

Supporting Food Security Indicator by Village Production Results Data Management for Rajaiyang Village Apparatus with Inventory Application Training

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ABSTRACT

Background: Rajaiyang Village is one of the villages in Indramayu Regency which has agricultural commodities in the form of rice production. In the current condition, even though it has a fertile area, welfare data of the community is not good enough from the management of these commodity products. The village government strategy requires support of information technology and knowledge development due to support regional food security and village sustainable development goals indicators.

Contribution: Increased understanding and ability to manage the availability of commodity results using information technology to support food security strategies.

Method: Inducting inventory training with an internet-based inventory application system for farmer groups and village apparatus.

Results: The ability of residents and village apparatus to become better, more prepared with the system and product inventory management process, together with BUMDes support as a village owned enterprise.

Conclusion: Implementation strategies and supporting facilities for village food security can be improved by using updated technology, as well as collaboration between village agencies for integrated decisions.

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INTRODUCTION

Rajaiyang Village is a village-level administrative area, located in Losarang District, Indramayu Regency, West Java Province, Indonesia. Located at the map coordinates latitude and longitude = (-6.438209392227047, 108.17728866216876) as in figure 1, with distance around 186 km, seems Rajaiyang Village is surrounded by paddy fields. Rajaiyang Village is one of three partner in collaboration program for community service development [1] between Indramayu Regency and UPN Veteran Jakarta.

Rajaiyang Village Overview

Rajaiyang Village has a village economic activity which is paddy farming for producing rice. Information about SDGs Indicators of Rajaiyang Village at website of Indonesia Ministry of Village Development on 2021 period shows values with aspects on :

- a) Rural poverty rate : rural poverty rate should reaches 0%, village extreme poverty rate should reaches 0%, the information about the village does not yet contains data.
- b) Equitable village economic growth (score 23.39): information the new workforce being trained reaches should 100%, but the village has score 0, for information about access to formal capital/financial and SMEs, the village has score 12.50.
- c) Village with justice and peace : information about village planning and financial document items can be accessed by the public, the village has score 0.

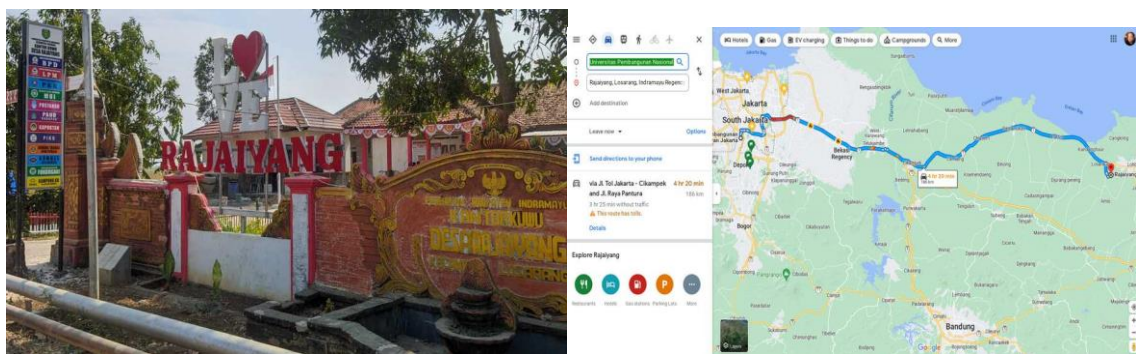


Figure 1. Village Office and Location of Rajaiyang

Meanwhile the village's economic activity and areas is mostly in paddy farming producing rice since decades, above current indicators values shows that Rajaiyang Village is required to maintain better data management related to its community productive activities. Village data management is required due to create better program management in coordination with regional government and also with private investment entities.

Community Based Food Security

Based on the discussion by Chen [2], indicators in the Global Food Security Index (GFSI) are grouped into the aspects, namely affordability, availability, quality and safety. Meanwhile, Badan Pangan Nasional (*Indonesian Food Security Agency - IFSA*) [3] also has developed a national strategy indicators, grouped into aspects of affordability, availability, quality and safety, but plus with sustainability, together with several action plans have been designed for 2023. As shown in figure 2, IFSA develop a strategy named as Strengthening Information & Communication Technology, will be including information systems implementation for : food prices, controlling and supervising food stocks and circulation, areas vulnerable to food insecurity and nutrition,

integration of food import data (volume, type, schedule), and also supply availability at the level of producers and suppliers.

Sustainable food system, as conducted by Koning [4], transition pathways are required towards more sustainable food systems with engagement of stakeholders. One of approaches distinguished is namely shared-knowledge creation, with an example is community of practice. Communities of practice can aid in connecting stakeholders and finding solutions or pathways through interaction and social learning.



