Jamil_2023_IOP_Conf._Ser._3A_Earth_Environ._Sci._1230_012015.pdf

by master 2

Submission date: 22-Feb-2024 01:00PM (UTC+0700)
Submission ID: 2245235083
File name: Jamil_2023_IOP_Conf._Ser._3A_Earth_Environ._Sci._1230_012015.pdf (820.01K)
Word count: 5236
Character count: 30307

IOP Conference Series: Earth and Environmental Science

Strategies for developing extension worker's performance during the covid-19 pandemic in Bulukumba Regency

To cite this article: M H Jamil *et al* 2023 *IOP Conf. Ser.: Earth Environ. Sci.* **1230** 012015

Strategies for developing extension worker's performance during the covid-19 pandemic in Bulukumba Regency

M H Jamil[1] , R M Rukka[1], A Sulaiman[2], N M Viantika[1] and A Anisa[1]

[1]Department of Socio-economics of Agriculture, Faculty of Agriculture,Hasanuddin University, Makassar, South Sulawesi, 90245, Indonesia
[2]Director and Founder of Tyrant Group, Makassar, South Sulawesi, 90245,Indonesia
E-mail: hattaj@unhas.ac.id

Abstract. Extension activities in Indonesia and even the world have experiencedmany changes since the outbreak of the Covid-19 virus pandemic. This study aims to formulate a strategy for developing extension workers performance that can be applied during the Covid-19 pandemic in Bulukumba Regency. Descriptive qualitative method with analysis SWOT applied. The results of this study show the effectiveness of individual face-to-face communication and communication with cellular telephone media, increasing the competence of extension workers in terms of information technology and communication, the assimilation of supporting facilities and infrastructure in theform of telecommunications devices (computers/laptops and internet quotas, including the improvement of an internet connection system that is evenly distributed throughout the region and p Social network strengthen and trust between extension workers, farmers, and other stakeholders is an important strategy to implement to develop the performance of extension workers in the Covid-19.

1. Introduction

As one of the extension institutions located at the sub-district level, the Agricultural Extension Center (BPP) is a central point in the extension organizational structure because, in addition to accepting delegation of tasks and translating policies from the upper structure, it is also required to understand problems and accommodate farmers' aspirations, as well as organize counseling in their work areas. Many changes have occurred during the Covid-19 pandemic. The most significant difference is the adoption of a safe counseling strategy governed by health guidelines and existing rules. Counseling methods and media counseling must evolve. The limitation of extension agents' ability to deliver direct material is a difficulty in preparing extension programs, thus an appropriate strategy is required to reach the community and farmers while simultaneously carrying out extension agents' responsibility of providing information on new knowledge or innovations. It is thought that this will help farmers and breeders survive and produce in the agriculture sector during the pandemic [1]. Agricultural Extension Officers innovate in their extension tasks amid a pandemic. Before the pandemic, all extension efforts could be done face-to-face. It is currently impossible. To avoid this difficult situation, agricultural extension workers must be able to innovate their extension.

Agricultural extension services are still being provided in Bulukumba Regency in order to boost agricultural production in order to meet domestic food needs, so that domestic food availability is not jeopardized by restricted access to foreign trade. In its efforts, the government promotes local production, which includes manufacturing facilities such as agricultural machinery and equipment,

fertilizer and seed subsidies, and other production support facilities. Farmers require assistance and facilitation from relevant stakeholders in order to increase their production performance. Furthermore, a production protocol is required to ensure the quality and safety of Covid-19-free food [2]. The Covid-19 epidemic has also increased farmers' willingness to attend extension worker meetings, despite having followed all essential health precautions. Since the transformation process of innovation and information is disrupted, extension workers' communication becomes ineffective. Difficulties may also be encountered by the three BPPs that are the focus of this research, namely BPP Bulukumpa, BPP Rilau-Ale, and BPP Kajang, which are located in each sub-district in Bulukumba regency, so this research was conducted to identify strategies for developing extension performance in Bulukumba regency.

