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Effectiveness of pre-employment card policy on employment transition during covid-19: evidence from Indonesian dual labor market

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ABSTRACT

The COVID-19 pandemic has significantly disrupted employment markets globally and nationally, posing unique challenges to Indonesia's labor force. In response, the Indonesian government launched the Pre-Employment Card (PEC) as part of the National Economic Recovery (PEN) initiative to mitigate rising unemployment and facilitate transitions to sustainable employment. This study examines the effectiveness of Indonesia's Pre-Employment Card (PEC) policy in facilitating employment transitions during the COVID-19 pandemic. The effectiveness of the PEC policy is measured through key indicators such as labor absorption rates, reduction in unemployment, and the likelihood of securing formal employment over informal alternatives. This study introduces a novel perspective by employing a dual labor market approach, which highlights the distinct roles and interactions of formal and informal sectors in Indonesia's labor market. Specifically, it examines how the presence of informality affects job transitions and the effectiveness of the Pre-Employment Card (PEC) policy in facilitating movement toward formal sector employment. To analyze employment transitions, this research employs a multinomial logit model, selected for its ability to estimate the probability of multiple, categorical employment outcomes, making it especially suitable for evaluating the diverse pathways individuals might take from unemployment to formal or informal employment, and from informal to formal sectors. The findings reveal that the PEC policy significantly increases the likelihood of unemployed individuals securing formal sector jobs rather than informal ones, with participants who completed the initial PEC training showing a 30% higher probability of transitioning to formal employment compared to those without PEC support. Additionally, the policy supports transitions within the labor market by facilitating movement from the informal to the formal sector, with an observed 25% increase in formal employment uptake among informal workers participating in PEC. These results underscore the PEC policy's effectiveness in promoting formal employment pathways, contributing to workforce stabilization amid economic recovery efforts.

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Introduction

The employment indicator stands as one of the sectors profoundly affected by the COVID-19 pandemic in Indonesia. According to the data from BPS (2021), unemployment rates in Indonesia escalated from 5.28 percent in August 2019 to 7.07 percent in August 2020. This negative impact began to decrease a year later, when the unemployment rate decreased to 6.49 in August 2021. One year since the pandemic was officially declared to have hit Indonesia, there have been quite a number of government policy interventions to reduce unemployment. Even though the percentage of unemployment is still higher than in the August 2019 period, the 2021 period can be said to be a phase of economic improvement in Indonesia.

During the COVID-19 pandemic, the Indonesian government implemented the Pre-Employment Card Policy as an effort to reduce unemployment, especially for workers who lost their jobs due to the crisis. Kartu Prakerja is part of the National Economic Recovery (PEN) Program and plays a role in the social protection cluster to support segments of the workforce affected by COVID-19. The program provides access to skills training, retraining, and upgrading designed to enable workers to adapt to the changing needs of the job market (Muhyiddin et al., 2022). Positioned within the social protection cluster, this program is expected to wield a substantial impact, particularly for the workforce segments adversely affected by COVID-19. In precise terms, the PEC program's objectives encompass facilitating access to skill enhancement through skilling, reskilling, and upskilling, labor market access, and provision of essential needs during job search (Panjaitan et al., 2021).

The Sustainable Development Goals (SDGs) relevant to the Pre-Employment Card and PEC policies are SDG 8, which aims to promote inclusive and sustainable economic growth, full employment, and decent work for all. SDG 8 emphasizes the importance of creating quality jobs and improving workforce skills to promote equitable economic growth. PEC policies, including the Pre-Employment Card, contribute to the achievement of this SDG by providing skills training, capital support, and access to employment for the poor and pandemic-affected workers. By improving skills and employment opportunities, these programs not only help reduce unemployment but also support inclusive and sustainable economic growth for all (Abdalnour et al., 2023)..

A study by Putri (2021) specifically identifies the impact of participation in the PEC program on the prospects of reemployment in Indonesia. The findings underscore the significant influence of the PEC program in enhancing the opportunities for re-employment. The program emerges as notably effective in elevating reemployment possibilities, thus contributing to alleviating unemployment during the economic downturn prompted by the COVID-19 pandemic. Earlier research into the impact of the PEC program also accentuates the significance of the training provided to recipients, indicating a positive connection between the completion of training and the timeframe for reentering the job market (Friska, 2021; Kurniawati, 2022).

