

# AGRICULTURAL AND PLANTATION PRODUCT MARKETING INFORMATION SYSTEM

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## KEYWORDS

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**ABSTRACT** The agricultural and plantation sectors play a key part in Indonesia's economic development. This is because the majority of Indonesians continue to rely on this industry for their lives, particularly as a provider of basics. Farmers in Marga Agung Village, Jati Agung District, South Lampung are one example. Currently, farmers purchase and sell agricultural products through agents, wholesalers, retailers, and consumers who rely on the conventional marketing system, resulting in a number of issues, such as the difficulty of selling suitable agricultural products. These agricultural products are getting more expensive in Indonesia, both in the eyes of customers and due to farmers' meager profit margins. Consequently, a WEB-based marketing system was developed utilizing a design methodology that employs the UML Tool. The objective and benefits of building this website are to promote agricultural and plantation products, to facilitate the purchase and sale of agricultural and plantation products by farmers, and to facilitate the acquisition of agricultural and plantation products by consumers.

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## 1. INTRODUCTION

Information System is a system within an organization that meets the needs of daily transaction management, supports operations, is managerial and strategic activities of an organization and provides certain external parties with the required reports. [Hutahaean \(2015\)](#). Information System is a system within an organization that fulfils daily transaction management needs, supports operations, is a managerial and strategic activity of an organization and provides certain external parties with the necessary reports. The process by which companies Create Value For Customers and Build Strong Customer Relationships to Capture Value from Customers in return according to [Kotler and Armstrong \(2014\)](#). According to this definition, marketing is the process through which businesses create value for customers and establish strong customer relationships in order to acquire customer value in return. Information technology must be utilized to support an information system. As a result of these technical advancements, computers may be utilized to construct marketing information systems such as the Agricultural Product Marketing Information System and Website-Based Plantation. On the other hand, the agricultural and plantation sectors play a vital role in economic development in Indonesia, as the majority of Indonesians continue to rely on them for their livelihoods, particularly as providers of basic requirements. Agriculture and plantations provide two benefits for the poor, namely alternate employment opportunities and improved food accessibility. Farmers in Marga Agung Village, Jati Agung District, South Lampung are one example. The village is one of the few with exceptional agricultural goods, including rice, cas-

sava, coffee, corn, chili peppers, and cocoa, among others. Currently, farmers purchase and sell agricultural products through agents, who subsequently sell them to wholesalers, merchants, and consumers in need. The conventional marketing system has resulted in a number of issues, including the difficulties of selling suitable agricultural products. The price of these agricultural items rises in the eyes of consumers, while farmers' profit margins remain low. This has necessitated the implementation of a website to assist farmers in Marga Agung Village, Jati Agung District, in buying and selling agricultural products directly. Regarding the common issues experienced by farmers in Marga Agung Village, Jati Agung District, South Lampung, farmers have difficulties advertising agricultural and plantation products in Marga Agung Village, and it is difficult to sell agricultural and plantation products at the appropriate price. Consequently, producers must sell agricultural and plantation goods via intermediaries. While the objective of this website is to promote agricultural and plantation products, it is hoped that in the future it will facilitate the purchasing and selling of agricultural and plantation products by farmers and the acquisition of agricultural and plantation products by customers.

## 2. MATERIALS AND METHODS

In general, system analysts frequently employ the waterfall model. The essence of the waterfall technique is the sequential or linear execution of a system's tasks. Therefore, the second step cannot be completed if the first step has not been completed. If the second step has not been completed, the third cannot be accomplished, and so on. The

third step will be performed automatically after the first and second steps have been completed. This model employs a methodical and sequential methodology. It is referred to as a waterfall because the subsequent steps must wait for the completion of the preceding one and run consecutively. Typically, the steps of the waterfall model are as follows: (Figure 1)

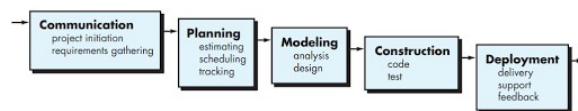


FIGURE 1. The waterfall model cycle, according to Pressman (2014)

This study employs the UML (Unified Modeling Language) modeling paradigm for system design. The UML model is a language for defining, visualizing, constructing, and documenting an information system. Unified Modeling Language is a widely utilized language standard in the industrial sector for determining requirements, analyzing and designing, and describing architecture in object-oriented programming. Suitable Modeling Language diagrams are utilized in the development of object-oriented systems. The Unified Modeling Language also provides a standard for designing a system blueprint that contains business process concepts, classes written in specific programming languages, database schemas, and system software components.

