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DETERMINANTS OF INTERNET USAGE BY AGRICULTURAL SECTOR OF SOUTH KALIMANTAN

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ABSTRACT

Advances in information and communication technology (ICT) have a number of uses, including in the agricultural sector. Increasing the productivity and income of farmers can occur easily with internet access. The increasing percentage of the population accessing the internet occurred in all parts of Indonesia, including South Kalimantan, where in 2020 there was around 55.20% of the population accessing the internet, an increase compared to 2016, which was only around 27.05%. This figure proves that internet use in South Kalimantan has become increasingly widespread. The agricultural sector is a vital sector in the economy of South Kalimantan because it contributes the third largest GRDP (13.93%) and absorbs the largest workforce (31.9%) in South Kalimantan in 2021. However, only about 10.13% of the total workers in the South Kalimantan agricultural sector use the internet for work purposes. Based on data from the August 2021 National Labor Force Survey, this study aims to analyze the characteristics of internet-using worker and analyze the impact of worker characteristics (gender, generation, education level, training participation and employment status) on internet use in the South Kalimantan agricultural sector in 2021. In this study, descriptive (graphic) and inferential (binary logistic regression) analyses were used. The findings of the descriptive analysis demonstrate that respondents from the 2021 National Labor Force Survey who work in the agricultural sector are more likely to use the internet for work-related purposes if they are male, millennials, have completed high school or higher, have participated in training, and have a formal employment status. The results of the binary logistic regression analysis show that all of the variables (gender, generation, education level, training participation, and employment status) have a significant effect on the use of the internet for work-related purposes on the agriculture sector in South Kalimantan Province.

KEY WORDS

Agricultural sector, internet, binary logistic regression, national labor force survey.

In recent years, developments in information and communication technology (ICT) in Indonesia have facilitated the transmission and reception of information more quickly. The prevalence of cellular phones with internet connection has supplanted the presence of fixed cable phones in the preceding period. In Indonesia, as in most other parts of the world, the utilization of the internet for information and communication has increased in tandem with the development of information and communication technologies. By utilizing information and communication technologies, the distance and differences between city dwellers and rural residents can be diminished. The normal obstacles to information dissemination—distance, time zones, and the variety of community characteristics—become irrelevant.

The development of ICT in Indonesia is also clearly visible through indicators of internet use. BPS recorded that around 78.18 percent of households in Indonesia accessed the internet in the last 3 months when the March 2020 National Socioeconomic Survey was conducted. The depicted value exhibited a significant increase in comparison to the corresponding figure in 2016, which stood at a mere 47.22%. This indicator exhibits a strong positive correlation with the percentage of individuals aged 5 years and older who possess internet connectivity. BPS found, based on the same survey, that around 53.73 percent of Indonesia's population had internet connection in 2020. In comparison to 2016, when just



about 25.37 percent of Indonesia's population was affected, the growth is upward. This growth demonstrates how more receptive Indonesians are to information and changes brought about by technology as the country moves toward a digital society. The proportion of the Indonesian population with access to the internet has increased consistently over the past several years. In 2016, South Kalimantan ranked in the top ten and climbed to the number nine spot in 2020. In 2020, approximately 55.20 percent of South Kalimantan residents aged 5 and up used the internet in the last three months of the survey. The observed trend is indicative of a positive development in the advancement of internet literacy within the region of South Kalimantan. If the internet is employed for productive objectives, it possesses the capacity to enhance the prosperity and economic progress of South Kalimantan.

Research has demonstrated that the utilization of the Internet has the capacity to enhance production within the agriculture sector. According to a number of studies, farmers in Indonesia who have used modern technologies, particularly the internet, have enhanced their agricultural output (Ruslan & Oktavia, 2021). Additionally, Amin et al. (2013) assert that the use of information and communication technology, particularly application-based technology, significantly aids the growth of innovation in agriculture. According to Lio and Mengchun (2006), information and communication technology has a significant positive impact on agricultural productivity. Corn and soybean productivity increased by 5.5 percent and 3.6 percent, respectively, with an increase in internet penetration in US agriculture, according to the LoPiccalo study (2021). Khanal & Mishra (2013) further demonstrate that, in the instance of farmers in the United States, it is possible to draw the conclusion that small-scale farmers without internet connection have lower household incomes than those who do.

