Journal of International Conference Proceedings (JICP) Vol.5 No.4, pp. 40-51, November, 2022
P-ISSN: 2622-0989/E-ISSN: 2621-993X
https://www.ejournal.aibpmjournals.com/index.php/JICP

Blue-Collar Young Worker Transition to NEET During Covid-19 Pandemic: Evidence from Indonesia

FX Gugus Febri Putranto[1], Devanto Shasta Pratomo[2], M. Pudjihardjo[3]
Universitas Brawijaya[1,2,3]
Jl. MT. Haryono No. 165, Malang, 65145, Indonesia
Correspondence Email: gugusfebri@bps.go.id
ORCID ID: 0000-0002-7777-1554

ARTICLE INFORMATION

Publication information

Research article

HOW TO CITE
Putranto, F. G. F., Pratomo, D. S., & Pudjihardjo, M. (2022). Blue-Collar young worker transition to NEET during Covid-19 Pandemic: Evidence from Indonesia. *Journal of International Conference Proceedings*, *5*(4), 40-51.

DOI:
https://doi.org/10.32535/jicp.v5i4.1911

Received: 4 October 2022
Accepted: 15 October 2022
Published: 15 November 2022

ABSTRACT

Young and low-skilled workers are the most affected groups due to the labor market disruption caused by the pandemic. One of the impacts is the transition of young workers, especially workers with low skills, or called blue-collar workers. The transition could be a change from blue-collar young workers to those Not in Education, Employment, or Training (NEET). This study aims to examine the determinants of the transition of blue-collar young workers who become Unemployed NEET or Inactive NEET during the pandemic. In this study, data from the National Labor Force Survey (SAKERNAS) with individual panel observations, observed in two survey periods, namely August 2019 and August 2020, were analyzed using multinomial logistic regression. Demographic factors, human capital, and the risk status of COVID-19 in the area where young workers live are important issues in the transition of blue-collar young workers to NEET. Optimizing gender-based employment policies, implementing policies that suit the needs of young workers in rural or urban areas, as well as intensifying the use of the internet for work that can increase worker resilience, are some of the solutions to prevent the NEET transition from blue-collar young workers during the pandemic.

Keywords: Blue-Collar Worker, Multinomial Logistic Regression, NEET, Sakernas, Young Worker.

INTRODUCTION

Youth and low-skilled workers are the most affected groups by the pandemic (ILO, 2022a). Specific to employment, the pandemic has had an impact on the global labor market. Therefore, the achievement of the SDGs related to employment and inclusive economic growth has also been affected.

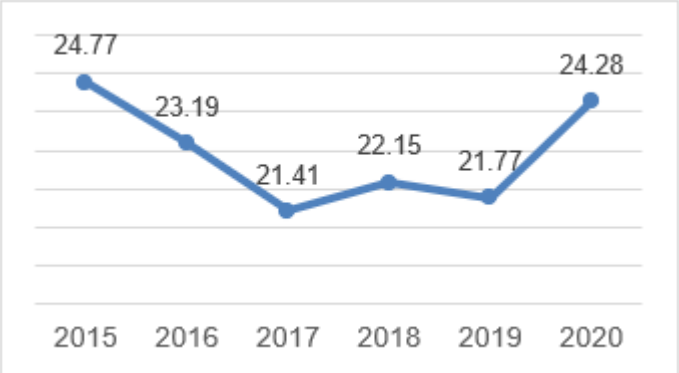
Restoring the economy is not easy. United Nations (2022) predicts that the recovery of global economic conditions, particularly employment, will occur in 2023. This is related to the emergence of various uncertainties such as the new wave of COVID-19, as well as the instability condition of the labor market.

Amid disruption, Indonesia experienced a peak period of demographic bonus during 2020-2030. The demographic bonus is the main driver of national and local economic growth (Bloom & Williamson, 1998; Mason, 2001). Thus, optimizing the demographic bonus will promote the achievement of economic recovery.

To optimize the demographic bonus, there is a role for human capital in terms of skilled young workers and their absorption in the regional labor market (Adriani & Yustini, 2021; Arif & Chaudhry, 2008). In this condition, the government plays a central role in policymaking. Optimization of the demographic bonus is closely related to economic policy. Thus, economic policymaking is not only focused on increasing the number of jobs, but it is necessary to consider the type of work (Bredemeier, Juessen, & Winkler, 2020).

