

# Application of eCommerce Technology As an Online Sales Media

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## ABSTRACT

The increasingly rapid use of the internet as a result of the development of information technology infrastructure is in fact able to encourage the birth of a new paradigm in conducting business processes, namely the use of the internet and information and communication technology infrastructure. In the midst of the widespread use of *e\_commerce* technology today, it has also penetrated the MSME business sector. The purpose of this research is to implement *e\_commerce* technology that functions as an *online* sales medium, to find out the obstacles faced in implementing *e\_commerce* technology, and to know the advantages and disadvantages of *e-commerce* implementation. The object of this research is MSME Aneka Makanan "ALBAR", Kebonagung, Malang, East Java, which is engaged in *food and beverage*. The MSMEs were initially observed that this research had not yet fully carried out digital transformation even though they had used social media to promote their products. One of the obstacles that arise is because business owners, as well as business people, do not fully understand the *e\_commerce platform* and its functions. Businesspeople not only want to promote their products but also want to make online sales transactions. By applying e-commerce technology to MSMEs, it is hoped that they can help by providing solutions for MSME actors in selling their products during the COVID-19 pandemic so that the income from the Aneka Makanan "ALBAR" business does not drop drastically even though on the one hand it has to reduce direct contact with buyers.

### Keywords:

*e\_commerce*, *social distancing*, technology, *online sales*, COVID-19.

## 1. Introduction

The importance of technology in building the economy of a country really depends on how much technology is used in the industrial sector. The technology model can be interpreted as a form of technical service that is provided to fulfill, find and obtain or create technical resources needed for application purposes (Adiwihardja, C., 2016). This is in line with the increasingly rapid use of the internet as a result of the development of information technology infrastructure which encourages the birth of a new paradigm in conducting business processes, namely by using the internet and information and communication technology infrastructure as quoted from Yustiani, R., 2017. The business processes carried out through information and communication technology media as well as the internet is called *e\_commerce*. *E\_commerce* is a business that uses virtual space for business people as its operational space, as quoted by Yustiani, R., 2017. In the midst of the widespread use of *e\_commerce*

technology today, it has also penetrated the business sector, especially MSMEs. The use of *e-commerce* has increased in Indonesia (DailySocial and Veritrans, 2012) cited in Miftah, M., S., 2015. This is related to the purpose of this study, namely implementing *e-commerce* technology that functions as a promotion and sales medium online. The rest is to find out which *e-commerce* platforms are suitable for MSME products, as well as to know the various obstacles faced in implementing *e-commerce* technology. This research activity takes a case study on the MSME business of Aneka Makanan "ALBAR", Kebonagung, Malang, East Java, which is engaged in food and beverage. The business is currently not fully digitally transformed even though it has used social media to promote its products. This is in line with the program from the Malang City Government which is currently intensively conducting outreach and education to the public regarding the implementation of *digital transformation* for MSME business players in the Malang area. As a result of the outbreak of the COVID-19 pandemic in Indonesia in early 2020, which significantly affected various forms of business and daily human activities, an economic crisis emerged which was *significantly* felt by Micro, Small and Medium Enterprises (MSMEs). This was followed by a decline in people's purchasing power due to the implementation of *social distancing* and various health protocols during the *COVID-19* pandemic. This also significantly affects people's lifestyles, which tend to leave conventional shopping and switch to *online* shopping. This is what causes MSME actors to experience a decrease in income from conventional business results, not to mention the business in Aneka Makanan "ALBAR". Supported by the results of the central bank survey, 72.6% of the MSMEs fostered experienced a decline in performance, due to reduced turnover and delays in the distribution of funds. Especially after the Ministry of Cooperatives and Small and Medium Enterprises considered that digitization for MSME actors was a must.