The mining and quarrying sector, along with the processing industrial sector, are the primary drivers of economic growth, constituting the largest contributors to the overall economy. Following closely behind is the agricultural sector, which ranks as the third most significant contributor. The agricultural industry accounts for 13.93% of the Gross Regional Domestic Product (GRDP) of South Kalimantan. However, the agriculture sector employs the majority people in South Kalimantan.

Consequently, the issues examined in this study include the following: what are the characteristics of farmers (gender, generation, level of education, training participation, employment status) of internet users in the South Kalimantan agricultural sector and do the characteristics of farmers (gender, generation, level of education, training participation and employment status) affect internet use in the agricultural sector of South Kalimantan? This study aims to (1) determine the characteristics of internet-using farmers in the agricultural sector of South Kalimantan and (2) investigate the impact of farmer characteristics (gender, generation, education level, training participation and employment status) on internet use in South Kalimantan's agricultural sector.

METHODS OF RESEARCH

This research was conducted in South Kalimantan, from December 2021 through December 2022, starting with the proposal-making, data-processing, data-analysis, and report-writing stages. This analysis utilizes secondary data acquired by Statistic Indonesia from the National Labor Force Survey (Sakernas) in August 2021 for the South Kalimantan Province region. Sakernas data are cross-sectional data collected from dwelling units. The sample of 17,808 residents aged 15 and older in Sakernas was reclassified according to the intended category, namely agricultural workers, of whom there were 4,326 in 13 districts and cities. In this study, descriptive analysis methods and logistic regression analysis were used to analyze data. The objective of descriptive analysis is to construct a factual image or description of the unit of observation under study. The factors that influence the level of internet use in the study's observation unit will be identified using a logistic regression analysis. Logistic regression is a type of regression analysis used to describe the relationship between two or more non-free variables that are dichotomous or polychotomous (on a numerical or ordinal scale with more than two categories).



The data to be analyzed in this section are related to dependent variables, namely internet usage status, and independent variables, namely gender (X_1) , generation (X_2) , education level (X_3) , training participation (X_4) and employment status (X_5) . The logistic regression model used in this study was formulated as follows (Agresti, 2007):

$$\ln\left(\frac{P_1}{P_2}\right) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5$$

The goodness-of-fit test is used to determine whether the model's predicted results match the actual dependent variables. Included in this test's hypotheses are: H_0 : Model fit and H_1 : Model does not fit. The test statistics used are Hosmer-Lemeshow statistics with the formula that follow the Chi-Square distribution:

$$\mathcal{X}^2_{HL} = \sum_{i=1}^g \frac{(O_i - N_i \overline{\pi}_i)^2}{N_i \overline{\pi}_o (1 - \overline{\pi}_i)}$$

Where:

- N_i : Total frequency of observations of the i-th group;
- *O_i*: Frequency of observations of the i-th group;
- $\bar{\pi}_i$: Average estimated odds of the i-th group;
- if $\chi^2_{HL} \ge \chi^2_{(\alpha,\nu)}$ then H_0 rejected and H_1 accepted.

Tests are conducted using the Nagelkerke R-square value to assess the extent to which the independent variable can elucidate and impact the dependent variable. The Nagelkerke R-Square value varies from 1 to 0.

The omnibus test is used to determine whether the model's independent variables can explain dependent variables when used in combination. With hypothesis: H_0 : $\beta_1 = \beta_2 = ..., \beta_p = 0$ (there is no concurrent influence between independent and dependent variables) and H_1 : there is at least on $\beta_j \neq 0$ (at least one independent variable influences the dependent variable), where j: 1, 2,..., p where p is the sum of the independent variables. The following are the test statistics for the omnibus test, also known as the G test (Raharjanti & Widiharih, 2012):

$$G = -2Ln \left[\frac{L_o}{L_1}\right]$$

L0 is the probability value derived from a model that does not incorporate independent variables or solely includes constants. L₁ is the likelihood value obtained by entering an independent variable into the model. The statistics of the G test adhere to a chi-square distribution with a degree of freedom equal to p, where p is the number of parameters other than constants. The G test rule at the α significance level, which rejects H₀ if $G > X_{(p,\alpha)}^2$ or p-value< α , indicates that at least one independent variable has a significant effect on the dependent variable.

Using the Wald test, a partial test is conducted to determine the effect of each independent variable on a dependent variable. With hypotheses: H_0 : $\beta_j = 0$ (there is no significant influence between the independent variable and the dependent variable) and H_1 : $\beta_j \neq 0$ (there is a significant relationship between the independent variable and the dependent variable), where j is gender, generation, level of education, training participation and employment status. Wald test statistics are formulated as follows:

$$W = \frac{\beta_j}{SE(\beta_j)}$$

Where:

- β_i : parameter estimation;
- SE (β_i) : estimated standard error.