During the pandemic, data from Statistics Indonesia showed an increase in the percentage of youth who were included in the Not in Employment, Education, and Training (NEET) category in 2020, which was 24.28 percent. This increase brings the percentage of NEET youth in Indonesia to the same level with 2015 which was 24.77 percent. Details can be seen in Figure 1 below. Furthermore, the percentage of Indonesian NEET is the highest in ASEAN. The increasing percentage of NEET youth shows the incompatibility of optimizing the demographic bonus with youth employment conditions.

Figure 1. Percentage of NEET in Indonesia, 2015-2020 (percent)



Source: Statistics Indonesia, 2021

One of the contributors to NEET is the transition of young blue-collar workers who have dominated employment in Indonesia in recent years. Blue-collar workers who lose their jobs and become unemployed will have difficulty getting back into decent work. Blue-collar workers who are transitioning into the non-labor force, are increasingly difficult to return to work due to low skills (ILO, 2022b). In addition, blue-collar workers who

transition to being out of school or without training, further hinder the achievement of the demographic bonus due to the lack of quality of youth.

The purpose of this study is to analyze the determinants of the transition of blue-collar young workers to inactive NEET and unemployed NEET during the pandemic in Indonesia. Thus, specific economic recovery solutions will be obtained and able to provide solutions to prevent the transition of blue-collar young workers to NEET during a pandemic.

LITERATURE REVIEW

Regarding young workers, Kugler et al. (2021) and Soares & Berg (2022) stated that COVID-19 had the most impact on young, female, informal, and educated and low-skilled workers. In addition, Beccaria, Bertranou, and Maurizio (2022) state that the impact of the pandemic on the workforce is the transition to unemployment and not the workforce.

Furthermore, Sostero, Milasi, Hurley, and Bisello (2020) examined the impact of COVID-19 on blue-collar and white-collar workers. The variables include wages, education, gender, regional classification, business scale, migration, type of contract, and type of full or partial worker. Blue-collar workers are more affected than white-collar workers regarding the Work from Home preference that only white-collar workers have. In addition, Blau, Koebe, and Meyerhofer (2020) found that blue-collar workers were dominated by male workers who needed workers such as in the construction sector. Furthermore, Galasso (2020) states that blue-collar workers are vulnerable and tend to become unemployed and leave the labor market because of their education and skills.

Regarding NEET youth, Zudina (2018) examines the opportunities for young people aged 15-24 years to become unemployed NEET and inactive NEET. The determinants are low education, age group 20-24, and ever married. Meanwhile, Caroleo, Rocca, Mazzocchi, and Quintano (2020) found that the chances of becoming a NEET were influenced by gender, marital status, migration, and educational status. In addition, per capita GRDP and unemployment rate also affect youth's chances of becoming a NEET. Majid (2021) states that gender characteristics affect youth's chances of becoming a NEET. The trend of women is four times greater than that of men.

Regarding labor mobility transitions, workers may experience job loss or sector shifts and enter new types of work. Labor mobility gives developed regions benefits from less developed regions (Harnani, Rusminingsih, & Damayanti, 2022). In addition, Verd, Barranco, & Bolíbar (2019) examines the transition of workers during a recession which shows that low-skilled workers are more likely to become unemployed.

RESEARCH METHOD

This study uses secondary data from the National Labor Force Survey (Sakernas) in August 2019 and 2020. The sample of this research is individual panels followed by information during that period. Thus, the transitional status of young workers can be observed. The panel individuals observed were young blue-collar workers aged 15-24 years in 2019 and the transition was observed in 2020. The number of observations studied was 13,856 individuals.

Blue-collar workers are workers who occupy non-managerial positions or tend to be low-skilled. The classification is based on *Klasifikasi Baku Jabatan Indonesia* (KBJI) according to the International Standard Classification of Occupations (ISCO). Based on eurofound (2010), the classification of blue-collar workers includes KBJI/ISCO codes

6,7,8, and 9, namely skilled agricultural and fishery workers, craft and related trades workers, plant and machine operators and assemblers, and elementary occupations.