Figure 2. Indonesian Food Security Agency Action Plan

Inventory Management Information System

Previous studies mentioning that food security is achieved mostly by good inventory system, managed with local authorities. Based on studies by Tuli [5], shows that the management of marine fish stocks at TPI (fish auction place) has been going well because of using a good work system among all people involved in the Gorontalo Marine Fish Auction Place and also using a good management of the fish stock caught. Good management process achieved by managing inventory properly and correctly in accordance with applicable standards.

Based on the program carried out by the IPB P4W team [6], who has held an Assistance Training for Commodity-Based Village Development Planning, the program found out that it is required to maintain knowledge of village community due to maintain supply and productivity for food security programs. According to Tony Wild [7], inventory control is an activity that regulates the availability of goods to customers. It coordinates the purchasing, manufacturing, and distribution functions to meet marketing needs. This role includes the supply of current sales items, new products, consumables, spare parts, obsolete items and all other inventories.

Based on result from Septiani [8], utilization of information system is expected to improve significantly to provide agile action based on accountable decision. With a product as Food Alert Village Information System designed as web service, *Badan Ketahanan Pangan Daerah* (Regional Food Security Agency) can monitor food supplies and aid recipients in an integrated manner as well as village residents able to obtain information to distribute village food via the internet.

Enterprise Resource Planning System

One of application solutions that might provide integrated information and process about stock sufficiency is namely ERP (Enterprise Resource Planning). Based on definition by Samiei [9], ERP is a strategic information technology tools to help enterprises gain competitive advantages through the integration of business processes and optimization of the use of available resources. Adoption was not limited to these enterprises and small and medium

enterprises have also begun using ERP to increase their competitive advantages and improve their position in the market.

Activity performed by Togatorop [10] at Humbang Hasundutan Regency, utilizing Odoo ERP (Enterprise Resource Planning) system while providing training for village farmers at Sosor Gonting Village of North Sumatra Province. The impact is that farmers not only become aware that they can manage production data even better by using appropriate technology, but also realized that they needed to develop their MSMEs by utilizing ERP.

Research conducted by Maulana [11], who implemented Odoo MRP (Material Requirement Planning) which contains Inventory and Warehouse [8] module for raw material inventory in controlling the production process for a manufacturing company, found that this MRP facilitates the smooth production process such as safety stock, then to systematically control the company is recommended use Odoo Manufacturing system module. Besides module of inventory management and material requirement planning, application of ERP at BUMDes also customization of accounting module, as conducted by Firdaus [12], by using a sales accounting information system using Odoo, it is expected BUMDes to be able to manage financial transactions and investment decisions.

ERP Application Training

Described by Knysh [13], ERP training methods might be performed using methodology named gamification, contains complete aspects and systematically mentions activity required, known as mechanics and dynamic. Table 1 describe participation of role playing in training.

Table 1. Game Mechanics and Dynamics in Gamification

Mechanics & Dynamics	Description
Immediate Feedback	A user receives an immediate response after making
Points, leaderboards, etc.	Assigns points to users based on their actions, and the leaderboard displays the number of points each user has
Narrative	Adds a background story, context, or overarching story to gamify the content of training
Missions, quests, etc.	Users required to complete tasks in order to progress through training
Competition	Pits trainees against each other, to motivates users to successfully complete training
Compensation	Rewards users for making correct choices/actions

By some of methodologies mentioned above, for our partner Rajaiyang Village, the purpose of this research that related to community engagement it is expected that with the ability to manage inventory information from the services, village farming team together with village officials and interested parties can have more complete and more accurate information about village production results. In the context of achieving index indicators (village development & food security), village apparatus should be able to create strategies on community productivity planning for commodities and specify any participations required which will provide facilities.

METHOD

Based on the partner's condition and the results of the previous research, the service team from UPNVJ proposed a solution using ERP application inventory management training to the problem of more detailed inventory management needs for each commodity produced by the village. Information of production includes warehouse master data, product types, product specifications, stock additions, stock reductions, stock transfers, and summary of production with stock reporting. Production information management is carried out by several roles, namely operator, supervisor and manager, will be simulated by the village apparatus together with village entrepreneurs and BUMDes (village owned enterprise).

For the initial stage, community service will be carried out to village officials, to village entrepreneurs who produce village commodity products, and young workforce candidates who will become entrepreneurs. Training provided in the interest of providing capability to village apparatus to generate reports data to the ministry's village office database and district area government.

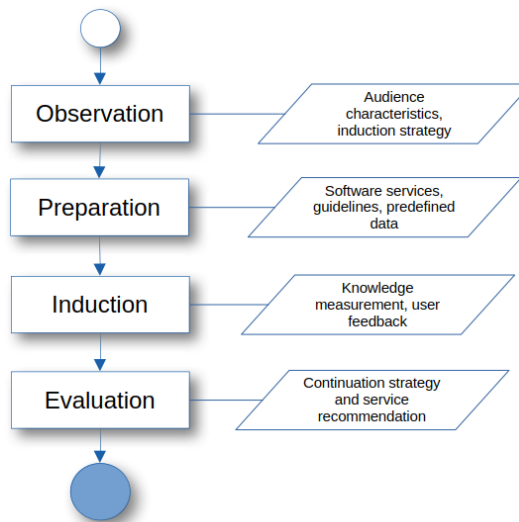


Figure 3. Steps of Implementation Methods.