Research on this policy usually measures the success rate of participants in finding new jobs or moving into more stable and formal employment after the training. One indicator used is the rate of reduction in unemployment among program participants, as well as the perceived increase in income after the training. In addition, the effect of this policy on the transition of workers from the informal to the formal sector is also an important focus, as many workers who were previously in the informal sector are moving to a more structured sector with clearer status and social security. This stems from the notably higher proportion of the informal sector in developing nations, accounting for roughly 70 percent of the workforce (Bosch & Esteban-Pretel, 2012). In contrast to the formal sector, informal sector jobs are more readily accessible, yet they expose workers to greater employment risks due to the absence of protections (Hohberg & Lay, 2015). According to data from the BPS in August 2021, 59.45 percent of workers in Indonesia are employed in the informal sector. This sector is also particularly responsive to interventions, both from an economic and labor perspective. In the realm of labor dynamics, employment relationships in the informal sector are not bound by contracts or legal labor frameworks, rendering it easier for employers to hire and terminate casual workers.

Workers in the informal sector in many developing countries grapple with the inability to secure formal employment. The constraints within the formal job sector compel many workers to remain outside its bounds, opting instead to engage in informal employment. Günther & Launov (2012) further revealed that the labor market in developing nations depicts formal sector employment as having higher and more attractive income prospects, whereas the informal sector offers less stable income. Similar research conducted by Günther and Launov (2012) in Ivory Coast found that informal sector jobs were a choice for some workers while being a last resort for other informal worker groups.

However, informal employment cannot be inherently deemed inferior to formal employment due to various factors. The COVID-19 pandemic has significantly shifted the working paradigm from a tendency toward rigid labor markets to a more flexible approach (Herzog-Stein et al., 2022; Spurk & Straub, 2020). This type of employment is particularly favored by Generation Z as it doesn't necessitate formal employment relationships in its implementation. Cueva et al. (2021) present new evidence on the repercussions of the COVID-19 economic

crisis on a labor market characterized by a high prevalence of informality. Their analysis leverages a comprehensive longitudinal household survey from Peru, encompassing a range of individual and job outcomes both before and during the initial months of the 2020 lockdown. Meanwhile, in Indonesia, the trend of formal workers being furloughed has also escalated in tandem with the worsening pandemic situation (Martanti et al., 2021).

Several of these studies do not incorporate government interventions in unemployment reduction. This article endeavors to investigate whether government interventions, through the PEC policy, enhance the reemployment prospects of the unemployed during the COVID-19 pandemic. The novelty of this research lies in the inclusion of informal labor as a distinctive characteristic within developing countries. The analysis primarily operates at the individual level and employs quantitative analysis techniques. Meanwhile, labor force data for Indonesia is drawn from the National Labor Force Survey (Sakernas), conducted semi-annually by BPS. This dataset, available in February and August, is an individual-level survey, allowing its analysis to treat Sakernas data as a representative national labor dataset. The subsequent sections of this paper delve into the comprehensive examination of the impact of the Pre-Employment Card policy on employment transitions during the COVID-19 pandemic, encompassing the research theoretical framework, methodology, findings, and implications.

The World Health Organization (WHO) declared COVID-19 a pandemic on March 11, 2021. Indonesia, as one of the affected countries, implemented interventions to minimize the spread of the virus. These measures included mobility restrictions on the population for preventive actions and a COVID-19 vaccination program targeting all individuals above six years of age. During this phase, COVID-19, which initially constituted a health disaster, began to impact other related sectors such as trade, industry, education, and services. Economic indicators during this period exhibited a range of variations, from stagnation to a significant decline in performance. For Indonesia, the pandemic situation led to an economic crisis, the first experienced since the 1998 crisis (Arianto & Perjuangan, 2020). Signs of Indonesia entering an economic crisis were marked by an economic recession in the second quarter of 2020. According to BPS (2021), Indonesia's economic growth in the third quarter was 5.05 percent q-to-q or -3.49 percent y-on-y. The two consecutive quarters of economic contraction theoretically classify a country as experiencing a recession. Although this crisis was faced by almost all countries worldwide, even Singapore, an economic powerhouse in Southeast Asia, suffered worse conditions than Indonesia. Notably, Singapore experienced a contraction of up to 7 percent in the same quarter of 2020. Besides Singapore, countries like South Korea, Japan, major European economies, and the United States also faced downturns due to the pandemic (Levy et al., 2021).