In addition, the definition of youth NEET is the population aged 15-24 years who are not in education, employment, or attending training (Badan Pusat Statistik, 2021). Youth NEET was categorized into unemployed NEET and inactive NEET. Unemployed NEET are young NEET who are actively looking for work. Meanwhile, inactive NEET are young NEET who are not actively looking for work.

The dependent variable, independent variable, and the categorization of research variables can be seen in Table 1 below.

Table 1. Research Variables

Variable		Category
Dependent Variable	Transition of blue-collar young worker (transition)	0= Remaining Working (Reference Category) 1=Transition into Unemployed NEET 2=Transition into Inactive NEET
Independent Variable	Gender (gender)	0=Female (Reference Category) 1=Male
	age (age)	0=15-19 (Reference Category) 1=20-24
	Household Head (hh)	0=Not Household Head (Reference Category) 1=Household Head
	Region Classification (reg_classif)	0=Rural (Reference Category) 1=Urban
	Covid-19 Risk Status (risk_stat)	0=High (Reference Category) 1=Medium 2=Low 3=Not Affected
	Education Level (edu)	0= Low Educated (Reference Category) 1= Tertiary And Upper Tertiary Education
	Internet usage for work (internet)	0=Do Not Use (Reference Category) 1=Use
	Job Status (job_stat)	0=Formal (Reference Category) 1=Informal
	Sector of Employment (sector)	0=Secondary (Reference Category) 1=Primary 2=Tertiary
	Provincial Minimum Wage (MW)	Data Ratio
	Per capita GRDP (GRDP)	Data Ratio

Source: Statistics Indonesia (Raw Data from National Labor Force Survey 2019, 2020, and other publications), processed

The econometric model used is multinomial logistic regression in which the dependent variable is a nominal scale with three or more categories (Gujarati & Porter, 2013). The significance test was carried out simultaneously or partially using the G statistical test and the Wald test (Hosmer, Lemeshow, & Sturdivant, 2013). Meanwhile, the interpretation of the analysis results uses the marginal effect value which shows the effect on the independent variable when other variables are constant on the probability of each category in the model (Greene, 2003).

The multinomial logistic regression model used is as follows:

$$ln\left(\frac{P_1}{P_0}\right) = \beta_{10} + \beta_{11}\, gender + \beta_{12}\, age + \beta_{13}\, hh + \beta_{14}\, reg\_classif + \beta_{15}\, risk\_stat + \beta_{16}\, edu + \beta_{17}\, internet + \beta_{18}\, job\_stat + \beta_{19}\, business + \beta_{110}\, MW + \beta_{111}\, GRDP + \varepsilon_1 \quad (1)$$

$$ln\left(\frac{P_2}{P_0}\right) = \beta_{20} + \beta_{21}\, gender + \beta_{22} age + \beta_{23}\, hh + \beta_{24}\, reg\_classif + \beta_{25}\, risk\_stat + \beta_{26}\, edu + \beta_{27}\, internet + \beta_{28}\, work\_stat + \beta_{29}\, business + \beta_{210}\, MW + \beta_{211}\, GRDP + \varepsilon_2 \quad (2)$$