2. Research methods

This study was conducted in the Bulukumpa sub-district, Rilau-Ale sub-district, and Kajang sub-district in the Bulukumba district of South Sulawesi. The unit of analysis of this study was these three Agricultural Extension Centers in the Bulukumpa sub-district, Rilau-Ale sub-district, and Kajang sub-district. Samples were taken purposively by considering that these threeareas were nearby, have good land potential dan cultivated the same commodities. This study used a survey method of questionnaires supported by informants. The data was analyzed using SWOT to identify factors to strategize based on strengths, weaknesses, opportunities, and threats.

3. Results and discussion

Two things influence an extension worker's performance: [3] (1) In this situation, agricultural extension workers' performance is a function of an individual or personal characteristic; these personal qualities are objective features of the extension workers collected from their records. Individual qualities of extension workers are characteristics that a person possesses that are related to aspects of life and the environment. Gender, age, education, duration of service, family dependents, employment status, number of training, and subsequent length of service are all internal determinants for agricultural extension employees, and (2) Performance is a situational influence including differences in management and the implementation of counseling which is hereinafter referred to as the factor external in the form of environmental factors that affect include the number of assisted villages, the number of assisted farmer groups, official vehicle support, available IT facilities, village distance fostered with residence, the influence of the distance between the assisted village and the place of residence, the status of the assisted village experiencing local restrictions/lockdowns and there are differences in carrying out coaching during Covid-19. The Covid-19 outbreak has not prevented extension workers from accompanying and guiding farmers in their target areas.

However, there have been changes in the implementation of counseling during the Covid-19 pandemic. The results of the study, as shown in Table 14, showed that 68.19% of Covid-19 outbreaks did not affect the performance of agricultural extension workers in carrying out counseling in their target areas. During the Covid-19 pandemic, agricultural extension workers in the three study areas continued to carry out assistance to farmers even though there were certain rules that were carried out based on the provisions of health protocols during the Covid-19 pandemic. Agricultural extension workers of Bulukumba Regency stated that extension activities are still being carried out during the pandemic because they continue to accompany farmers in the field and continue to report planting area (LTT), area added harvest (LTP), accompany farmers for rice seedbeds and BPPextension workers remain present and remain active during the pandemic.

The method of training, visiting, and supervision during the pandemic is still running. The difference betweencounseling before and during the pandemic lies in the timing of activities and the number of visits. Before the pandemic visits groups once a month, during the pandemic once in two months. Extension activities through direct contact with BPP farmers/extension workers in thefield are no longer carried out (following the institution's policy). A few months after the outbreak of the pandemic and after the WFH policy was lifted, BPP extension workers began to have contact with farmers in the field by implementing health protocols, namely wearing masks, washing hands, and maintaining a minimum

distance of one meter

3.1.Identification of internal and external data

The performance of an extension worker can be seen from two factors, namely: (1) that performance is a function of individual or personal characteristics in this case agricultural extension workers, these personal characteristics are objective characteristics of extension workers obtained from their records. Individual characteristics are traits possessed by a person that relate to aspects of life and the environment. The characteristics of the extension worker can affect motivation, and work productivity, which in turn is reflected in his performance; (2) performance is situational influences including differences in the management and implementation of counseling, value systems, land potential, power, programs, community participation, financing, and support for facilities and infrastructure, individual characteristics which include age, gender, marital status, length of service, work experience, level of education,training, number of dependents, affecting a person's performance.

