



## Analysis of Differences in Extension Performance of the Horticultural and Livestock Food Crops Office of Way Kanan Regency Before and During the Covid-19 Pandemic

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### Abstract

This study was conducted with the aim of analyzing the differences in extension performance in the horticultural food crops and livestock office of Way Kanan Regency before and during the COVID-19 pandemic. This research method uses a quantitative descriptive approach by taking 50 random samples from a population of 165 agricultural extension workers. This research analysis uses variables before the COVID-19 pandemic (X1) and variables during the COVID-19 pandemic (X2). The sample was carried out using the cluster random sampling technique. Data collection with questionnaires distributed directly to 50 samples of extension employees. Statistical methods using Chi Square Based on the analysis results obtained, the X2 count is 5.45 and the X2 table is 11.070. If the value of X2 count < X2 table, there is a significant difference between the performance of agricultural extension workers at the Food Crops and Horticulture Service of Way Kanan Regency both before and during the Covid-19 pandemic.

**Keywords:** Performance of agricultural extension workers, COVID-19 pandemic

### Introduction

The Corona Virus Disease, or COVID-19, is a pandemic that attacks globally and has a significant impact on various countries. It is shown by changes in important fields such as health, economy, politics, and security in various countries affected by COVID-19 (Sulastri, 2021). Related to this phenomenon, the Indonesian government since early March 2020 has issued various policies by both the central and regional governments, starting with restricting social distance, advocating for work-from-home policies for the majority of the State Civil Apparatus, banning worship events, and urging people to stay indoors and scale back their outside-the-home economic activity.

Local governments, government institutions, and district and city governments prevent and control the spread of COVID-19 by building work patterns

for State Civil Servants through the implementation of health protocols, adjusting work systems, implementing new habitual work patterns that pay more attention to performance assessments, employee discipline, and completing infrastructure infrastructure to support the use of information technology in providing public services. The utilization of information technology in the government bureaucracy in this case, especially for government officials, requires all employees to better master information technology to support bureaucratic performance.

(Barusman & Rulian, 2020) said that the performance of government agencies is a description of the level of achievement of agency goals through the suitability of work with knowledge and skills. One of the bureaucracies that is currently starting to implement the use of technology in the COVID-19 era is the Office of Food Crops Horticulture and Animal Husbandry. The emergence of Corona Virus in December 2019 made the era of revolution 4.0 run faster, Covid-19 has indirectly accelerated people's lives to adapt to the industrial revolution 4.0. The Corona Virus slowly ushered people's lives into a "new normal", including a new way of thinking. In this case, the COVID-19 pandemic has indirectly led people to include themselves in the new technological era by participating in virtual forums or discussions that support the Work From Home work system.

The Department of Food Crops, Horticulture and Animal Husbandry of Way Kanan Regency, Lampung Province during the Covid-19 Pandemic, conducted counseling and interacted with farmers through online Zoom and Video Call. However, the implementation of online services runs quite slowly, which results in the stability of extension services running less effectively, so that agricultural land processing to harvest and post-harvest during COVID-19 becomes less optimal.

In-depth research was done on the Differences in Extension Performance at the Food Crops Horticulture and Animal Husbandry Service of Way Kanan Regency Before and During the COVID-19 Pandemic based on the phenomena that came about. with an aim at understanding the variations in extension performance at the Way Kanan Regency's Food Crops Horticulture and Animal Husbandry Service before and after the COVID-19 epidemic.

## **Literature review**

### **a. Performance**

A kind of performance is the outcomes attained by an individual or group of individuals for their work in an organization in accordance with their authority, responsibility, and organizational guidelines (Rohida, 2018). According to (Primawanti & Ali, 2022), a person's professional accomplishments determine their performance. Employee performance, which is defined as what employees do and do not do, is more focused on the level of employee performance. Performance is influenced by a person's traits, workplace culture, and personal behavior. (Putra & Fitri, 2021). Employee performance is something that affects the amount of employee contribution to the organization, which includes (1) output quantity (quantity); (2) output quality (quality); (3) output period (timeliness); (4) cost effectiveness (cost effectiveness); (5) attendance at work (need for supervision); and (6) cooperative attitude (interpersonal impact) (Huseno, 2016).