In the first six months of the pandemic, based on data from BPS (2021a), around 9.77 million people were unemployed, a 1.84 percent increase compared to the same period the previous year, and a 2.08 percent increase compared to the pre-pandemic February period. Layoffs surged, and the number of companies shutting down also followed suit. Conversely, the labor force increased alongside school graduates in 2020. An abundant labor supply combined with limited demand theoretically leads to intensified competition within the job market (Romer, 2012). During the Covid-19 pandemic period, many companies collapsed and laid off their employees in a significant number. Based on BPS data on employment conditions in Indonesia in August 2020, the open unemployment rate rose to 7.07 percent from 5.23 percent in August 2019 (BPS, 2020). The number of unemployed people was 9.76 million, an increase with the absolute number of additional more than 2.69 million people compared to August 2019 data. The PEC as the government intervention in reducing unemployment during the COVID-19 outbreak was designed by President Jokowi in 2019. This policy was implemented by the Social Welfare Act governed by the Government's Regulation No. 39 of 2012 on Social Security, which is seen as "an institutionalized scheme to provide assurance for all so that they can have their basic needs met."

The government is present in the community through its pre-employment card program. This program is specifically for people who have not yet found a job. Pre-employment cards are used as social security for unemployed people or active people who have just obtained a diploma before getting a permanent job. Pre-employment pass holders will be limited and training will be provided to prepare for the world of work and benefits for a predetermined period of time. However, in 2020, with the COVID-19 pandemic, restricting activities during the epidemic period impacted the employment sector and the economy, causing the laid-off labor economy to decrease. The system has prioritized employment cards for workers affected by the pandemic.

As the initial goal of the PEC policy was to enhance skills and encourage the workforce to enter the job market, especially those impacted by the Covid-19 pandemic, the trend of job reductions, particularly in the formal sector due to pandemic repercussions, compelled job seekers to access new employment opportunities. Additionally, the adverse effects of the pandemic led to increased labor force participation, intensifying competition within the job market (Djankov et al., 2021; Espi-Sanchis et al., 2022; Sheiner & Salwati, 2022). The informal sector exhibited growth during the pandemic years of 2020 and 2021.

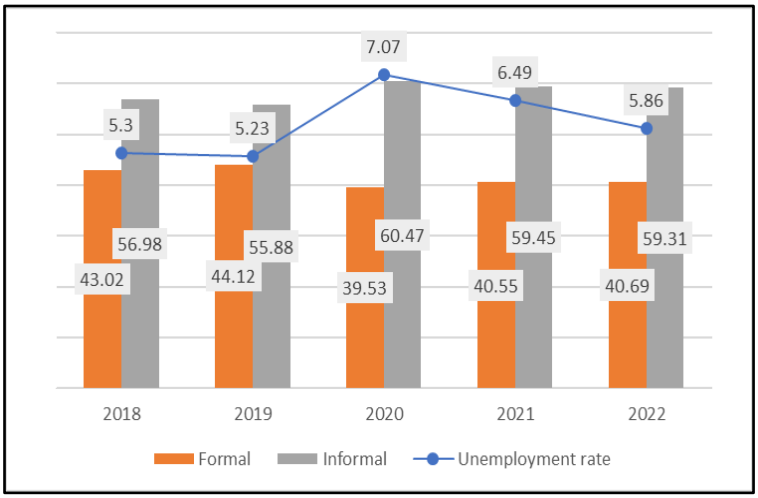

Figure 1. Indonesian Labour Market with Presence of Informal Sector

Conversely, the formal sector experienced a decline, accompanied by an increase in unemployment during the same period. In the year 2020, the informal labor force reached its highest peak, comprising 60.47 percent, or approximately 77.68 million people in absolute terms. This marked a 4.59 percent increase compared to August 2019. The informal sector emerged as an employment alternative that provided opportunities for workers transitioning from the formal sector due to the impacts of the COVID-19 pandemic (Komin et al., 2021; Swarna et al., 2022).

Definition of Formal and Informal in the Labour Market

Understanding formal employment indirectly provides insights into the definition of informal labor and vice versa. When viewed in terms of complexity, workers in the informal sector possess characteristics distinct from those in the formal sector. This study primarily focuses on informal workers, allowing categories not encompassed by the informal sector's definition to be interpreted as moving to the formal sector. The framework developed by Hussmanns (2004) illustrates specific examples of workers in the informal sector and informal workers working within it, including individuals working in the informal sector, such as sole proprietors of their own businesses, entrepreneurs in informal enterprises, workers in the informal sector, family workers employed in informal enterprises, and members of informal producer networks/informal cooperatives.

