

Factors Influencing Individual Involvement in Indonesia's Informal Economic Sectors

Wildan Syafitri¹, Silvi Asna Prestianawati^{2,*}, Muhammad Fawwaz³, Tsumma Lazuardini Imamia⁴, Amran Rasli⁵ 

^{1,2,3} Faculty of Economics and Business, Universitas Brawijaya, Indonesia

⁴ Accounting Department, Politeknik Negeri Malang, Indonesia

⁵ INTI International University, Malaysia

ARTICLE INFO

Article history:

Received April 08, 2024

Accepted August 24, 2024

Available online Nov 25, 2024

Keywords:

Informal worker, Economic development, Informal economies



This is an open access article under the [CC BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.

Copyright © 2024 by Author. Published by Universitas Pendidikan Ganesha.

ABSTRACT

This study aimed to investigate the factors influencing individuals to be involved in informal sectors in Indonesia. The factors include gender, marital status, age, education, migration, employment type, working hours, and income. Analyzing SAKERNAS 2020 data released by BPS using logistic regression method, this study found that all these factors have a significant influence on the employment sector (both informal and formal). The subjects' characteristics such as being female, having particular marital status, aged over 40, educated at the senior high school level or lower, non-migrant status, involvement in agricultural business, working more than 8 hours a day, and earning a monthly income of 5 million rupiah, were found to influence individual preference of working in informal sectors. The study showed inequalities and gaps among individuals working in informal sectors in Indonesia, highlighting the need for the policymakers' intervention to provide stimuli that can improve the welfare of informal economic actors and provide them with social protection.

1. INTRODUCTION

The Indonesian government has made significant efforts to achieve the Sustainable Development Goals (SDGs), which are framed around 17 key pillars. One of the most critical of these pillars is the development of human capital, as it directly impacts various other goals, including eradicating poverty (Goal 1), alleviating hunger (Goal 2), promoting good health and well-being (Goal 3), and ensuring decent work and economic growth (Goal 8). Improving the quality of education is a crucial pathway to bolstering human capital, as it equips individuals with the skills and knowledge necessary to contribute effectively to the country's economic and social development. According to [Safri \(2016\)](#), human resources represent an intangible yet vital asset, a key driver of sustainable development. However, despite the potential for growth, Indonesia continues to face substantial challenges in human resource development. Key among these challenges is the lack of access to quality education and decent job opportunities, particularly in regions with underdeveloped infrastructure ([Safri, 2016](#)).

While Indonesia's diverse economic sectors present a promising foundation for public welfare, the persistent issue of unemployment continues to undermine progress. Data from the Central Bureau of Statistics (BPS) in February 2022 revealed that approximately 8.4 million Indonesians remain unemployed. Strikingly, this unemployment is most pronounced within the productive age groups, with 1.13 million people aged 15-19, 2.5 million aged 20-24, and significant numbers among older age groups. This high rate of unemployment not only highlights the difficulty many Indonesians face in securing formal employment but also signals broader concerns about national productivity and economic development. The large portion of the labor force that remains unutilized or underutilized could have long-term negative effects on the country's ability to foster sustainable economic growth and meet its development goals.

In response to the limited capacity of the formal labor market to absorb workers, particularly those with low levels of education, many Indonesians turn to the informal sector as a means of survival. The development of informal sectors is a direct consequence of the formal sector's inability to provide enough employment opportunities, as outlined by [Berger and Buvinic \(1989\)](#) and referenced by [Pitoyo \(2007\)](#). The

*Corresponding author.

E-mail: silvi.febub@ub.ac.id (Silvi Asna Prestianawati)

informal sector serves as a crucial safety net for millions of Indonesians, offering employment to those who may otherwise be left without a source of income. However, despite its capacity to absorb labor, the informal sector is characterized by a high degree of vulnerability. Workers in this sector often face unstable incomes, lack of social protection, and limited opportunities for skill development. According to [BPS \(2022\)](#), informal employment in Indonesia includes categories such as self-employed individuals, those who are self-employed with irregular or unpaid labor, free workers, and family workers. This type of employment, while vital for immediate survival, often fails to provide a pathway for improving living standards or fostering long-term economic security.

Research on the informal sector presents conflicting views on its overall impact. On the one hand, [Gunawan and Reiza \(2015\)](#) argue that informal sector employment can indeed raise incomes for certain groups, particularly those who might otherwise face unemployment. On the other hand, [Sutopo \(2014\)](#) contends that informal sector jobs often fail to improve the quality of human resources involved, primarily due to weak business management and limited opportunities for professional growth. These conflicting perspectives highlight the complex nature of informal sector employment and suggest that while it plays a critical role in Indonesia's labor market, it is not a sufficient solution to the country's broader economic challenges. Moreover, migration, particularly from rural to urban areas, has further complicated the dynamics of informal employment. [Syafitri, Prestianawati, and Naldi \(2022\)](#) found that migrants, especially those with lower levels of education, are more likely to work in informal sectors upon reaching urban areas, which places additional strain on already limited employment opportunities in cities.

Despite the wealth of research on informal sectors, there are still significant gaps in understanding the characteristics of workers in these sectors and how their employment influences broader economic outcomes. While previous studies have touched on the vulnerabilities and challenges faced by informal workers, there remains a lack of comprehensive data on the demographic and socio-economic profiles of these individuals. More importantly, there is limited research on how employment in the informal sector affects workers' overall quality of life, including income levels, job satisfaction, and access to social services. This study seeks to fill these critical gaps by providing a detailed analysis of the characteristics of individuals employed in the informal sector in Indonesia, with a particular focus on how these factors influence income levels and living standards.

