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Analysis of Formal and Informal Sector in Indonesia During the Covid-19 Pandemic

Boy Iskandar Pasaribu^a, Bomer Pasaribu^b, Susy Evita Pasaribu^c, Popy Novita Pasaribu^{d}*

^aUniversitas Krisnadwipayana, Indonesia

^bUniversitas Krisnadwipayana, Indonesia

^cUniversitas Prasetiya Mulya, Indonesia

^dUniversitas Ibn Khaldun Bogor, Indonesia

* Corresponding e-mail: pnovita@yahoo.com

ABSTRACT

Indonesia's informal sector, which before the covid-19 pandemic was already large, became bigger with the community's economy being devastated after the covid-19 pandemic. The objective of this research was to analyse the employment of formal and informal sectors during the covid-19 pandemic. The methodology of the research using quantitative analysis using descriptive. Secondary data was used from National Employment Statistic (Sakernas) from the year 2018 – 2022. The analysis were investigating the formal sector and informal sector workforce figures and the growth after the covid-19 pandemic, examining the formal sector based on gender and assessing the growth of the informal sector for the non-agriculture sector. The results of the descriptive analysis found that the informal sector in urban and rural areas has experienced a surge in increase compared to before the pandemic. Informal sector entrepreneurs who do business with the help of temporary or unpaid workers have decreased. The formal sector based on gender shows a decrease in the number of female workers compared to before the pandemic which indicates that female workers were more vulnerable to being laid off during a crisis. The highest proportion of non-agricultural informal sector workers was at the elementary school level. Based on urban and rural residences for the non-agricultural informal sector, urban informal sectors experienced a higher increase before and after the pandemic compared to rural areas. Based on age group, the 15 to 19-year-old group experienced the highest growth on the non-agricultural informal sector

Keywords : *Informal Sector, Formal Sector, Workforce, Covid-19 pandemic.*

INTRODUCTION

Economic conditions are getting bleaker with many waves of layoffs. Companies in the field of export destination garments are forced to lay off their workers due to the far falling demand from companies in export destination countries. The impact of the Russia-Ukrainian War was one of the factors that caused the reduced demand from European and American countries, which had an impact on the production of the garment industry in Indonesia as a supply company. The impact of the Covid-19 pandemic has not recovered, where 2021 has only squirmed but slumped again in 2022 with several large companies, both retail and start-up companies such as GoTo and Shopee also took a layoff policy in anticipating the impact of next year's conditions by means of employee efficiency. For example, the start-up company merger between Gojek and Tokopedia into PT GoTo Gojek Tokopedia Tbk announced to decide to make a difficult decision to streamline 1.300 employees or around 12% of the total permanent employees (CNBC Indonesia, 2022).

The bleakness of employment in the formal sector, makes the informal sector a safety network. The informal sector, which before the covid-19 pandemic was already large, became bigger with the community's economy being devastated. Many employees are laid off by the place where they work. The impact of layoffs on employees by companies due to the Covid-19 pandemic has caused many employees to change professions to survive. For example, there is a pilot who has to sell chicken noodles, there is also a flight attendant who sells online to 'keep the food is available on the dining table (DetikNews, 2021). All of which shows that the informal sector is a "safety net" when people are laid off.

In the global picture, Indonesia's situation of employment in the informal sector shadows the same general pattern worldwide. According to ILO (International Labor Organization) report in 2019, in developing countries, the highest where it accounts for 81 percent of total employment and almost all informal sectors. For the average number in developing nations, employment in the informal sector indicates 57 percent of total employment, while in advanced countries only 15 percent of total employment. The trend of the informal sector in non-agricultural declines to 59 percent in developing countries but globally remains the largest share of non-agricultural work in all pay clusters (Bonnet F, Joann K 2019).

Indonesia's employment statistics are presented in Table 1 which displays the population aged 15 years and over or of productive age according to the type of activity. Indonesia's labor force still enjoys a demographic bonus with a very large sum of persons of productive age compared to the non-productive age of 76% in 2022. The labor force contribution rate is the percentage of the number of the labor force compared to residents aged 15 years and over of 69,06% in 2022. This is because there are residents who are 15 years old and above but do not include the labor force, namely residents who are still in school, taking care of the household and others. The total working force is 135.611.895 with a employment opportunity rate of 94.17%. The growth of the open unemployment rate before the covid-19 pandemic (February 2020) compared to February 2022 increased by 21,32% or 1.476.667 unemployed. In 2021 the open unemployment rate was the highest at 6,26% and there was a recovery in the new normal era so the open unemployment rate decreased in the lift 5,83%.

