

## Impact Evaluation of Kartu Prakerja as a COVID-19 Recovery Program

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The Indonesian labor market faces significant challenges, as educational qualifications do not necessarily guarantee that an individual will fit the needs of an industry or workplace. Moreover, the rapid digital transformation brought by the Industrial Revolution 4.0, and the COVID-19 pandemic crisis, presents a 'double-disruption' scenario for workers (World Economic Forum, 2020).

Statistics Indonesia (2021) claims that the pandemic has caused at least 15.7 million workers to experience reduced working hours, 1.6 million workers become unemployed, 1.1 million of them to be furloughed, and 0.7 million workers to exit the labor force. On the other hand, around 2.5 million people enter the labor force every year. Indeed, the pandemic has affected workers in the short and medium-term, even creating lasting consequences in the longer term. Thus, advanced skilling, reskilling, and upskilling programs are required to ensure a prosperous future work and economy in the post-pandemic.

Kartu Prakerja, launched in April 2020, aims to improve workforce competencies; increase workforce productivity and competitiveness, and develop entrepreneurship (Government Regulation 76/2020). Thus, Kartu Prakerja is one of many government efforts to provide skilling, reskilling, and upskilling programs for future work. In response to the pandemic, the Kartu Prakerja program encountered adjustments to adopt aspects of social assistance measures by employing cash plus post-training transfers for beneficiaries.

Kartu Prakerja uses an on-demand application program to improve work competencies, competitiveness, productivity, and entrepreneurship skills; it allows beneficiaries to choose the training and the training providers. By the end of 2020, Kartu Prakerja has reached 5.5 million beneficiaries from 514 cities/districts across Indonesia. Kartu Prakerja also has more than 1,700 courses from 154 training providers that can be accessed through seven digital platforms. The Kartu Prakerja program has established a collaborative, integrated, and extensive ecosystem that includes training providers, digital platforms, payment partners, and educational institutions.

Although the program is relatively new (implemented for less than two years), the impact of Kartu Prakerja is evident, as 88.9 percent of beneficiaries claim that their skills have improved after completing Kartu Prakerja training (Statistics Indonesia, 2020). The impact is confirmed by the findings of this study, whereas the effect of the Kartu Prakerja program revolves around work competencies, productivity, and competitiveness. Kartu Prakerja also significantly affects the beneficiary's entrepreneurial skills, which can create a multiplier effect on job creation. Thus, Kartu Prakerja has effectively achieved its goals.

Moreover, there is also evidence that Kartu Prakerja significantly impacts wages. This study uses the Mincer Wage Equation - based on Human Capital theory which is widely used in empirical economics and has been applied to numerous areas of labor economics. The equation plays a central part in the literature devoted to exploring the return to human capital investment. It is worth noting that further observations and investigations on the Kartu Prakerja program's impact in the medium and long term might be needed to validate this study's results further.

As the pandemic accelerates technological adoption, Kartu Prakerja also contributes to the changes of nature of learning (from face-to-face to online learning) and the adoption of digital financial services. Kartu Prakerja has also effectively helped beneficiaries cover their daily needs during the pandemic, with some beneficiaries using the post-training incentive as working capital.

In addition to being innovative (as it combines competency improvement and social protection in Indonesia), Kartu Prakerja can be an example of good practice at the international level. The success story of Kartu Prakerja may contribute to the development of empirical study on human capital theory, which proves that Kartu Prakerja is one of the most significant government training initiatives with a positive impact and an effective and efficient implementation system.

As part of the impact evaluation of the Kartu Prakerja, this study conducted an online survey from September 24 to November 1, 2021. The total number of respondents reached 2,156, comprising two groups, 1,078 respondents for beneficiaries (treatment group) and the remaining is non-beneficiaries (control group). The response rate is 11 percent, with a margin of error of around 3 percent and a confidence level of 5 percent. The qualitative approach was analyzed based on 188 in-depth interviews with various stakeholders in the program ecosystem.