Additionally, some countries have workers who produce goods specifically for their own household consumption, such as subsistence farming for personal use, considered informal work (ILO et al., 2013). Based on the official and unofficial activity limitations provided by Statistics Finland, calculated by job relationship and primary job type, the count of formal and informal employees can be determined, including employment status for honorary employees, and all workers/employees/officials are classified as official employment, self-employed individuals without assistance, informal agricultural and non-agricultural workers are classified as formal workers in professional, administrative, and managerial positions, excluding informal labor, individuals seeking unpaid agricultural, forestry, hunting, and fishing assistance are informal workers; others are formal workers unless categorized differently as a formal or informal worker, and as family workers, they are all part of the shadow economy

Based on Graph 2, it can be explained that the PEC policy is expected to impact the transition of the previously unemployed workforce into employment, both in the formal and informal sectors. In addition to access to the PEC, a recipient of the program is also required to participate in a series of training sessions aimed at skilling, reskilling, and upskilling. These trainings are also hypothesized to enhance an individual's chances of obtaining employment. Apart from these primary variables, this study will also include control variables in the model. These control variables encompass age, gender, education, marital status, place of residence, regional location in Indonesia (western, Java, central, and eastern Indonesia), disability status, household size, number of household members above the age of five, and relationship with the household head.

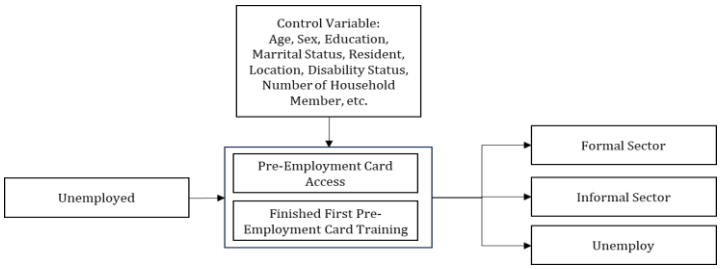

Figure 2. Research Framework

Method

The data used in this study comes from the National Labor Force Survey (Sakernas) conducted by the Central Statistics Agency (BPS) in August 2021. Sakernas is a survey conducted twice a year, in February and August, to collect information related to the condition of the labor force in Indonesia. The selection of the August 2021 period is based on the consideration of the BPJS Kesehatan policy that has been running effectively for one year after the pandemic began, as well as due to the larger sample size compared to the February survey. Data on access to BPJS Kesehatan in the 2021 survey includes respondents' understanding of the program and the benefits obtained. The survey used a stratified random sampling technique designed to ensure accurate representation of the entire Indonesian workforce population, with the total number of respondents involving approximately 9,345 people for all variables, except for the worker_training variable which only involved 2,430 people.

The population used in this study consists of respondents involved in the August 2021 Sakernas, with the sample covering various sectors and demographics. For the age variable, the mean age of respondents is 30.21 years, with a minimum age of 18 years and a maximum age of 74 years. As for the nart and nart5 variables, the mean values are 4.33 and 4.02, respectively. These two variables measure respondents' level of knowledge or understanding of the program being analyzed, with the distribution reflecting variations in the level of understanding across the sample. The data collected covers all strata of the Indonesian workforce, although there are some limitations, such as the potential under-representation of informal sector workers who were not properly registered in this survey. The main independent variables in this study are access to employment through the Pre-Employment Card Program (PEC) and recipients completing initial training under the program.

Access to PEC is measured based on the self-report of respondents who answered the question in the August 2021 Sakernas survey: "Did you participate in the Pre-Employment Card program?" This variable reflects participation in the Pre-Employment Card program without considering whether the training was completed or not. For the second variable, PEC training completion, it is measured based on whether the respondent has completed all modules provided by the Kartu Prakerja platform. The definition of "training completed" refers to respondents completing all training modules and associated tasks or exams. These two variables are separated in two equations to measure the effectiveness of participation in the PEC program and the incremental effectiveness of training completion. The dependent variable in this study describes the probability of an individual working in the formal sector, informal sector, or remaining unemployed. These three categories are non-ordinal, which means there is no clear order between the categories. Therefore, multinomial logistic regression was used to analyze the relationship between the independent and dependent variables, as this technique allows the analysis of dependent variables with more than two nominal categories. In this analysis, the coefficients generated from the multinomial logistic regression are interpreted in the form of Relative Risk Ratios (RRR), which measure the relative risk of being in each employment category compared to a reference category (e.g. unemployed). The model helps to understand how PEC training participation and completion affect employment transitions between the formal, informal, and unemployed sectors.

$$g(x_i) = log\left(\frac{P(Y_i=k)}{P(Y_i=k*)}\right) = \beta_0 + \beta_1 X_{1i} + \ldots + \beta_p X_{pi} \quad (1)$$

Where:

$P(Y_i = k)$ = the probability of the successful occurrence of outcome k in observation $_i$

$P(Y_i = k*)$ = the probability of the successful occurrence of any outcome other than k in an observation $_i$

$\left(\frac{P(Y_i=k)}{P(Y_i=k*)}\right)$ = the probability of the successful occurrence of outcome k relative to the baseline outcome

$\beta_0, \beta_1 \ldots, \beta_p$ = multinomial logit regression coefficients

X_1 = main independent variables
$X_2, \ldots, X_p$ = control independent variables
p = the number of independent variables.
k = the specific outcome being compared against the baseline.