The figure **Error! Reference source not found.** draws steps of implementation methods that will be carried out at this initial roadmap stage:

1. Observation
As a step for introduction about inventory information management strategy and cycles, performed as discussions on training strategies regarding inventory management will be carried out.
2. Preparation
As a step for team performing setting up an inventory information management system application server.
3. Induction
As a step for service team at village location with audiences performing experimental process performing inventory information management cycle training.
4. Evaluation
As step after induction training, conducting discussion and strategy development based on induction result, to create further feasible strategies.

RESULTS AND DISCUSSIONS

1. Introduction to Inventory Information Management Strategy and Cycle

Discussions were held with the head of the Rajaiyang Village Mrs Carti, and representative of farmer group. During this discussion, several conditions for the inventory process were obtained, including that for the namely Kebo variant rice commodity was harvested in the April season, the grain drying process was not carried out, but instead went directly to the grain buyers. This resulted in a shorter stock inventory process, compared to the harvest of namely IR variant rice commodities, which was harvested in October season, when rainfall volume is more than in April season.

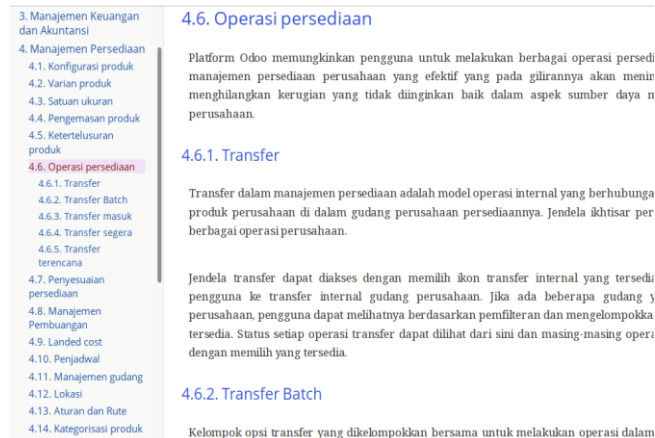


Figure 4. Odoo Guidance for Inventory Module

2. Setting up Training Application Server

At this stage the preparation of training facilities, namely supporting applications, namely the Odoo ERP module Inventory, and MRP, as well as related supporting modules. In addition, sample master data for training is also prepared, namely: company master, partner master, location master, warehouse master, etc. The application is installed on the internet cloud computing environment, so that it can be accessed by users from anywhere. Some of the commodities registered in the application are commodities that support food security based on references from DDE field including rice, red chili, cayenne pepper, and others. Setups also performed for MRP module based on guidance from Odoo Website [14].

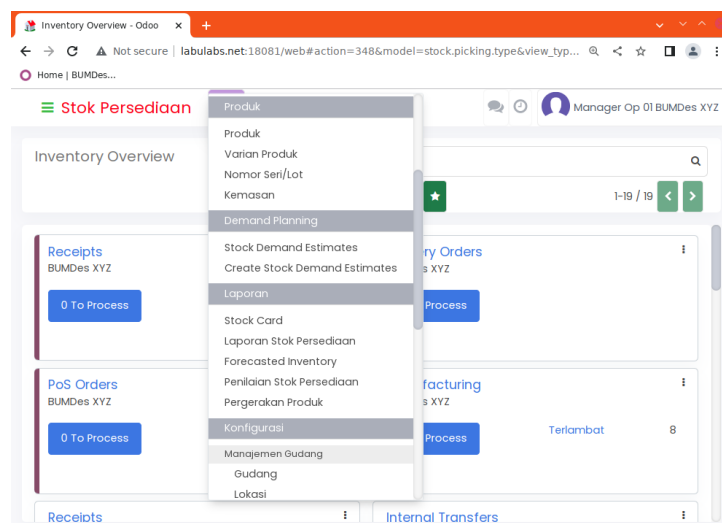


Figure 3. Application Server for Training.

3. Inventory Information Management Cycle Training

At this stage field training is carried out. This activity was carried out on the date September 5th 2022, until 06th September 2022. The training activities carried out participated by representatives from farmer groups, namely farmer assistants/helpers/farmer groups. This was done because at the time of the training it happened to coincide with the harvesting activities which had to be carried out, because the rainy season had come, while the paddy was ripe or fit for harvest. Table 2 shows a summary of the training participant profiles from Rajaiyang Village residents. Participants education information grouped in some level as : elementary school (ES), junior high school (JHS), senior high school (SHS), and bachelor (Bch).

Table 2. Summary of Village Participant.