**Key Finding 1: Kartu Prakerja improves work competencies, productivity, and competitiveness. It also strengthens the entrepreneurial skills of beneficiaries by providing them with new ideas and strategies to encourage them to start a new business.**

After completing the training, Kartu Prakerja beneficiaries have 74 percentage points (2.2 percent) higher in work competencies than non-beneficiaries, estimated using the Propensity Score Matching (PSM) model. Meanwhile, improvements in beneficiaries' productivity, competitiveness, and entrepreneurial skills are 24 percentage points (2.7 percent), 67 percentage points (3.8 percent), and 177 percentage points (48.5 percent) higher than non-beneficiaries, respectively.

These results also indicate that the beneficiaries have improved their time management, self-confidence, and work efficiency after completing Kartu Prakerja training. In terms of job-shifting or job-hunting, beneficiaries reported a better chance at getting a job or starting a business.

In terms of entrepreneurial skills, the beneficiaries claimed that one of the benefits of joining the program is increased self-confidence that empowers them to start or expand their business. The program can also strengthen their entrepreneurial skill, particularly in producing new products, selling and marketing products on online platforms, and managing business finance. Kartu Prakerja encourages its beneficiaries to have new strategies and ideas, fostering innovation. Moreover, 70 percent of beneficiaries used the post-training incentive as working capital, evincing that Kartu Prakerja has helped (and continues to help) its beneficiaries in creating or expanding their business and persevered amidst the pandemic.

Finally, the improvement in competencies, productivity, competitiveness, and entrepreneurial skills depended on the quality of training provided. Overall, there are positive responses to the quality of training courses from all stakeholders involved, including training providers, digital platforms, and other related partners.

**Key Finding 2: Kartu Prakerja has a positive and significant effect on wages.** Kartu Prakerja increases the average beneficiaries' wage by 17-21 percent or around IDR 255,000 to IDR 315,000, the wage becomes IDR 1.8 million per month. This result is robust based on the pooled OLS, IV, and PSM methods. In-depth interview results also support this finding, as some working beneficiaries claimed to have experienced a rise in their wage after joining Kartu Prakerja. Although the economic condition is not favorable due to the COVID-19 pandemic, Kartu Prakerja gives its beneficiaries ideas for alternative sources of income to compensate for their income decline.

**Key Finding 3: Kartu Prakerja supports financial inclusion, especially e-wallet ownership.** Kartu Prakerja has made positive contributions to financial inclusion, particularly the increase of bank account and e-wallet ownership. The study found that 80 percent of beneficiaries opened their first bank or e-wallet account when they were confirmed as Kartu Prakerja beneficiaries. When beneficiaries open an account in financial institutions, they gain access to the many benefits provided, including easy and fast payment services and transfers. Thus, it is evident that the program has helped expand financial literacy.

**Key Finding 4: Kartu Prakerja Program improves women's competencies, productivity, competitiveness, and entrepreneurial skills, as well as their income.** Female beneficiaries of Kartu Prakerja improve their competence by 96 percentage points (around 2.9 percent) higher compared to female non-beneficiary. Comparing females' and males' coefficient of competences, the female's coefficient is about 1.3 percent higher than the male's coefficient (2.9 vs. 1.6 percent). A similar pattern was also seen in the productivity, competitiveness, and entrepreneurial skills coefficients. Higher increases in competence, productivity, competitiveness, and entrepreneurial skills of women confirm that women have similar learning abilities to men, even preparing themselves better compared to men in various training and learning programs (Quadlin, 2018; Delgado, 2019; Delaney and Devereux, 2021). In terms of wage, the participation in the Kartu Prakerja program correlated with a 33 percent increase in women beneficiary's income relative to women non-beneficiary's income (if the average women's wage is IDR 600,000, the increase is around IDR 200,000).

**Key Finding 5: Beneficiaries of Kartu Prakerja residing outside Java reported a higher increase in competencies than those in the Java region. However, in terms of productivity, competitiveness, and entrepreneurial skills, beneficiaries from Java outpaced those from outside Java regions.** Comparing beneficiaries of Kartu Prakerja who live in Java and who live outside Java, the increase in competence is higher for beneficiaries residing outside Java or around 0.18 percent (2.19 percent for the increase in the competency of beneficiaries outside Java vs. 2.01 percent for beneficiaries in Java). Kartu Prakerja's online training system allows the same opportunities for people within and outside Java to take the same quality courses. This can accelerate human capital development outside Java at a lower investment cost compared to establishing offline courses across Indonesia. This proves that Kartu Prakerja can become an effective channel for competency enhancement programs across regions.