Table 1 shows that productive age level, undergraduate education level, lengthy service time, modest family dependent burden, government servants, and restricted training intensity are internal characteristics of agricultural extension workers that affect extension performance. Age itself is not a psychological influence, but what age causes is. The lower the work of the muscles, the lower the work of the senses, which all impair the ability of learning power as one gets older. Counseling is a process, and the Covid- 19 epidemic is a condition that restricts the effectiveness of the counseling process. As a result, agricultural counseling during the Covid-19 outbreak involves psychological abilities in planning and arranging effective and efficient counseling with all health protocol requirements that must be followed and counseling aims that can still be fulfilled. The age of productive vulnerability is a psychological element of agricultural extension workers that influences muscle performance, which is deteriorating, so that the extension process does not operate well during the Covid-19 epidemic. Professionalism among agricultural extension workers is becoming increasingly important in order to react to the changing needs and dynamics of the developing population, including the current Covid-19 pandemic. Because they interact directly with clients in the field, extension workers are at the forefront of counseling implementation. The requests for professionalism and change must be met by initiatives to strengthen the skills of agricultural extension workers. A challenge for agricultural extension workers is the transition in extension method from top-down to participatory by offering opportunities for the community to be as active as feasible in problem solutions. As thus, the success of counseling is strongly connected with the quality of agricultural extension workers in the field, as it relates to the quantity of formal education they get. Formal education for agricultural extension workers is a requirement of the profession and a rising society. This means that attending formal school is intended to improve his talents, attitudes, and skills in response to the demands of his employment as an extension worker.

Table 1. Results of internal and external data identification.

No.	Description
Internal Factors	
1.	The age level of agricultural extension workers is in the category of productive threshold
2.	The last level of education is generally undergraduate/equivalent
3.	Long service life of extension workers
4.	The burden of family dependents is relatively small
5.	Employment status is generally civil servants
6	Highest training intensity
7	Decreased work motivation
External Factors	
1	Extension Areas are generally ideal (1 village 1 extension officer)
2	The number of assisted farmer groups is relatively large Generally, extension workers have official vehicles
3	IT infrastructure is still limited (sub-district scale)
4	The distance between Binanan village and domicile is generally close

5	Internet media that are generally owned by agricultural extension workers (cellphones and laptops)
6	Local restrictions (*lockdowns* in assisted village areas
7	The workload of extension workers during the Covid-19 pandemic is not much different from before
8	Limited extension budget
9	Hard-to-reach terrain

The level of education of the extension worker is the most recent education, as evidenced by the existence of the most recent diploma in the name of the extension worker in question. The findings revealed that the degree of education of extension workers in Bulukumba Regency is rather high, with the ability to have knowledge, abilities, experience, and attitudes in carrying out tasks, particularly during the current Covid-19 pandemic. The work term of the extension worker is a crucial component since the longer the work period, the better the extension worker will understand his field of work, which is his obligation. The work period makes workers more productive, which affects performance. [4] The working period of extension workers benefits relatively fresh extension employees, whereas long-term extension workers demonstrate a low amount of 'client' power. Covid-19 is an outbreak scenario that should not be ignored, although it is not likely to impede field implementation of agricultural extension.

The ability of extension workers refers to the capability for extension workers to carry out their jobs more effectively. The higher the degree of extension workers' talents, the better agricultural extension workers perform in carrying out their primary obligations. This is reinforced by Robbins' (2016) opinion, who believes that ability is an individual's capacity to accomplish numerous activities in a job. Humans will behave differently in terms of skills since their abilities differ. Different levels of human ability cause people to behave differently.

3.2.SWOT analysis

3.2.1. Stages of analysis. Table 2 further divided these factors based on the inventory of internal and external factors into strengths, weaknesses, opportunities, and dangers. Internal factor classification is the identification of strengths and weaknesses in agricultural extension workers' performance during the Covid-19 epidemic in the Bulukumpa, Rilau Ale, and Kajang BPP districts. Meanwhile, external factors include identifying opportunities and threats from outside the implementation of agricultural extension workers' performance during the Covid-19 pandemic. In detail, such factors are presented in Table 2 and 3.

Table 2. Strength and opportunity factors that affect the performance of agricultural extension workers during the Covid-19 pandemic.