The primary objective of this study is to analyze the characteristics of individuals working in informal sectors in Indonesia. Specifically, it aims to: (1) Identify and profile the demographic and socio-economic characteristics of workers in the informal sector, focusing on variables such as education, age, gender, and household composition. (2) Assess the impact of informal sector employment on workers' income levels, economic stability, and overall living standards, highlighting both the benefits and vulnerabilities of such employment. (3) Provide evidence-based policy recommendations aimed at improving the quality of human resources and enhancing the productivity of informal sector workers, thus contributing to Indonesia's broader development goals. By addressing these objectives, this study will not only contribute to the existing literature on informal sectors but will also provide valuable insights for policymakers aiming to improve labor market conditions and enhance the social and economic well-being of Indonesia's workforce. In doing so, the study aligns closely with the country's ambitions to meet its SDG targets and foster a more inclusive and sustainable development trajectory.

Theories and Concepts of the Informal Sector

The term informal sector was first coined in the 1970s when it was often applied to people who worked outside official institutions and moved outside the national economic radar. Information about informal sector employment was initially not recorded as well as that of the formal one ([Hart, 1985](#)). Companies or workers commonly prefer engaged in informal sectors for avoiding government regulations, like tax obligations ([de Paula & Scheinkman, 2007](#)). However, the development of informal sectors has a positive impact, especially on employment growth and income distribution ([Gërkhani, 2004](#)). [Papola \(1980\)](#) describes some of the characteristics of entities in informal sectors as follows,

a. *Small Size of Operations*

Most researchers concur that informal sectors predominantly comprise small-scale operations with minimal hired labor for business activities. In many cases, individuals may even be self-employed, handling all aspects of the business independently.

b. *Informal Structure and Family Ownership*

The label 'informal' indicates that the sectors do not have formal organizational structures. Organizations in informal sectors have only few divisions of units that are sufficient in units that play the largest role such as management, supervision, and production. In fact, often these units in each entity are only driven by one person who is also the owner or founder.

c. *Non-Modern Technology*

The technologies utilized by most informal sectors are usually less sophisticated, different from those used by formal sectors. Capital plays a significant role in these terms.

d. *Lack of Access to Government Favours*

Informal sectors get lack attention from the government. While formal sectors have easy access to various facilities, informal sectors must go through various procedures to get the same.

e. *Competitive and Unprotected Product Market*

Informal sectors are not solely focused on producing commonplace goods. Not all components within informal sectors operate competitively. There exists a complementary relationship between informal and formal sectors; informal sectors work to fulfill the needs of formal sectors.

f. *Unprotected Labour Market*

Unlike formal sectors whose wages, jobs, and recruitment have been arranged in such a way, informal sectors do not have rules and a high level of competitiveness from the supply side. Getting into and out of informal sectors, therefore, is quite easy.

Despite many weaknesses, informal sectors have a very critical role for economic growth, especially in African countries (Etim & Daramola, 2020).

Migration and Regional Development

Migration has been occurring since centuries ago, even before Christ. It depicts the movement of individuals from one region to another with the aim of settling or not settling with various factors (Ekawati, 2020). On an international scale, people migrate across the countries, while on a regional scale, they move across the regions within one country, usually from rural to urban areas (David et al., 2019). Socio-economic factors are the primary factors triggering residents to migrate to get a higher income level, jobs, and a wider range of opportunities to pursue higher education (Qomariya et al., 2021). Climate and weather are also the key factors influencing Indian dan Indonesian ranchers and farmers to migrate for better welfare (Jha et al., 2018; Kusumo et al., 2023).

Alabshar et al. (2020) in their research concluded that migration is one of the methods viable to enhance people's welfare. Compared to non-migrants, migrants can be more prosperous in terms of the quality of housing and assets owned. However, not all migrants are prosperous in their new areas. Most migrants, especially in Indonesia, are actually unable to compete, causing new problems such as poverty and overpopulation which are negative impacts of migration (Alabshar et al., 2020; Pohan & Izharivan, 2017). As for job selection, Hidayati (2019) said in her research that most migrants in one area tend to engage in similar occupations because of their limited social network. When migrants return to their hometowns, those with migration experience often prefer seeking employment as workers or employees to setting up their own businesses or becoming entrepreneurs, as Wang & Yang (2013) found in China.

In terms of regional development, migration theoretically has a positive effect on the economy. However, some view that it will only concentrate the economy in particular regions and contrarily will cause gaps in others (Rijanta, 2003). Areas left behind by migrants will experience a scarcity of human resources. Urbanization, therefore, needs to be controlled by the government to remain evenly distributed (Hidayat, 2020).

2. METHODS

Research Approach

Based on the research objectives mentioned, namely, to analyze the characteristics of people who work in informal sectors, the most appropriate approach to be used in this study was a descriptive quantitative approach. This research was conducted by collecting data from population samples, which were then analyzed using the statistical methods and subsequently interpreted.

Data Collection Technique

Research Subject

This study used secondary data from the 2020 SAKERNAS conducted in 38 provinces in Indonesia in the form of longitudinal data covering Sumatera Utara, Sumatera Barat, Riau, Jambi, Kepulauan Riau, Bangka Belitung, Sumatera Selatan, Lampung, all provinces in Jawa, Bali, NTB, all provinces di Kalimantan,

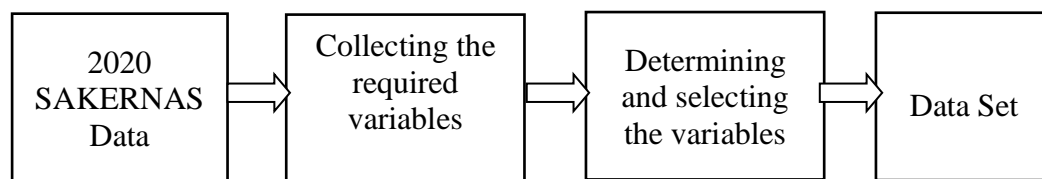
Sulawesi Selatan, and Sulawesi Barat. The subjects of this study were individuals in households working in informal sectors.