### 3. RESULTS AND DISCUSSION

Use-Case Diagram of a Website-Based Marketing Information System for Agricultural and Plantation Products is one of the outcomes of this project. based on the following image. (Figure 2)

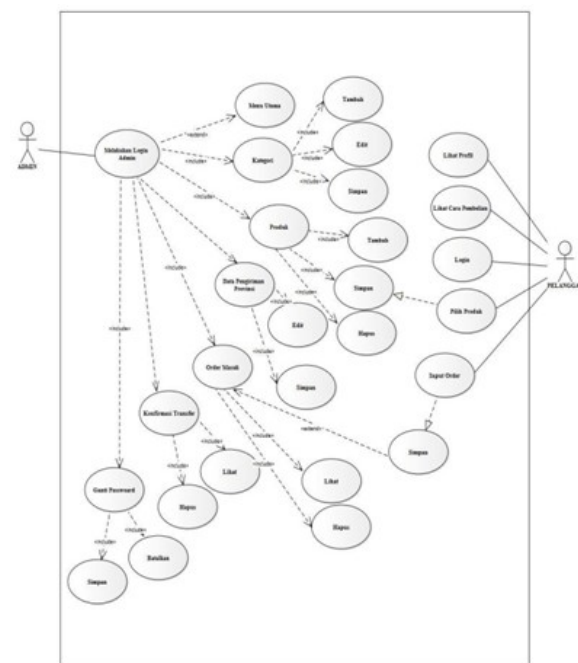


FIGURE 2. Use Case Diagram Customer And Admin Website

It can be explained that the administrator can add information about items or agricultural products, view consumer orders for goods, and view money transfer confir-

mations. In the meanwhile, consumers can explore agricultural goods and make purchases.

The research outcomes are the implementation stages of the system. The purpose of implementation is to familiarize users with the system's work operations in order to decrease mistakes. Then, researchers conduct training for users who will run the scenario by offering adequate Design of Agricultural and Plantation-Based Marketing Information Systems explanations. It is anticipated that this new approach would aid farmers in marketing and selling agricultural and plantation goods. Websites. (Figure 3)

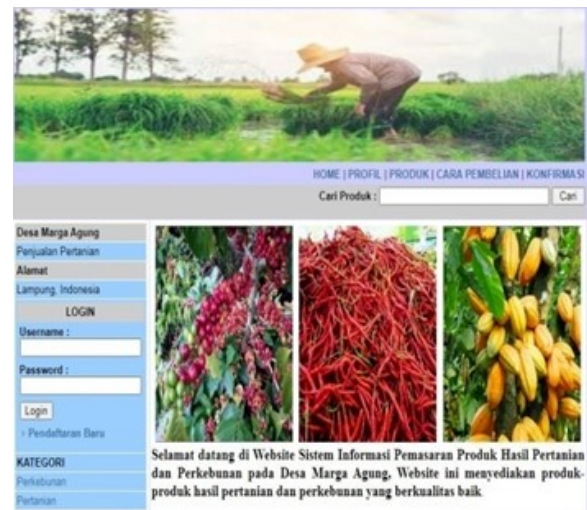


FIGURE 3. The results of the website page user interface design

**Limitations** This research has a limitation, particularly the lack of a return function that consumers may utilize to return products in the event of a delivery issue. And it is believed that more research would enable the website to become comprehensive, more appealing to customers, and compatible with mobile technologies.

### 4. CONCLUSIONS

Based on the study findings and the phases of system design, it can be concluded that the establishment of the system constructed based on this website is intended to assist farmers and consumers receive knowledge about agricultural goods. Farmers may simply determine the price range of agricultural items that apply in the market to offset the losses they face.

