

## WEB-BASED APPLICATION FOR SEA PRODUCTS TRADING TO INCREASE FISHERMEN'S INCOME IN SECANGGAN VILLAGE

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**Abstract:** Secanggang Village has great potential in the fisheries and marine finance industry, but the income of BUMDES operating in this sector is still limited due to the lack of widespread market promotion. The research method used is Waterfall with the PHP programming language and MySQL database. The designed application includes literature studies to understand the concepts of digital marketing, e-commerce, and the benefits of website promotion in developing local businesses. Next, data was collected regarding Secanggang Village marine products, market needs, as well as BUMDES' goals and expectations to design the appearance and structure of the website in accordance with the identity and characteristics of the product. Digital marketing promotion websites are built with features that support e-commerce activities, such as product catalogs, online ordering and payment features. During the development process, testing and evaluation was carried out to ensure the functionality and responsiveness of the website as well as to collect input from potential buyers and BUMDES regarding user experience. Digital marketing promotion websites can create new business opportunities for BUMDES Secanggang Village, increase sales turnover of marine products, open wider market access, and empower the community's economy in a sustainable manner.

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### INTRODUCTION

The Collaboration Program discussed is a practical application of the output obtained from the National Collaborative Research Program carried out by Panca Budi Development University and Secanggang Village. The research program in question is entitled "Designing and Development of a Digital Marketing Promotion Website for Sea Products with the Aim of Increasing the Income of the Secanggang Village Community" (Wahyuni, Sari, Hernawaty, & Afifah, 2023), (Wahyuni, Sari, Hernawaty, & Afifah, 2022). The main livelihood of the residents of Secanggang Village revolves around agricultural and fishing activities. The Secanggang Village area has promising prospects for developing marine products (Sebayar, Nuzuliati, & Wahyuni, 2021), (Wahyuni, Lubis, Batubara, & Siregar, 2018) (Lubis, Hariyanto, & Harahap, 2022). However,

marine commodity buying and selling transaction activities still continue to occur around Secanggang Village. As a result, during periods of abundant fish harvest, market prices show a significant decline (Wahyuni et al., 2020) (Wahyuni et al., 2020). Secanggang Village has quite large marine resource potential, but still faces obstacles in the progress of the fishing industry and the production of marine products, including salted fish, fish floss, and processed fish crackers (Wahyuni, Mesra, Lubis, & Batubara, 2019)(Budhiarti Nababan & Sitompul, 2012). One of the challenges faced is related to limited accessibility to a wider market for the purpose of marketing their merchandise (Muttaqin, Mayasari, Pratama, & Ikhrom, 2023). The lack of exposure and promotion is hampering the ability of Secanggang Village seafood products to reach their maximum potential (Wahyuni, 2018)(Wahyuni, Saragih, & Tepin-angin, 2018). The implementation of a website-based promotional information system is a new approach to increase market penetration and increase the visibility of marine products, which have significant potential for Secanggang Village (Yasin, Sitompul, Zarlis, & Sihombing, 2019). The use of website-based applications can be applied to fishermen in Secanggang Village because on average fishermen already use handphones, so website-based promotional and sales applications can be used for the benefit of fishermen which are accessed via the internet. The application will be used and managed by BUMDes, Secanggang Village BUMDes can efficiently present and promote seafood products from Secanggang Village to prospective clients who live both inside and outside the Secanggang Village area. This website has the potential to become a representative platform in disseminating information about various product categories, quality and market value of seafood products originating from Secanggang Village (Wahyuni, Sitompul, Nababan, & Sihombing, 2021) (Khaliq & Sari, 2022) (Muttaqin, Mayasari, Pratama, & Ikhrom, 2022).