Data Type

Secondary data means data that is already available or has been processed by any other party (Sugiyono, 2016). The data used in this study was sourced from official data published by the Central Statistics Agency (BPS).

Data Source

The source of data in this study was official data published by the Central Statistics Agency (BPS). The data collection method utilized included collecting, recording, and reviewing data that had been officially provided.



Source: The researchers, 2023

Figure 1. The 2020 Sakernas Data Collection Steps

Data Collection Measurement

Variable Determination and Selection

Variable determination and selection based on the questionnaire topics found in the 2020 SAKERNAS 2020, resulting in independent and dependent variables. The questionnaire section used in this study is as follows. Table 1 shows the questionnaire sections of the 2020 SAKERNAS related to research variables.

Table 1. Questionnaire Section in Research

Variable	Section	Question Column
Gender (X_1)	Household members aged 5 and older	1
Marital Status (X_2)	Household members aged 5 and older	4
Age (X_3)	List of household members	1,6
Education (X_4)	Household members aged 5 and older	6.a
Migration Status (X_5)	Household members aged 5 and older	19.b
Employment (X_6)	Household members aged 5 and older	11.c
Working hours (X_7)	Household members aged 5 and older	20.b
Income (X_8)	Household members aged 5 and older	14.a
Job Sector (Y)	Household members aged 5 and older	12.1

Research Operational Definition

Researchers typically establish operational definitions of the variables used to reduce the level of abstraction of concepts, enabling the measurement of those the concepts (Zulganef, 2013).

This study established 9 (nine) variables, some of which were based on previous research. The 9 (nine) variables and their operational definitions are explained as follows:

1. Gender
2. Marital Status
3. Age

4. Education
5. Migration Status
6. Employment
7. Working hour
8. Income
9. Job sector

The operational definition of a variable refers to the specific attribute, trait, or value of individuals, objects, or activities that researchers identify and measure to study and draw conclusions (Sugiyono, 2017). This study had 1 (one) dependent variable, namely informal sectors, and 8 (eight) independent variables: gender, marital status, age, education, migration status, employment, working hours, and income.

Table 2. Variable Operational Definition

Variable	Description	Analysis Unit
Dependent Variable		
Y	Job Sector	0 = formal 1 = informal
Independent Variable		
X1	Gender	0 = female 1 = male
X2	Marital Status	0 = married 1 = not married
X3	Age	0 = over 40 years 1 = less than or exactly 40
X4	Education	0 = higher than senior high school 1 = completed senior high school or the lower levels
X5	Migration Status	0 = non-migration 1 = migration
X6	Job sector	0 = agricultural 1 = non-agricultural
X7	Working Hour	0 = less than or equal to 8 hours a day 1 = more than 8 hours in a day
X8	Income	0 = more than or equal to 5,000,000 rupiah per month 1 = less than 5,000,000 rupiah per month

Source: the researchers, 2023

Research Model

The approach used in this study was a descriptive quantitative approach with logit regression method. Logit is an analysis technique for a model that has dependent variables in the form of qualitative binaries. This method aims to find the probability of an event occurring (Gujarati, 2009).

The dependent variable used was the variable migration of rural communities in Java. The model was then estimated using logit regression as follows:

$$Ekinf_i = \beta_0 + \beta_1 JK_i + \beta_2 Umur_i + \beta_3 Status\ kawin_i + \beta_4 Pendidikan_i + \beta_5 Migrasi_i + \beta_6 Lapker_i + \beta_7 Jamker_i + \beta_8 Pend_i + \mu_i \quad (1)$$

In this study, the logit model was used to find the possibility or probability of someone working in the informal sector. Mathematically, it can be written as follows:

$$Ekinf_i = \frac{1}{1 + e^{-(\beta_0 + \beta_1 + \beta_2 + \beta_3 + \beta_4 + \beta_5 + \beta_6 + \beta_7 + \beta_8 + \mu_i)}} \quad (2)$$

If the informal sector model is known, then Equation (1) can be simplified to:

$$Ekinf_i = \frac{1}{1+e^{-HM_i}} = \frac{e^{HM_i}}{1+e^{HM_i}} \quad (3)$$

Equation (3) is known as the logistic regression function. If P_i stands for the probability of an informal sector employment and migration event to occur, then the probability of an event to not occur is annotated with $1 - M_i$, so:

$$1 - M_i = \frac{1}{1+e^{HM_i}} \quad (4)$$

and

$$\frac{M_i}{1 - M_i} = \frac{\frac{e^{HM_i}}{1+e^{HM_i}}}{\frac{1}{1+e^{HM_i}}} = e^{HM_i} \quad (5)$$

The equation $\frac{M_i}{1 - M_i}$ stands for the odds of an event, or the ratio of the probability of an event to occur to the probability of an event to not occur. Equation (5), if transformed through natural logarithms, will result in

$$L_i = \ln \left[\frac{Ekinf_i}{1 - Ekinf_i} \right] = Ekinf_i = \beta_0 + \beta_1 JK_i + \beta_2 Umur_i + \beta_3 Status\ kawin_i + \beta_4 Pendidikan_i + \beta_5 Migrasi_i + \beta_6 Lapker_i + \beta_7 Jamker_i + \beta_8 Pend_i + \mu_i \quad (6)$$

Equation (6), which is the logarithm of the odds, is linear in X_i and linear in the parameter L_i , and it's referred to as the logit model.

