration in one of the major labor-sending regions in Indonesia. The analysis will focus on household characteristics, which are expected to largely explain female labor migration. There is an analysis of which household characteristics increase or decrease the likelihood of male or female household members migrating and how these characteristics determine whether this migration is internal or international. The results of the analysis show that the determinants of labor migration significantly differ by gender. Hence, this paper is expected to make a significant contribution to the growth of migration studies, and it will foster more accurate policy development on migration issues in Indonesia.

The Indramayu Regency, the second largest international labor migrant source in Indonesia, was selected for the

current study. Indonesian international labor migrants are dominated by females who typically work as domestic workers and care workers. In 2015, female labor migration reached 60.5% at the national level (BNP2TKI, 2016) and 87.9% at the local level (Social and Manpower Agency of Indramayu Regency, 2016). Labor migration in Indramayu is characterized by two mainstream migration choices: internal male migration and international female migration. This situation is expected to be an appropriate setting in which to examine the pattern of gendered labor migration.

This paper is organized as follows: Section Two discusses international female migration issues in Indonesia, providing an overview of the study. Section Three describes the methodology, data collection, and migration incidence at the research site. Section Four explains the estimation method and variables used in the empirical analysis, followed by the interpretation of the results. The two final sections discuss the important issues related to the results of the analysis, which could serve as valuable inputs for future studies.

2. International Female Migration in Indonesia

International labor migration from Indonesia began during the Dutch colonization era in the late nineteenth and early twentieth centuries. Through the contract labor program, the Dutch government sent thousands of Java island inhabitants to work in plantation areas in Sumatra, Kalimantan (Borneo), the Dutch colonies of Suriname and New Caledonia, British colonies in Malaysia, and French colonies in the Asian region (Raharto, 2007). However, modern international labor migration officially began with the enactment of the Regulation of Ministry of Manpower No. 4 in 1970. This regulation managed overseas labor recruitment, but it was not until 1979 that the government actively supported the sending of labor migrants overseas (Raharto, 2007). The growing demand for labor in rich Middle Eastern countries in the 1970s resulted in large-scale Asian labor migration, including Indonesian labor migration (Raharto, et al., 2013). The need for females to work as domestic workers also increased following the development of those Middle Eastern countries, which led to the feminization of labor migration in the 1980s (Asis, 2005). Figure 1 shows the trend in Indonesian labor migration by gender from 1995 to 2015, as compiled from several data sources.

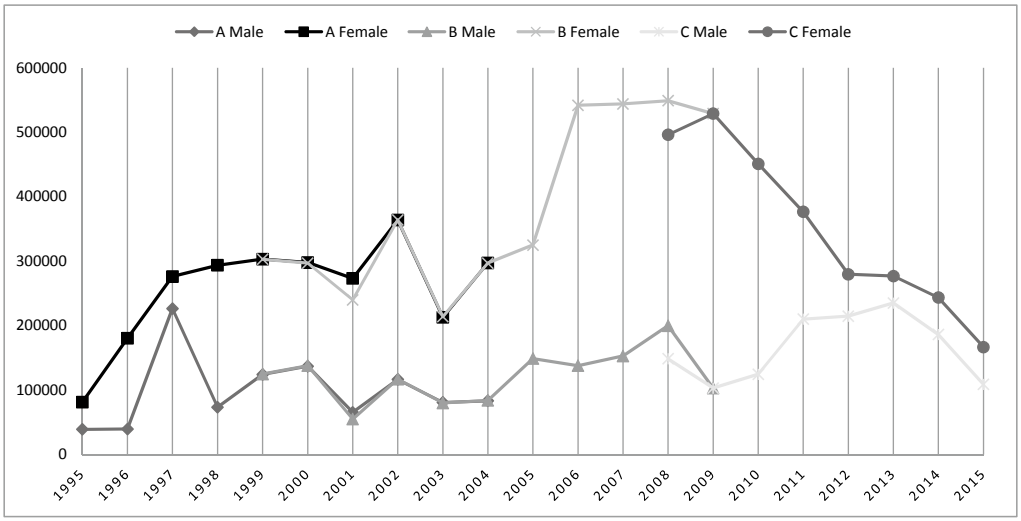

Figure 1. The Trend in Indonesian Labor Migration by Gender from 1995 to 2015

Source:

A. 1995-2004, Ministry of Manpower and Transmigration, cited in Raharto (2007)

B. 1999-2009, BNP2TKI, cited in Syafitri ((2012)

C. 2008-2015, BNP2TKI (2016)

Note:

BNP2TKI is the abbreviation of Badan Nasional Penempatan dan Perlindungan Tenaga Kerja Indonesia or The National Board for Placement and Protection of Indonesian Overseas Workers

The most notable increase in female labor migration occurred after 1997, when an economic crisis took place in Indonesia (Raharto, et al., 2013). The prevalence of international female labor migrants increased from 67.6% in 1995–1996 to 83.3% in 1997–1998 (Raharto, 2002), and in addition to Middle Eastern countries, Asian Pacific countries began to be destinations. At the same time, the number of male migrants to Asian Pacific countries also increased, even though it did not reach the number of female migrants. Male migrants migrated mostly to Malaysia and Brunei Darussalam, where they worked in plantations and factories (Raharto, 2007).