Table 1. Residents aged 15 years and over by type of activity 2019-2022

Type of activity	Feb 2019	Feb 2020	Feb 2021	Feb 2022
Population aged 15 years and over	199.785.195	202.597.063	205.360.436	208.544.086
Workforce	138.591.388	140.218.352	139.810.313	144.014.048
a. Laborforce Participation Rate (%)	69,37	69,21	6,08	69,06
b. Working	131.692.592	133.292.866	131.064.305	135.611.895
c. Open unemployment	6.898.796	6.925.486	8.746.008	8.402.153
d. Open Unemployment Rate (%)	4,98	4,94	6,26	5,83
Not the Labor Force	61.193.807	62.378.711	65.550.123	64.530.038
a. School	16.091.436	16.672.841	15.271.168	16.255.396
b. Taking care of household	37.483.484	38.506.480	39.848.534	39.456.344
c. Other	7.618.887	7.199.390	10.430.421	8.818.298
Employment Opportunity Rate	95,02	95,06	93,74	94,17

Source: BPS (2022)

The government in line with the Sustainable Development Goals, T 8: Promote inclusive and sustainable economic growth, productive and comprehensive employment opportunities, and decent work for all, has policies to improve the role of the formal sector or reduce the proportion of the informal sector. The increase in the formal sector is also expected to reduce economic inequality and alleviate poverty. But due to the covid-19 pandemic, global and macroeconomic conditions on the verge of recession have caused absolute inequality to have increased and the rich to grow more rapidly than the underprivileged. How can this crisis be solved? One approach is to increase labor market prospects for workforces because work is the main means for the underprivileged to escape poverty. To overcome poverty, the underprivileged take informal jobs, such as informal survival jobs, side hustles, and irregular/seasonal or freelance work (Asian Development Bank, and BPS-Statistic, 2011).

There are two UN agencies that take care of the informal sector, namely the United Nations Development Program (UNDP), especially in terms of poverty reduction and the International Labor Organization (ILO) in terms of employment. The results of the ILO and UNDP employment missions suggest the following characteristics of the informal sector (Chaudhuri and Mukhopadhyay, 2010):

- a. easy entry of new ventures;
- b. dependence on local resources, this is now growing with the influx of cheap goods from abroad due to the existence of free trade cooperation from WTO member countries;
- c. ownership of the business by the family;
- d. micro and small scale of processes and low output;
- e. labor- concentrated and technologically adaptable;
- f. dependence of workforces on informal sources of schooling and competences;
- g. loose and aggressive market; and
- h. shortage of government assistance.

Nevertheless, there is a broad variety in the meanings and features of the informal division put forward by different writers and the organization such as ILO itself. The 15th International Conference of Labor Statisticians (15th ICLS) in January 1993 accepted the international statistical description of the informal sector and categorized informal sector activities based on the subsequent circumstances:

- A business is an unincorporated private, that is, owned by an individual or household and is not a separate legal entity. In terms of financial records, there is no separation of finances from business production activities from other undertakings of the proprietor.
- All or at least part of the goods or services produced are intended to be sold or exchanged, with the possibility of insertion of households producing domestic or own services in hiring paid home workers or the ones are not even paid.
- The measure in relations of employment is under a specific level determined according to national circumstances and/or is not listed under a special form of national law, such as the informal sector labor wage below the provincial minimum wage set by the government.
- Informal sector businesses can engage in non-agricultural undertakings, secondary non-farming activities of companies in the agricultural segment; and service and manufacturing sectors such as household craft businesses.

The ILO has formulated a guidance to supplement the 15th ICLS Resolution on employment data in the informal sector. In the guiding principle, the classification of an informal worker includes the succeeding forms of work: independent workers engaged in informal sector businesses; owners working in their own informal businesses; the contribution of family workers; adherents of informal producer cooperatives; workers have informal works whether hired by formal sector companies, informal sector companies or as home workers engaged by households; and Independent workforces involved in the making of goods solely for self-end consume by the domestic or for sale.

Like other developing countries, the informal sector also pays meaningfully to the Indonesian economy, especially in terms of employment by provided that economic prospects to workers who have been laid off and who cannot be immersed by the formal sector. The definition of informal sector labor according to BPS is a working-age population (over 15 years old) who work with employment status: (1) working alone, (2) working with assisted by irregular laborers/unpaid laborers, (3) free laborers on farms, (4) free laborers in non-farms, and (5) family/unpaid workers. The formal sector is (1) employers with permanent workers and (2) workers.