The parameters in the multinomial logistic regression are estimated using the Maximum Likelihood Estimation (MLE) method. In the case of three alternative choices, the multinomial density for a single observation is utilized.

$$f(y) = p_1^{y_1}.p_2^{y_2}.p_3^{y_3} = \prod_{r=1}^{3} \quad p_r^{y_r} \qquad (2)$$

In this study, due to the nonlinear characteristics of the multinomial logit model, the coefficient estimates of the independent variables cannot show their direct influence on the dependent variable. Therefore, to evaluate the effect of independent variables on the dependent variable, the Relative Risk Ratio (RRR) is used. RRR is used because this parameter takes into account the impact of all independent variables simultaneously, including the covariance between these variables (Vajari et al., 2020). The RRR measures the change in an individual's relative risk of switching from one category of employment outcome to another, such as from the informal sector to the formal sector or from unemployment to the informal sector, based on changes in the independent variables. The RRR parameter for each independent variable represents the risk of that variable for a certain crash severity with respect to the reference category in a way that RRR > 1 represents the increase in the risk and RRR < 1 represents the decrease in the risk (Washington et al., 2011). The operation definition of the variables considered in this study is shown in Table 1.

Table 1. Variables Operation Definition

Variable	Description
	Main independent variable
Prakerja	Unemployed person with pre-employment card access, valued 1 for someone accessed pre-employment card and 0 for otherwise
Prakerja_training	Unemployed persons with pre-employment card access who have completed first training, valued 1 for adequate and 0 for otherwise
Control independent variable	
Sex	Respondent sex, valued 1 for male and 0 for otherwise
Marstat	Respondent's married status, valued 1 for married and 0 for otherwise
Age	respondents' current age
Age categories (25-40)	a dummy of respondents' current age, 1 for age 25-40 and 0 for otherwise
Age categories (>40)	dummy of respondents' current age, 1 for age more than 40 and 0 for otherwise
Resident	type of respondent resident, valued 1 for urban and 0 for otherwise
Role	respondent role in the household, valued 1 for head of household and 0 for otherwise
Elementary	the highest level of respondent education completed, valued 1 for elementary level and 0 for otherwise
Secondary	the highest level of respondent education completed, valued 1 for secondary level and 0 for otherwise
General high school	the highest level of respondent education completed, valued 1 for general high school level and 0 for otherwise
Vocational high school	the highest level of respondent education completed, valued 1 for vocational high school level and 0 for otherwise
University	the highest level of respondent education completed, valued 1 for university/college level and 0 for otherwise
Disable	A respondent with disabilities, valued 1 for disabled and 0 for otherwise
Nart	Number of household members
Nart5	Number of household members age 5 and more
Training	Respondent training experience, valued 1 for someone with training experience and 0 for otherwise
Western	Respondents who lived in the western region of Indonesia valued 1 for western Indonesia residents and 0 for otherwise
Java	Respondents who lived in Java Island region, valued 1 for Java residents and 0 for otherwise
Middle	Respondents who lived in the middle region of Indonesia valued 1 for middle Indonesia residents and 0 for otherwise

Results and Discussions

Table 2 and Graph 3 represent the descriptive analysis of the variables included in the model. There are three continuous variables and 18 dummy variables in both models. The continuous variables are age, nart, and nart5. All variables have a total of 9345 observations, except for the variable prakerja_training, which has 2430 observations. For the age variable, the mean value is 30.21 years, with a minimum value of 18 and a maximum value of 74 years. Meanwhile, for nart and nart5, their means are 4.33 and 4.02, respectively. Both variables have the same minimum count, which is 1, while the maximum count for the nart variable is 17 individuals and for the nart5 variable is 16 individuals.