The number of both male and female migrants declined in the early 2000s due to the temporary termination of labor migration because of the SARS (severe acute respiratory syndrome) epidemic in some destination countries in the Asian Pacific region and the outbreak of war in the Middle East (World Bank, 2006). Moreover, from 2003 to 2005, the government of Taiwan banned Indonesian labor migrants because of numerous migrants violating administrative procedures. However, after 2005, Taiwan became a new primary destination for female migrants working as domestic servants or caretakers for the elderly and children. Currently, Malaysia holds the top position among destination countries for Indonesian male and female migrants (BNP2TKI, 2016).

The latest developments show that Indonesian female labor migration has been significantly decreasing. From 2011 to 2015, the prevalence of female migrants was about 58.4% of the total migrants (BNP2TKI, 2016). This trend is because of the discouragement of the informal employment of international migrants by the government of Indonesia. The government of Indonesia has been restricting migrants from working in informal employment in certain Middle Eastern countries since 2011. Furthermore, Ministerial Decree No. 260, 2015, regarding the termination and prohibition of Indonesian labor migrants for individual (household) users in Middle Eastern countries, banned 19 countries as destinations for labor migrants from Indonesia. These policies reduced the share of informal employment and increased the share of formal employment. In addition, the Indonesian government has stipulated a "zero informal migrant policy" target for 2017, meaning that the government aims to reduce informal employment, especially domestic work, to zero.

The term informal employment is different from illegal employment. According to the ILO (2016), waged workers are considered informal workers if their employment, in law or in practice, meets one of the following criteria: not being regulated by national labor legislation, not being covered by social security, not being subject to income taxation, or not providing access to certain employment benefits. On the other hand, illegal employment is related to the violation of immigration laws. The ILO estimates that about 74.6% (50 million) of domestic workers worldwide are in informal employment (ILO, 2016). Out of these domestic workers, 17.2% are international migrants and about 73.4% of all migrant domestic workers are female (ILO, 2015). This makes female migrants, who work in informal employment as domestic worker, highly prone to exploitation. Mistreatments of domestic workers, such as unpaid wages, excessive working hours, and physical and sexual abuse, are often reported (BBC Indonesia, 2013; CNN Indonesia, 2015).

Based on the criteria described above, the nature of informal employment may differ depending on the destination country. Female labor migrants from Indonesia who work in Middle Eastern countries have a higher chance of mistreatment than others because domestic workers are not covered by labor laws in those countries (IOM, 2010b). On the other hand, destination countries in East and Southeast Asia, such as Taiwan, Hong Kong, and Singapore, have established national policies on domestic workers and immigration (Peng, 2017). Even though the status of their employment is informal, these national policies make the working situations in these countries better than in other countries.

Table 1. The Number of Migrants Working in Formal and Informal Employment from The West Java Province