There are several theoretical approaches within the informal sector. The approach used by many countries regarding the informal sector is a dualistic theory view. The essence of the dualistic opinion is that developing nations are categorized by two distinct sectors, modern and dynamic sectors characterized by capitalist ways of production; and the peripheral sector or 'subsistence' conquered by agriculture, characterized by the pre-capitalist mode of making. It is hypothesized that the technique of determining wages is dissimilar in the two sectors. Lewis (1954) initially settled a theoretical model of progress in a dualistic economy. Granting the type is grounded on the foundations of orthodox schools

containing two sectors, agricultural and non-agricultural, with postulated asymmetric behavior for each sector, yet the dual approach rejects neoclassical assumptions about full employment, market cleanup, and perfect competition. The dualistic theory analyzes how the excess labor of the traditional agricultural sector can be withdrawn and used efficiently in the contemporary manufacturing sector to start the development method. Its focus is the growth of the transition from dualistic to a single-sector economy, that is, from structural dualism to structural homogeneity.

Other experts Fei and Ranis (1964) outspread Lewis' paradigm by overlaying product dualism on its structural dichotomy. Other significant additions of Lewis' basic type can be retrieved in Harris and Todaro (1970) and Fields (1990). Harris and Todaro (1970) explain the migration activity within a dualistic structure and introduce the idea that intersectoral labor rearrangement is influenced not only by the intersectoral pay disparity but also by the possibility of attaining formal sector jobs. In Harris and Todaro's model, a migrant acquires a formal job or persists unemployed. Fields' theory suggests that there are three options for migrants: formal sector employment, open urban unemployment, and, presumably third, employment in the urban informal sector. The Harris–Todaro pattern proposes that all migrants ultimately intend to find work in the urban modern sector although does not rationalize their displacement targeting jobs in the urban survival sector. On the other hand, Cole and Sanders (1983) mention that when society forces on agricultural terrestrial nonetheless decreases country side livelihood wages meaningfully beneath the metropolitan livelihood sector, or once demand growing for the urban livelihood sector drives wages in that sector ominously exceeding the wages of the country survival sector, the emphasis of migrants with little abilities is not on the sector Modern but in the survival sector with relatively easy entry.

This research is intended to analyze the employment of formal and informal sectors during the covid-19 pandemic. In doing so the paper divides by some sections. The first part discusses about the formal sector and informal sector workforce. the second part investigate the gender issue on formal sector that usually the first one was laid off in the unfortunate circumstances. The last section is talking about descriptive of the labor informal sector.

RESEARCH METHODS

The approach of this research is quantitative. Quantitative research for analysing the formal and informal sectors is the process of collecting and analyzing numerical data. It is used to find averages and growths of formal and informal sector workforce. The design of this research is descriptive analysis. A descriptive study is a suitable choice when the research aim is to distinguish attributes of the formal and informal labor force during covid-19 pandemic.

In this descriptive research, authors use secondary data. Data is obtained from BPS or Central Bureau of Statistics of Republic of Indonesia regarding the employment data, which is National Employment Statistics or Sakernas. The length of data from 2017 to 2022, which cover six years. Authors choose these six years to analyse one to years before covid-19 pandemic (2017 - 2019), during pandemic with lock down or the imposition of restrictions on community activities (February 2020 – February 2021) and during the new normal era (February 2022). The data for analysis author uses vary according to

the availability of data update by BPS online in November 2022 during the research. This paper uses year of 2017 to 2021 or 2019 to 2022.

The informal sector definition uses BPS terminology. BPS defines informal sector labor by status. According to BPS, informal sector worker is a working-age population (over 15 years old) who work with employment status: (1) working alone or self-employed, (2) working assisted by irregular laborers/unpaid laborers, (3) free laborers on farms, (4) free laborers in non-farms, and (5) family/unpaid workers. Therefore, the formal sectors with status (1) employers with hired permanent workers or paid workers and (2) (formal) workers/employees.

Analysis of descriptive research using Sakernas Data by looking at the pattern with the growth of each of formal and informal sector in labor force. Firstly, authors investigate the formal sector and informal sector workforce figures and the growth after covid-19 pandemic. Second, due to pandemic, there were a lot of layoffs, it analyses the pattern in formal sector by gender. Lastly, it discusses the growth of informal sector for the non-agriculture sector.

RESULTS & DISCUSSION

Formal and Informal Sector Workforce

Initially labor informal sector is to describe the phenomenon of workers in urban areas which is an urban labor force that is external the formal employment market. Informal economists in Indonesia in urban areas are represented by street vendors, itinerant traders, motorcycle taxi drivers both online and stay up waiting for passengers one, buskers, day laborers, domestic workers, and others etc. There are also informal sectors living in rural areas either who generally work in the agricultural sector or agricultural subsystems such as seasonal farm laborers or with the term free laborer farm and unpaid farm workers.