3. RESULTS AND DISCUSSIONS

Descriptive Statistics

Table 4 presents the demographic characteristics of the respondents analyzed in this study, totaling 282,119 individuals. Among them, 190,503 (67.53%) were men. All the respondents were Indonesian citizens. The majority, namely 224,933 (79.73%), were married; 152,580 were aged less than or exactly 40 years; 231,405 (more than 80%) had a high school education or lower; 270,114 (95.74%) were non-migrants; 219,291 (77.73%) worked in jobs unrelated to agriculture. Only a few people worked more than 8 hours a day; most of them actually work less than or equal to 8 hours a day (249,000 respondents). In terms of income, most of them (260,937, or 92.4%) earned 5 million rupiah or less per month.

Table 4. Descriptive Statistics of Research Data

Respondent Criteria	Number	Percentage
Gender		
Female	91,616	32.47%
Male	190,503	67.53%
Marital Status		
Married	224,933	79.73%
Not married	57,186	20.27%
Age		
Over 40	129,539	45.92%
Less than or exactly 40	152,580	54.08%
Education		
Higher than senior high school	50,716	17.98%
Senior high school or lower	231,403	82.02%
Migration Status		
Non-migrant	270,114	95.74%
Migrant	12,005	4.26%

Respondent Criteria	Number	Percentage
Job Sector		
Agricultural	62,828	22.7%
Non-agricultural	219,291	77.73%
Working Hours		
Less than/equal to 8 hours per day	249,000	88.26%
More than 8 hours per day	33,119	11.74%
Income		
More than/equal to 5 million rupiah per month	21,182	7.51%
Less than 5 million rupiah per month	260,937	92.49%

Data Analysis Results

Table 5. Logistic Regression Results

Informal	Coef.	St.Err.	t-value	P-value	[95% Conf Interval]	Sig	
gender	-.14	.009	-14.89	0	-.159	-.122	***
marital status	-.5	.012	-43.04	0	-.523	-.477	***
age	-.509	.009	-55.08	0	-.527	-.491	***
education	1.929	.016	121.14	0	1.898	1.96	***
migration status	-.176	.022	-7.84	0	-.22	-.132	***
job sector	-1.332	.011	-	0	-1.353	-1.311	***
working hours	.24	.013	18.75	0	.215	.265	***
income	.755	.02	37.64	0	.716	.795	***
constant	-1.046	.026	-40.36	0	-1.097	-.995	***
mean dependent var	0.460		SD dependent var	0.498			
pseudo r-squared	0.167		Number of obs	282119			
chi-square	64986.111		Prob > chi2	0.000			
akaike crit. (AIC)	324312.574		Bayesian crit. (BIC)	324407.525			

*** $p < .01$, ** $p < .05$, * $p < .1$

Table 5 displays the outcomes of data analysis conducted in STATA, focusing on the variables central to this study. The variable informal sectors were considered the dependent variable, with several variables exhibiting positive relationships. Conversely, some variables demonstrated negative relationships, indicating an inverse association with the dependent variable. A coefficient of -0.14 is found in the variable gender, meaning that women tend to work in informal sectors, while men tend to work in formal sectors. Then, a coefficient of -0.5 was found in the variable marital status, meaning that married individuals tend to work in informal sectors, while those unmarried tend to work in formal sectors. Furthermore, the variable age got a coefficient of -0.509, indicating that those over 40 years old tend to work in informal sectors, while those aged less than or equal to 40 years tend to work in formal sectors.

The variable education got a coefficient of 1.929. This positive figure indicates that individuals with a high school education level or lower tend to work in informal sectors, while those with a higher level of high school education tend to work in formal sectors. Regarding migration status, non-migrants tend to work in informal sectors, while migrants tend to work in formal sectors, as indicated by a coefficient of -0.176 in the variable migration status. The variable employment or job sector found a coefficient of -1.322, which shows that workers engaged in agriculture tend to work in informal sectors, while workers in non-agricultural fields tend to work in formal sectors. Regarding the variable working hours, the coefficient figure was found to be 0.24, meaning that individuals who work more than 8 hours per day tend to work in informal sectors, while those who work less than or equal to 8 hours in a day tend to be formal sector workers. Finally, the variable income shows a coefficient of 0.755, which means that workers with an income level of less than or equal to 5 million rupiah per month tend to work in informal sectors, while those with an income level of more than 5 million rupiah per month tend to be formal sector workers.

Discussion

Gender in Informal Sectors

The results of the analysis highlight that women tend to dominate informal sector workers, in line with the proportion of informal employment by gender shown in [Table 6](#). Women always dominate the informal sector over men. Micro or small businesses run at the household level are often owned by women, especially housewives. Housewives in this era are experiencing a trend. They, in addition to taking care of household affairs, also make businesses that can increase their households' income.