Year	Country	Male			Female			Total		
		Informal	Formal	Total	Informal	Formal	Total	Informal	Formal	Total
2011	Saudi Arabia	1,156	8,619	9,775	44,285	4,213	48,498	45,441	12,832	58,273
	UAE	76	1,195	1,271	18,567	2,488	21,055	18,643	3,683	22,326
	Taiwan	71	3,107	3,178	14,578	1,157	15,735	14,649	4,264	18,913
	Qatar	21	1,023	1,044	8,260	639	8,899	8,281	1,662	9,943
	Singapore	22	1,293	1,315	5,528	399	5,927	5,550	1,692	7,242
	Other	160	10,969	11,129	12,443	4,010	16,453	12,603	14,979	27,582
	Sub-total	1,506	26,206	27,712	103,661	12,906	116,567	105,167	39,112	144,279
2012	Taiwan	51	4,256	4,307	17,292	1,696	18,988	17,343	5,952	23,295
	UAE	89	999	1,088	19,596	428	20,024	19,685	1,427	21,112
	Saudi Arabia	2,366	5,965	8,331	7,842	1,131	8,973	10,208	7,096	17,304
	Qatar	50	581	631	13,072	242	13,314	13,122	823	13,945
	Singapore	34	1,822	1,856	5,783	135	5,918	5,817	1,957	7,774
	Other	487	16,197	16,684	16,603	3,313	19,916	17,090	19,510	36,600
	Sub-total	3,077	29,820	32,897	80,188	6,945	87,133	83,265	36,765	120,030
2013	UAE	45	750	795	20,131	354	20,485	20,176	1,104	21,280
	Taiwan	34	4,327	4,361	13,410	1,435	14,845	13,444	5,762	19,206
	Saudi Arabia	2,214	3,474	5,688	7,704	705	8,409	9,918	4,179	14,097
	Qatar	33	386	419	7,867	306	8,173	7,900	692	8,592
	Malaysia	137	2,908	3,045	1,326	1,292	2,618	1,463	4,200	5,663
	Other	920	19,146	20,066	37,704	3,380	41,084	38,624	22,526	61,150
	Sub-total	3,383	30,991	34,374	88,142	7,472	95,614	91,525	38,463	129,988
2014	Taiwan	45	5,310	5,355	17,635	1,495	19,130	17,680	6,805	24,485
	Saudi Arabia	2,463	5,275	7,738	8,370	1,979	10,349	10,833	7,254	18,087
	Oman	10	57	67	13,082	79	13,161	13,092	136	13,228
	UAE	62	517	579	7,213	2,895	10,108	7,275	3,412	10,687
	Singapore	21	676	697	6,379	399	6,778	6,400	1,075	7,475
	Other	457	11,850	12,307	13,509	4,814	18,323	13,966	16,664	30,630
	Sub-total	3,058	23,685	26,743	66,188	11,661	77,849	69,246	35,346	104,592
2015	Taiwan	56	3,425	3,481	18,542	824	19,366	18,598	4,249	22,847
	Saudi Arabia	232	3,613	3,845	3,378	2,132	5,510	3,610	5,745	9,355
	Malaysia	18	1,780	1,798	2,583	2,097	4,680	2,601	3,877	6,478
	Singapore	2	110	112	6,060	33	6,093	6,062	143	6,205
	UAE	7	165	172	1,929	2,537	4,466	1,936	2,702	4,638
	Other	33	3,269	3,302	9,077	1,135	10,212	9,110	4,404	13,514
	Sub-total	348	12,362	12,710	41,569	8,758	50,327	41,917	21,120	63,037
Total		11,372	123,064	134,436	379,748	47,742	427,490	391,120	170,806	561,926

Source: Integrated Labor Migrant Service Center (Balai Pelayanan TKI Terpadu) of West Java Province, 2016

Table 1 shows the West Java Province's statistics regarding the number of migrants working in formal and informal employment from 2011 to 2015 in five major destination countries based on gender. The West Java Province is the highest labor-migrant-sending province, containing 24.4% of the total labor migrants from 2011 to 2015. It is followed by Central Java, which sent 21.5% of all Indonesian migrants during the same period (BNP2TKI, 2016). West Java migrants are mostly females and work in informal employment. Generally, there has been a steady decrease in the number of female informal migrants, and there has been a fluctuating number of male formal migrants. In terms of international migration, Saudi Arabia used to be the main destination, but it was replaced by Taiwan.

The monetary gains from Indonesian international labor migration can be measured by the remittance inflows, which have been increasing year by year. There was a 40% increase in the amount of remittances from USD 6.73 billion in 2011 to USD 9.42 billion in 2015. The amount slightly decreased in 2016, when it reached only USD 8.85 billion because of the decreased number of migrants that year. The amount of remittances made by Indonesians is

the fourth highest among remittance-receiving countries in the East Asia and Pacific region (KNOMAD, 2016a), and Indonesia ranked fourteenth among all remittance-receiving countries in the world (KNOMAD, 2016b) in 2015. The remittances primarily serve to meet the daily needs of the family left behind, education, and housing maintenance and repair (IOM, 2010a; Raharto et al., 2013).

3. Methodology and Data

3. 1. Methodology

A mixed approach was employed for the analysis. Both quantitative and qualitative data were collected. A mixed approach is generally appropriate when explaining complex social phenomena, including labor migration, which might not be adequately analyzed by only a quantitative or qualitative approach. The determinant of labor migration can be defined by using a statistical model. However, the interpretation and contextualization of the empirical results require confirmation and cross-validation of the qualitative data. A weight is given to a quantitative method, while the qualitative method is a supportive element. A local neighborhood unit called *Rukun Tetangga* (RT)[1] became the primary source of data. Questionnaires were used to gain the household-level data while interviews were conducted to obtain supporting information from the head of RT and some of household members. The questionnaires were given to the head of households, and the head of RT took part in a face-to-face interview. The author also visited survey sites frequently to monitor the progress of the surveys. The questionnaires included questions about household characteristics, migration status and history, and migrants' profiles. The interviews captured the household's social and economic condition and respondent's opinion about the factors influencing the migration decision in society (See Appendix 2 for more details).