When someone completes the responsibilities set to him, their performance is the outcome of their hard effort. (Barusman & Mihdar, 2014) A process used by organizations to evaluate employee performance is performance appraisal. By providing employees feedback to help them perform better and boost organizational efficiency, especially with regards to employee rules like those for promotions, pay raises, education, and training. In the present-day dynamic world, performance reviews are very important to enterprises. Organizations need to decide between subjective and objective standards. Comparing an employee's performance to predetermined benchmarks reveals objective performance criteria, whereas total job performance reveals subjective performance criteria. The organization's human resources play a related function in controlling the effectiveness of the organization in accomplishing its objectives. (Kalam et al., 2021)

Performance is the result of work achieved by a person or group of people in an organization in accordance with their respective authorities and responsibilities in order to achieve organizational goals (Suyudi, 2020). Performance is empirically expressed as follows, according to (Levinson et al., 2019):

$$\text{Performance} = f(A, E, S)$$

Description:

A = Ability

E = Effort

S = Support

Performance is basically determined by three factors: ability, desire and environment. To have a good performance, one must have a high desire to do and master the field of work. Job satisfaction is achieved when there is a sense of satisfaction with work, work results and the ability to meet needs. Return on investment (ROI) rather than profit should be used to measure company performance (Kotler, 2000).

**b. *Coronavirus Disease-19 (Covid-19)***

SARS-COV2, a virus belonging to the same big coronavirus family as the virus that caused SARS in 2003, but with a different virus strain, is the source of the outbreak known as Corona Disease-19 (Covid 19). The signs of COVID-19 are comparable to those of SARS. Despite the fact that COVID-19 cases are far more numerous than SARS patients, the fatality rate of SARS is a (9.6%) is higher compared to that with COVID-19 (less than 5%). In comparison to SARS, COVID-19 is spreading more quickly and widely. Each field of work has the chance to assess and review the possible activities as the COVID-19 pandemic thanks to the epidemic (Pokhrel & Chhetri, 2021).

The COVID-19 pandemic has had a very significant impact on the work process. The pandemic era requires the work process to continue by limiting face-to-face meetings in the office. One of the alternatives used by several agencies during the pandemic is work from home (WFH), which is the best alternative during the pandemic due to the use of technological media that plays a role in the Work From Home process. Work From Home is the right choice for organizations to remain productive during the pandemic (Bao et al., 2022). Srimulatsih (2021), said that working from home has a significant influence on worker productivity. Work from home productivity is supported by technological facilities such as computers and internet services as the main support for work (Mustajab et al., 2020)

There is a significant difference between employees who do Work From Home work through Zoom meetings and employees who do it directly, especially in socialization that requires direct examples or props. All employees and agricultural extension workers want to achieve high work results with the expected results and

completed on time because this is an indication of a smooth and successful work process.

Several obstacles arose when the work process during the COVID-19 pandemic demanded maximum performance with an unusual work process. This, of course, requires adaptation and new knowledge, although there were many pros and cons at the beginning of using this method. As time goes by and the Work From Home method is increasingly recognized as producing maximum results, Work From Home, through the use of media technology, is increasingly in demand among the public, especially State Civil Apparatus.

### **Hypothesis**

The hypothesis in this study is as follows

Ha: There is a significant difference in the performance of extension workers at the Food Crops, Horticulture, and Animal Husbandry Service of Way Kanan Regency before and during the COVID-19 pandemic.

Ho: There is no significant difference in the performance of extension workers at the Food Crops, Horticulture, and Animal Husbandry Service Office of Way Kanan Regency before and during the COVID-19 pandemic.

### **Method**

The research being done is quantitative and descriptive. Without attempting to draw generalizable conclusions, quantitative descriptive research aims to identify and interpret objects as they actually are (Sugiyono, 2014). The study's objective is to use statistics to examine and describe current happenings. The impact of COVID-19 on the productivity of extension workers at the Agricultural Crops, Horticulture and and Animal Husbandry Service of the Way Kanan Regency is examined in this study using quantitative methodologies.