Table 2. Percentage of Formal and Informal Labor By Region of Residence from 2018 – 2021

Residential Area	Percentage of Formal & Informal Labor Force (Persen)							
	2021		2020		2019		2018	
	Formal	Informal	Formal	Informal	Formal	Informal	Formal	Informal
Urban	51,21	48,79	50,51	49,49	55,92	44,08	56,62	43,38
Rural	27,59	72,41	26,59	73,41	29,99	70,01	27,49	72,51
Urban + Rural	40,55	59,45	39,53	60,47	44,12	55,88	43,02	56,98

Source: BPS, processed (2022)

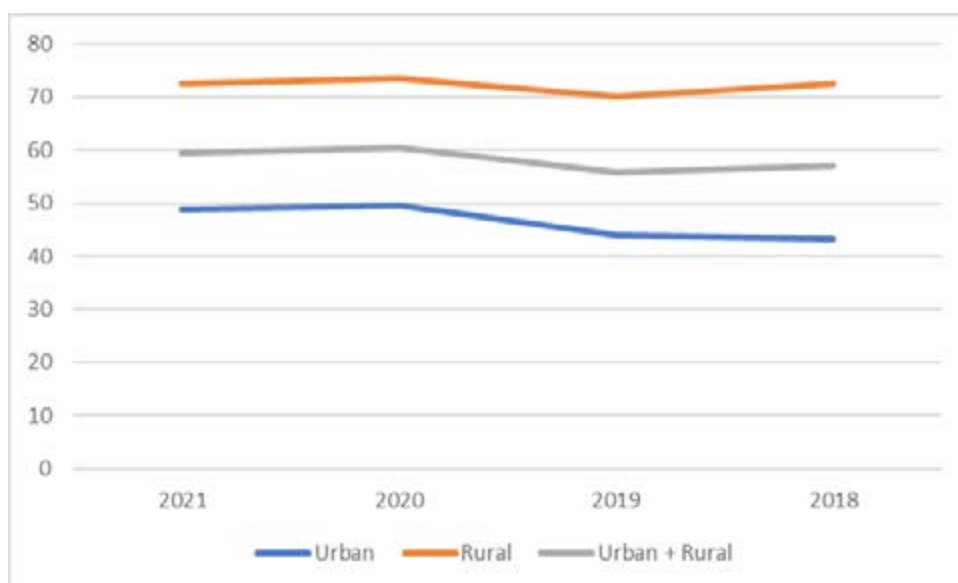


Figure 1. The Percentage of Informal Labor Sector by Residence 2018 – 2021

Table 2 shows the formal sector workforce that is declining in urban areas albeit with various government strategies to rise the share of formal sector employment. In 2018 the formal sector in urban areas amounted to 56,62% and continued to decline until 51,21% in 2021. The rate of decline in formal sector absorption from 2018 to 2021 was 9,55%. For rural areas, the formal sector experienced a slight increase compared to 2018 which was 0,36%. In total, there was a decline in the formal sector in rural and rural areas by 5,74% in 2021 compared to 2018. In contrast, there is an escalation in the absorption of informal sector labor in urban areas (Figure 1). The progress of the informal sector in terms of labor in the aggregate i.e. in urban and rural areas was 4,33%. This indicates that the demographic bonus experienced by Indonesia cannot be utilized, and there is even a demographic bonus trap. In addition, this figure shows that there has been a de-industrialization with a greater decrease in the absorption of formal sector labor than an increase in the growth in the employment of the informal sector.

Table 3. Percentage Formal Sector and Informal Sector in 2020 – 2022 (%)

Main Job Status + Total	Feb-22		Feb-21		Feb-20	
	Total	%	Total	%	Total	%
Formal Sector	54.282.171	40,03	52.917.905	40,38	57.790.709	43,36
Employers with permanent workers/paid workers	4.483.950	3,31	4.397.238	3,36	4.905.664	3,68
Workers/Labors/ Employees	49.798.221	36,72	48.520.667	37,02	52.885.045	39,68
Informal Sector	81.329.724	59,97	78.146.400	59,62	75.502.157	56,64
Self-employed	26.912.779	19,85	25.647.945	19,57	25.102.200	18,83
Working with the help of unpaid/unpermanent workers	22.276.875	16,43	21.611.700	16,49	22.116.390	16,59
Free labor on farm	5.505.304	4,06	5.007.143	3,82	4.982.052	3,74
Free labor non-farm	6.921.999	5,10	6.700.776	5,11	5.890.888	4,42
Family workers/unpaid workers	19.712.767	14,54	19.178.836	14,63	17.410.627	13,06
Total	135.611.895	100,00	131.064.305	100,00	133.292.866	100,00

Source: BPS processed, 2022.