3. 2. Data Collection

The Indramayu Regency was selected as the survey site. It is one of the districts in the West Java Province, Indonesia and is known as the major rice- and fish-producing region in Indonesia. The survey took place from February to March 2016. With the help of RT's head, data were collected from 1,193 households from 12 sample villages in six sub-districts, namely Juntinyuat, Cantigi, Losarang, Sukagumiwang, Kroya, and Anjatan. One RT was chosen randomly from each village, so there were 12 RTs in total. The six sub-districts were selected by considering geographical location, poverty level, and the prevalence of labor migration. Geographical locations were grouped into two categories: coastal and inland areas. The locations were also chosen by considering their spatial distribution, ensuring that the samples represented all parts of the regency. The coastal and inland areas were each represented by three sub-districts. A sub-district's poverty level was represented by the proportion of poor households, and poverty levels were differentiated into three categories: high, medium, and low.[2] In terms of migration prevalence, the sub-districts were also differentiated into three categories: high, medium, and low. There were two sub-districts for each poverty level and migration prevalence category.

3. 3. Household Migration Status and Migrant Profiles

The definitions of the household migration status categories are important. At the time of the survey, non-migrant households are households without current migrants, and migrant households are the opposite. Non-migrant

households are further divided into two categories: those without return migrants and those with return migrants. Migrant households are also divided into two categories: households without return migrants and households with return migrants. Based on migration destination, migrant households can be differentiated into internal, international, and mixed internal and international migrant households.

The survey's results show that non-migrant households predominate. Out of the 1,193 sample households, 606 households, or 50.8%, are non-migrant households with no return migrants, and 231 households, or 19.4%, are non-migrant households with return migrants. Among migrant households, 279 households, or 23.4%, are migrant households without return migrants, and 77 households, or 6.4%, are migrant households with return migrants. Based on destination, the migrant households without return migrants consist of 128 internal migrant households, 137 international migrant households, and 14 mixed internal and international migrant households. The full results of household migration status can be seen in Table 2.

Table 2. Household Migration Status

Migrant Presence in The Household	Non-migrant Household				Migrant Household				Total
	No Return Migrant		With Return Migrant		No Return Migrant		With Return Migrant		
	Freq	%	Freq	%	Freq	%	Freq	%	
No Migrant	606	50.8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	606
Internal	n.a.	n.a.	33	2.8	128	10.7	38	3.2	199
International	n.a.	n.a.	192	16.1	137	11.5	36	3.0	365
Mixed Internal/International	n.a.	n.a.	6	0.5	14	1.2	3	0.3	23
Total	606	50.8	231	19.4	279	23.4	77	6.5	1,193

Source: February - March 2016 Survey

The individual-level data highlight a potential relationship between the destination and gender of the migrants (see Tables 3 and 4). Females are mostly international migrants while males are mostly internal migrants. Out of the 204 current international migrants, 167 are females, and 37 are males. On the other hand, out of 208 current internal migrants, 145 are males, and 63 are females. The prevalence of international female migrants and internal male migrants is even higher among return migrants. Most current international female migrants are between 26 and 35 years old, amounting to 10.4% of the total. However, current internal male migrants do not mainly fall within any certain age range. They are distributed almost evenly among the age ranges of 16 to 25, 26 to 35, and 36 to 45 years old, with each containing about 6% of the total (see Table 5). Age is a crucial aspect of migration processes. Certain age categories tend to correlate with a particular type of work. Our samples show that, among the age categories, younger females between 26 and 35 years old migrate overseas mainly as domestic and care workers through legal channels while even younger females between 16 to 25 years old tend to migrate more internally. They also mainly work as domestic workers in big cities. In terms of education level, most current international female migrants are secondary school graduates, and most of them make Taiwan their destination (see Tables 3 and 5). On the other hand, most current internal male migrants are elementary school graduates and make Jakarta their destination (see Table 4 and 5).

Table 3. The Main Destination of Current International Migrants

Destination Country	Current International Migrants					
	Male	%	Female	%	Total	%
1 Taiwan	16	7.8	89	43.6	105	51.5
2 Saudi Arabia	8	3.9	29	14.2	37	18.1
3 UEA	2	1.0	15	7.4	17	8.3
4 Malaysia	5	2.5	7	3.4	12	5.9
5 Others	6	2.9	27	13.2	33	16.2
Total	37	18.1	167	81.9	204	100.0

Source: February - March 2016 Survey

Table 4. The Main Destination of Current Internal Migrants

Destination Province	Current Internal Migrants					
	Male	%	Female	%	Total	%
1 Jakarta	112	53.8	52	25.0	164	78.8
2 Kalimantan	8	3.8			8	3.8
3 West Java	6	2.9	3	1.4	9	4.3
4 Central Java	6	2.9			6	2.9
5 Others	13	6.3	8	3.8	21	10.1
Total	145	69.7	63	30.3	208	100.0