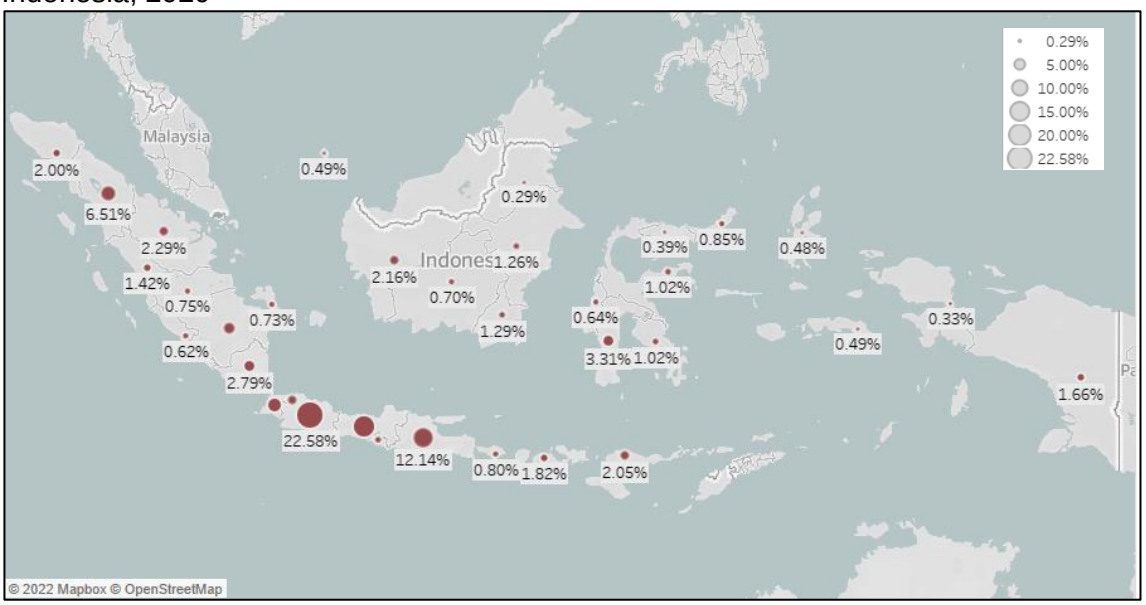
where:

$\left(\frac{P_1}{P_0}\right)$: Probability of transitioning to unemployed NEET, compared to remaining working

$\left(\frac{P_2}{P_0}\right)$: Probability of transitioning to inactive NEET, compared to remaining working

RESULTS

Figure 2. Distribution of Blue-Collar Young Workers Transitioning to Youth NEET in Indonesia, 2020



Source: National Labor Force Survey 2019, 2020 (processed)

Blue-collar youth workers who are transitioning to either unemployed or inactive NEET are concentrated on Java Island in the provinces of West Java, Central Java, and East Java. Overall, in Indonesia, 1 in 5 young blue-collar workers transitioning to youth NEET. More specifically, 9.79 percent of young blue-collar workers transitioning to unemployed NEET, while 10.12 percent of workers transitioning to inactive NEET.

Table 2. Characteristics of Blue-Collar Young Workers by Transition Status

Characteristics		Remaining Working (%)	Transitioning into Unemployed NEET (%)	Transitioning into Inactive NEET (%)
Gender	Male	22.0	22.5	50.5
	Female	78.0	77.5	49.5
Age Group	15-19 years	29.3	33.6	32.9
	20-24 years	70.7	66.4	67.1
Household Head	Non-Household Head	91.1	96.8	97.9
	Household Head	8.9	3.2	2.1
Region Classification	Rural	53.3	33.8	58.0
	Urban	46.7	66.2	42.0
Covid-19 Risk Status	High	6.8	10.2	4.8
	Medium	48.2	52.7	45.2
	Low	38.9	34.4	42.9
	Not Affected	6.2	2.8	7.1
Education Level	Low Educated	50.6	47.4	60.8
	Tertiary and Upper Tertiary Education	49.4	52.6	39.2
Internet usage for work	Not use	80.7	74.5	85.0
	Use	19.3	25.5	15.0
Job Status	Formal	51.6	61.2	42.9
	Informal	48.4	38.8	57.1
Sector of Employment	Secondary	43.8	56.6	42.2
	Primary	33.0	19.7	41.0
	Tertiary	23.2	23.8	16.8

Source: National Labor Force Survey 2019, 2020 (processed)

In the transition to unemployed and inactive NEET, only a small proportion of workers are heads of households and use the internet in their work. Meanwhile, in the transition to unemployed NEET, urban workers dominate the transition, whereas rural workers dominate in the transition to inactive NEET. In line with that condition, workers with tertiary and upper tertiary education dominate the transition to unemployed NEET, on the other hand, low-educated workers dominate the transition to inactive NEET.