Data from BPS shows that there was an intensification in informal sector portions in February 2022 compared to February 2020 before the Covid-19 pandemic in Indonesia, which was 3,33% or

5.827.567 people (Table 3). At the same time, there was a decrease in formal sector absorption by 3,33% which was 3.508.538 people after post-covid in 2022. The work force engaged in the formal sector in 2022 is 40,03% and the informal sector is 59,97%. Employers in the formal sector, namely those with the status of working with hired or permanent workers or paid workers, have decreased compared to data before the Covid-19 pandemic of 421.714 entrepreneurs with a reduced number of workers, the number of declined workers by 3.086.824 people. The formal sectors most affected are the accommodation, food and drink sector and the transportation sector.

The decline of the formal sector, according to Khuong et al. (2021), to some degree, a combined responsibility of some actors of the government and society also enhanced the instigate for weakening the formal sector, for illustration, organization-point performance has offered such significant pointers to distinguish the movements in the economy, tax-registered corporations in relations of transaction and revenue tax has dropped in the last couple of years conferring to the tax experts. The sketchy evidence recommends that the subversive economy fabrication has speedily greater than before due to large-scale industrial companies that have either partly or totally moved their production units. In Indonesia's case, the new omnibus law on job creation creates the dilemma of widening the wage gap between the formal and informal sectors and forcing the formal sectors and people not in the labor force to enter the informal sector to meet their needs.

In the informal sector, all major types of employment statuses have increased in 2022 compared to before covid in 2020, except for the main types of employment statuses Seeking to be assisted by irregular workers/unpaid laborers which decreased by 0,17%. This indicates that the informal sector, which is a safety net, is also affected by the Covid-19 pandemic and is unable to become a buffer or buffer in providing eight businesses in informal sector. Impact on informal sector business actors with a decrease in micro-business actors with the help of irregular workers and or unpaid workers who experience business closures or switches as self-employed without the help of others amounted to 160.485 microenterprises. Micro-entrepreneurs who try themselves without the help of others have increased by 1.810.579 people. The addition of micro-entrepreneurs in the informal sector is likely to be formal sector workers who have been laid off or laid off due to the pandemic. The addition of informal sector workers with the status of family workers or unpaid workers has increased the highest compared to before the pandemic (February 2020) That is 2.302.140 family workers or 1,47%. The addition of free workers in non-farms is greater than the addition of free workers in farms compared to the 2020 data (Table 3). On the other hand, Webb, McQuaid, and Rand (2020) suggests that the covid-19 pandemic might hasten existing inclinations and push new resolutions to improved essential employment security whereas assisting firm to stay competitive. Moreover, public policies encourage the formalisation of informal sector.

The Formal Sector Workforce by Gender

The presentation of the formal sector workforce by gender, for men decreased from 2017 by 45,66% and in 2021 to 43,39% or a decrease in the workforce males from the formal sector for four years were 4,97% (Figure 2). The percentage of the female workforce in 2017 was 38,63% and decreased to 36,2% in 2021. The rate of decline in formal sector labor presentations for women was higher by

6,29% in the 2017-2021 period. This indicates that the female workforce is still vulnerable for the first time in the layoffs during the economic crisis. The sector with a flexible labor force is a labor-intensive manufacturing sector for export purposes, so it is highly dependent on global environmental conditions. An example is the garment sector which is the supply chain of the global garment industry, where Indonesia is one of the suppliers or suppliers for brands world-renowned apparel. The recession that occurred in America and Europe and the Ukraine war with Russia affected the demand for clothing, which had a direct impact on orders to the country suppliers include Indonesia. The labor-intensive garment industry is generally a female workforce, so the biggest layoffs or exiting the formal sector labor market are women. The Indonesia as one of developing countries is in line with the global data. ILO report on 2019 shows that emerging nations the ratio of female workforces who are informally hired (92 percent) is significantly greater than the proportion of male workforces (87 per cent) (Bonnet F, Joann K 2019).