Source: February - March 2016 Survey

Table 5. The Profile of Individual Migrants

	Current Migrants								Return Migrants								Total	
	Internal				International				Internal				International					
	Male	%	Female	%	Male	%	Female	%	Male	%	Female	%	Male	%	Female	%		
Number	145	19.26	63	8.37	37	4.91	167	22.18	43	5.71	7	0.93	42	5.58	249	33.07	753	100.00
Age Interval																		
16-25	41	5.44	35	4.65	6	0.80	44	5.84	0	0.00	4	0.53	1	0.13	22	2.92	153	20.32
26-35	45	5.98	13	1.73	14	1.86	78	10.36	6	0.80	0	0.00	12	1.59	101	13.41	269	35.72
36-45	42	5.58	11	1.46	14	1.86	37	4.91	18	2.39	1	0.13	25	3.32	91	12.08	239	31.74
46-55	13	1.73	3	0.40	3	0.40	7	0.93	15	1.99	1	0.13	4	0.53	32	4.25	78	10.36
56-65	4	0.53	1	0.13	0	0.00	1	0.13	4	0.53	1	0.13	0	0.00	3	0.40	14	1.86
Education Level																		
No Education	10	1.33	7	0.93	0	0.00	1	0.13	3	0.40	0	0.00	0	0.00	3	0.40	24	3.19
Elementary School	54	7.17	15	1.99	8	1.06	57	7.57	23	3.05	3	0.40	8	1.06	149	19.79	317	42.10
Secondary School	42	5.58	30	3.98	15	1.99	83	11.02	13	1.73	1	0.13	18	2.39	72	9.56	274	36.39
High School	36	4.78	9	1.20	14	1.86	26	3.45	4	0.53	3	0.40	15	1.99	24	3.19	131	17.40
Others	3	0.40	2	0.27	0	0.00	0	0.00	0	0.00	0	0.00	1	0.13	1	0.13	7	0.93

Source: February - March 2016 Survey

4. Empirical Analysis

4. 1. Estimation Method and Variables

The analysis of the determinants of migration was conducted using multinomial logistic regression models. The data used for analysis were household-level data trimmed as follows: Return migrant households were excluded to avoid possible sample biases, so the focus was on first-time migrant households. The characteristics of return migrant households at the time of the survey may have changed because of migration experiences. Past migration experiences affect the household's decision-making behavior. Households with multiple migrants were also excluded. Their characteristics likely differed from those of households with only one internal or international migrant. Because migration patterns from Indramayu are mostly characterized by two streams, that is, international female migration and internal male migration, the study focused on them by dropping internal female and international male migrant households. Because of these procedures, there are 804 sample households with three migration choices: non-migrant households, international female migrant households, or internal male migrant households. The number of sample households are 606, 115, and 83, respectively.

As independent variables, the gender of the household head, household size, the household head's occupation, the education level of the household head, landholding status, and the status of the cash transfer (Bantuan Langsung Tunai: BLT[3]) recipient are included. In terms of the head of household's occupation, households are grouped into two categories: agricultural households and non-agricultural households. Households are defined as agricultural

households if their head of household is engaged in farming, animal husbandry, or fishery. If a head of household performs jobs other than those, that household is defined as a non-agricultural household. For the household land ownership variable, the size of the land owned in square meters is used. Another household characteristic is whether the household is a BLT recipient or not. BLT recipient status functions as a proxy for poverty. In addition to these household variables, a location dummy, that is, inland and coastal, is included to capture the differences that may arise from the geographical location of each village. Table 6 shows the summary statistics for the independent variables.

Table 6. The Summary Statistics of the Independent Variables

No.	Variables	Response Scale	Minimum	Maximum	Mean	Std. Deviation
1	Household head gender	0=female, 1=male	0	1	0.82	
2	Household head occupation	0=agricultural household, 1=non-agricultural household	0	1	0.44	
3	Household head education	0= no education, 1=primary school, 2=secondary school, 3=high school, 4=Others	0	4	1.24	
4	Cash transfer status	0=non-BLT recipient, 1=BLT recipient	0	1	0.33	
5	Location	0=coastal, 1=inland,	0	1	0.75	
6	Household Size	continuous variable	1	8	3.13	1.32
7	Landownership	continuous variable	0	50000	1533.95	5838.46

N = 804 *Source: Author's calculations*

4. 2. Empirical Results and Interpretation

Table 7 presents the estimated coefficients and odds ratios of each independent variable. Becoming an international female migrant household or internal male migrant household is predicted based on household characteristics, with non-migrant households acting as the reference category. The reference categories for each independent variable are as follows: female household head, agricultural occupation, no education, non-BLT recipient, and coastal village. The negative signs show that certain categories are less likely to be chosen relative to the reference category, and the positive signs show the opposite. The odds ratios add information about the magnitude of a given likelihood compared to the reference category.