Table 3. Multinomial Logistic Regression Results with Marginal Effect

Determinant	Remaining Working	Transitioning to unemployed NEET	Transitioning to Inactive NEET
Male	0.081***	0.015***	-0.097***
20-24 years	0.015***	-0.015***	0.000
Household Head	0.185***	-0.073***	-0.112***
Urban	-0.028***	0.034***	-0.006
Covid-19 Risk Status			
Low	0.011	-0.020*	0.018
Medium	0.001	-0.018	0.017
Not Affected	0.018	-0.031**	0.031
Tertiary and Upper Tertiary Education	0.011	0.008*	-0.023***

Use internet for work	0.003	0.000	-0.004
Informal Workers	-0.017**	-0.004	0.020***
Sector of Employment			
Primary	0.037***	-0.033***	-0.005
Tertiary	0.019*	-0.020***	0.001
Provincial Minimum Wage	-0.002	-0.030***	0.038***
Per Capita GRDP	-0.008	0.022***	-0.015**
Observation	13856		
Pseudo R^2	0.0499		
LR^2 _	824.97		

Source: National Labor Force Survey 2019, 2020, and other publications (processed)
Notes. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Gender significantly influences the NEET transition. Men increased their chances of becoming unemployed NEET, while lowering their chances of being inactive NEET by 9.7 percent. Furthermore, young workers aged 20-24 years reduce their chances of becoming unemployed NEET. The head of the household reduces the probability of becoming a NEET both unemployed or inactive with a dominant influence on the transition to being an inactive NEET compared to other determinants, which is 11.2 percent.

Young blue-collar workers in urban areas increase their chances of becoming unemployed NEET. Meanwhile, the low and not affected COVID-19 risk status in the place of residence will reduce the chance of transitioning to an unemployed NEET.

Education level shows the contradictive result on the influence between the transition to unemployed and inactive NEET. Workers with tertiary and upper tertiary education increase their chances of transitioning to an unemployed NEET but decrease their chances of transitioning to an inactive NEET. Meanwhile, the use of the internet at work has no significant effect on the transition, which shows that there is no difference between blue-collar workers who use the internet at work or not towards the transition to being unemployed or inactive NEET.

Informal workers will increase the chances of transitioning to inactive NEET by 2.0 percent. Meanwhile, workers in the primary and tertiary employment sectors reduce the chances of transitioning to an unemployed NEET.

Regional labor market characteristics, approached by the minimum wage and per capita GRDP. In the transition to unemployed NEET, an increase in the minimum wage will reduce the transition probability, while an increase in per capita GRDP will increase the transition probability. On contrary, in the transition to inactive NEET, an increase in the minimum wage will increase the probability of transition, while an increase in per capita GRDP will reduce the probability of transition.

DISCUSSION

Characteristics of Blue-Collar Young Workers Transitioning to NEET During a Pandemic

Spatially, the distribution of the NEET transition from young blue-collar workers is concentrated on the island of Java. Java, as the center of the Indonesian economy, has experienced the largest pandemic scarring effect compared to other regions in Indonesia. As an economic contributor, Java Island contributes 58.75 percent to the national economy. The labor market in Java also experienced pressure in the ability to absorb labor, which was marked by an increase in the unemployment rate to more than 10 percent and was above the national unemployment rate. So, it can be concluded that the pandemic caused a major impact on the labor market at the center of the Indonesian economy, which is Java Island.

Determinants of the Transition of Young Blue-Collar Workers to NEET

The gender gap become an issue in the transition of young blue-collar workers to inactive NEET. Generally, women tend to do precarious work such as family workers or unpaid worker. Furthermore, the higher exit rate for women can be explained as related to women's responsibilities in non-economic activities caused by cultural norms and human life cycles (Beccaria & Maurizio, 2020). In addition, women also tend to choose non-full-time jobs during the COVID-19 pandemic, related to their duties in taking care of the household (Mesiäislehto et al., 2021). Regarding the role in the family, the results of this study reveal the tendency of the household head to remain working. This is related to the responsibility of the household head in supporting the welfare of their households (Beccaria & Maurizio, 2020; Golman, 2020).

Job stability will increase in line with age. The study conducted by Beccaria & Maurizio (2020) examines this condition from two sides. From the demand side for labor, firms need workers with a more mature age, related to the human capital they have through education and training as well as the skills possessed by workers. From the supply side, workers in the younger age group tend to prefer jobs of better quality, so the demand side is aligned with the supply, specifically on youth labor.