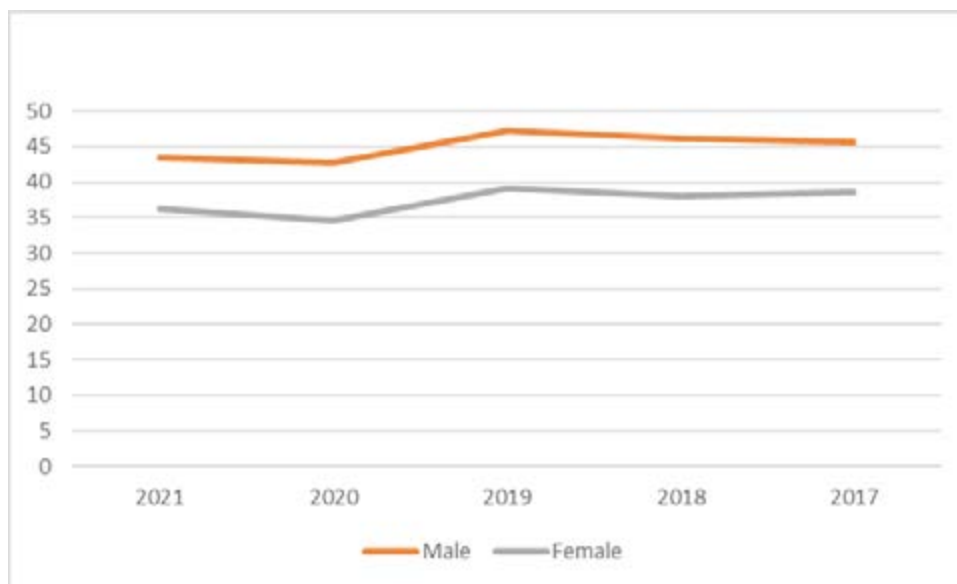


Figure 2. Percentage of formal sector labor by gender in 2017-2021 (Source: BPS, 2022)

Labor Trends in the Informal Sector Non-Agricultural By Education Level

The informal non-agricultural sector by Education level can be seen in Figure 3. Developments by Education level show that the non-agricultural agricultural sector of all levels of education of the informal sector workforce has increased from 2018 to 2021. The non-agricultural informal sector is the largest at the primary education level and below, in 2021 the presentation was 70,26%. The junior high school education rate in 2021 was 59,82%. The high school education level is divided into two, namely SMA General and Vocational High School. Public high schools have more non-agricultural informal sector presentations at 44,76% compared to vocational high schools at 35,24%. Non-agricultural informal sector with a Diploma I/II/III Education level of 23,71%. Non-agricultural informal sector workforce with a university Education rate of 14,57%.

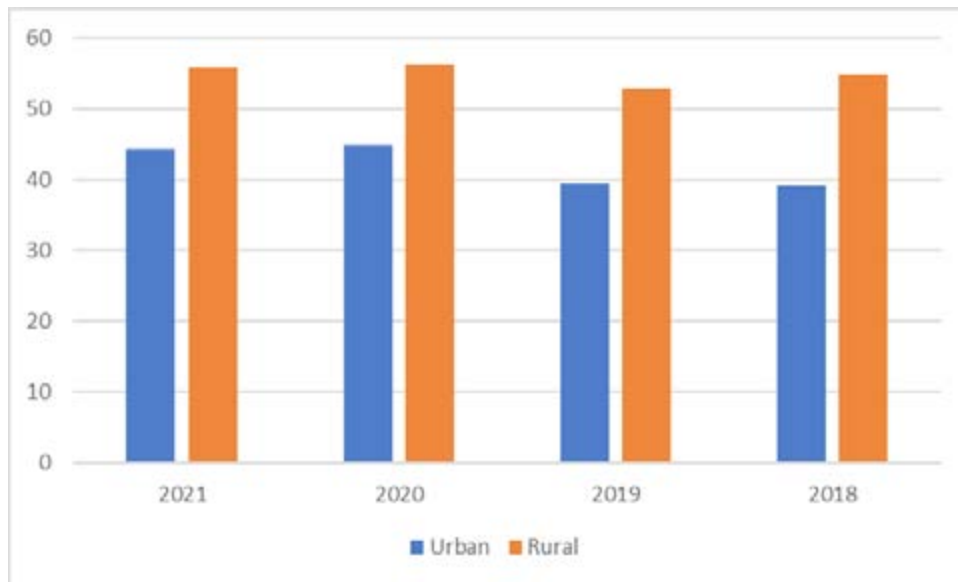


Figure 3. Presentation of the Non-agricultural Informal Sector by Education Level in 2018-2021 (Source: BPS, 2022)