Table 6. Proportion of informal sector employment by sex (percent)

	2020	2021	2022
Male	57.29	56.61	56.03
Female	65.35	63.80	64.43

Source: BPS (2023)

[Wandaweka and Purwanti \(2021\)](#) have specifically examined the factors driving women to work in informal sectors, finding that the characteristics of women working in informal sectors include being old adults, having a low level of education, lacking job training, married, and typically living in rural areas. The large number of women working in informal sectors actually also shows that there are still education and income disparities for women in Indonesia ([Napsiah, 2017](#)). While informal sectors are actually not bad, they must also get attention so that women engaged therein can also feel welfare as workers who work in the sectors. The desire of women to participate in informal sectors is also inseparable from the influence of culture and beliefs of the local community assuming that women, especially those who are married, must stay at home ([Akbariandhini & Prakoso, 2020](#)). This then encouraged women to work in informal sectors because of their desire to remain productive even if only at home.

Marital Status in Informal Sectors

The results of the data analysis said that married individuals tend to work in informal sectors. While formal sectors are often seen as more stable in terms of income, the availability of employment is quite limited therein. This then becomes a challenge for people who are already married to make a living as widely as possible and not only depend on formal sectors. Family needs that must be met are reasons for people to work in any sector, including in informal sectors if they do not get the opportunity to work in any of formal sectors. The previous discussion mentioned the greater tendency of women to participate in informal sectors. It turns out that such tendency actually is supported by their husbands who worked in informal sectors as well. [Agusta and Ghuzini \(2020\)](#)'s research states that husbands working in informal sectors usually support their wives to work in informal sectors too.

Data from the Ministry of Women's Empowerment and Child Protection (KPPPA) shows that 45.4% of those married under 18 years old work in the service sector ([Farisa & Meiliana, 2020](#)), while the rest work in the agricultural and industrial sectors. From these data, it can be assumed that married individuals working in informal sectors are likely to be those who engage in early marriage. Early marriage will encourage a couple to work together to meet their economic needs ([Wulandari & Laksono, 2020](#); [Maudina, 2019](#)).

Age in Informal Sectors

Individuals aged over 40 tend to work in informal sectors for their lower performance. Working in informal sectors becomes a solution for those who are no longer able to work like people who works in formal sectors. The flexibility in informal sectors is expected by people who are getting older, including those who have entered retirement age. Retired individuals, especially those with no pension security, who still have family dependents tend to look for other jobs in informal sectors ([Jamalludin, 2020b](#)). According to [Jamalludin \(2020a\)](#), the large number of older adults who work in informal sectors is driven by their low level of the carrying capacity ratio, such as education. Older individuals with higher levels of education are less likely to remain in the workforce during their senior years compared to those with lower levels of education.

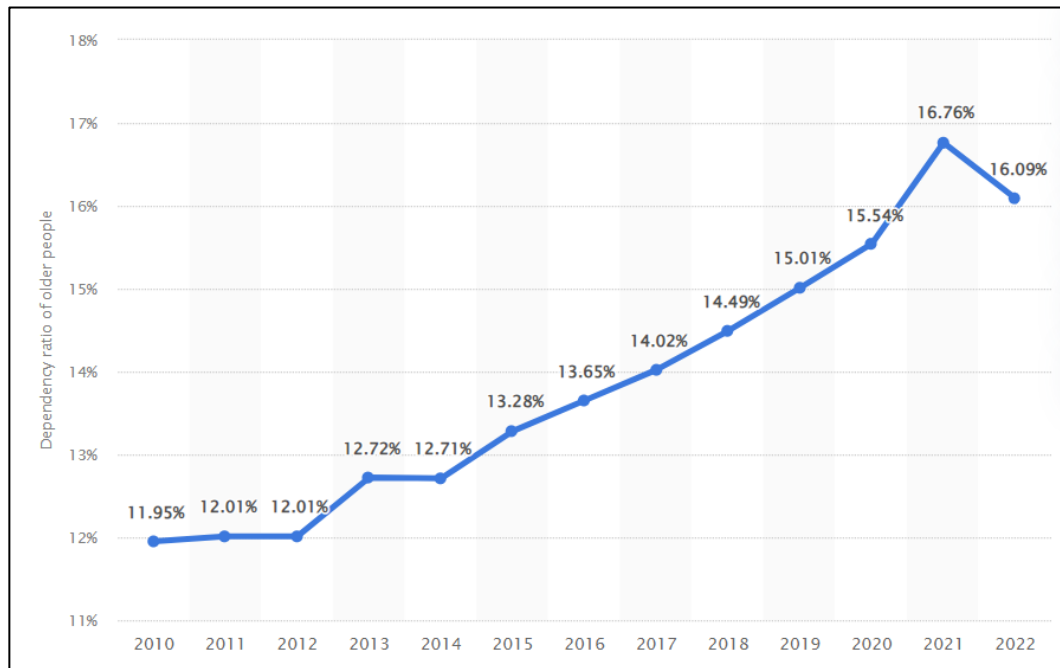


Figure 2. Dependency Ratio of Elderly Population (60 Years and Over)

Source: Statista (2023)

Figure 2 shows the dependency level of the elderly population aged 60 years and over in Indonesia. From 2010 to 2022, there was a significant increase in the number of the elderly population in Indonesia. These rising figures, along with the substantial presence of individuals engaged in informal sectors in Indonesia, reflect the concordance of research findings with the current demographic and labor conditions in Indonesia. Specifically, the informal sector is predominantly comprised of older adults.

Education in Informal Sectors

The results of the analysis highlight that people with an education level of less than or equal to senior high school tend to work in informal sectors. This seems reasonable, considering that working in the formal sector requires fairly high criteria and conditions, especially in education. Therefore, the lower criteria that exists in informal sectors inevitably becomes a chance for those who do not have the opportunity to pursue higher education. Access to education in Indonesia is also not evenly distributed, as shown by Figure 3, which indicates that only a small percentage (6%) of the Indonesian population completed higher education (D1 to S3). Challenges in education, such as inadequate educational infrastructure, uneven quality of teaching staff, and lack of alignment of the education curriculum with employment needs (Syamsuar & Reflianto, 2019), may bring Indonesian people to have low level of education. As a result, job opportunities in informal sectors do not typically require high educational qualifications for labor recruitment.