		Job Position								Total
		BUMDes Staff	Farm Business				Other		Village Staff	
Sex	Education Age	SHS	ES	JHS	SHS	Bch	JHS	SHS	SHS	
Men	20-30								2	2
	30-40	1			1	1			1	4
	40-50					1			1	2
Women	<20							1		1
	20-30				1		2			3
	30-40	1		2						3
	40-50			2	2					4
	>50			2						2
Total		2	2	4	4	2	2	1	4	21

On the first day of training, several production data management processes were simulated including: product master data, location data master, stock transfer transactions, stock adjustment transactions.



Figure 4. Training Attendance at Village Office.

On the 2nd day of training training was carried out on the master data bill of material/ production plan module, stock movement reports. and stock value reports. The training was carried out in a product-based group mode, namely the rice to rice production stock group, then

the business unit group for rice derivative products and rice by-products, such as *rengginang*, straw, and agricultural raw materials.

Participants access the application using their mobile device, by connecting to the Odoo application internet server that was prepared beforehand. Shown in figure 5 are user perspective views using mobile device for accessing application forms. Participant internet access is facilitated by providing a WiFi access point with assistance from the organizer. This activity has been covered by regional mass media, in news reported by Mitra Dialog [15], Min Daily [16], and a news video on Youtube Channel [17].

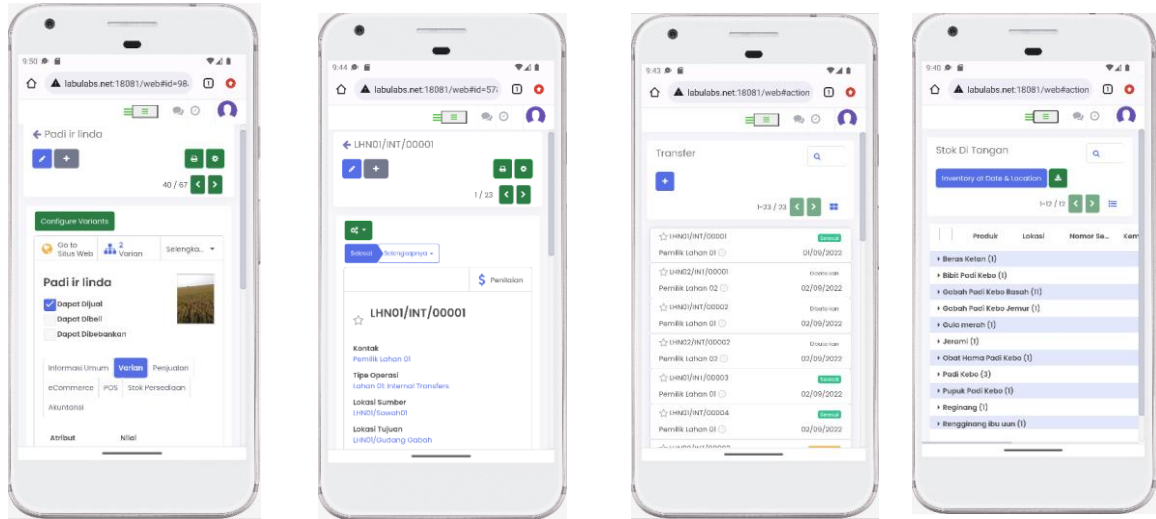


Figure 5. Inventory Application from Mobile View

The figure 5 presents a summary of the experimental results of the stock transaction in web application reports from process carried out by the training participants. Some of them are product movement reports, and e-commerce window displays that present a list of commodities and inventory information, which will be accessible to the public or government agencies, in the framework of managing both food and non-food commodities.

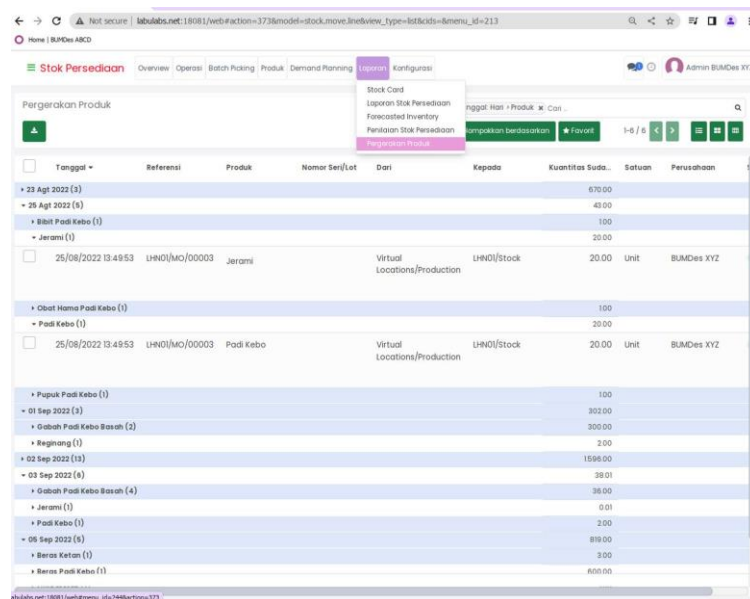


Figure 6. Sample of Transaction Summary from Operational Training

Figure 7 shows display from application website mentioning information can be accessed by public while participant data are ready to be acknowledged by public parties. This stock information might support development of marketing and sales capabilities of residents of Rajaiyang Village performing transaction in online trade using mobile applications, as conducted by Henki [18] .