## **RESEARCH METHODS**

The Community Service Team promptly conducted program activities in Secanggang Village, followed by practical training in the Secanggang Village Office. During the implementation of the program, the team comprises of academic instructors who actively engage students in the execution of the autonomous learning campus. The approaches provided by the team are outlined below:

## 1. Academic Discourses and Deliberations

The community service team employs lectures and conversations as instructional approaches. The training participants are the environmental heads of Secanggang Village and the BUMDes apparatus of Secanggang Village.

2. The provision of lecture (training) content is typically offered to participants subsequent to the completion of a lecture, which is then followed by a discussion with question and answer sessions, as well as direct practical exercises.

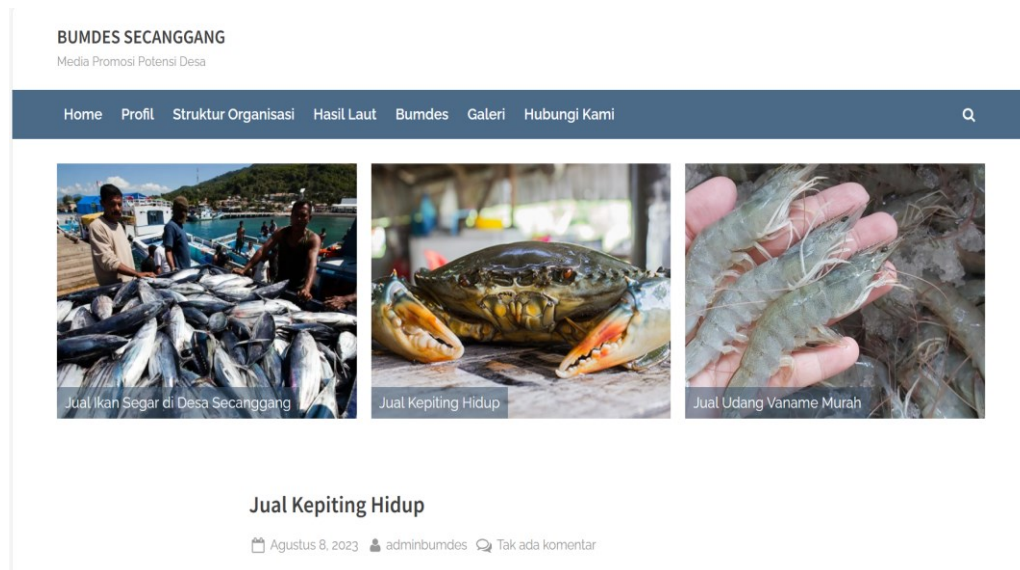
The training materials encompass:

This document presents socialization information highlighting the significance of utilizing Information Technology (IT) to enhance the services offered by BUMDes to the residents of Secanggang Village. The individuals who will be delivering the presentations are Sri Wahyuni, S.Kom, M.Kom.

This paper presents an overview of a Website-based Digital Marketing Promotion Information System developed by the research team. The system aims to facilitate the promotion of the sea basin of Secanggang Village.

The utilization of the Secanggang Village Digital selling promotional information system is employed as a means of promoting and selling marine products in Secanggang Village. This initiative aims to enhance the income of local fishermen in Secanggang Village, as stated by Dr. Erna Budhiarti Nababan.

The program is run using a web browser. In this test, the author uses the Google Chrome web browser and after the web browser starts, type in the address bar <http://bumdessecanggang.my.id/> to go to the main page of the digital marketing promotion website for marine products to increase the income of village bumdes:



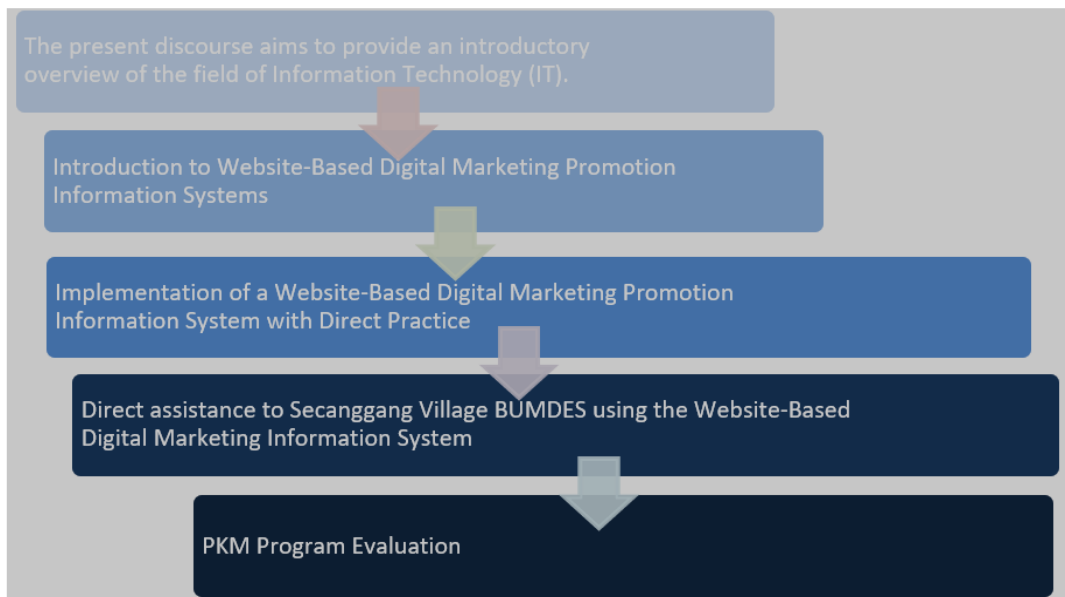
Picture 1. Program Display

The advantages of utilizing information technology, namely employing a digital marketing promotional information system for marine products, in order to expand market reach and enhance the income of fishermen in Secanggang Village, can be outlined as follows:

- a. Enhance the quality of services provided to tourists visiting the Deli Serdang museum.
- b. Acquire pertinent data for the purpose of forecasting visitor inclination towards visiting the Deli Serdang museum.
- c. The information obtained can be used as a basis or consideration in making policies or decisions in the efforts made to increase the number of sales of fish caught in Secanggang Village.

The team adopted a systematic approach in this program by engaging in discussions with the head of Secanggang Village to identify the challenges encountered and the necessary program requirements. Subsequently, the team conducted internal deliberations with the PKM team to enhance the program and refine the predetermined strategies, while ensuring alignment with the specific needs and characteristics of Secanggang Village. The team engaged in a discussion with the village chief of Secanggang, who served as a collaborating partner, on the implementation of the proposed ideas. The sequential set of operational protocols for the Community Service

program are outlined as follows:



Picture 2. PKM Sequential Program

## RESULTS AND DISCUSSION

The outcomes of the service activities conducted under the project titled "Implementation of a Sea Products Promotion Website to enhance the economic prospects of fishermen in Secanggang Village" encompass:

1. The utilization of the program serves as a strategic initiative aimed at enhancing the marketing of marine products, hence augmenting the revenue generation of web-based Village Fishermen.
2. To enhance the proficiency and expertise in utilizing website-based platforms for promoting marine products in Secanggang Village, it is recommended to conduct training sessions and workshops for both the fishermen and the officials of Kota Pari Village. Particular emphasis should be placed on providing training to the environmental head of Kota Pari Village.
3. Enhance collaborations between academic institutions and the local community to foster the advancement of web-based information technology.
4. The obtained outcomes of this service activity are expected to yield benefits for the Secanggang village community, particularly the fishermen residing in Secanggang Village and the neighboring community. Additionally, this initiative has the potential to serve as a model for the use of information technology within rural areas.

One of the actions conducted within the service program titled Implementation of a Sea Products Promotion Website to Increase the Income of Village Fishermen, involves providing training on the installation of a website dedicated to promoting marine products. This initiative aims to enhance the revenue generated by fishermen residing in Secanggan Village. The subsequent text provides an elucidation of the PKM training activities.