No.	Strength		Opportunity
1.	The last level of education is generally undergraduate / equivalent	1.	Ideal built area
2.	Long service life of extension workers	2.	Official vehicle support
3.	Employment status is generally civil servants	3.	The distance of the built-up area is close
		4.	Internet media that are generally owned by agricultural extension workers (cellphones and laptops)

Table 2 presents the classification of strength factors and opportunities that affect the performance of agricultural extension workers during the Covid-19 pandemic in three study areas, namely BPP Bulukumpa District, BPP Rilau Ale District, and BPP Kajang District, based on some of the identification results previously presented in Table 2 from internal factor data and external factors that

may affect the performance of agricultural extension workers. Table 3 also depicts the classification of weaknesses and risks affecting agricultural extension workers' performance during the Covid-19 outbreak.

Table 3. Factors of weakness and threats affecting the performance of agricultural extension workers during the Covid-19 pandemic.

Weakness	Threats
Age level on the productive threshold	1. The number of assisted farmer groups is relatively large
The burden of family dependents is relatively small	2. Limited IT infrastructure
Low training intensity	3. Local restrictions/lockdowns in the target areas
Decreased work motivation	4. Considerable workload
	5. Limited Extension Budget
	6 Hard-to-reach terrain

These characteristics are then weighted, and their cumulative value ranges from 1.00 (extremely important) to 0.00 (very essential), indicating that they give inputs and outputs on agricultural extension workers' performance during the Covid-19 pandemic. All of these weights must add up to a total score of 1.00. The largest strength rating is given a value of 4, but if the strength is small to the performance of agricultural extension workers, it is given a rating of 1, whereas a weakness rating is given a value of 1 if the weakness factor is large-scale and a value of 4 if it has a high effect. The results of the weighting and rating scales in the internal scale can be seen in Table 4.

Table 4. Weights and Rating Scale of Internal Factors.

Internal Strategy Factors	Weight (B)	Rating (R)	B x R	Commentary
A. Strength				✓ Main strengths :
1. The last level of education is generally undergraduate /equivalent	0.10	4	0.40	a. Long service life of extension workers
2. Long service life of extension workers	0.15	4	0.60	b. Employment status is generally civil servants
3. Employment status is generally civil servants	0.12	4	0.48	Average value = 0.49
B. Weakness				
1. Age level on the productive threshold	0.07	1	0.07	✓ Main disadvantages:
2. The burden of family dependents is relatively small	0.08	2	0.16	a. Decreased work motivation
3. Low training intensity	0.13	3	0.39	b. Low training intensity
4. Decreased work motivation	0.15	3	0.45	Average value = 0.27

Source: Primary data after processing, 2021

The average strength factor of 0.49 is bigger than the average value of the weakness factor of 0.27 for cumulative values. This situation implies that the greatest variables influencing agricultural

extension workers' performance outweigh the disadvantages that will impede their ability to carry out their tasks and obligations during the Covid-19 pandemic.

The main weaknesses that affect agricultural extension workers' performance are (1) low work motivation and (2) low training intensity, whereas the main strengths that affect agricultural extension workers' performance are (1) a long work period for extension workers and (2) the employment status of generally civil servants.

Based on these results, it is essential to provide training in order to increase the work motivation of agricultural extension workers by exploiting the extension workers' long work time during the Covid-19 epidemic. The long time of work is, of course, a strength for agricultural extension workers in carrying out their tasks and obligations in the field because it is related to their work experience and abilities that are adequate to master the working conditions as an agricultural extension worker. Covid-19, despite its limitations, has been able to lower extension workers' motivation because extension workers' routines and ways of working that require them to come into direct touch with their farmers are compelled to move to a different style of working than the prior one.

Table 5. Weights and rating scales of external factors.