However, the increase in productivity, competitiveness, and entrepreneurial skills of beneficiaries is relatively higher in Java than outside Java. One of the causes is the unequal access and development of digital infrastructure, which is an important factor to participate in Kartu Prakerja training, knowing that all courses are conducted online during the pandemic. Further studies are needed to investigate how the program can be more effective for beneficiaries outside Java to increase productivity, competitiveness, and entrepreneurial skills.

**Key Finding 6: Kartu Prakerja is effective for beneficiaries at productive age, living in a city (urban-living), and graduating from high school or higher.** The impacts of Kartu Prakerja on competence, productivity, competitiveness, and entrepreneurial skills are more significant for the productive age group, between 26-35 and 36-45 years old. Kartu Prakerja also has a positive and significant effect on the competence, productivity, and competitiveness of beneficiaries who live in urban areas. However, its impact on rural areas needs to be optimized more. One of the causes is the availability of higher quality of digital technology and infrastructure in the cities. Moreover, the level of education also affects the improvement of competence, productivity, competitiveness, and entrepreneurship skills. The effect of Kartu Prakerja on beneficiaries with a high school education background or higher is positive and significant.

**Key Finding 7: The COVID-19 pandemic affected both beneficiaries and non-beneficiaries, as reflected on lower-income and shift in consumption patterns. Kartu Prakerja has successfully served its role as a social assistance program, showing that the poorest income group enjoyed Kartu Prakerja's benefits the most.** Kartu Prakerja beneficiaries are able to persevere amidst the pandemic, as the incentives had not only helped them cover daily expenses but also provided them with a working capital that can be used to start their own business. This is in line with Evaluation Survey by PMO of Kartu Prakerja (2020), where beneficiaries reported to have used the incentive for staple foods (95 percent) and working capital (70 percent).

Meanwhile, a separate analysis using the Labor Force Data (Sakernas) of February 2021 shows that 41 percent of Kartu Prakerja beneficiaries had no income in February 2021. The estimate was conducted using a simple BIA (Benefit Incidence Analysis), and this implies that the poorest group

enjoys the benefits of Kartu Prakerja the most. Thus, these findings also confirmed the success of Kartu Prakerja as a social protection measure have been successfully achieved.

Based on those key findings, this study **recommends that:**

**Kartu Prakerja program is worth continuing:** since it improves beneficiaries' competence, productivity, competitiveness, and entrepreneurial skills; increase income; enhance the chances of beneficiaries to obtain a job or to set up a new business amidst the pandemic; this program also provides a solution to overcome learning loss or the scarring effect during the pandemic; support financial inclusion initiatives, and promote women empowerment. Moreover, Kartu Prakerja effectively distributes social assistance during the pandemic. Thus, it can be an alternative distribution channel for government subsidy programs in the future. In addition, Kartu Prakerja is not only an innovative program that combines capacity building and social assistance in Indonesia but also a pilot project for the world. Its success story can contribute to the development of empirical evidence on human capital theory by delivering the fact that Kartu Prakerja is one of the largest government-funded training programs implemented effectively and efficiently.

**During the selection process, a higher weight could be placed on candidates with the most optimal characteristics,** i.e.: live in urban areas within the Java region, are young, and at a productive age. However, this may potentially increase the gap between urban-rural, Java-non-Java, and productive-non-productive age groups. Therefore, further studies are required to mitigate these impacts. Other government programs might also be required to address these issues.

**Improving certain aspects of training:** The impact of Kartu Prakerja in improving entrepreneurial skills is stronger than work competence, productivity, and competitiveness. However, there are other factors that may cause this result, such as the prolonged COVID-19 pandemic, which led to job termination and inability to secure a new job due to challenging economic conditions. Consequently, many beneficiaries chose to be self-employed or entrepreneurs. In the future, Kartu Prakerja can improve work competence, productivity, and competitiveness by ensuring that the certificates issued by Prakerja's partners are also acknowledged by the potential employers. For this reason, the PMO of Kartu Prakerja and the employers' association are expected to form collaboration to tackle this issue.

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