Table 7. Multinomial Logistic Regression Results

Independent Variables	International female migrant households		Internal male migrant households	
	Coefficients	Odds Ratio	Coefficients	Odds Ratio
Household head gender	−0.912 ***	0.402	1.416 **	4.119
	(0.304)		(0.565)	
Household size	0.292 ***	1.338	0.197 *	1.218
	(0.091)		(0.101)	
Household head occupation	0.562 **	1.754	1.271 ***	3.566
	(0.221)		(0.266)	
Household head education				
Primary school	1.373 ***	3.949	−0.004	0.996
	(0.441)		(0.399)	
Secondary school	1.710 ***	5.530	−0.524	0.592
	(0.486)		(0.519)	
High school	0.676	1.965	0.184	1.202
	(0.593)		(0.492)	
Others	−0.248	0.781	−1.493	0.225
	(1.138)		(1.123)	
Landownership (m2)	0.000 *	1.000	0.000	1.000
	(0.000)		(0.000)	
Cash transfer status	−0.462 *	0.630	−0.338	0.713
	(0.251)		(0.297)	
Geographical location	−0.226	0.798	0.127	1.136
	(0.242)		(0.304)	
Intercept	−2.944 ***		−4.498 ***	
	(0.490)		(0.658)	
Observation				804
Pseudo R-square				0.085
Log Likelihood				−533.390

Source: Author's estimates

* Indicates significance at the 10 % level
** Indicates significance at the 5 % level
*** Indicates significance at the 1 % level
Standard error appears in parenthesis

The gender of the household head correlates to both international female and internal male migration. In the case of international female migration, the significant negative sign and the approximate 0.4 odds ratio show that international female migrants are 40% less likely to occur in households with male household heads compared to households with female household heads. In the case of internal male migration, the positive sign and an odds ratio of more than four show that internal male migrants are four times more likely to come from households with male household heads than households with female household heads. In short, the gender of the migrants and the household head tend to be the same.

Household size has a positive effect on both international female migration and internal male migration. The results are consistent with those of other studies, which indicate that migrants tend to come from relatively large families. A study conducted in Ponorogo, West Java, shows that such households need more people to care for dependent household members, such as children and the elderly, because the dependency ratio is relatively low for a migrant household compared to non-migrant household (Yen, et al., 2014). Larger households also mean that there are more household members to be allocated as migrants to maximize the family's income and distribute risk across a number of income-generating sources (Connell et al., 1976; Adi, 1996).

The next results show that the occupation of the household head is a statistically significant determinant of both international female and internal male migration. The chance of non-agricultural households having international female migrants is almost twice as high as that of agricultural households, and it is almost four times higher for internal male migrants. These results are consistent with other studies that indicate that non-farm households tend to be more mobile than farm households (Bilsborrow, et al., 1987). One potential reason for this is that agricultural occupations are considered more dependable sources of household income. Most agricultural households are engaged in paddy cultivation in inland villages and fishery in coastal villages. Agriculture is a key labor-intensive sector in the Indramayu Regency. The workforce in this sector adds up to as much as 35.4% of the total workforce (Bappeda, 2013). A small number of non-agricultural workers work as government officers or high-level employees, and one-third work as merchants, with the rest performing miscellaneous jobs. More than 20% of the non-agricultural workforce is composed of males performing manual labor, cleaning, and other such work (Bappeda, 2013). This segment of the workforce is prone to uncertain wages and is more likely to view internal migration as a way to obtain a higher, more stable income.

The education level of the household head has various impacts on migration decisions. Primary and secondary education are statistically significant determinants of international female migration, but education level does not affect internal male migration decisions. The education levels of migrants and household heads may influence the migration decision differently. However, they are highly related. The education level of household heads can be used as a proxy for the education level of migrants. Poorly educated household heads are more likely to have low incomes and limited opportunities to obtain better employment. The relationship between education and earnings is discussed in detail by Mincer (1975), who states that schooling, as a form of human capital, influences the earnings of individuals.

The dissimilar impacts of the household head's education on the migration decision may be explained by the different requirements of each migration type. Working abroad requires minimum qualifications in terms of skill and education. It is understandable that a household migration decision in favor of international female migration would be significantly influenced by education level. In the case of internal male migration, the probability of migrating is not influenced by a particular level of education. Poorly educated males, especially those from non-agricultural households, may have difficulty finding jobs in the village while highly educated males may not be able to find suitable jobs given their expertise. Poorly educated male migrants usually work in informal employment in Jakarta, which requires no specific education; for example, they work as food street vendors and drivers. Thus, it can be concluded that education level affects international migration. It is quite difficult for members of households with no education to find job opportunities overseas.