The W test statistics follow the chi-square distribution with free degree v, where v is the number of parameters other than the constant. If $W > X_{(\nu,\alpha)}^2 2$ or the p-value $< \alpha$, then H₀ is rejected and H₁ accepted, implying that the j-th independent variable has a significant effect on the dependent variable.

The odds ratio produced by logistic regression corresponds to the value of each estimator. The odds of an event can be calculated by dividing the chance of the event occurring by the chance of the event not occurring. When the value of the estimator variable increases by 1 unit, the Odds ratio for the estimator experiences a significant change, either increasing or decreasing, as a relative measure of the probability of an outcome. In order to calculate the odds ratio, the exponential value of β is used.

RESULTS AND DISCUSSION

In South Kalimantan in the year 2021, 8.69 percent of the working population in the agricultural sector was connected to the internet for work-related purposes. The remaining 91.31 percent of workers do not use the internet at work (Figure 1).



Figure 1 – Internet use by the working population in the agricultural sector in South Kalimantan, 2021 (%)

This demonstrates that only a small percentage of the population in South Kalimantan's agricultural sector uses the internet for work.



Figure 2 – Internet use by South Kalimantan's agricultural workers by gender, 2021 (%)

The use of the internet in work in the agricultural sector is more dominated by the male population, which is (11.82%) compared to the female population, which is only (3.42%). This illustrates that work-related internet use in the agricultural sector of South Kalimantan is a male phenomenon.



Based on generations, the utilization of the internet among workers in the agriculture sector in South Kalimantan, reveals a higher prevalence of internet usage among residents from the Millennial and Z generations, as opposed to inhabitants from the Pre-Millennial generation. Within the Millennial and Generation Z cohorts, approximately 12.82% of individuals utilise the internet, whereas the Pre-Millennial generation exhibits a lower internet usage rate of approximately 6.19% (Figure 3).



Figure 3 – Internet use by South Kalimantan's agricultural workers by generation, 2021 (%)

This demonstrates a positive correlation between younger generations and their utilisation of the internet. The millennial and Z generations are undeniably leading the way in internet adoption in South Kalimantan, particularly in the agriculture industry. Hence, it is necessary to establish a strong synergy between the pre-millennial and millennial generations, as well as Generation Z, in harnessing the potential of the internet for agricultural work.



Figure 4 – Internet use by South Kalimantan's agricultural workers by education level, 2021 (%)

Residents who have completed an education that is lower than that of a high school graduate are less likely to use the internet for professional purposes than those who have completed an education that is higher than that of a high school graduate (junior high school, elementary school equivalent, not attending school). The proportion of internet usage among workers in the agriculture sector who have completed high school or higher education is 20.72%, but the percentage of those with an education level below high school is quite low, at only 6.51% (see Figure 4).

The level of education directly influences internet penetration, with higher levels of education correlating to higher rates of internet usage. A person's limited education often correlates with their lack of comprehension regarding internet usage, as educational background is one of the factors used to assess an individual's aptitude.

Based on training participation, the percentage of agricultural workers in South Kalimantan Province who use the internet for work is 23.63%. These workers are primarily



residents who have undergone job training. Unlike inhabitants who have not had any job training, the proportion of internet usage for work remains below ten percent, namely at a mere 7.39% (Figure 5).



Figure 5 – Internet use by South Kalimantan's agricultural workers by training participation, 2021 (%)

This demonstrates that the human resources factor plays a crucial role in determining the level of performance in the agriculture sector. The accessibility of digital training in South Kalimantan remains restricted despite the significant demand for information technology training. Hence, to enhance the caliber and expertise of individuals in the agriculture sector, it is imperative to offer employment-oriented training, particularly focusing on internet technological proficiency. In tandem with the progression of time and advancements in technology, nearly all work activities now rely on digital technology and the internet as essential tools.



Figure 6 – Internet use by South Kalimantan's agricultural workers by employment status, 2021 (%)

The majority of internet usage is attributed to individuals who have formal employment positions, such as entrepreneurs with permanent or paid workers, or as laborers or employees. This group accounts for 26.30% of internet users. In contrast, internet usage among individuals with informal employment status is quite low, comprising only 5.87% (Figure 6).