External Strategy Factors	Weight (B)	Rating (R)	B x R	Commentary
A. Opportunity *(Opportunity)*				
1. Ideal built area	0.15	4	0.60	✓ Main opportunities: a. Ideal built area b. The distance of the target area does not affect the performance ✓ Average value = 0.41
2. Official vehicle support	0.10	3	0.30	
3. The distance of the built-up area is close	0.08	3	0.24	
4. Internet media that are generally owned by agricultural extension workers (cellphones andlaptops)	0.12	4	0.48	
B. *Threats*				
1. The number of assisted farmer groups is relatively large	0.10	2	0.20	✓ Main threats : a. Considerable workload b. Local restrictions/lockdowns in the target areas ✓ Average value = 0.21
2. Limited IT infrastructure	0.08	1	0.08	
3. Local restrictions/lockdowns in the target areas	0.13	3	0.39	
4. Considerable workload	0.15	3	0.45	
5. Limited Extension Budget	0.08	1	0.08	
6. Hard-to-reach terrain	0.08	1	0.08	

Table 5 shows that the rating determination for the average cumulative value of the opportunity factor is 0.41, which is more than the value of the threat factor, which is only 0.2. This position implies that the opportunity variables influencing agricultural extension workers' performance outweigh the hazards that will impede extension workers' ability to carry out their tasks and obligations during the Covid-19 pandemic.

Furthermore, each factor's total score value can be detailed: strength 0.49, weakness 0.27, opportunity 0.41, and threats 0.21. As a result, the difference in total scores for the strength and weakness factors is (+) 0.22, while the difference in total scores for the opportunity and threat factors is (+) 0.20. Cartesius SWOT Analysis of Agricultural Extension Performance Development Strategy During the Covid-19 Pandemic is depicted in the picture below:

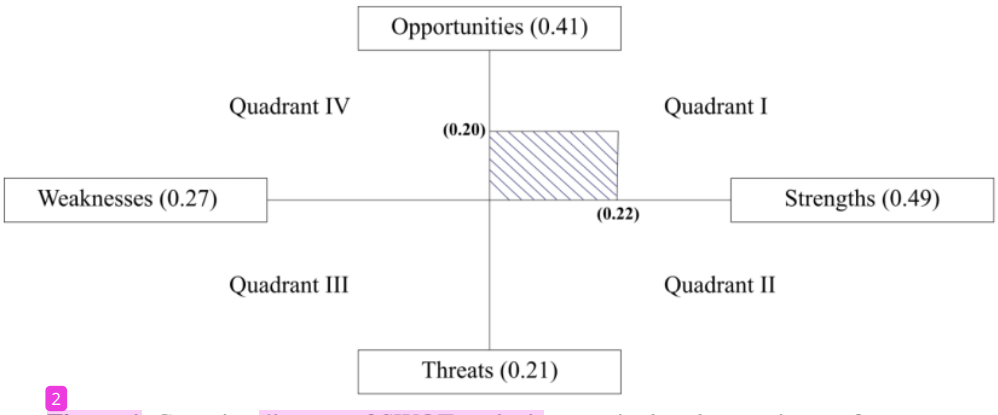

Figure 1. Cartesius diagram of SWOT analysis on agricultural extension performance development strategy during the Covid-19 pandemic.

The method that can be used to improve agricultural extension effectiveness during the Covid-9 epidemic is to exploit strengths, eliminate weaknesses, and utilize current possibilities. to overcome threats that may force agricultural extension employees to perform poorly. Table 6 details different techniques for improving agricultural extension success during the Covid-19 outbreak.

During the Covid-19 pandemic, the implementation of socialization activities changed, and most mentoring methods shifted from face-to-face to media (SMS, WhatsApp, telephone, zoom, and YouTube live streaming) or electronic media (broadcasting, TV) to communicate, and video media for farmers who do not have mobile phones or internet access. The number of extension activities is likewise decreasing. Extension workers assist farmers in gaining (1) filter power (smart: access to broad information/innovation, open to changes/improvements) today, (2) competitiveness (work: effective, efficient, and quality), and (3) proactive adaptability in order to be ready and able to adapt to changes during the Covid-19 pandemic.

Community social capital plays a role in avoiding the spread of Covid-19, specifically through maintaining social separation socialized by extension workers. Agricultural extension workers' contact skills and social networks can be used to assist farmers in gaining access to health care and marketing agricultural products.