Table 2. Descriptive Statistic of Continue Variables

Variable	Observation	Mean	Stdev	Min	Max
Age	9345	30.21	9.693	18	74
Nart	9345	4.33	1.613	1	17
Nart5	9345	4.02	1.488	1	16

Source: BPS (2021), processed

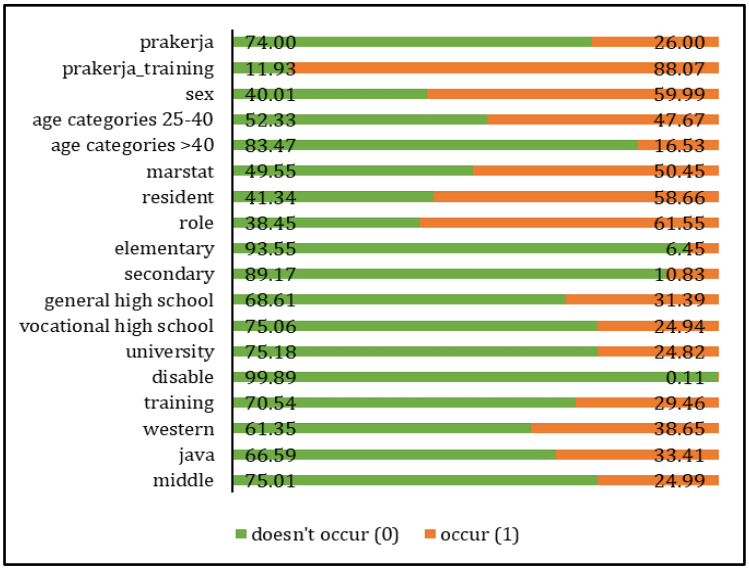

Figure 3. Descriptive Statistics of Dummy Variables
Source: BPS (2021), processed

In the dummy variable analysis as indicated in Graph 3, out of all the registered unemployed individuals for PEC, approximately 74 percent were not accepted, while roughly 26 percent of them were accepted. Meanwhile, out of the 26 percent of unemployed individuals accepted into the PEC program, about 88.07 percent have successfully completed the first training. Moreover, when examined based on the dependent variable, at time t, among the total registered unemployed individuals for PEC, whether accepted or not, there were 2304 individuals (24.65 percent) who remained unemployed, 2999 individuals (32.09 percent) were employed in the formal sector, and 4042 individuals (43.25 percent) were employed in the informal sector.

The results of the quantitative analysis revealed that based on the first main independent variable, which is an unemployed individual accessing PEC, it is evident that PEC access significantly impacts the likelihood of a job seeker working in the formal sector relative to being unemployed. Specifically, an individual accessing PEC has a relative odds of 0.835 times being unemployed compared to working in the formal sector. In other words, assuming all other variables are constant, the tendency for an unemployed individual accessing PEC to work in the formal sector is higher than remaining unemployed. These results are supported by research by Rozikin & Oktasari (2023) which states that the Pre-Employment Card Program is considered effective in its implementation, as evidenced by the achievement of several of the program's main objectives. This program has succeeded in increasing the competence of the workforce, increasing labor productivity and competitiveness, and developing entrepreneurship. The improving economic recovery has also been followed by a decrease in the open unemployment rate in Indonesia.

Table 3. Result of Multinomial Logit Model

Variable	Independent Variable 1		Independent Variable 2	
	Unemployed	Informal	Unemployed	Informal
Main Independent Variable				
Prakerja	0.835	0.990		
Prakerja_training			0.800	0.754
Independent Control Variable				
Sex	1.023	0.919	1.264	0.780
Marstat	0.478	1.192	0.433	1.251
Aage	0.988	1.042	0.995	1.044
Age categories				
- 24-40	0.795	0.916	0.744	0.841
- >40	1.613	0.918	1.515	0.921
Resident	1.328	0.652	1.626	0.738
Role	1.538	0.917	1.341	0.935
Education level				
- Elementary	1.943	1.022	0.913	0.522
- Secondary	1.918	1.095	1.178	0.731
- General high school	1.886	0.826	1.257	0.565
- Vocational high school	1.502	0.704	1.099	0.476
- University	1.447	0.398	1.004	0.246
Disable	1448246	256764	1.328	648022
Nart	0.914	1.153	1.207	1.246
Nart5	1.120	0.858	0.870	0.764
Training	0.863	0.834	0.997	0.927
Western	0.692	0.669	0.629	0.517
Java	0.690	0.519	0.607	0.480
Middle	0.639	0.665	0.555	0.558
Constant	0.781	1.223	0.754	2.895

Note:
) Significant for alpha 1%
) Significant for alpha 5%
Equation 1:
Number of observations: 9,345
Outcome based: formal
LR chi2(40) = 1969.56
Prob > chi2 = 0.0000
Log-likelihood = -9037.425 convergent at 8th iteration
Equation 2:
Number of observations: 2,430
Outcome based: formal
LR chi2(40) = 531.59
Prob > chi2 = 0.0000
Log-likelihood = -2303.407 convergent at 8th iteration

However, the relative likelihood of working in the informal sector compared to the formal sector is not significant. In this first equation, several control variables are significant to the dependent variable. These include marital status, age, all age categories, place of residence, relationship with the head of household, education level, household members count, household members aged over five years, training, and residing in the western, central Java, and eastern parts of Indonesia. In the variable of marital status (marstat), it is indicated that a married individual has a likelihood of 0.478 times being unemployed compared to working in the formal sector. This implies that an unemployed person who is married has a greater chance of working in the formal sector rather than remaining unemployed. However, when compared to the informal sector, a married person has a 1.192 times greater chance to work in the informal sector compared to the formal sector.