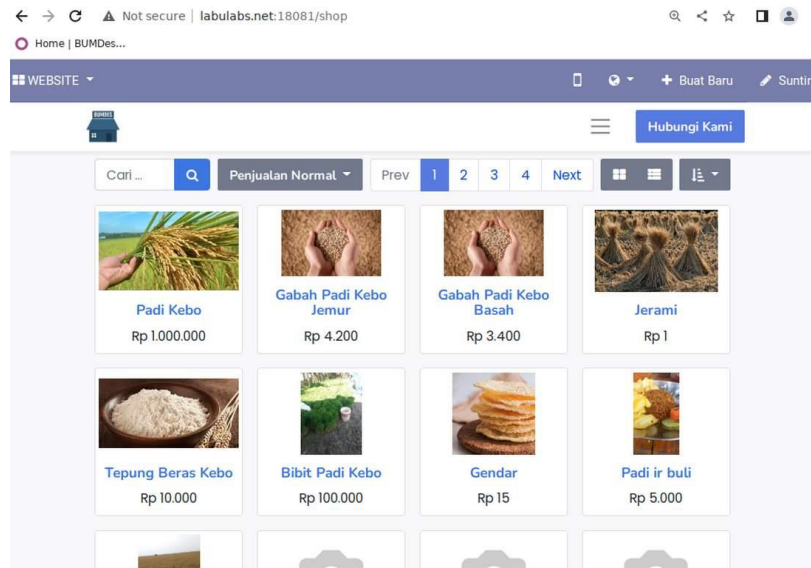


Figure 7. Information on website as result of experiments by trainee

4. Evaluation of The Experimental Implementation of The Inventory Management Process

In the next stage, an evaluation of the results of the training obtained, together with village officials, can be used as references for future strategy studies to increase the potential for filling in the IDM (Village Development Index) of Rajaiyang Village, in the context of recovering post-pandemic community economic activities. The discussion was held at date September 07th 2022.



Figure 8. Discussion with Village Apparatus about Stock Strategy.

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Workshop Results

The following is a summary of the results of the questionnaire conducted, to measure opinions regarding the increase in knowledge gained from the training.

a. Understanding of current activities

Summary shown in figure 9 is obtained regarding the capabilities of the training participants, whether they really understand business processes in the village, and whether they are business actors. It appears that most participant know that the business in the village is primarily rice farming, although there are other processes that have never been carried out.

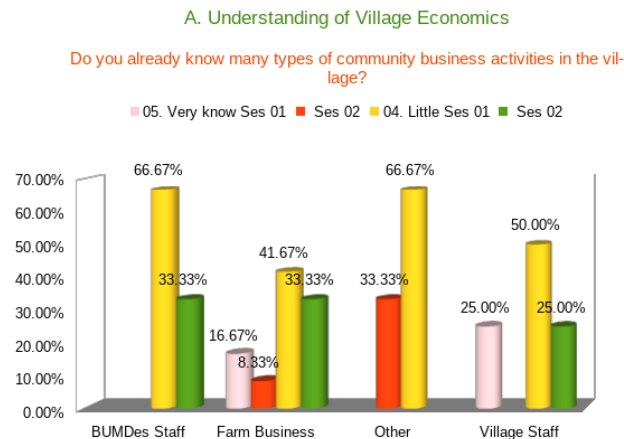


Figure 9. Knowledge of Village Business Activities

Summary shown in figure 10, presents that most of them develop to better understand business processes in a better way. Several community activities can be directed to support aspects of the Village SDGs [19].

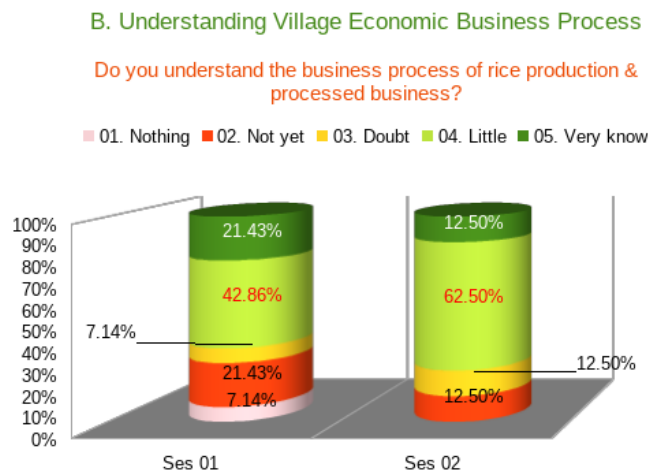


Figure 10. Knowledge of Rice Production and Processing

b. Understanding of system usage

Next, we measured the development of understanding knowledge about the processing of stock transfers with the application, obtained an increase of almost 18%, summarized in figure 10 This result can be improved with more interactive media using multimedia platform,

before using the application, based on Sari [20] multimedia interaction can improve knowledge acceptance with many education level.