During the epidemic, extension workers acquired knowledge from webinars on various topics and offline training from speakers from various institutions, which was cut by 80%. The majority of information on farmers was gathered from friends/relatives/neighbors before and during the Covid-19 outbreak, while extension workers were obtained individually. Access to information for extension workers is somewhat easy during the Covid-19 outbreak because online media does not distinguish time and space. Farmers' access to information has been limited as a result of social constraints during the pandemic. As a result, the technical office's preference for counseling efforts during the Covid-19 pandemic is critical. This relates to supporting facilities and infrastructure, in this case telecommunications devices (computers/laptops and internet quotas, including improvements to the internet connection system that is evenly distributed throughout the region) that allow extension workers to access information from various sources. Furthermore, by analyzing the needs of extension workers by region (advanced, developing, and underdeveloped), it is necessary to increase the competence of extension workers in terms of information and communication technology.

Table 6. Internal and external strategy factor analysis (IFAS/EFAS).

IFAS / EFAS	Strengths	Weaknesses
	1. The last level of education is generally undergraduate / equivalent 2. Long service life of extension workers 3. Employment status is generally civil servants	1. Age level on the productive threshold 2. The burden of family dependents is relatively small 3. Low training intensity 4. Decreased work motivation
Opportunities	SO Strategy	WO Strategy
1. Ideal built area 2. Official vehicle support 3. The distance of the built-up area is close 4. Internet media that are generally owned by agricultural extension workers (cellphones and laptops)	Individual face-to-face communication and mobile phone media communication	Increasing the competence of extension workers in terms of information and communication technology
Threats	ST Strategy	Strategy WT
1. The number of assisted farmer groups is relatively large 2. Limited IT infrastructure 3. Local restrictions/lockdowns in the target areas 4. Considerable workload 5. Limited Extension Budget 6. Hard-to-reach terrain	Availability of supporting facilities and infrastructure in the form of telecommunications devices (computers/laptops and internet quotas, including the improvement of an evenly distributed internet connection system throughout the region	Social network strengthening and trust between extension workers, farmers, and other stakeholders

Extension workers, farmers, and other stakeholders must build their social networks and trust. This is expected to create chances for farmers to overcome the problems they had during the pandemic. The Ministry of Agriculture's Cyber Extension is recommended to update extension materials during the pandemic in response to the needs of extension workers and farmers, particularly those connected to the acquisition of production facilities and the selling of agricultural goods [5]. This material is required to overcome social constraints that cause farmers to confront challenges in each of these areas.

Based on the analysis above, shows that the performance of agricultural extension workers in the 3 study areas can be determined by a combination of internal and external factors. The combination of the two factors is shown in the diagram of the SWOT analysis results as follows:

3.2.1.1. SO (Strength-Opportunity) Strategy. This strategy is a combination of internal factors (strengths) and external factors (opportunities),this strategy is carried out to be able to improve the work of agricultural extension workers during the Covid-19 pandemic, namely individual face-to-face

communication andcommunication with cellular phone media.

3.2.1.2. ST (Strength-Threat) Strategy. This technique is a combination of internal (strengths) and external (threats) components, and it is designed to leverage the power that extension workers have to overcome threats. The ST strategy pursued by agricultural extension workers is the availability of supporting facilities and infrastructure in the form of telecommunications devices (computers/laptops and internet quotas, including the improvement of a regionally distributed internet connection system). In Africa, extension technology is being used with growing ingenuity, with IVR (interactive voice response) being used as a medium for distributing information that is easily accessible to extension workers and farmers. This system uses the options supplied to automatically answer phone inquiries [6].