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Karnila and Sulistiyanto (2015) They are study articles that constitute the foundation of reference for the author so that they have indirectly contributed to this research. At the same time, various articles and book's like Zaki and Islami (2021), Jogiyo and Hartono (2017), Al Fatta et al. (2007), KADIR (2003), Kristanto (2003), Editya (2020), Community, Hathaway (2015), Hamidin (2017), Dixit (2007), Islami et al. (2021) are the papers and book's that have the most influence on the outcomes and ideas that emerge in this research. The source of funding for this research comes from local funds. As well as thanks are given to the Farmers and Apparatus of Marga Agung Village, Jati Agung District, who have given permission and contributed to this research.

## AUTHORS' CONTRIBUTIONS

These individuals have contributed to the completion of this research in accordance with their respective fields of expertise.

ANR and HDY designed the study and drafted the initial paper draft. HDY handles publication-related matters and edits manuscripts; YY Text translation, and evaluated the results of the design phase. All of the writers have approved the final version of the work.

## REFERENCES

- Al Fatta H, et al. 2007. Analisis dan Perancangan Sistem Informasi untuk keunggulan bersaing perusahaan dan organisasi modern. Penerbit Andi.
- Community Z. 2020. 36 Menit Belajar Komputer: Php Dan Mysql. Elex Media Komputindo. <https://books.google.co.id/books?id=Eva5mY4Yw-wC>.
- Dixit J. 2007. Structured System Analysis and Design. Laxmi Publications Pvt. Limited. <https://books.google.co.id/books?id=oEDWXmwaKwQC>.
- Editya D. 2020. Membuat Website Keren Dalam 1 Jam: Develop Website dengan Mudah dan Gratis. How-To. Lectura Publishing. [https://books.google.co.id/books?id=7yP\\_DwAAQBAJ](https://books.google.co.id/books?id=7yP_DwAAQBAJ).
- Hamidin M. 2017. Analisis dan Perancangan Sistem Informasi: Pembahasan Secara Praktis dengan Contoh Kasus. Deepublish. <https://books.google.co.id/books?id=MjxyDwAAQBAJ>.
- Hathaway T. 2015. Data Flow Diagrams – Simply Put!: Process Modeling Techniques for Requirements Elicitation and Workflow Analysis. Business Analysis Fundamentals. BA-Experts. <https://books.google.co.id/books?id=oO29DwAAQBAJ>.
- Hutahaean J. 2015. Konsep Sistem Informasi. Deepublish. <https://books.google.co.id/books?id=o8LjCAAQBAJ>.
- Islami MRR, Muharni S, Sutomo B, Syaputra MA, Yusuf R, Nurdyanto H. 2021. Application of the profile matching method in determining concentration courses of leading fields at stmik dharma wacana. Design Engineering:1806–1813.
- Jogiyanto, Hartono M. 2017. Sistem informasi pendekatan terstruktur teori dan praktek aplikasi bisnis. Penerbit Andi, 2017.
- KADIR A. 2003. Pengenalan sistem informasi.
- Karnila S, Sulistiyanto S. 2015. Aplikasi Pembelajaran Berbasis Online Untuk Manajemen Pengetahuan Bahan Ajar di Pon-Pes Roudlatul Quran Kota Metro. Informatika Mulawarman : Jurnal Ilmiah Ilmu Komputer. 10(2):51–58. doi:10.30872/JIM.V10I2.191. <http://e-journals.unmul.ac.id/index.php/JIM/article/view/191>.
- Kotler P, Armstrong G. 2014. Principles of Marketing. Always learning. Pearson. <https://books.google.co.id/books?id=EKANlwEACAAJ>.
- Kristanto A. 2003. Perancangan sistem informasi dan aplikasinya.
- Pressman R. 2014. Software Engineering: A Practitioner's Approach. McGraw-Hill Education. <https://books.google.co.id/books?id=dXlzCgAAQBAJ>.
- Zaki A, Islami MRR. 2021. RANCANG BANGUN MEDIA PEMBELAJARAN BLENDED LEARNING BERBASIS WEBSITE DI SMK KP GAJAHMADA 1 METRO. Journal Computer Science and Information Systems : J-Cosys. 1(1):1–9. doi:

10.53514/JC.V1I1.34. <https://www.e-jurnal.dharmawacana.ac.id/index.php/JCO/article/view/34>.