The secondary employment sector is dominated by blue-collar workers, the proportion of which is greater in urban areas than in rural areas (Badan Pusat Statistik, 2020). In line with this, the variation in employment opportunities in urban areas is more diverse than in rural areas, creating greater opportunities for young workers living in urban areas to transition to becoming NEET. The classification of rural and urban areas also related to restrictions on activities during the pandemic affects economic activity. In urban areas, the risk status of COVID-19 tends to be higher than in rural areas, this is related to the mobility of rural communities which is not as high as people in urban areas. Young workers who live in areas with a low/unaffected covid-19 risk status have the opportunity to still be able to work during a pandemic. So, workers in rural areas are more likely to stay. This is in line with Aina, Brunetti, Mussida, & Scicchitano (2021), that during a period where COVID cases are high, it will increase youth opportunities to become NEET due to activity restrictions that have an impact on the regional labor market.

The phenomenon of the choosy educated job seeker (Asian Development Bank, 2016)become one of the findings in this study. Young blue-collar workers with higher education choose to remain unemployed rather than enter jobs that are not commensurate with wages, thereby increasing the chance of transitioning to become NEET who are still trying to find new jobs (Pratomo, 2016).

In this study, youth as digital natives did not show any difference in the chances of young workers transitioning to NEET. The use of the internet may be only limited to communication, not for promotion and buying and selling activities. In addition, only a small proportion of blue-collar workers use the internet in their work.

Informal workers show a greater vulnerability than formal workers to transitioning into an unemployed NEET. The proportion of informal workers dominates the job status in Indonesia at 60 percent (Badan Pusat Statistik, 2020). Supported by Beccaria et al. (2022) and Beccaria & Maurizio (2020) that the informal sector was strongly affected during the pandemic, one of which caused job losses.

Workers in the secondary sector or manufacturing industry, especially blue-collar workers, do not have the privilege to work from home. Thus, production restrictions have an impact on limiting the number of workers (Sostero et al., 2020). The domino effect of this restriction, caused an increase in the number of unemployed NEET who are still trying to find work or preparing for a new business.

An increase in the minimum wage will absorb workers even with salaries below the minimum wage (Caroleo et al., 2020; Pratomo, 2016). Therefore, there may still be workers who continue to work during an increase in the minimum wage even though they receive wages below the minimum wage. The condition that occurred amid the pandemic was, the increase in the minimum wage made firms more selective in retaining and selecting workers to be employed during the pandemic. Blue-collar jobs are mostly dominated by jobs with the specifications of male workers such as manual labor and construction workers (Blau et al., 2020)so that which has an impact on reducing female workers which will make female workers leave the labor market and tend to return to taking care of their household.

Research conducted by (Dütsch & Struck, 2014)finds that an increase in GRDP will increase the tendency of workers to become unemployed or not in the labor force. Furthermore, Skess & Yusuf (2021) say that young workers are identical in choosing jobs that are in accordance with education and wage levels, but this condition is inappropriate during a pandemic. Thus, young workers tend to stay in their jobs compared to transitioning to NEET when the economy is slowing down.

CONCLUSION

Young blue-collar workers who are transitioning to NEET are centered on Java Island. In Indonesia, there is nearly 20 percent of young blue-collar workers are transitioning to unemployed or inactive NEET.

The characteristics of young blue-collar workers who tend to be more able to survive from transition to unemployed NEET are the age group of 20-24 years, are the household head, live in areas with medium or unaffected covid-19 risk status, and work in the primary or tertiary sector. Meanwhile, in terms of regional labor market characteristics, an increase in the minimum wage will increase the resilience of young blue-collar workers from transitioning to unemployed NEET.

The characteristics of young blue-collar workers who tend to be more able to survive the transition to NEET inactive are male, household head, and tertiary and upper tertiary education. Meanwhile, in terms of regional labor market characteristics, an increase in per capita GRDP will increase the resilience of young blue-collar workers from transitioning to inactive NEET.