Informal workers are characterized by their poor productivity, reliance on basic technologies and abilities, and lack of social protection. Informal labor must transition by integrating into the realm of the digital economy. This is linked to the presence of market potential, as evidenced by the substantial population of internet users. To fully capitalize on these prospects, it is imperative to develop strategic solutions that enable informal workers in the agriculture sector to realize their potential. Furthermore, binary logistic regression is used to analyze the influence of the characteristics of the working population in the agricultural sector (in this case gender, generation, level of education, training participation and employment status) on the use of the Internet in work.



Obtained equation:

 $g(x) = -3,974 + 1,010x_1 + 0,55x_3 + 0704x_3 + 0,821x_4 + 1,449x_5$

Before the above model was used, several tests were carried out to estimate the parameters used in the model.

A goodness-of-fit test is run to determine the suitability of the model. The Hosmer and Lemeshow test is used in this examination. Table 1's test results indicate that the chi-square value $\chi^2_{HL} = 8,729 < \chi^2_{(0,05;5)} = 18,548$ does not reject H_0 . In other words, a theory-based model can explain the data of the dependent variables used, or the model is fitted to its empirical data (goodness of fit). Therefore, further analysis can be performed using the current model.

| Table I – Rushiel and Lemesnow Test | Table | 1 – Hosmer | and I | Lemeshow | Test |
|-------------------------------------|-------|------------|-------|----------|------|
|-------------------------------------|-------|------------|-------|----------|------|

| 1 8.729 | 6 | .189 | |
|---------|---|------|--|

The Nagelkerke R-square value can be used to measure the extent to which the response variable can explain the variety caused by the predictor variable Xi in the subsequent model fit test. The analysis's findings indicate that the dependent variable's diversity can be explained by the independent variable to the extent that the dependent variable's Nagelkerke R-square value is 0.189, or 18.9%.

Based on the output results in Table 2, it can be seen that the chi-square (G) value is 377.755 with 5 degrees of freedom and p-value of 0.000. In light of the fact that the p-value is equal to 0.000 < 0.05, or that G = $377.755 > X^2 (0,05;5) = 11.070$, the conclusion reached is that H_0 should not be accepted.

| | | Chi-square | df | Sig | Decision | |
|--------|-------|------------|----|-------|-----------------------|--|
| | Step | 377,755 | 5 | 0,000 | | |
| Step 1 | Block | 377,755 | 5 | 0,000 | Reject H ₀ | |
| - | Model | 377,755 | 5 | 0,000 | • | |

A partial test was employed to assess the impact of the independent factors (gender, generation, education level, training participation, and employment status) on internet usage. The results of the test are derived in part from a comparison of the statistical value of the Wald test with the value of X^2 (0,05;1) or the significance value of the Wald test that is lower than α (see Table 3). The chi-square value of table λ^2 (0,05;1) = 3,841 was obtained with α = 0.05 and df = 1 on the chi-square table. According to the table that was just presented, the results of Wald's statistical test have values that are greater than λ^2 (0.05; 1) = 3.841 for all of the variables. Based on the data in Table below, it is clear that all of the variables (X_1, X_2, X_3, X_4 and X_5) have Wald's statistical test values greater than λ^2 (0,05;1) = 3.841. This is also shown by the p-values of the five variables, which are all lower than the value of α = 0.05.

| Table 3 – Partial | significance test |
|-------------------|-------------------|
|-------------------|-------------------|

| Variable | β | Wald | P-val (Sig) | Exp(β) | Keputusan |
|------------------------|--------|---------|-------------|--------|-----------------------|
| Constant | -3,974 | 654,102 | 0,000 | 0,098 | |
| Gender | 1,010 | 42,630 | 0,000 | 2,745 | |
| Generation | 0,550 | 21,879 | 0,000 | 1,733 | Delect II |
| Level of education | 0,704 | 25,268 | 0,000 | 2,022 | Reject H ₀ |
| Training Participation | 0,821 | 23,770 | 0,000 | 2,272 | |
| Job status | 1,449 | 141,081 | 0,000 | 4,257 | |

Therefore, these independent variables have a decision against Ho, which means that all variables have a significant effect on the use of the internet in employment by the population working in the agricultural sector. This indicates that Ho's hypothesis is not supported by the data.