3.2.1.3. WO (Weakness-Opportunity) Strategy. This technique is a combination of internal elements (weakness) and external factors (opportunities); it is used to maximize current opportunities while minimizing existing weaknesses. The WO strategy undertaken by agricultural extension workers is to improve extension employees' proficiency in information technology and communication. Agricultural extension training is provided in Indonesia to strengthen extension agents' competency in the use of online media or online media cyber extension, according to [7]. This is in line with the Ministry of Agriculture's plan to establish an Agriculture Operation Room (AOR) to serve as a training facility for agricultural extension personnel. This training focuses on teaching extension workers in the use of information technology and technology in the industrial era 4.0, which can be done remotely over the internet (e-learning), and is centered on a single AOR that covers practically the entire country of Indonesia.

According to the data source [8], the Indian government partnered with extension institutions to offer training for extension workers and farmers in the form of training agripreneurship. Extension employees will be taught by extension and agriculture specialists such as professors and researchers to deliver knowledge about agripreneurship and markets to farmers. Farmers are then given extension services as well as information on the pandemic and new advances. The majority of media is consumed through internet-based information and communication technology, primarily WhatsApp.

3.2.1.4. WT (Weakness-Threat) Strategy. This strategy is a combination of internal factors (weaknesses) and external factors (threats), thisstrategy is based on defensive activities and tries to minimize existing weaknesses and avoid threats. The WT strategy pursued by agricultural extension workers is to strengthen social networks and trust between extension workers, farmers, and other stakeholders. Counseling is not just an activity that is partial and short-term sporadic but counseling is an activity that is carried out thoroughly with very long stages and continuous.

Counseling is a learning process that influences behavior modification based on the target's own needs. The desire, ability, and ability to advance the potential that exists in farmers so that the wisdom of a positive facility atmosphere will give rise to the efficacy of performance in carrying out its obligations and responsibilities is the principle of agricultural extension. The diagram of courtesies demonstrates that the Agricultural Extension Performance Development Strategy The Covid-19 Pandemic is in the Growth quadrant, which is a highly positive scenario. After combining strength with an opportunity or SO strategy, a strength factor is obtained that must be maintained in order to take advantage of the existing opportunity.

Thus, it is hoped that the implementation of agricultural extension during the pandemic will necessitate the delivery of messages and information through individual communication, either through mobile media or through individual visits, while adhering to standard procedures for preventing the transmission of Covid-19, allowing farmers and breeders to receive technological information. According to [9], information delivery and technical expertise can make agricultural extension more efficient and effective, thereby enhancing rural farmers' production, welfare, and empowerment.

4. Conclusion

The performance of agricultural extension workers can be increased by intensifying face-to- face meetings or communication via cell phones. This needs to be supported by the availability of communication devices. However, this has not been supported by the ability of extension workers to master digital technology. E-learning is needed for centered agricultural extension workers to improve their skills in managing technology and information.

References

[1] Prabasini B, Kumar B and Azizah S 2021 Comparison of agricultural extension during the covid-19 pandemic in various countries (meta-synthesis). *J. Ilmu-Ilmu Peternakan (Indonesian Journal of Animal Science)* 31 **3** 274-282

[2] Organization W H 2020 *COVID-19 and food safety: guidance for competent authorities responsible for national food safety control systems: interim guidance, 22 April 2020* (World Health Organization)

[3] Sabir S, Sugiyanto S, Sukesi K and Yulianti Y 2019 Analysis of Factors Influencing Agricultural Extension Performance in the Use of Cyber Extension in Malang Raya Region *Agric. Socio-Economics J.* **19** 73–81

[4] Bazillai A 2021 *Impact of work overload and work hours on employees performance of selected manufacturing industries in Ogun State* (Center for Open Science)

[5] Dharmawan L, Muljono P, Hapsari P R, and Purwanto B P, 2020 "Digital Information Development in Agriculture Extension in Facing New Normal Era During Covid-19 Pandemics *Literature Overview*," **47**

[6] Muyiramye D and Addom B K 2021 *COVID-19 and Agriculture in Africa: implications for Digitalisation* (Technical Report. Accessed June 14)

[7] Dharmawan L, Muljono P, Hapsari D R and Purwanto B P 2021 Digital information development in agriculture extension in facing new normal era during COVID-19 pandemics *J. Hunan Univ. Nat. Sci.* **47**

[8] Raj S and Darekar A , *Agricultural Extension and Advisory Services: Serving Farming Community by Agripreneurship Amid COVID-19*. 2020.