Figure 4 illustrates the distribution of workers in Indonesia according to their level of education, showing a predominance of individuals with elementary, junior high, and high school/vocational education. This pattern aligns with the predominance of informal employment over formal employment in the country. As a developing country, Indonesia is still struggling to improve the quality of education to produce better human resources (Fitri, 2021). However, the existence of qualified human resources does not lead to the fact that there are fewer workers in informal sectors. By enhancing the quality of workers in informal sectors, Indonesia can ensure better welfare for these workers, ultimately enabling itself to compete more effectively in terms of labor quality with developed countries.

Migration Status Informal Sectors

Workers in informal sectors are usually non-migrants. Individuals who were born and raised in a particular area usually have jobs in informal sectors in that area. For example, the majority of online motorcycle taxi drivers live in the same area as their work area. Meanwhile, people who work in formal sectors tend to experience migration, which is often caused by placements by the agencies where they work. Rizal (2009) found that education is a supporting factor for someone to migrate; the higher the level of education, the higher the tendency to migrate. Workers in formal sectors tend to have a high level of education and are often working in state agencies that apply certain placement rules to their employees.

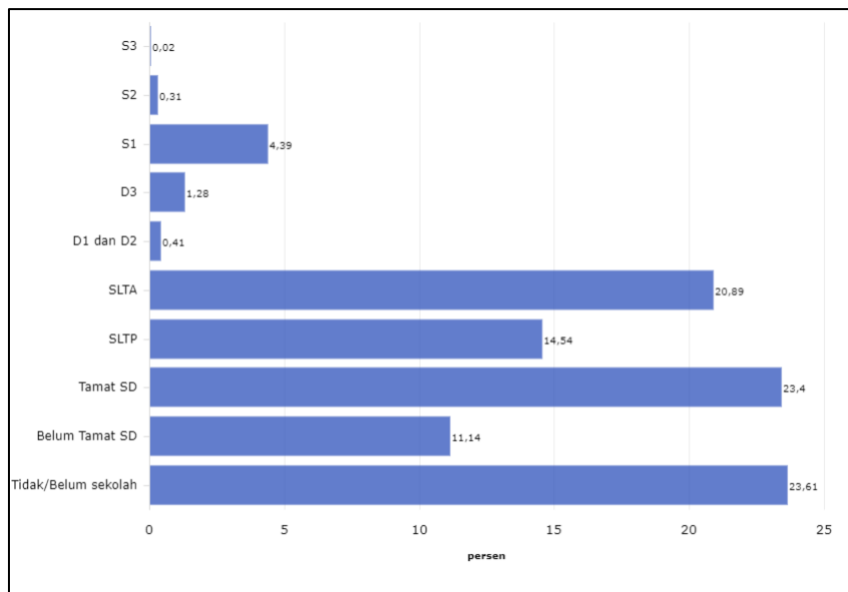


Figure 3. Proportion of Indonesia's Population by Education Level
Source: Ministry of Home Affairs (2022)

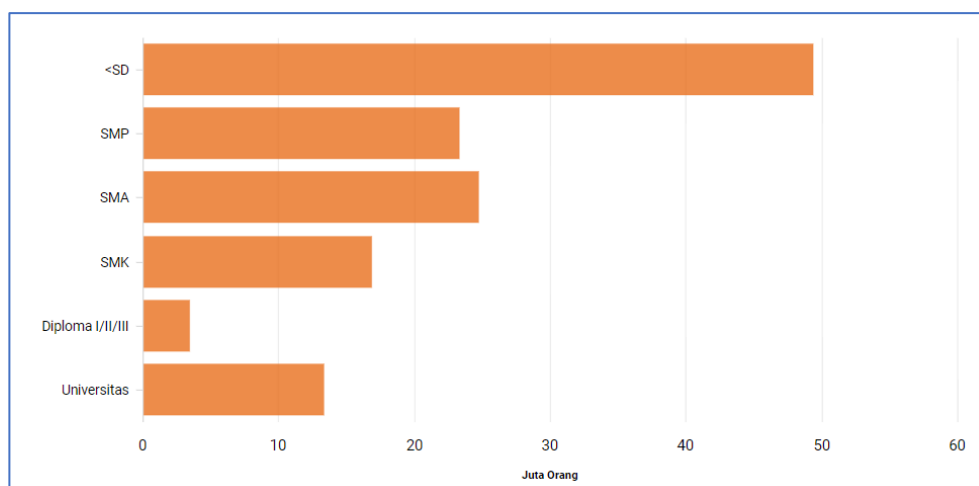


Figure 4. Characteristics of the Working Population by Education in 2021
Source: BPS (2022)

This study's findings are in line with the 2020 Sakernas Labor Mobility Analysis released by BPS where workers who have recent migration experience or have moved in the last 5 years are workers who work in formal sectors. Geographically, the provinces with the highest numbers of workers having recent migration were Jawa Barat Province in 2019 and 2020. In addition to Jawa Barat Province, Jawa Tengah and Jawa Timur Provinces also have the highest rate of recent migration. Their large population and good economic attractiveness are reasons for people, especially workers in formal sectors, to migrate. Meanwhile, informal sectors' workers, most of whom are women, as discussed in the previous section, are typically stayers or working in the location of residence.