The variables used are variables in the period before COVID 19 (X1) and variables when COVID 19 (X2). The population in this study were Extension Staff of the Food Crops Horticulture and Animal Husbandry Service of Way Kanan Regency. The sample in this study used a probabilistic sample withdrawal technique called cluster random sampling, which is a sampling technique that is applied when in the population there are groups that appear uniform but internally remain

different. 50 samples from a population of 165 extension staff at the Food Crops, Horticulture, and Livestock Service Office of the Way Kanan Regency Extension staff at the Food Crops, Horticulture, and Livestock Service Office of Way Kanan Regency consist of: State Civil Apparatus: 45 people; Government Employees with Work Agreements: 49 people; and Regional Casual Workers: 71 people. Total: 165 people. Then State Civil Apparatus was taken from 14 people, Government Employee with Employment Agreement was taken from 15, and Regional Daily Workforce was taken from 21 people as a sample. In this study, data were collected using a questionnaire. Then the data analysis technique in this study uses the chi square test.

## Result And Discussion

### a. Variable Validity Test Result Before Covid-19 (X1)

Table 1. Validity Test of Variable X1

Scalee Mean if Item Deleted	Scale Variance If Item Deleted	<i>Corrected Item Total Correlation</i>	<i>Croncbach's Alpha if item Deleted</i>	Description
81,90	135.806	.865	.966	Valid
81.82	136.232	.832	.967	Valid
81.94	136.425	.712	.968	Valid
81.82	137.212	.770	.967	Valid
81.86	134.980	.914	.966	Valid
81.88	135.863	.859	.966	Valid
81.82	138.110	.887	.967	Valid
81.96	134.488	.861	.966	Valid
82.02	135.204	.861	.966	Valid
82.14	134.735	.812	.967	Valid
82.12	133.700	.765	.967	Valid
82.04	136.407	.868	.966	Valid
81.96	137.835	.747	.968	Valid
83.06	143.078	.197	.979	Valid
81.98	133.326	.895	.966	Valid
81.90	137.112	.782	.969	Valid
81.90	135.806	.865	.966	Valid
81.82	136.232	.832	.967	Valid
81.94	136.425	.712	.968	Valid
81.82	137.212	.770	.967	Valid

81.86	134.980	.914	.966	Valid
81.88	135.863	.859	.966	Valid
81.82	138.110	.829	.967	Valid
81.96	134.488	.887	.966	Valid
82.02	135.204	.861	.966	Valid
82.14	134.735	.812	.967	Valid
82.12	133.700	.785	.967	Valid
82.20	135.184	.817	.967	Valid
81.84	135.770	.795	.967	Valid
81.92	134.891	.854	.966	Valid
81.90	134.010	.905	.966	Valid

Source: Processed Data, 2022

When viewed from the corrected item-total correlation column and if all respondents' answers are compared with the r table with a significant level of 5% and  $N = 48$ , the value of the r table  $(n-2) = 0.284$ . Thus, it can be concluded that all questionnaires during COVID-19 are declared "**valid**".

Reliability shows the consistency and stability of a score (measurement scale), thus Reliability includes two main things, namely measurement stability and internal consistency of the Alpha value before the covid-19 pandemic (X1) of 0.969 and during the covid-19 pandemic (X2) of 0.968 so the conclusion is that the questionnaire used in this study is declared reliable because the alpha value is  $> 0.60$ .

**Table 3. Reliability Tests X1 and X2**

<b>Cronbach's Alpha</b>	<b>N of items</b>
.969	20
.968	20

Source: Processed Data, 2022

### Results of Chi Square Test

The Chi Square test is an analytical technique used to determine differences before and during the COVID-19 pandemic. The contingency table, which is the total score of the questionnaire answers of each respondent per variable, can be seen in the following table:

**Table 4. Contingency**

<b>Variable</b>	<b>Instrument / Indicator</b>						<b>Sum</b>
	<b>Quantity</b>	<b>Quality</b>	<b>Time Period</b>	<b>Cost Effectiveness</b>	<b>Presence</b>	<b>Cooperative</b>	
<b>Before</b>	890	888	634	595	644	665	4316
<b>Moment</b>	692	702	481	522	513	484	3394