By Region of Residence

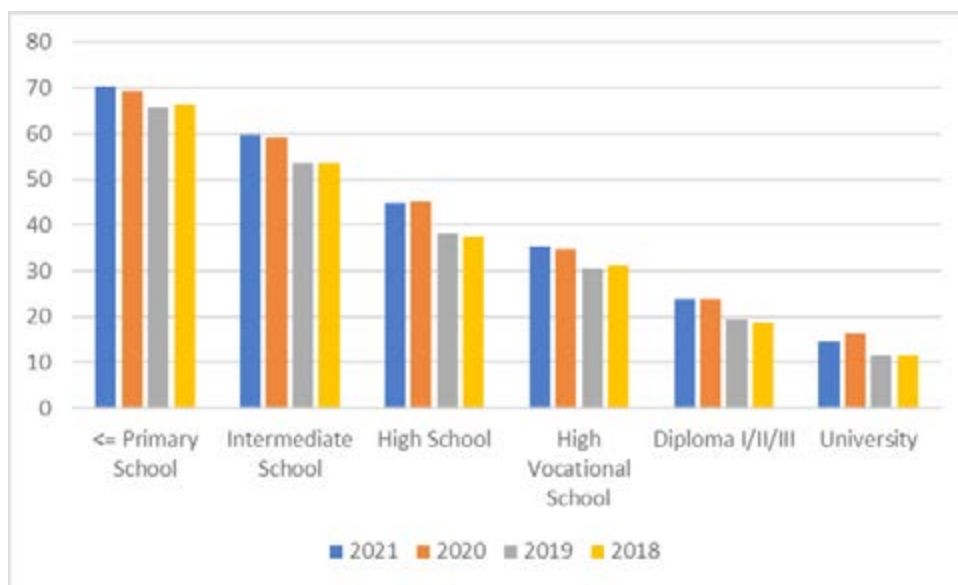


Figure 4. Proportion of Informal Employment in the Non-Agricultural Sector by Region in 2018-2021 (Source: BPS, 2022)

The non-agricultural informal sector workforce has increased. In 2018 in urban areas the presentation of the informal non-agricultural sector was 39,12% and increased to 44,29% in 2021. The growth rate of non-agricultural informal sector labor presentation in urban areas was 13,22%. For rural areas, the informal non-agricultural sector in 2018 of 54,79% experienced a slight increase in 2021 to 55,77% with the presentation growth rate by 1,79%. In aggregate the growth rate of non-farm informal sector labor presentation n by 8,6% (Figure 4). The presentation of the informal non-agricultural sector is greater in rural than urban. This shows that the informal non-agricultural sector in rural areas is being squeezed out not by the agricultural sector but by the informal non-agricultural sector. Urban

areas of the informal non-agricultural sector are experiencing a very high growth compared to rural areas, this may indicate that there is a dislocation from the formal sector due to layoffs, workers who are not absorbed by the formal sector or the migration from rural to urban areas but not into the formal sector and accommodated in the urban informal sector.

This development of the informal sector shows that the dualistic theory by Lewis (1954) cannot be fulfilled in Indonesia. The dualistic theory of the informal sector analyzes how excess labor from the traditional agricultural sector can be withdrawn and used productively in the modern industrial sector to start the development process towards one sector namely the formal sector. The disparity in the formal sector and informal sector workforce is widening. The informal sector remains with a liberal economy of a capitalist nature. The characteristic of the capitalist economy is to eliminate ineffective and weak business actors in the formal sector. The attention of capitalists to business actors in the informal sector if there are capitalist interests. Thus, to go towards the SDGs with the Pillars of Economic Development which include Goals 7, 8, 9, 10, and 17, the capitalist system that prevails in Indonesia must be corrected. The indicators used by the Economic Development Pillar as in Goal 8 promote inclusive and sustainable economic growth, productive and comprehensive employment opportunities, and decent work among others such as GDP growth rate per workforce/Real GDP growth rate per person employed per year, Proportion of informal employment in the non-agricultural sector, by gender, Percentage of formal labor, Percentage of informal labor in the agricultural sector and Percentage of MSME (Micro, Small, and Medium Enterprises) access to financial services (BPS, 2017). These include indicators to see the development of the formal sector and the informal sector.

By Group Age

On average, there was an increase of 10,8% in the non-agricultural informal sector workforce in 2020, namely at the peak of the Covid-19 pandemic compared to the year before the Covid-19 pandemic occurred (in 2019). By age group, over 60 years of age dominate the age group of workers working in the non-agricultural informal sector. Age above 60 years is the retirement age of workers in the formal sector. This indicates that formal sector retirees continue to earn income “forced” to work in the informal sector which is still open to formal sector retirees. Non-agricultural informal sector workers aged over 60 years are forced to continue working because there is no social security or old age insurance for informal workers. This causes the 60-year-old group to have the highest proportion of the informal sector among the age groups. In 2018 the non-agricultural informal sector workforce aged 60 years and over amounted to 74,63%, in 2019 there was a slight decrease to 74,23%, but during the Covid-19 pandemic in 2020 and 2021 it experienced a spike in increase with the proportion the same amounted to 77,2%. The age group of 20-24 years is the age group with the least percentage of the informal non-agricultural sector absorbing labour. In 2018 the proportion of the 20–24-year-old group working in the non-agricultural informal sector was 27,88% and experienced a decline in presentation in 2019 to 25,42%. During the Covid-19 pandemic in 2020 the percentage of the 20 to 24-year-old group experienced an increase of 33,57% or a growth of 31,75% and in 2021 the non-agricultural informal sector at the age of 20-24 years decreased slightly to 32,04%. This indicates that many informal workers enter this age group, coming from formal sector workers who have been laid off or put in home without pay, school-age who have been forced to quit and enter the non-agricultural