Agriculture in Informal Sectors

The results of the analysis showed that workers in agriculture tend to work in informal sectors. Limited employment opportunities and narrow access to education and training hinder those living in rural areas from accessing extensive knowledge. Agriculture, comes a chance for those people to work in. Table 7 shows that based on data released by BPS, the majority of workers in agriculture are in informal sectors. As an agricultural country, Indonesia does have a large number of farmers, who get involved in informal sectors because there is no job security, social security, or adequate legal protection as those in formal sectors. Moreover, those working in agriculture often encounter economic challenges due to their relatively

low-income levels. However, this situation becomes less challenging if they have enough assets such as agricultural land and savings (Purwaningsih, 2020).

Table 7. Percentage of Agricultural, Forestry, and Fisheries Workers by Job Sector, 2019-2020

Employment in Agricultural, Forestry, and Fisheries	Job Sector		2020	
	2019		2020	
	Formal	Informal	Formal	Informal
Recent Migrant Worker	22.7	77.3	15.8	84.2
Commuting Workers	37.5	62.5	40.4	59.6
Circular Worker	59.6	40.4	53.5	46.5

Source: BPS (2021)

Working Hours in Informal Sectors

Individuals who work more than 8 hours per day tend to be involved in informal sectors because there are no standard rules governing these working hours. Meanwhile, workers in formal sectors, especially in state/regional agencies, have working hours regulated by laws or regional regulations. Informal sectors can manage their working hours more flexibly for reasons of necessity. The working hours of informal sectors also vary depending on the type of work performed (Sayrani, 2018). Research conducted by Nursyamsu et al. (2020) revealed that there is a significant and positive relationship between income and working hours in informal sectors, especially for street vendors, where the higher the working hours, the higher the income.

Income in Informal Sectors

Workers with income levels lower or equal to 5 million rupiah in a month tend to be workers in informal sectors. Most of them are those who own micro, small, or agricultural enterprises. They have no certainty in terms of daily income. The income of workers in informal sectors can be influenced by various things, such as certain seasons for farmers, and trends or interests from the public in certain periods for traders. Meanwhile, workers in formal sectors get fixed incomes.

Workers in informal sectors have high vulnerability to social and economic conditions. Pristandaru (2023) noted that in 2022, the average net income of informal sector workers nationally was only IDR 1,862,958 a month, smaller than the average provincial minimum wage (UMP) of IDR 2,729,463. Of course, this inequality is quite considerable, requiring a special attention from policymakers to increase public income, especially those engaged in informal sectors.

4. CONCLUSION

Conclusion

This study identified key characteristics of individuals working in Indonesia's informal sector, revealing that women, married individuals, those over the age of 40, and those with an education level no higher than senior high school, dominate this workforce. Additionally, informal sector workers are often non-migrants, involved in agriculture, working over eight hours daily, and earning less than five million rupiah per month. These findings emphasize the pressing need for greater attention to be paid to the well-being and economic security of these workers.

Crucially, all independent variables examined in this study demonstrated significant relationships, highlighting a clear pattern of socioeconomic vulnerability within this sector. Addressing these issues through targeted policies is not only essential for improving the quality of life for these workers but also vital for the sustainability of Indonesia's labor force as a whole. Policies aimed at providing better education, financial support, and labor protections could serve as crucial interventions, ensuring that informal sector workers contribute more effectively to national development while achieving greater personal prosperity. By aligning these findings with the broader goal of improving workforce quality and living standards, this study underscores the importance of innovative policy solutions for Indonesia's informal economy.

Recommendation

Researchers recommend that future research perform a deeper examination by incorporating additional relevant variables and also linking this research with labor-related phenomena to provide a more comprehensive investigation of employment situations in Indonesia, especially within informal sectors. This research is expected to stimulate further research to explore to get sharper and better insights.

