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E-Commerce System as A Web-Based Marketing Media for Fishermen's Catch in Wainami Village, Nabire Regency

Nicodemus Rahanra
Universitas Satya Wiyata Mandala, Indonesia
Email: nicorh73@gmail.com

ABSTRACT

Weinami Village is a village located on an island adjacent to Napan Village. The livelihoods of the residents in the village are as fishermen. The geographical position of the research location which is far from the city center makes it difficult for fishermen to market their catch. The livelihoods of residents around Weinami Village are fishermen, therefore there are no buying and selling transactions in the village, so the fishermen are confused about distributing their catch. E-Commerce is a system that connects sellers and buyers in an interaction network. If analogized as a market, then the transactions that occur take place digitally, not in a physical location. In this case, the business center is not a real building, but a digital-based system. By utilizing the internet network, the process of marketing and selling catches can be carried out widely without being hindered by national borders (Apridiansyah.et.all.2019). The author has developed a web-based fishing catch marketing system, starting from application planning to database creation. In the process, there was an error in the code that caused an error, but it was finally fixed. Currently, the marketing system in Weinami Village has been connected via localhost for testing purposes. Furthermore, this system is planned to be further developed with its own domain so that it can be used by fishermen in Weinami Village, thus facilitating transactions between sellers and buyers.

Keywords: *E-Commerce, Media Marketing, web*

INTRODUCTION

Fisheries are an important sector in the Indonesian economy, especially for coastal communities who depend on their marine catches for their livelihood. Wainami Village, located in Nabire Regency, is one of the areas with great fisheries potential. However, fishermen in this area still face various obstacles in marketing their catches, such as limited market access, dependence on middlemen, and unpredictable price fluctuations. Along with the development of information technology, e-commerce has become an effective solution in increasing product competitiveness and expanding marketing reach. The use of a web-based e-commerce system can be an innovative strategy in helping fishermen in Wainami Village market their catches more widely, both locally and nationally. With this system, fishermen can interact directly with consumers without going through intermediaries, thereby increasing their income.

The high number of fish catches is not in line with the decreasing market demand, so that fish prices have decreased significantly, even up to 50% (Mubarok et al., 2020). This situation is not comparable to the efforts and

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operational costs incurred by fishermen while at sea. As a result, many fishermen choose to stop fishing activities because they are worried that their catch will not be well absorbed in the market.

E-Commerce is a network of interaction between sellers and buyers. It can be likened to a market that operates digitally, so that the business center is no longer a physical building, but a digital-based system. With the internet network, marketing and sales of catches can be carried out widely without being hindered by national borders (Apridiansyah.et.all.2019).

Weinami Village is a village located on an island adjacent to Napan Village. The livelihoods of the residents in the village are as fishermen. The geographical position of the research location which is far from the city center makes it difficult for fishermen to market their catch. The livelihoods of residents around Weinami Village are fishermen, therefore there are no buying and selling transactions in the village, so the fishermen are confused about distributing their catch.
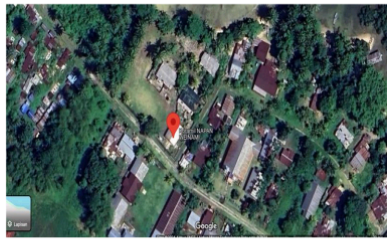
Location of Wainami Village

According to Halim (2015:65), sales are an agreement in which the owner of the goods (consignor) hands over the goods to another party (consignee), with the consignor receiving a commission from the transaction. From the various definitions that have been explained, it can be concluded that sales are a combination of science and art in influencing someone, where the seller tries to convince potential buyers to be interested and willing to buy the products or services offered.

Overall, e-commerce refers to trading activities conducted digitally via the internet. In addition, e-commerce can also be interpreted as a business process that utilizes electronic technology to connect companies, consumers, and the public in online transactions, including buying and selling goods, providing services, and exchanging information electronically.

In the trade sector, e-commerce has brought about various transformations. The buying and selling process can now take place without having to have a face-to-face meeting, as is common in conventional stores. Sellers and buyers simply make transactions online.

In E-Commerce operations, the internet is the main option for many individuals because of the various conveniences it provides, including:

a. The Internet is a wide public network with high speed and easy accessibility.

b. The Internet utilizes electronic data as a means of communication to convey messages or information, thus enabling efficient sending and receiving of data in both analog and digital formats. The presence of e-commerce as a fast and practical modern transaction platform provides benefits to various parties, such as consumers, producers, and sellers (retailers). With the internet, the buying and selling process becomes more efficient in terms of cost and time.

Web

A website is a collection of web pages that are combined in one domain or subdomain on the World Wide Web (WWW) network on the internet. In today's digital age, the internet plays a role as one of the main tools that supports various activities. With an internet connection, anyone can access the latest information from various locations using devices such as smartphones, tablets, laptops, or PCs. Websites have become a very popular platform for searching for information as well as a means of communication. Moreover, there are now various applications and guides that allow someone to create their own website from scratch without having to write code. Thus, website creation becomes simpler, which contributes to the increase in their number in Indonesia. Speed and effectiveness in disseminating information are the main factors that make websites remain an important means of managing and distributing information. A website is a platform on the internet that connects various documents, both locally and globally. The documents contained in it are called web pages, while the available links allow users to move from one page to another (hypertext), either on one server or on various servers around the world.