[9] Purwatiningsih N A, Fatchiya A, and Mulyandari R S H, 2018 Utilization of Internet in Improving Performance of Agricultural Extension in Cianjur Regency, *Jurnal Penyuluhan*, **14** 79–91

Jamil_2023_IOP_Conf._Ser._3A_Earth_Environ._Sci._1230_012...

ORIGINALITY REPORT

9%	%	9%	%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	E S T Prasetya, J M M Aji, S Subekti. "Farmer's perception of the performance of a field agricultural extension agent during Covid-19 pandemic in Jember Regency", IOP Conference Series: Earth and Environmental Science, 2022 Publication	2%
2	Hilda Ayu Hendrawati, Sukaris Sukaris. "Analysis of Promotion Strategy in Increasing Sales at PT Cipta Giri Sentosa", INNOVATION RESEARCH JOURNAL, 2024 Publication	2%
3	Alvin Rizki Ramadhani, Diany Faila Sophia Hartatri, Sholahuddin Akbar. "Coffee and cocoa dissemination through information and communication technology (ICT) during the Covid-19 pandemic", E3S Web of Conferences, 2021 Publication	2%
4	I Summase, A N Tenriawaru, N M Viantika, A Amrullah, M Arsyad, A Amiruddin, A B	1%

Hadman, M Arhim. "Development strategy of coffee agribusiness", IOP Conference Series: Earth and Environmental Science, 2020
Publication

---

5 Darwis, P Didiansari, Y Lumoindong, E B Demmallino, M A Ramlan. "Effectiveness of the Bansos Rastra distribution program in Kajang District, Bulukumba Regency", IOP Conference Series: Earth and Environmental Science, 2021 <1%
Publication

---

6 N. M. N. Z. Widiyanti, N. P. Sukanteri, P. K. Suparyana, E. Wahyuningsih, M. Syaputra, A. T. Lestari. "Development strategy of Marigold flower farming integrated with Trigona bees in the ecotourism area of ancient tree “kayu putih”", IOP Conference Series: Earth and Environmental Science, 2022 <1%
Publication

---

7 D N A Ahmad, S D Tarigan, B Tjahjono, I S Sitanggang, H H Sakti. "The relationship between peak ground acceleration and landform for earthquake hazard assessment in Bulukumba Regency", IOP Conference Series: Earth and Environmental Science, 2023 <1%
Publication

---

8 H. Buko D., Gedebo A., Spetz C., K. Hvoslef-Eide A.. "An update of sweet potato viral <1%

disease incidence and spread in Ethiopia", African Journal of Agricultural Research, 2020
Publication

---

9 Kristianto Kristianto. "Participation Rate of Employees of RS X In The Covid-19 Vaccination Program to Break The Chain The Spread of Covid-19", Muhammadiyah International Public Health and Medicine Proceeding, 2021 <1%
Publication

---

10 Adefila J. O.. "Spatial Impact of Extension Workers' Performance on Sustainable Agricultural Development in Kaduna State of Nigeria", Journal of Sustainable Development, 03/27/2012 <1%
Publication

---

11 E Budiman, U Hairah. "Decision Making Analysis for Free Internet Quota Assistance Online Learning during the Covid-19 Pandemic", IOP Conference Series: Materials Science and Engineering, 2021 <1%
Publication

---

12 I K D Jaya, Rosmilawati. "Production and income dynamics of maize farmers in dryland of North Lombok Indonesia before and during the Covid-19 pandemic", IOP Conference Series: Earth and Environmental Science, 2022 <1%
Publication

13	Sukardi, Aamir Khan. "Offline Shopping Behavior during the COVID-19 Pandemic", Journal of Management Studies and Development, 2023 Publication	<1%

Exclude quotes	On	Exclude matches	< 1 words
Exclude bibliography	On		