5. REFERENCES

- Agusta, M. R., & Ghuzini, D. (2020). Employment Condition, the Effects of Husband's Occupation, and Education on Participation of Married Women in the Indonesian Labor Market. *Jurnal Ekonomi Dan Pembangunan*.
- Akbariandhini, M., & Prakoso, A. F. (2020). Analisis Faktor Tingkat Pendidikan, Jenis Kelamin, dan Status Perkawinan terhadap Pendapatan di Indonesia Berdasarkan IFLS-5. *JPEKA: Jurnal Pendidikan Ekonomi, Manajemen Dan Keuangan*, 4(1), 13–22. <https://doi.org/10.26740/jpeka.v4n1.p13-22>
- Alabshar, N., Giyarsih, S. R., & Pitoyo, A. J. (2020). Analisis Kesejahteraan Migran di Indonesia. *Jurnal Litbang Sukowati : Media Penelitian dan Pengembangan*, 5(1), 1–10. <https://doi.org/10.32630/sukowati.v5i1.165>
- Berniell, L. (2020). Occupational choice and investments in human capital in informal economies. *The BE Journal of Macroeconomics*, 21(2), 399–423.
- David, A., El-Mallakh, N., & Wahba, J. (2019). Internal versus international migration in Egypt: together or far apart.
- de Paula, Á., & Scheinkman, J. (2007). The Informal Sector. <https://doi.org/10.3386/w13486>
- Dwi Wulandari, R., & Laksono, A. (2020). Pengaruh Status Ekonomi terhadap Pernikahan Dini di Wilayah Pedesaan di Indonesia. <https://doi.org/10.13140/RG.2.2.23638.27203>
- Ekawati, D. (2020). Migrasi dan Problematika Minoritas Muslim Thailand. *Hikmah: Journal of Islamic Studies*, 15(1), 51–79.
- Etim, E., & Daramola, O. (2020). The Informal Sector and Economic Growth of South Africa and Nigeria: A Comparative Systematic Review. *Journal of Open Innovation: Technology, Market, and Complexity*, 6(4), 134. <https://doi.org/10.3390/joitmc6040134>
- Farisa, C. F., & Meiliana, D. (2020). Data KPPPA: 45,5 Persen Anak yang Bekerja di Sektor Jasa Menikah Dini. Kompas. <https://nasional.kompas.com/read/2020/02/07/15173231/data-kpppa-455-persen-anak-yang-bekerja-di-sektor-jasa-menikah-dini>
- Gërkhani, K. (2004). The Informal Sector in Developed and Less Developed Countries: A Literature Survey. *Public Choice*, 120(3), 267–300. <https://doi.org/10.1023/B:PUCH.0000044287.88147.5e>
- Gunawan, C. I., & Reiza, R. (2015). Strategi Pengembangan Ekonomi Sumber Daya Manusia: Dampak pengurangan Tenaga Kerja Migran Sektor Informal. *Referensi: Jurnal Ilmu Manajemen Dan Akuntansi*, 3(1), 47–54.
- Hart, K. (1985). The Informal Economy. *Cambridge Anthropology*, 10(2), 54–58. <http://www.jstor.org/stable/23816368>
- Hidayat, N. (2020). Fenomena Migrasi dan Urban Bias di Indonesia. *JURNAL GEOGRAFI*, 12(01), 245. <https://doi.org/10.24114/jg.v12i01.16236>
- Hidayati, I. (2019). The Process of Migration and Communication Technology Roles among Labor Migrants in Batam - Indonesia. *Society*, 7(2), 173–184. <https://doi.org/10.33019/society.v7i2.99>
- Jamalludin, J. (2020a). Elderly Informal Workers and Elderly Supporting Capacity Ratio in Indonesia. *Economics and Education Journal (Ecoducation)*, 2(2), 61–75. <https://doi.org/10.33503/ecoducation.v2i2.834>
- Jamalludin, J. (2020b). Keputusan Pekerja Lansia tetap Bekerja Paspensiun dan Kaitannya dengan Kebahagiaan. *Jurnal Samudra Ekonomi Dan Bisnis*, 12(1), 89–101. <https://doi.org/10.33059/jseb.v12i1.2450>
- Jha, C. K., Gupta, V., Chattopadhyay, U., & Amarayil Sreeraman, B. (2018). Migration as adaptation strategy to cope with climate change. *International Journal of Climate Change Strategies and Management*, 10(1), 121–141. <https://doi.org/10.1108/IJCCSM-03-2017-0059>
- Kusumo, R. A. B., Mukti, G. W., & Charina, A. (2023). Migrasi dan Kesejahteraan Rumah Tangga Petani. *Mimbar Agribisnis: Jurnal Pemikiran Masyarakat Ilmiah Berwawasan Agribisnis*, 9(1), 886. <https://doi.org/10.25157/ma.v9i1.9149>
- Maudina, L. D. (2019). Dampak Pernikahan Dini bagi Perempuan. *Jurnal Harkat: Media Komunikasi Gender*, 15(2), 89–95. <https://doi.org/10.15408/harkat.v15i2.13465>
- Napsiah, N. (2017). Perempuan dalam Budaya Patriarkhi. *Jurnal Sosiologi Reflektif*, 11(1), 155. <https://doi.org/10.14421/jsr.v11i1.1278>
- Nursyamsu, N., Irfan, I., Mangge, I. R., & Zainuddin, M. A. (2020). Pengaruh Modal Kerja dan Jam Kerja Terhadap Pendapatan Pedagang Kaki Lima di Kelurahan Kabonena. *Jurnal Ilmu Ekonomi Dan Bisnis Islam*, 2(1), 90–105. <https://doi.org/10.24239/jiebi.v2i1.25.90-105>
- Nurul Fitri, S. F. (2021). Problematika Kualitas Pendidikan di Indonesia. *Jurnal Pendidikan Tambusai*, 5(1 SE-Articles of Research), 1617–1620. <https://www.jptam.org/index.php/jptam/article/view/1148>
- Papola, T. S. (1980). Informal Sector: Concept and Policy. *Economic and Political Weekly*, 15(18), 817–824. <http://www.jstor.org/stable/4368628>

- Pitoyo, A. J. (2007). Dinamika Sektor Informal di Indonesia. *Populasi*, 18, 2.
- Pohan, H. M., & Izharivan, Y. (2017). Inside the Indonesian Migration: A Historical Perspective. *Jurnal Manajemen Maranatha*, 16(2), 145. <https://doi.org/10.28932/jmm.v16i2.385>
- Pristiandaru, D. L. (2023). Timpang, Pendapatan Pekerja Informal Lebih Kecil daripada UMP Nasional. Kompas. <https://lestari.kompas.com/read/2023/06/05/190000486/timpang-pendapatan-pekerja-informal-lebih-kecil-daripada-ump-nasional?page=all>
- Purwaningsih, V. T. (2020). Perempuan dan Kesejahteraan Rumah Tangga Sektor Informal di Indonesia. *Jurnal Ekonomi Indonesia*, 10(1) SE-Articles). <https://jurnal.isei.or.id/index.php/isei/article/view/61>
- Qomariya, F. N., Soetarto, H., & Alfiyah, N. I. (2021). Migrasi dalam Perubahan Sosial Ekonomi Masyarakat Desa