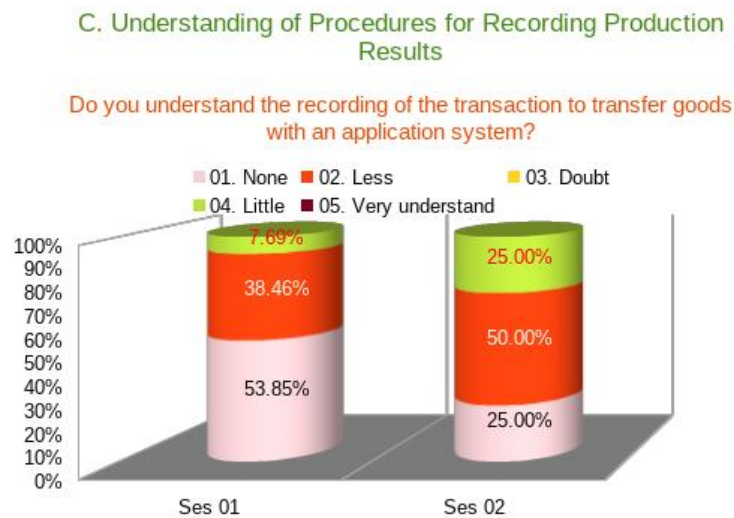


Figure 11. Understanding of Transfer Goods with System

While in figure 11 it is informed that after this initial training, most are highly motivated to manage stock inventory with the system. This condition is understandable, because access to recording system services is still located on the internet, or computer networks located at the Village office. Residents expect that the application can be used offline and based on artificial intelligence to minimize data input errors. Initial recording activities can be carried out independently at the location, then synchronized on the public internet network or the village office internet network. Android-based mobile applications compiled by Pratama [21] and Priyadi [22], can be used as a development reference and adapted to needs. The application of a mobile-based application will also be useful for delivery activities, with a transportation module that can be collaborated with BUMDesa, as in the example from Pradnyana [23] for transporting waste or other commodities.

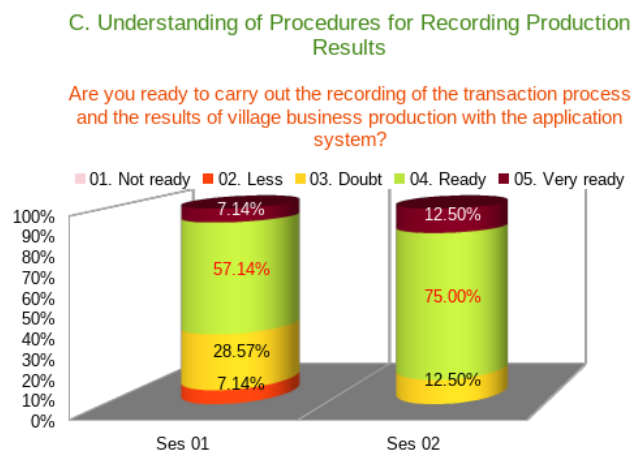


Figure 12. Readiness to manage inventory with system

c. Understanding of BUMDes contribution

As other information reviewed, we obtained data that after the training, according to the community, BUMDes should be able to help facilitate the recording of operational administration carried out by business actors in the village. This result can be improved with further analysis of village potentials with methods as explained by Nurjhadi [24], using AHP (analytical hierarchy process) methods can identified three categories of village activity can contributed by BUMDEs, such as On Farm Agriculture Category, Non Farm Agriculture Category, and Rural Service Category. BUMDes business process classification can also identified using PCF (process classification framework) grouping as main processes, and supporting processes as explained by Purabaya [25] can see in the figure 13.