Variations in the characteristics of young blue-collar workers and regional labor market characteristics require a combination of appropriate and careful policies from the government so that they will be able to reduce or even prevent the transition to NEET. Some feasible steps that can be taken include:

1. The government and business actors can improve human capital through education and training that need to be focused on young blue-collar workers specifically on the woman and young age group.
2. Provide internet literacy education, so the internet can be more focused on being used to support work, especially in the new normal era that demands the use of digitalization in increasing worker resilience.
3. Optimizing promotional activities by the government, private sector, and academics to provide product demand, especially for business actors in the informal sector more massively, both in urban and rural areas.
4. The government can establish cooperation between regions in matching the needs of their respective regions, to optimize local products. This cooperation will have a positive impact on blue-collar workers who depend on white-collar workers on the managerial positions.
5. Integrating blue-collar workers with limited access to digitalization in the service sector that is growing positively during a pandemic such as e-commerce. Jobs that can be carried out include being a delivery man, packing staff, and warehousing staff.
6. Encouraging the growth of a formal and informal entrepreneurial culture, which is accompanied by an increase in skills and literacy in using the internet for workers.

ACKNOWLEDGMENT
This research did not receive any specific grant from funding agencies in the public, commercial, or nonprofit sectors.

DECLARATION OF CONFLICTING INTERESTS
Authors have no potential conflict of interest.

REFERENCES

Adriani, D., & Yustini, T. (2021). Anticipating the demographic bonus from the perspective of human capital in Indonesia. *International Journal of Research in Business and Social Science (2147- 4478)*, *10*(6), 141–152. doi:10.20525/ijrbs.v10i6.1377

Aina, C., Brunetti, I., Mussida, C., & Scicchitano, S. (2021). Even more discouraged? The NEET generation at the age of COVID-19. *GLO Discussion Paper,* No. 863, 1-25.

Arif, G. M., & Chaudhry, N. (2008). Demographic transition and youth employment in Pakistan. *Pakistan Development Review*, *47*(1), 27–70. doi:10.30541/v47i1pp.27-70

Asian Development Bank. (2016). Analysis of trends and challenges in the Indonesian labor market. *Asian Development Bank (ADB) Paper on Indonesia*, (16), 1–38. doi:10.1016/J.RCP.2015.08.004

Badan Pusat Statistik. (2020). *Keadaan angkatan kerja di Indonesia Agustus 2019*. Retrieved from https://www.bps.go.id/publication/2019/11/29/96138ece33ccc220007acbdd/keadaan-angkatan-kerja-di-indonesia-agustus-2019.html

Badan Pusat Statistik. (2021). *Persentase usia muda (15-24 Tahun) yang sedang tidak sekolah, bekerja atau mengikuti pelatihan.* Retrieved from https://sirusa.bps.go.id/sirusa/index.php/indikator/1578

Beccaria, L., Bertranou, F., & Maurizio, R. (2022). COVID-19 in Latin America: The effects of an unprecedented crisis on employment and income. *International Labour Review*, *161*(1), 83-105.

Beccaria, L., & Maurizio, R. (2020). Labour market turnover in Latin America: How intensive is it and to what extent does it differ across countries? *International Labour Review*, *159*(2), 161–193. doi:10.1111/ilr.12105

Blau, F. D., Koebe, J., & Meyerhofer, P. A. (2020). Essential and frontline workers in the covid-19 crisis. *Econofact*, *6*, 16.

Bloom, D. E., & Williamson, J. G. (1998). Demographic transitions and economic miracles in emerging Asia. *World Bank Economic Review*, *12*(3), 419–455. doi:10.1093/wber/12.3.419

Bredemeier, C., Juessen, F., & Winkler, R. (2020). Bringing back the jobs lost to Covid-19: The role of fiscal policy. *Covid Economics Vetted and Real-Time Papers*, (29), 99–140.

Caroleo, F. E., Rocca, A., Mazzocchi, P., & Quintano, C. (2020). Being NEET in Europe before and after the economic crisis: An analysis of the micro and macro determinants. *Social Indicators Research*, *149*(3), 991–1024. doi:10.1007/s11205-020-02270-6

Dütsch, M., & Struck, O. (2014). Erwerbsverläufe in Deutschland: Zur bedeutung betrieblicher charakteristika und regionaler disparitäten. *Journal for Labour Market Research*, *47*(1–2), 107–127. doi:10.1007/s12651-014-0156-3

Eurofound. (2010). Coding and classification standards. Retrieved from https://www.eurofound.europa.eu/surveys/ewcs/2005/classification

Galasso, V. (2020). COVID: Not a great equalizer. *CESifo Economic Studies*, *66*(4), 376–393. doi:10.1093/cesifo/ifaa019

Golman, M. (2020). NEETs' transitions to employment and education in Argentina. *Asociación Argentina de Economía Política,* Working Papers 4351.