Based on the odds ratio value of each independent variable that influences the status of internet use by workers in the South Kalimantan agricultural sector which can be seen from the exp (β) value of the partial test output results, the magnitude of the difference in tendency for each variable is as follows:

The first variable, gender, has a positive effect on internet use status. The binary logistic regression model's analysis revealed that the regression coefficient for the sex variable was 1.010, which was significantly different from zero at $\alpha = 0.01$, rejecting the null hypothesis (Ho) and supporting the alternative hypothesis (H1). This indicates that the male demographic exhibits a propensity to utilize the internet for work purposes at a rate 2.745 times greater than that of the female demographic. These findings align with the descriptive analysis, indicating that 11.82% of males employed in the agriculture sector reported using the internet at work. In contrast, only 3.42% of females reported the same. Men in the agricultural sector of South Kalimantan have a higher prevalence of internet connection compared to women. This phenomenon may be attributed to the traditional gender roles in which women are primarily responsible for domestic duties, leaving males with more leisure time to engage with the internet. This finding aligns with the study conducted by Ruslan and Octavia (2021), which determined that men workers in the agriculture sector exhibit a higher frequency of internet usage compared to their female counterparts.

The second variable, generation. The classification variable for the generation of workers in the agricultural sector, obtained a binary logistic regression coefficient of 0.550 and is significantly different from zero at α = 0.01, so that the null hypothesis (Ho) is rejected and the alternative hypothesis (H1) is accepted, meaning that internet use is between the millennial and pre-generation generations. Millennials are significantly different. Given the β exponent value of 1.733. inhabitants belonging to the millennial generation category exhibit a propensity to utilize the internet for work purposes at a rate 1,733 times greater than inhabitants belonging to the pre-millennial generation. This aligns with the research carried out by Kaila & Tarp (2019) regarding rice farmers in Vietnam. This study demonstrates that families headed by younger individuals have a higher frequency of internet usage compared to households headed by older individuals. Additionally, it reveals that young farmers achieve a productivity level that is around 6.8% higher than farmers who do not utilize the internet. Consequently, those employed in the agriculture industry are deemed to possess greater capacity to avail themselves of internet services, thereby affording them increased prospects to utilize the internet inside the framework of their occupation.

The third variable is the education level, had a binary logistic regression coefficient of 0.704 and a significant effect, different from zero at $\alpha = 0.01$; therefore, the alternative hypothesis (H1) was accepted and the null hypothesis (Ho) was rejected, indicating a significant difference in internet use between different educational levels. The education level variable's reference category comprises individuals in the agriculture sector who possess an education level below high school. The odds ratio value of 2.022 determines the ratio of the variable's tendency compared to the reference category. Workers in the agricultural sector with low education (less than high school: no education, elementary school equivalent, junior high school equivalent) are 2.022 times more likely to access the internet compared to residents with higher education (high school or above: high school equivalent, college). This implies that a person's level of education indirectly affects their ability to access the internet, particularly for work, by enhancing their capacity and competence. There is a positive correlation between the degree of education in a population and their likelihood of utilising the internet for professional purposes. Aker & Ksoll (2016) found that in Nigeria, farmers from better educated households had a greater capacity to utilise the internet, resulting in increased agricultural productivity and associated advantages.

The fourth variable is training participation. The binary logistic regression coefficient for the training participation variable was 0.821, indicating a significant effect at $\alpha = 0.01$. As a result, the null hypothesis (Ho) was rejected and the alternative hypothesis (H1) was accepted. This implies that there was a significant difference in internet use between individuals who participated in the training and those who did not. The odds ratio value of this variable, compared to the reference category of residents who have never attended training,



is 2.272. Workers in the agricultural sector who have undergone training exhibit a 2.272-fold increase in their use of the internet for work compared to those who have not received training. The findings of this study align with the research conducted by Chavula (2014), which demonstrates that specific socio-economic attributes, such as advanced education and skills, are essential requirements for achieving significant enhancements in agricultural production. This is particularly relevant when considering the adoption and utilisation of new technologies, including the internet.

The last variable is employment status. The SPSS analysis yielded a binary logistic regression coefficient of 1.449, which indicates a statistically significant effect different from zero at a significance level of $\alpha = 0.01$. Therefore, the null hypothesis (Ho) is rejected and the alternative hypothesis (H1) is accepted. There are notable disparities in internet usage between individuals with formal and informal work statuses. The odds ratio for this variable, compared to the reference category of informal work status, is 4.257. Individuals employed in the agricultural sector with formal employment status, such as entrepreneurs supported by permanent or paid workers, or employees, exhibit a significantly higher internet usage rate, approximately 4,257 times greater, compared to individuals with informal employment status, such as self-employed individuals relying on family members or unpaid workers, casual workers, and family/unpaid workers.