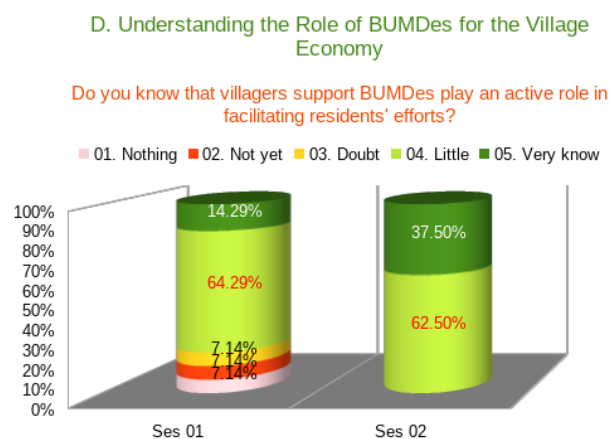


Figure 13. BUMDes Potentials for Village Businesses Supports

CONCLUSION

Inventory management and production recording training can inspire community to start managing product specifications and defining commodity production processes by residents, as to increase the variety of derivative products from the village's main product. Inventory management using the ERP web-based application with inventory and MRP module can support recording village business processes such as production on paddy fields, changes in grain or rice stocks, production of derivatives from basic commodities such as rice, to product sales. The participation of village apparatus together with investment parties need to be held to help actors in the village by providing facilities to support the resident's commodity production processes. BUMDes as one of the village economic institutions should start obtaining investment strategies and business models that are catalytic, utilizing information technology for administration and good governance. Stages for implementing business information system need to notice maturity level of BUMDes organization. Within the framework of support for the indicators of the village development index and the food security index, it requires joint action between several parties in areas that have the capacity to produce food. These interested parties at least consist of residents of the area, area managers, sustainable production groups, and investors providing assistance facilities.

In general, the results obtained are that several business units have the potential to be managed by BUMDes in Rajaiyang Village, for businesses supporting the main production, namely rice commodities. Several business units, namely grain oven machine rental, spare parts & maintenance services for agricultural equipment (harvesting, transportation), packaging of

processed rice derivative products for household products, even joint promotion services by BUMDes.

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REFERENCES

- [1] Dadang Iskandar, "Tiga Desa Tandatangani Perjanjian Kerjasama dengan UPN Veteran Jakarta," *OrbitNews*, Sep. 14, 2022. <https://orbitnews.id/read/regional/2702/tiga-desa-tandatangani-perjanjian-kerjasama-dengan-upn-veteran-jakarta> (accessed Oct. 27, 2022).
- [2] P.-C. Chen, M.-M. Yu, J.-C. Shih, C.-C. Chang, and S.-H. Hsu, "A reassessment of the Global Food Security Index by using a hierarchical data envelopment analysis approach," *European Journal of Operational Research*, vol. 272, no. 2, pp. 687–698, Jan. 2019, doi: 10.1016/j.ejor.2018.06.045.
- [3] "Badan Pangan Nasional - Bauran Kebijakan Pangan Nasional." <https://badanpangan.go.id/id/program> (accessed Oct. 31, 2022).
- [4] S. de Koning, W. de Haas, N. de Roo, M. Kraan, and M. Dijkshoorn-Dekker, "Tools for transitions : An inventory of approaches, methods and tools for stakeholder engagement in developing transition pathways to sustainable food systems," *Wageningen Marine Research, IJmuiden, C001/21*, 2021. Accessed: Feb. 20, 2023. [Online]. Available: <https://library.wur.nl/WebQuery/wurpubs/577270>.
- [5] H. Tuli, "Management of Marine Fish Inventory at Fish Auction Place in Tenda Village, Hulonthalangi District, Gorontalo City," *Journal of Applied Business, Taxation and Economics Research*, vol. 2, no. 1, Art. no. 1, Oct. 2022, doi: 10.54408/jabter.v2i1.131.
- [6] Tim P4W IPB, "Asistensi Perencanaan Desa Berbasis Komoditas Unggulan | P4W - LPPM IPB," *Asistensi Perencanaan Desa Berbasis Komoditas Unggulan*, Jan. 01, 2018. <https://p4w.ipb.ac.id/asistensi-perencanaan-desa-berbasis-komoditas-unggulan/> (accessed May 21, 2022).
- [7] T. Wild, *Best Practice in Inventory Management*. Routledge, 2017.
- [8] A. P. Septiani, W. Junardi, A. Amaliah, A. Bachtiar, J. I. Mahendra, and M. I. Muttaqin, "Sistem Informasi Desa Siaga Pangan Menghadapi Covid19 berbasis Web Service," *Jurnal Sistem Cerdas*, vol. 3, no. 3, Art. no. 3, Dec. 2020, doi: 10.37396/jsc.v3i3.63.
- [9] E. Samiei and J. Habibi, "The Mutual Relation Between Enterprise Resource Planning and Knowledge Management: A Review," *Glob J Flex Syst Manag*, vol. 21, no. 1, pp. 53–66, Mar. 2020, doi: 10.1007/s40171-019-00229-2.
- [10] P. Togatorop, "Pemanfaatan Enterprise Resource Planning (ERP) untuk Petani Di Humbang Hasundutan," *TRIDARMA: Pengabdian Kepada Masyarakat (PKM)*, vol. 5, no. 1, Art. no. 1, May 2022.
- [11] Y. Maulana, "Perancangan Framework Decision Support System Untuk Persediaan Bahan Baku Dalam Pengendalian Proses Produksi Dengan Odoo Manufacturing di PT. 3A Precise Scale," *JITMI (Jurnal Ilmiah Teknik dan Manajemen Industri)*, vol. 3, no. 1, Art. no. 1, Mar. 2020, doi: 10.32493/jitmi.v3i1.y2020.p49-58.
- [12] D. W. Firdaus, "Develop Accounting Information Systems of Sales in Village-Owned Enterprise," *IOP Conf. Ser.: Mater. Sci. Eng.*, vol. 662, no. 2, p. 022107, Nov. 2019, doi:

- 10.1088/1757-899X/662/2/022107.
- [13] V. Knysh, K. Patrick, and F. Zhao, "Gamification of ERP Training in Local Governments," in *HCI in Games: Serious and Immersive Games*, Cham, 2021, pp. 20–32. doi: 10.1007/978-3-030-77414-1_2.
- [14] "Manufacturing — Odoo 13.0 documentation." https://www.odoo.com/documentation/13.0/applications/inventory_and_mrp/manufacturing.html (accessed Dec. 16, 2022).
- [15] "UPN Veteran Jakarta Membangun Desa Berkemajuan Di Indramayu," *Harian Mitra Dialog*, Sep. 05, 2022. <https://harianmitradialog.com/upn-veteran-jakarta-membangun-desa-berkemajuan-di-indramayu/> (accessed Oct. 27, 2022).
- [16] "UPN Veteran Jakarta Berikan Edukasi Kepada Warga Kelompok Tani di Desa Rajaiyang," *MIN.CO.ID*, Sep. 05, 2022. <https://min.co.id/upn-veteran-jakarta-berikan-edukasi-kepada-warga-kelompok-tani-di-desa-rajaiyang/> (accessed Oct. 27, 2022).
- [17] UPN Veteran Jakarta Gelar Edukasi Kepada Kelompok Tani #UPNVETERANJAKARTA #DESARajaiyang #PPDI, (Sep. 06, 2022). Accessed: Oct. 27, 2022. [Online Video]. Available: https://www.youtube.com/watch?v=zF_IRL_b698.
- [18] Henki Bayu Seta, "Penguatan Kapasitas Kelompok Wanita Tani dan Ibu – Ibu PKK Dalam Penggunaan Digital Marketing | Surya Abdimas," *Surya Abdimas*, vol. 7, no. 1, pp. 61–68, doi: <https://doi.org/10.37729/abdimas.v7i1.2200>.
- [19] A. H. Iskandar, *SDGs DESA : Percepatan Pencapaian Tujuan Pembangunan Nasional Berkelanjutan*. Yayasan Pustaka Obor Indonesia, 2020.
- [20] N. Q. D. A. Sari, A. Setiawan, and E. Nurwulan, "Pembuatan Produk Multimedia Sebagai Media Informasi Dan Dokumentasi Pertanian Di Balai Besar Pengkajian Dan Pengembangan Teknologi Pertanian:," 1, vol. 8, no. 1, Art. no. 1, Jun. 2018, doi: 10.29244/jstsv.8.1.30-42.
- [21] N. A. Pratama, "Aplikasi Sistem Informasi Data Petani Dengan Optical Character Recognition Berbasis Android," *JIKO (Jurnal Informatika dan Komputer)*, vol. 6, no. 1, Art. no. 1, Feb. 2022, doi: 10.26798/jiko.v6i1.503.
- [22] I. Priyadi and R. W. J. Sagay, "Perancangan Dan Implementasi Aplikasi Pasar Komoditas Andalan Desa (PAKADES) Berbasis Mobile Android Untuk Petani Desa," *Jurnal Sistem Informasi*, vol. 1, no. 2, Art. no. 2, Sep. 2019.
- [23] I. W. W. Pradnyana, A. Fahmi, A. Zaidiah, M. B. Wibisono, B. T. Wahyono, and R. H. Purabaya, "Design and Build an Android-Based Waste Pickup Information System Using the Extreme Programming Method (Case Study: BUMDes Cahaya Buana Paku)," in *2021 International Conference on Informatics, Multimedia, Cyber and Information System (ICIMCIS)*, Oct. 2021, pp. 142–147. doi: 10.1109/ICIMCIS53775.2021.9699219.
- [24] M. Nurjhadi, E. Irawan, and A. H. Ilman, "Identifikasi Komoditas Unggulan Desa Untuk Mengembangkan Badan Usaha Milik Desa (BUMDES) di Desa Semabung Kabupaten Sumbawa," *Jurnal Ekonomi dan Bisnis Indonesia*, vol. 4, no. 1, Art. no. 1, Sep. 2019, doi: 10.37673/jebi.v4i1.382.
- [25] R. H. Purabaya, I. W. W. Pradnyana, and B. T. Wahyono, "Model Arsitektur Proses Bisnis Badan Usaha Milik Desa dengan Menggunakan Process Classification Framework (Studi Kasus: Badan Usaha Milik Desa 'Cahaya Buana Paku Banten', Desa Sukatani, Kecamatan Cikande, Kabupaten Serang)," *Informatik : Jurnal Ilmu Komputer*, vol. 15, no. 2, Art. no. 2, Jan. 2020, doi: 10.52958/iftk.v15i2.1468.