The examination of land ownership's influence on the migration decision does not show a relationship. In the case of international female migrant households, the coefficient of landownership is statistically significant, but it is near zero. The odds ratio is at one, which means that landownership is almost negligible in its effect on household decisions. The size of land should be a critical factor in migration decisions because it highly relates to household income, labor demand, and social status (Oda, 2007). However, the landownership rate among households in the Indramayu Regency is very low (see Appendix). The share of agricultural households is much higher than the share of landowners. Thus, agricultural households are not always landowners. Based on the above results, it is not landownership status, but rather the head of household's occupation, that influences the migration decision.

The cash transfer (BLT-recipient) status variable emerges as a significant determinant of international female migration, but it is an insignificant determinant of internal male migration. The negative sign and a 0.63 odds ratio show that the decision to have an international female migrant is about 63% less likely to occur in BLT-

recipient households. BLT-recipient status is supposed to be a proxy for poverty because it is a cash transfer from the government to households categorized as living under the poverty level. Thus, the results can be interpreted as indicating that the poor are less likely to have international female migrants in their households. International migration requires a certain amount of money and resources, so the poor may not be able to afford migration. On the other hand, internal male migration involves only the low cost of the transportation fees and first-time accommodations at the destination. The result here is consistent with many other studies explaining that the relationship between the probability of migration and wealth is an inverse U shape (Du, et.al., 2005). This result is also in line with a study of migration determinants in Ponorogo, West Java, showing individuals from poorer households are less likely to migrate internationally (Yen, et al., 2014). Another explanation is that cash transfer may become one form of household income, discouraging migration.

Using coastal villages as the reference category, the results show that the inland and coastal village categories, used as the location dummy, do not significantly influence the household decision regarding either international female migration or internal male migration.

5. Discussions

The current research shows that education is an essential factor that influences international female migration decisions. Education indicates the capabilities and resources owned by someone that can increase the chance of migration. Education is also important because it is a minimum requirement for international migration. A person with no education has no access to international labor migration. In addition, education is the main factor determining the type of employment obtained. However, the education levels of migrant candidates from Indonesia are still dominated by secondary school graduates and those with even lower levels of education (BNP2TKI, 2016). This contributes to Indonesia being one of the major suppliers of informal employment overseas. The Indonesian government should work on building the human capital necessary for formal employment. The government's effort to increase formal employment, such as by introducing formal employment opportunities to migrants, is hindered by the low qualifications of migrants. The government's goal of sending more migrants in the form of formal employment can be supported by a more qualified labor pool.

The government policy that has banned informal employment in certain Middle Eastern countries has led to a decreasing number of international female migrants from Indonesia. Although this policy aims to protect migrants, it also reduces employment opportunities for potential female migrants. On the other hand, the demand for labor in domestic work and care work in the global labor market is undeniable (ILO, 2013). Demographic trends in certain East Asian countries will increase the demand for female migrants (ILO, 2016). A loss of these opportunities means a decreased amount of remittance inflow. The remittance inflow from international migrants is very significant for a migrant household's well-being because it is typically used to meet the household's daily needs, especially to purchase food items (IOM, 2010a). Domestically, the government cannot ensure employment opportunities and reduce the high unemployment rate. The conflict between the government's policy and global labor demand may cause illegal migration and administrative violations to increase during the migration process. The number of migrants going through formal channels may be decreasing, but this may not reflect the real number of migrants as a whole.

The Indonesian government also should work on the upgrading of the status of domestic workers and care workers from informal employment to formal employment. The International Labour Organization proposes four dimensions of the informality and formality of employment in domestic work: a legal framework for labor rights, a legal framework for social security rights, declaration and registration with public authorities, and formal

employment practices (ILO, 2016). Formal employment practices are characterized by employment contracts with specific terms regarding the tasks, wages, and hours. This process is not about the prohibition of domestic workers and care workers; rather, it is about how to change these forms of work into formal employment. The dialogue between the government of a migrant-sending country and the government of a migrant-receiving country is necessary for this change.

The findings also show that the gender of the household head tends to be the same as the gender of the migrant. One major reason for the higher chance of female migrants in households with female household heads can be explained if the migrant is the household head herself. This represents a case where the mother leaves her kids in the village and someone needs to take care of them. This is happening not only in Indramayu, but also in many countries where female migration is active. The high prevalence of female migration has different consequences than those of male migration. The negative impacts on the family left behind, especially on children, are inevitable. The detrimental effect of migration is greater when mothers or both parents migrate and is especially negative for younger children's health and well-being (Lu, 2014). Studies on the impacts of migration on children left behind are mainly divided into specific topics, that is, forms of communication; the level of remittances; health and well-being; education; and social behavior, relationships, and the socialization of children (Yeoh & Lam, 2007). However, research on these topics is still very limited in Indonesia. Thus, further exploration of these topics is needed.