#### 1. Preparing for Training

During this phase, various tasks are undertaken, including the identification of training materials, the development of a guidebook for the Marine Products Promotion Website Application, the creation of instructional resources, and the selection of participants for the training program.

2. The implementation of the application pertaining to socialization and simulation. The training sessions commence by engaging participants in socialising and simulating the application. During this phase, participants are provided with knowledge regarding the concept of Promotion, Promotional Website Applications, and their practical utilization.

#### 3. Training for Application Usage

Following the completion of socialization and simulation, the training process proceeds to the subsequent stage, which involves direct application training. The participants will receive instruction on the utilization of the Website application that has been developed.

4. The concept of mentoring refers to a professional relationship in which a more experienced individual, known as the mentor, provides guidance, support,

Following the completion of the course, participants receive assistance and monitoring in the utilization of Website-based Promotion Applications. The objective of this initiative is to guarantee that participants possess a comprehensive understanding of the operational aspects of the website-based seafood promotion application, enabling them to effectively utilize its functionalities to their fullest potential.

#### 5. Assessment and Documentation

The ultimate phase encompasses the process of assessment and dissemination of findings. At this juncture, an assessment is conducted on the outcomes of training pertaining to website-based apps for promoting marine products, as well as the utilization of said applications by the participants. The assessment findings will serve

as data for the compilation of service reports and the evaluation of program effectiveness.

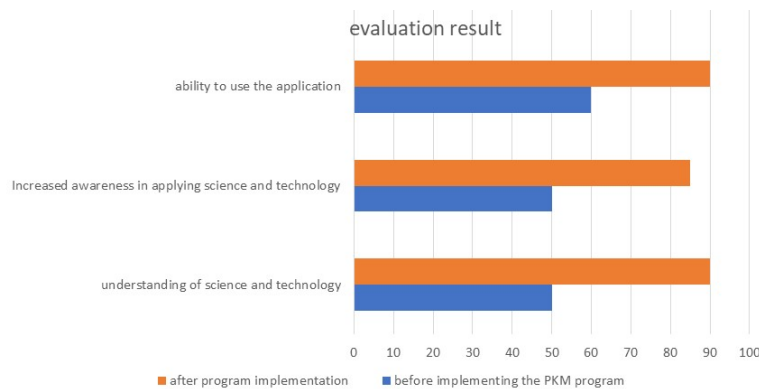


Picture 2. Application Submission to the Village Head of Secanggang



Picture 3. Presentation of PKM material

The results of the program evaluation can be seen in the graph below :



Picture 4. Evaluation Result

## CONCLUSION

Based on the aforementioned programs and activities, it can be inferred that the Marine Products Promotion Application in Secanggang Village has effectively facilitated the enhancement of promotion and sales in Kota Pari Village, exhibiting a seamless and prosperous implementation. The PKM program has demonstrated successful outcomes in enhancing the efficacy and efficiency of marketing marine products, specifically fish, shrimp, and crabs, within Secanggang Village. This service program aims to provide fishermen with training and support in utilizing website-based marine product advertising apps. Additionally, it includes the provision of trials and implementation at the village level.

In the implementation of this program, active engagement from the local community is sought, as well as the usage of local resources, including the expertise of local individuals and cooperation from the village authority, particularly the authorities of Secanggang Village. The evaluation findings indicate that this program has effectively delivered advantages to fisherman and village communities, while also enhancing the quality of service inside the company.

This program aligns with learning outcomes as defined by Key Performance Indicator (IKU) 5, which focuses on enhancing the skills and knowledge of community members in effectively managing the promotion and sale of livestock to fishermen. Additionally, it also addresses IKU 2, which aims to enhance community participation in the development and utilization of local resources.

In summary, the aforementioned service program effectively contributed to the growth of promotions and sales, resulting in a notable increase in the income of the

fishing community residing in Secanggang village. Additionally, the program successfully fostered greater community engagement and usage of local resources during the course of program development.

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