This study aims to design and develop a web-based e-commerce system that can be used as a marketing medium for fishermen's catches in Wainami Village. With this system, it is expected that fishermen can more easily sell their catches, increase efficiency in transactions, and create a more transparent and sustainable business ecosystem. In addition, this study will also examine the factors that can influence the success of implementing an e-commerce system in supporting the local fishermen's economy. Thus, this study is expected to provide a real contribution to the development of the technology-based fisheries sector, as well as being a reference for the government and related stakeholders in designing policies that support the digitalization of fisheries marketing in coastal areas.

METHODOLOGY

This study applies a qualitative method with a descriptive nature, which emphasizes analysis through an inductive approach. Qualitative methods do not involve statistics, but rather focus on data collection, analysis, and interpretation of results (Moleong, 2007). This approach was chosen because it allows researchers to explore in depth the experiences, perceptions, and challenges faced by business actors in running their businesses through e-commerce. This study aims to uncover various obstacles faced by business actors in the e-commerce ecosystem, both from technical and managerial aspects, to external

factors such as regulation and market competition. By exploring the direct perspective of business actors, this study is expected to provide more comprehensive insights into the obstacles they experience, as well as identify potential solutions that can be applied to improve the effectiveness and sustainability of digital-based businesses. The data collection method in this study involves in-depth interviews, observations, and studies of relevant documents. Data analysis is carried out thematically to identify patterns and relationships between variables that contribute to the obstacles experienced by business actors. Thus, the results of this study are expected to provide academic contributions and practical recommendations for stakeholders in the e-commerce industry.

RESULTS AND DISCUSSION
Login Page View

The homepage serves as the initial interface for users and is the first display that appears when they access the Web-Based Fishermen's Catch Marketing E-Commerce System in Weinami Village. This page is designed to be intuitive and informative, providing an overview of the services available in the system. In addition to being the first access point, the homepage also acts as a gateway for various types of users with different roles. In this system, there are three main types of users, namely admin, owner, and customer, each of which has different access rights and functions.

Admin is responsible for overall system management, including user management, transaction monitoring, and system maintenance to keep it running optimally. Owners, who are fishermen or parties who sell their catch, have access to upload products, set prices, and monitor order and transaction status. Meanwhile, customers act as buyers who can browse the product catalog, place orders, and access information related to shipping and payment (Parung, J., et al. 2021).

When users access the main page, they will be presented with various important elements such as a navigation menu, a list of featured products, the latest information on catches, and options to log in or register. After successfully logging in, users will be redirected to the dashboard page according to their respective roles, so that the experience of using the system becomes more personal and effective. In addition, the main page is designed responsively so that it can be accessed comfortably through various devices, including computers, tablets, and mobile phones. With a user-friendly layout and clear information, this system is expected to facilitate the process of marketing fishermen's catches digitally and increase market reach for fisheries business actors in Weinami Village. The visualization of the dashboard display can be found in Figure 4.2, while the customer registration procedure is shown in Figure 4.3. If the registration process is successful, the system will display a notification as shown in Figure 4.4.
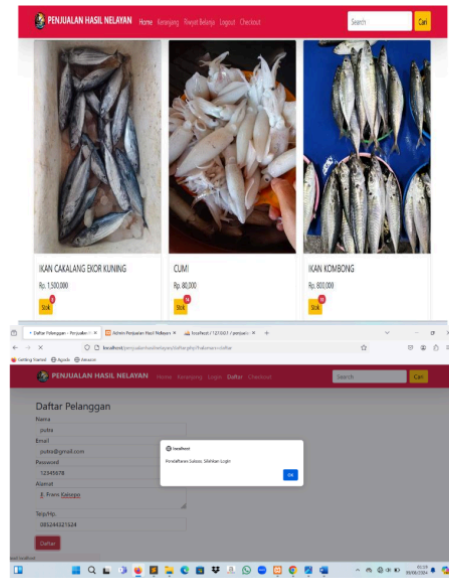
Notification display success

The next step is the login process. After customers complete the account registration, they will be directed to log in using the username and password that have been registered., can be seen in figure 4.5 and when the password and username input is wrong, it can be seen in figure 4.6, and if the password and username input are correct, it will display a notification that can be seen in figure 4.7 below.