6. Conclusion

The effort to identify the determinants of gendered labor migration shows specific results for each locality. The research shows not only consistencies with previous studies, but also specific findings regarding gendered labor migration in the Indramayu Regency. Household size and occupation type as factors influencing the migration decision are consistent with the results of prior studies. The likelihood of migration increases as the size of the household increases, and a non-agricultural household is more likely to have migrant members. The research also indicates that the gender of the migrant tends to be the same as the gender of the household's head. However, landownership and village location seem to have no influence on the propensity to migrate.

The determinants are significantly different for international female migration and internal male migration in terms of the household head's education level and the household's poverty level. The results show the importance of education level in influencing the gendered pattern of labor migration in Indramayu. Education level is not linearly related with the probability of migration. However, it is an important factor in that it is a minimum requirement for international female labor migration. On the other hand, education level does not affect the likelihood of internal male labor migration. The relationship between poverty level and migration patterns shows that poor people are less likely to migrate internationally, but poverty level has no effect on internal male migration.

The qualifications of Indonesian female migrants are a good fit for informal employment overseas. The government policy to ban informal employment may be harmful if it is executed without a proper evaluation of the potential migrants and other external factors. Future research can utilize the results of the current study as a basis for understanding the situation affecting the gendered migration pattern and whether female labor migration results in the betterment of or a detriment to the family left behind. Recognizing the characteristics of gendered labor migration in the Indramayu Regency will contribute to the study of migration and the comprehensive development of migration policy in Indonesia.

Notes

[1] A Rukun Tetangga (RT) is the smallest division of territory in Indonesia. It is not categorized as part of formal governmental administration institutions. Establishment and leader selection are based on consensus among the member households. In the Indramayu Regency, an RT consists of 100 households on average.

[2] The number of poor households is taken from the National Team for the Acceleration of Poverty Reduction (TNP2K/Tim Nasional Percepatan Penanggulangan Kemiskinan) data for 2012 for each sub-district. Based on the proportion of poor households, each sub-district is divided into one of three categories: high, medium, and low. The sub-districts with less than 43% poor households are placed in the low category, those between 43% and 46% are placed in the medium category, and those higher than 46% are placed in the high category.

[3] Bantuan Langsung Tunai (BLT) is a cash transfer from the government to households considered under the poverty level. It is a form of temporary support to help the poor fulfill their basic daily needs.

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Appendix 1

The Profile of Sample Household

Household's Characteristics	Household Migration Status				Overall
	Non-migrant	Internal	International	Mixed	
Gender of Household Head					
Male	83.3%	87.4%	81.5%	88.2%	83.7%
Female	16.7%	12.7%	18.5%	11.3%	16.4%
Household Size Average	3.20	3.63	3.58	4.18	3.33
Occupation of Household Head					
Agricultural Household	55.7%	42.2%	41.6%	35.3%	51.5%
Non-agricultural Household	44.3%	57.8%	58.4%	64.7%	48.5%
Household head education					
No education	15.4%	14.5%	4.6%	11.8%	13.7%
Elementary School	54.2%	56.0%	56.1%	52.9%	54.7%
Secondary School	16.5%	15.1%	25.4%	29.4%	17.8%
High School	11.5%	13.3%	13.3%	5.9%	11.9%
Others	2.4%	1.2%	0.6%	0.0%	1.9%
Landownership					
Landless	84.8%	89.8%	88.4%	82.4%	86.0%
Landowner	15.2%	10.2%	11.6%	17.6%	14.0%
Land Size Average (m2)	10,272.35	7,584.71	6,259.80	7,250.00	9,463.92
Cash transfer (BLT) Recipient Status					
Recipient	40.1%	38.0%	38.7%	41.2%	32.4%
Non-recipient	59.9%	62.0%	61.3%	58.8%	67.6%
Geographical Location					
Coastal	24.0%	22.9%	21.4%	35.3%	23.4%
Inland	76.0%	77.1%	78.6%	64.7%	76.4%

Source: February- March 2016 Survey

Appendix 2

HOUSEHOLD DATA

RT :

Village :

Sub-district :

Number of Household :

No.	Name of Household Head	Gender	House-hold size	Occupation	Land Holding (local Unit)	Literacy	Education Level	Rice for the Poor Recipient	Is there child between 15-18 (yes/no)	Enrolling in Highschool? (yes/no)	Current Migrant							Return Migrant						
											Number	Gender	Age	Destination (Most Recent)	How Many Times	Literacy	Education Level	Number	Gender	Age	Destination (Most Recent)	How Many Times	Literacy	Education Level
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(21)	(22)	(23)

(3) (119 (17) Gender
1 Male
2 Female

(5) Occupation
1 Farm
2 Non-farm

(7) (14) (20) Literacy
1 Literate
2 Illiterate

(8) (15) (21) Education Level
1 Primary School
2 Secondary School
3 High School
4 University
5 Graduate School
6 Others, specify....

(9) Rice for the Poor
1 Yes
2 No

Note: If the number of migrant more than one in 1 household, use the next row