Likewise, concerning the variable age, an increase in age will increase the likelihood of an individual working in the informal sector rather than the formal sector. Based on age grouping, in the age range of 25-40 and above

40 years, the probability of working in the formal sector relative to the unemployed tends to be higher compared to the age group under 25 years. Regarding the variable of residential area, urban residents are more likely to be unemployed compared to rural residents. Assuming the role of a household head tends to increase the likelihood of someone working in the formal sector compared to staying unemployed. In terms of education variables, all categories show that the probability of working in the formal sector tends to be higher than staying unemploy or working in the informal sector. The variables of household size indicate that more household members have more probability of working in the formal sector. While household members above 5 years have more probability of working in the informal sector. Training indicates a higher probability of working in the formal sector, compared to those who have not undergone any training. All region-based category variable shows a significant impact on to transition into formal sectors.

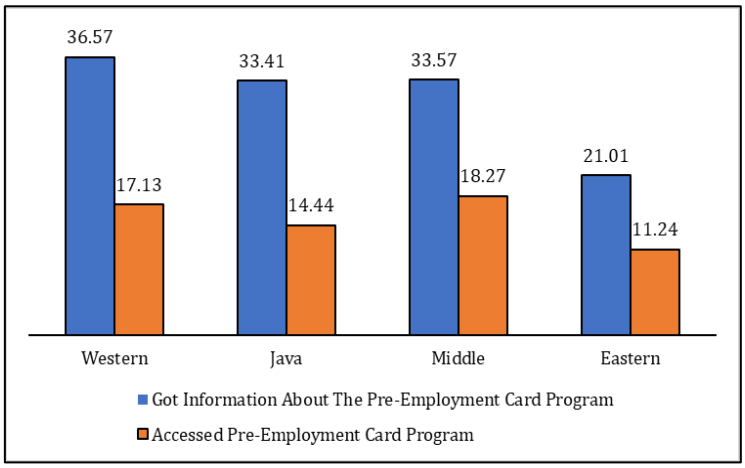

Figure 4. Percentage of Pre-Employment Card Program Access by Region
Source: BPS (2021)

For the second independent variable, which is an unemployed recipient of PEC who has completed the first training program of the PEC program, the analysis results indicate that this variable is also not significant in affecting the likelihood of an unemployed individual working in the formal sector. However, in the case of the informal sector outcome, this variable is significant at the 10 percent significance level. Thus, it can be concluded that individuals who have completed the first training program are more likely to work in the formal sector compared to the informal sector. In the second equation, the significant variables include sex, marital status, age, place of residence, education level at university, number of household members, household members aged over 5 years, and region-based western and middle regions of Indonesia. For the sex variable, males have a higher likelihood of being unemployed compared to working in the formal sector. Males also have a higher likelihood of working in the formal sector compared to the informal sector. Regarding marital status, individuals who are married have a higher likelihood of working in the formal sector compared to being unemployed. As for the age variable, an increase in age increases the likelihood of someone working in the informal sector.

Education level at university increases the probability of working in the formal sector relative to informal sectors. As the result in the first equation, in the second equation, it finds that the number of household members and household members above 5 years has a different result, while the increasing number of household members increases the probability of someone working in the informal sector, but increase the number of household member above 5 years decrease the probability to work in formal sector relative to the formal sector. The region-based variables show that one who lived in the western and middle region of Indonesia has a significant impact on working in the formal sector relative to the informal sector, while the other variables show insignificant results. As a country with a substantial labor force, the Indonesian government is challenged to provide a wide range of job opportunities. The number of Indonesia's labor force in August 2019 was around 135.85 million people, with a labor force participation rate of 67.53 percent. This figure increased to 138.22 million people at the onset of the COVID-19 pandemic in August 2020, accompanied by a rise in the labor force participation rate to 67.77 percent. With the labor force number consistently growing each year and not being matched by adequate job availability, especially in the formal sector, the workforce turns to the informal sector as a last resort to avoid unemployment. Despite research conducted prior to the pandemic indicating that 25.5 percent of entrepreneurs viewed entrepreneurship as a last resort, while 74.5 percent considered it an opportunity (Gunawan, 2017), the Covid-19 pandemic has underscored that the informal sector serves as a "lifeline" for employment, particularly in Indonesia.