Greene, W. H. (2003). *Econometric Analysis*. Hoboken, NJ: Prentice Hall.

Gujarati, D. N., & Porter, D. C. (2013). *Basic Econometrics*. New York, NY: McGraw-Hill/Irwin.

Harnani, S., Rusminingsih, D., & Damayanti, L. (2022). The role of human capital in education, environment, and economic. *Asia Pasific Journal of Management and Education, 5*(2), 87-99.

Hosmer, D. R., Lemeshow, S., & Sturdivant, R. (2013). *Applied logistic regression* (3rd ed.). Hoboken, NJ: John Wiley & Sons, Inc. doi:10.1002/978111854387

ILO. (2022a). *Responding to the crisis and fostering inclusive and sustainable development with a new generation of comprehensive employment policies*. Retrieved from https://www.ilo.org/ilc/ILCSessions/110/reports/reports-to-the-conference/WCMS_842083/lang--en/index.htm

ILO. (2022b). *Youth employment in Turkey : Structural challenges and impact of the pandemic on Turkish and Syrian youth*. Retrieved from https://www.ilo.org/wcmsp5/groups/public/---europe/---ro-geneva/---ilo-ankara/documents/publication/wcms_849561.pdf

Kugler, M., Viollaz, M., Duque, D., Gaddis, I., Newhouse, D. L., Palacios-Lopez, A., & Weber, M. (2021). How did the Covid-19 crisis affect different types of workers in the developing world?. *IZA Discussion Paper,* No. 14519. doi:10.2139/ssrn.3883795

Majid, N. (2021). *Young persons not in employment and education (NEET) in India: 2000-2019.* Retrieved from https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---sro-new_delhi/documents/publication/wcms_789243.pdf

Mason, A. (2001). *Population change and economic development in East Asia: Challenges met, opportunities seized*. California: Stanford University Press.

Mesiäislehto, M., Elomäki, A., Närvi, J., Simanainen, M., Sutela, H., & Räsänen, T. (2021). *The gendered impacts of the Covid-19 crisis in Finland and the*

effectiveness of the policy responses, Terveyden ja Hyvinvoinnin Laitos THL, Discussion Paper 2, 1–29.

Pratomo, D. S. (2016). How does the minimum wage affect employment statuses of youths?: Evidence of Indonesia. *Journal of Economic Studies*, *43*(2), 259–274. doi:10.1108/JES-07-2014-0131

Skess, S., & Yusuf, S. (2021). *My job Gen Z : Finding your place in a fast changing world*. Wilmington, DE: Skees Family Foundation.

Soares, S., & Berg, J. (2022). The labour market fallout of COVID-19: Who endures who doesn't and what are the implications for inequality. *International Labour Review, 161*(1), 5-28.

Sostero, M., Milasi, S., Hurley, J., & Bisello, M. (2020). Teleworkability and the COVID-19 crisis: A new digital divide?. *JRC Working Papers Series on Labour, Education and Technology,* 2020/05.

United Nations. (2022). The sustainable development goals report 2022. *United Nations publication issued by the Department of Economic and Social Affairs*. Retrieved from https://unstats.un.org/sdgs/report/2022/The-Sustainable-Development-Goals-Report-2022.pdf

Verd, J. M., Barranco, O., & Bolíbar, M. (2019). Youth unemployment and employment trajectories in Spain during the Great Recession: What are the determinants? *Journal for Labour Market Research*, *53*(4), 1-20. doi:10.1186/s12651-019-0254-3

Zudina, A. (2018). The pathways that lead youth in NEET: The case of Russia. *HSE Economic Journal*, *22*(2), 197–227. doi:10.17323/1813-8691-2018-22-2-197-227