Payment process

This page shows the process when a customer clicks on an item they want to buy, which will then go into the shopping cart. Next, the customer can check out, choose the shipping cost, and fill in the complete address. This process can be observed in Figures 4.10 to 4.13, until the transaction is successfully completed, which can be seen as follows:

(Nicodemus Rahanra)
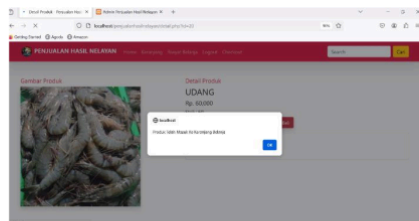
Display Image of Items in Cart
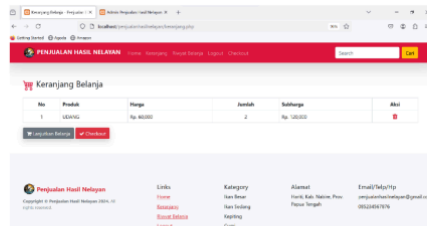
Display Image of Items in Shopping Cart

Shopping history page

This page view is the view when customers click to see shopping history and see purchase notes and see proof of payment, Figures 4.14 – 4.15 can be observed as follows:
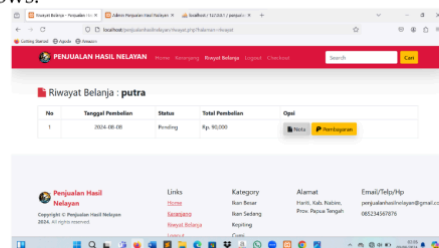

Image of Shopping history page view.

Purchase data and update status

This page displays the process when a customer makes a payment. At this stage, the admin will update the buyer's status, review the shopping history, view the purchase receipt, and check the proof of payment. Figures 4.16 – 4.19 below show this display:

Purchase Data Display Image

This page is a report page

This page presents daily sales reports that can be accessed by the admin. Details of the report display can be seen in Figure 4.21 below:

Sales Report Display Image

System Testing

In this study, software testing is carried out by administrators or users. The method used is blackbox testing, which is testing that focuses on the functional aspects of the system without considering the internal logical structure of the software. The purpose of this method is to ensure that the software works according to its function. Blackbox testing is designed based on the software specifications that have been created. The aspects tested using this method are as follows:

System Test Explanation Table

Test Class	Test Items	Types of Testing
Connect	*Connect*	*Black Box*
Login Page	Displays the login page when the application starts.	*Black Box*
Dashboard Page	Displaying Data by Classification Type	*Black Box*

| Data Entry	Displays the data input page to be sent to the server.	Black Box
Search Data	Displays data via a dialog box taken from the database server.	Black Box

Source: Data Processing

Test Results

A website is an online platform that allows for the interconnection of documents, both locally and globally. Documents on a website are called web pages, while links within them act as connectors that allow users to move from one page to another (hypertext), either on one server or across multiple servers around the world.

Manual Sales Table

Day	Total Sales	Price	Sales Amount
Monday	6	100,000	600,000
Tuesday	8	100,000	800,000
Wednesday	12	100,000	1,200,000
Thursday	11	100,000	1,100,000
Friday	12	100,000	1,200,000
Saturday	13	100,000	1,300,000

Source: Data Processing
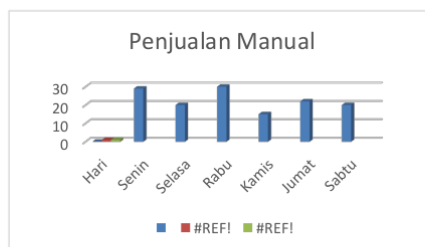
Source: Research Data

E-Commerce Sales Table			
Day	**Total Sales**	**Price**	**Sales Amount**
Monday	29	100,000	2,900,000
Tuesday	20	100,000	2,000,000
Wednesday	30	100,000	3,000,000
Thursday	15	100,000	1,500,000
Friday	22	100,000	2,200,000
Saturday	20	100,000	2,000,000

Source: Research Data

Source: Data Processing

Comparison Table		
Day	**Manual Sales**	**Sales Using E-Commerce**
Monday	6	29
Tuesday	8	20
Wednesday	12	30
Thursday	11	15
Friday	12	22
Saturday	13	20

Source: Research Data
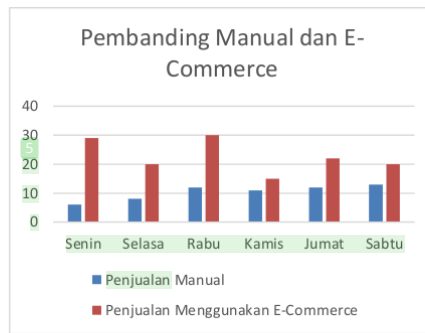
Source: Research Data

CONCLUSION

The author has conducted a series of tests on the Web-Based Fishermen's Catch Marketing E-Commerce System, starting from the planning stage to the implementation of applications and databases. In the development process, there were several technical obstacles, such as errors in writing codes that caused errors in the system. However, with various efforts and improvements made, the system was finally completed properly. Currently, the fishermen's catch marketing system in Weinami Village has been running locally (localhost), allowing transactions between sellers and buyers in a limited environment. In the future, this system is planned to be further developed by using its own domain, so that it can be accessed by more users widely. It is hoped that with this system, fishermen in Weinami Village can more easily market their catch digitally, increase transaction efficiency, and expand their marketing reach.

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