informal sector and youth aged 20-24 years who have migrated from rural areas to cities and accepted in the informal sector. This phenomenon is consistent with research by Harris and Todaro (1970) that there is an intersectoral relocation of labor from the formal sector to the informal sector and from rural to urban areas.

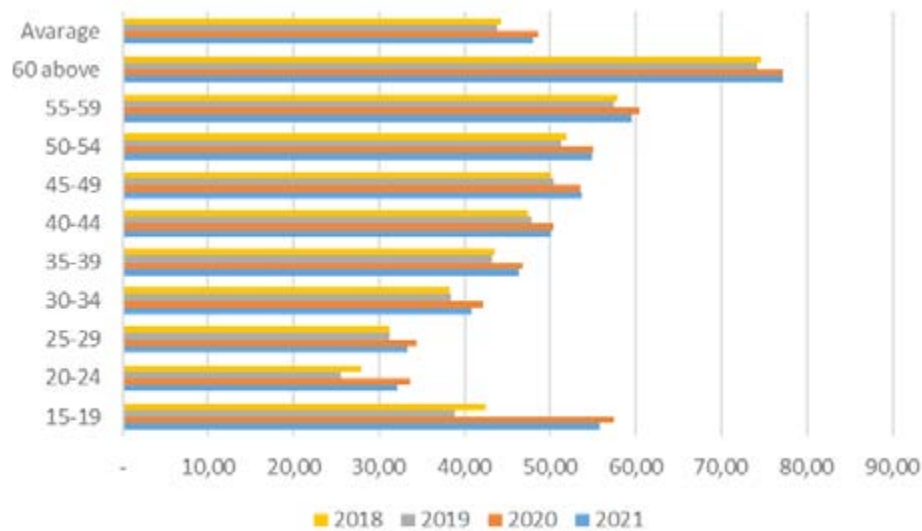


Figure 5. Proportion of Informal Employment in the Non-Agricultural Sector by Group Age in 2018-2021 (Source: BPS, 2022)

The largest increase occurred in the age group of 15-19 years in non-agricultural informal sector workers. In 2019 the 15–19-year age group, the proportion of non-agricultural informal sector workers was 38,80% to 57,39% in 2020 during the Covid-19 pandemic with an increase of 47,91%. Indonesia implements a 12-year compulsory education policy, meaning up to senior high school, both general and vocational. The 15–19-year age group is school age in junior high school or intermediate school and high school. This indicates that the age group of 15-19 years has dropped out of school and is working in the non-agricultural informal sector. This phenomenon shows that the informal sector plays a very important role during a crisis as a social safety net.

CONCLUSION & SUGGESTION

The formal sector and the informal sector are the result of a dualistic economy. The proportion of the informal sector is expected to decrease and vice versa there will be a strengthening in the formal sector in line with economic growth in achieving sustainable development goals (SDGs). During a crisis such as the Covid-19 pandemic, all sectors have collapsed so that the informal sector has become a reservoir for income needs from the formal sector which has experienced layoffs. The informal sector in urban and rural areas has experienced a surge in increase compared to before the pandemic. Informal sector entrepreneurs who do business with the help of temporary or unpaid workers have decreased. This indicates that the informal sector micro-enterprises suffered a blow during the Covid-19 pandemic so that they experienced a decline. The formal sector based on gender shows a decrease in the number of female workers compared to before the pandemic which indicates that female workers are more vulnerable to being laid off during a crisis.

In terms of education, the non-agricultural informal sector has not experienced any improvement after the Covid-19 pandemic. The highest proportion of non-agricultural informal sector workers is at the elementary school level. Based on urban and rural residences for the non-agricultural informal sector, urban informal sectors experienced a higher increase before (2019) and after the pandemic (2020) compared to rural areas. Based on age group, the 15 to 19-year-old group experienced the highest growth on the non-agricultural informal sector.

This research can be deepened by looking at the wage component. Wages are variables that describe income levels and differences in wages in the formal and informal sectors. The wage component will provide an overview of the disparities that occur. The analysis can be enriched by carrying out cross-tabulations such as wages in the formal and informal sectors by province.

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