The key findings of this study indicate that the variables of gender, generation, education level, training participation, and job status collectively exert a statistically significant impact on the internet usage status of workers in the agricultural sector in South Kalimantan in 2021.

CONCLUSION AND RECOMMENDATIONS

Based on the results of the analysis and discussion described earlier, several things can be concluded, as follows: the characteristics of internet users in employment in the population working in the South Kalimantan agricultural sector in 2021 are dominated by those who are male, millennial generation, highly educated, have attended training and have formal employment status. The results of the binary logistic regression analysis indicate a substantial impact of gender, generation, education level, training participation, and worker employment status on internet usage in the agricultural sector of South Kalimantan.

Based on these findings, the percentage of South Kalimantan agricultural workers who made use of the internet for their jobs was low in 2021, hovering around 8.69 percent. The incorporation of information technology in the agricultural industry is expected to stimulate a rise in the efficiency of agricultural output. The use of information technology in the agricultural productiveness. Consequently, the government should strive to enhance the skills and talents of workers in the agricultural sector.

There were five different research variables examined, and at least three of them could be considered relevant for intervention in the quest to enhance internet access. The internet is primarily utilised by men as opposed to women, with 11.82 percent of all male agricultural labourers employing the technology. Conversely, women comprise a mere 3.42 percent. The government should augment the participation of women in the execution of digital agriculture, for instance, by offering assistance and outreach initiatives on internet utilization. Advocating for and facilitating women's empowerment is crucial, as digital literacy is universally applicable, free from any prejudice or discrimination. There is no doubt that worker from the millennial and Z generations possess a higher level of adaptability in comprehending digital technology. Given the increasing number of pre-millennial workers in the agricultural sector, it is crucial to educate them about the significance of acquiring internet proficiency, particularly in the present digital age. Collaborative efforts can be made with the millennial generation to facilitate socialization and training for internet usage, thereby fostering their involvement in promoting the agriculture sector during the digitalization era. When compared to those with less than a high school education and no training, the characteristics of workers with a high school education or higher and training are guite prominent in using the internet.



The government and affiliated entities should coordinate training initiatives focused on internet utilization and agricultural technology that relies on internet connectivity.

Additional research on internet usage, particularly in the agricultural sector, should be conducted with a broader scope to obtain more representative findings. This research should also incorporate other variables that have not been addressed, such as economic factors like income level and the ownership of cellphones and computers among agricultural workers. In addition, additional investigation might be conducted regarding the correlation between internet usage and productivity in the agriculture sector.

| APPENDIX 1 – Definition of F | Research Dependent and | Independent Variables |
|-------------------------------------|------------------------|-----------------------|
| | | |

| Variables | Definition | Category |
|---------------|---|---------------------------------------|
| Internet use | People aged 15 years and over who work in the agricultural | Code 1: Don't use the internet* |
| | sector are said to use the internet if they use the internet in their | Code 0: other than stated. |
| | work, such as using social media platforms for work purposes | |
| | (communication, promotions, sales processes), such as | |
| | WhatsApp, Twitter. | |
| Gender | Gender of workers in the agricultural sector. | Code 1: Woman* |
| | | Code 0: other than stated. |
| Generation | Shows groups of workers in the agricultural sector by generation. | Code 1: Premillennial (over 40 years |
| | Millennials and z if born after 1980. Meanwhile, those born in | old)* |
| | 1980 and before are in the pre-millennial generation. | Code 0: other than stated. |
| Education | The education level of workers in the agricultural sector is | Code 1: Below high school* |
| level | completed by obtaining a school completion certificate (diploma). | Code 0: other than stated. |
| Training | Training attended by workers in the agricultural sector, both | Code 1: Have never attended training* |
| participation | related to agriculture and outside agriculture. | Code 0: other than stated. |
| Employment | Shows the type of employment status of workers in the | Code 1: Informal* |
| status | agricultural sector. Divided into formal and informal. Formal if the | Code 0: other than stated. |
| | worker is an entrepreneur who is assisted by permanent/paid | |
| | workers, or the worker is a worker/employee/employee. The rest | |
| | enter informally, such as working alone, trying to be assisted by | |
| | family/unpaid workers, casual workers and family/unpaid | |
| | workers. | |

Note: Code "0" indicates the reference/base category.

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