<b>Total</b>	1582	1590	1115	1117	1157	1149	7710
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Source: Processed Data, 2022

To find the frequency value of each cell using the formula (Sarwono, 2006):

$$fe = \frac{\text{Number of Rows}}{\text{Number of All}} \times \text{Number of Columns}$$

Then:

$$fe \text{ sel ke } - 1 = \frac{4316}{7710} \times 1582 = 886$$

$$fe \text{ sel ke } - 7 = \frac{3394}{7710} \times 1582 = 696$$

$$fe \text{ sel ke } - 2 = \frac{4316}{7710} \times 1590 = 890$$

$$fe \text{ sel ke } - 8 = \frac{3394}{7710} \times 1590 = 700$$

$$fe \text{ sel ke } - 3 = \frac{4316}{7710} \times 1115 = 624$$

$$fe \text{ sel ke } - 9 = \frac{3394}{7710} \times 1115 = 491$$

$$fe \text{ sel ke } - 4 = \frac{4316}{7710} \times 1117 = 625$$

$$fe \text{ sel ke } - 10 = \frac{3394}{7710} \times 1117 = 492$$

$$fe \text{ sel ke } - 5 = \frac{4316}{7710} \times 1157 = 648$$

$$fe \text{ sel ke } - 11 = \frac{3394}{7710} \times 1157 = 509$$

$$fe \text{ sel ke } - 6 = \frac{4316}{7710} \times 1149 = 643$$

$$fe \text{ sel ke } - 12 = \frac{3394}{7710} \times 1149 = 506$$

In this study, Chi Square data analysis used the following formula:

$$X^2 = \sum \frac{(fo - fe)^2}{fe}$$

Description:

X<sup>2</sup> = Chi Square value

fo = Frequency obtained

fe = Expected frequency

$$X^2 = \frac{(890 - 886)^2}{886} + \frac{(888 - 890)^2}{890} + \frac{(634 - 624)^2}{624} + \frac{(595 - 625)^2}{625} \\ + \frac{(644 - 648)^2}{648} + \frac{(665 - 643)^2}{643} + \frac{(692 - 696)^2}{696} + \frac{(702 - 700)^2}{700} \\ + \frac{(481 - 491)^2}{491} + \frac{(522 - 492)^2}{492} + \frac{(513 - 509)^2}{509} + \frac{(484 - 506)^2}{506}$$



$$X^2 = 0,018 + 0,004 + 0,16 + 1,44 + 0,025 + 0,753 + 0,023 + 0,006 + 0,204 \\ + 1,829 + 0,031 + 0,957 = 5,45$$

Based on this data, the X2 count is 5.45. The degree of freedom (db) or degree of freedom (df) of the test is the number of categories (instruments) minus 1 (Nuryadi, 2017).

$$\begin{aligned} Db &= (\text{Row} - 1) (\text{Column} - 1) \\ &= (2-1) (6-1) \\ &= 5 \end{aligned}$$

Then at the significance level ( $\alpha$ ) = 0.05 the X2 table price is 11.070.

If X2 count  $\leq$  X2 table, then Ho is accepted.

If X2 count  $>$  X2 table, then Ho is rejected.

Based on this explanation, the X2 count is 5.45 and the X2 table is 11.070. Because X2 counts  $\leq$  X2 tables, the Ho hypothesis is accepted. So it is known that there is no significant difference between before the pandemic and during the covid-19 pandemic in the performance of counselling at the Food Crops, Horticulture and Livestock Service Office of the Way Kanan Regency.

## Conclusion

This study attempts to ascertain whether there are variations in the performance of extension workers at the Way Kanan Regency's Food Crops, Horticulture, and Animal Husbandry Service before and during the Covid-19 Pandemic. The outcomes of data calculations utilizing the chi square formula, X2 table, and X2 count provide proof of this. The X2 count is 5.45 and the X2 table is 11.070 according to the research findings. Because X2 count  $\leq$  X2 table or because the covid-19 epidemic had no impact on extension workers' performance at the Food Crops, Horticulture, and Animal Husbandry Service of Way Kanan Regency, it can be said that the Ho hypothesis is accepted.

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