The PEC policy, as one of the government's interventions in the labor market, was first implemented on April 11, 2020, in response to widespread layoffs during the initial stages of the COVID-19 pandemic. This policy was aimed at reintegrating workers who had been laid off due to COVID-19 into the workforce. Additionally, the PEC could be accessed by workers not affected by layoffs for reskilling and upskilling to address the challenges of the labor market during COVID-19. Based on quantitative analysis, the results showed that access to the PEC has a significant impact on individuals to get a formal job. Similarly, individuals who completed the first training module of the PEC program were actually more likely to get a formal job relative to the informal sector. However, it's important to emphasize that while the PEC concept offers a comprehensive alternative for labor market access, the effectiveness of such programs can be influenced by various factors. Improving soft skills is important, but without sufficient job opportunities, the impact on employment prospects might be limited (Habsari et al., 2022). To ensure the PEC program's effectiveness, the government needs to create ample job opportunities so that Indonesians have the chance to secure employment, particularly during the pandemic (Zubaidi et al., 2020). Many individuals can't work outside their homes, and layoffs have become common. This could lead to a surge in unemployment in Indonesia after the Covid-19 pandemic (Consuello, 2020).

Besides the substantive factors, the success of the PEC policy requires support from various other indicators, such as technological literacy, promotion efforts, and adequate physical infrastructure. Data from the August 2021 Sakernas reveals that the majority of labor force members who received information about the PEC policy were from the western regions of Indonesia, accounting for 36.57 percent. The eastern regions had the lowest proportion of information about the PEC, at 21.01 percent. Meanwhile, the central region of Indonesia had the highest participation rate in the PEC program, at 18.27 percent. Once again, the eastern region lagged behind in achieving this indicator compared to other areas. Apart from the availability of job opportunities and suitable training institutions, access to infrastructure is a crucial aspect that needs improvement in the context of the PEC. Furthermore, since the PEC is a central government program targeting individual workers directly, it's important for the central government to collaborate with local governments to spread awareness about the program and encourage the workforce to utilize it. If possible, involving local governments in validation and reporting can enhance their sense of ownership over the program.

Conclusions

The Pre-Employment Card (PEC) policy aims to enhance workforce skills, offering opportunities for reskilling and upskilling to meet the evolving demands of the labor market. However, while access to the PEC significantly improves the likelihood of securing a formal sector job, the program's coverage remains limited, particularly in regions with less developed infrastructure. The data from the Sakernas survey in August 2021 shows that PEC access is predominantly concentrated in the western parts of Indonesia, particularly Java Island, leaving behind areas with lower infrastructure access. Moreover, the PEC program has demonstrated positive outcomes for individuals who completed the first training module, as they are more likely to obtain a formal job compared to those in the informal sector. Yet, the analysis lacks a deeper reflection on the limitations of the PEC program, particularly its accessibility challenges and the demographic disparities in participation. The current policy does not adequately address how these limitations impact specific groups, such as those in rural areas or from lower-income backgrounds, who may be less able to benefit from the program. Policy recommendations should focus not only on expanding access to PEC but also on improving the quality of training institutions to ensure that the skills imparted are aligned with the evolving demands of the job market. To achieve a more inclusive impact, the role of local governments in promoting, validating, and reporting on the PEC program must be strengthened. This approach would help foster a sense of ownership and commitment among local authorities and communities, ensuring a more comprehensive approach to workforce development.

Furthermore, the PEC program should be re-examined from a long-term perspective. While it has made short-term contributions to improving access to formal sector employment, its long-term effects on Indonesia's labor market structure are unclear. The program's potential challenges, especially the regional disparities in access and the growing divide between the formal and informal sectors, need to be addressed more thoroughly. Additionally, the implications of PEC in supporting Indonesia's economic recovery post-pandemic have not been adequately explored. Recommendations for future improvements must consider these factors, ensuring that PEC evolves in response to both short- and long-term labor market shifts. In conclusion, while the PEC has shown promise in its ability to increase formal sector employment, the policy needs to be adapted to meet the challenges of regional disparities, access gaps, and evolving labor market needs. Clear, actionable recommendations are necessary to guide policymakers, the private sector, and workers toward a more sustainable and inclusive approach to workforce development.

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