The Deputy for Production and Marketing of the Ministry of Cooperatives and SMEs is also trying to encourage MSME players to survive and continue to thrive in the midst of the *COVID-19* pandemic. Following up on this, the Aneka Makanan business "ALBAR" has gradually shifted its product promotion and sales activities, which were originally conventionally switched to digital. However, this is experiencing obstacles because business owners as well as business people do not yet know the appropriate digital business *platform* for each of their products. It is known that Aneka Makanan "ALBAR" produces various processed *frozen food* products, namely tofu baso, nuggets, risoles mayonnaise, sepol, cireng, and others. The rest also serve food for catering, rice boxes, and others, where the food menu adjusts to consumer orders. This has prompted researchers to conduct research in Aneka Makanan "ALBAR", Kebonagung, Malang. By implementing *e-commerce* technology, it is hoped that it will help the perpetrators and owners of the MSME business related to the use of the *e-commerce platform* to promote and sell their products, as well as to find out various kinds of obstacles that may arise and must be faced by business people in implementing *e-commerce* technology. It is hoped that the results of this research can help reduce operational costs that are routinely issued and can convey detailed and fast information about their products to consumers. This is supported by the opinion of Miftah, M., S., 2015, that in the business world, a website in the form of *e-commerce* is already a necessity of a business that has advanced at this time for business development because there are various benefits possessed by *e-commerce*. Among them are consumers do not need to come directly to the store to choose the goods they want to buy and companies can carry out transactions for 24 hours. Consumers can save costs and for entrepreneurs can save on promotion costs, if the location of the business is far away, consumers can save on travel costs by being replaced by shipping costs that are much cheaper and entrepreneurs can market their business to a wider area. According to Adiwihardja, C., 2017, in *E-Commerce* as an Entrepreneur Strategy Technology Innovation Model According to User Preferences at *Jakartanotebook.com*, that the development of information and communication technology will affect economic behavior as a means to create, distribute and market a product quickly and easily. For example, the development of the internet and the web has changed various concepts and propositions and business models, in other words, the development of the internet has changed massively in reducing the costs of creating, storing, and sending documents, thereby making information more quickly absorbed by the public. Because of this, it is expected that the income from the Aneka Makanan "ALBAR" business can be maximized and can compete with similar businesses. Quoting the opinion of Miftah, M., S., 2017, that along with the development of the current business world, *e-commerce* is a necessity to improve and win business competition and product sales. In the process of using *e-commerce*, buying and selling and marketing activities are more efficient

where the use of e-commerce will show the ease of transactions, reduce costs and speed up the transaction process. The quality of data transfer is also better than using a manual process, where re-entry is not carried out which allows *human errors* to occur. Moreover, the *sustainability* of the MSME business in the midst of the pandemic is maintained despite the economic crisis. The results of this study are also expected to be used as a reference and basis for the application of *e-commerce* technology to other similar MSME businesses

## 2. Methodology

According to Arikunto (2005:234) descriptive research is not intended to test hypotheses but only describes what symptoms, circumstances, or facts are. While qualitative research is a research method based on the philosophy of postpositivism, used to examine the condition of natural objects, as opposed to experimentation where the researcher is the key instrument, the data collection technique is triangular (combined), and the data analysis is inductive/qualitative, and The results of qualitative research emphasize meaning rather than generalization (Sugiyono, 2011:9). So, it can be concluded that this study uses a descriptive qualitative method that aims to provide solutions to system users in terms of designing and creating e-commerce websites to expand marketing.

Data Analysis Method According to Sugiyono (2011:244), data analysis is the process of systematically searching and compiling data obtained from interviews, field notes, and documentation, by organizing data into categories, describing it into units, synthesizing, organizing it into patterns, choosing which ones are important and which will be studied, and make conclusions so that they are easily understood by themselves and others. The data that has been obtained from the results of the study is then analyzed using Spiral Data Analysis, while the steps in analyzing the data are as follows (Creswell, 2007:151):

- a. Data Collection, which collects data from interviews in the form of text, as well as other data in the form of images, documents, and so on.
- b. Data Managing, namely processing data that has been obtained from "ALBAR" in the form of observations, interviews, and documentation and converting the data into appropriate text units in the form of words, sentences, and paragraphs to be analyzed by hand or computer.
- c. Reading, Memorizing, namely understanding and remembering the work of the existing system.
- d. Describing, Classifying, and Interpreting, namely describing, classifying the existing system and then providing suggestions for the creation of a new system.
- e. Representing, Visualizing, which is to present and display an overview of the new system on Various Foods "ALBAR" through the Visual E\_Commerce web display.

After the data has been analyzed, the next stage is the implementation stage, where this stage is the stage of translating the design based on the results of the analysis in a language that can be understood by the machine and the application of the software in the real situation. The steps involved in implementing e\_commerce are as follows:

- a. Exploration
- b. Installation
- c. Initial Implementation
- d. Full Implementation
- e. Expansion
- f. Employee training

The location of this research is MSME Assorted Food Albar which is located at Jalan Sidodadi, Gang 7, Sememek, Kebonagung, RT. 37, RW. 06, Pakisaji, Malang. The reason for choosing the location of this research is because MSME Aneka Makan Albar have not made online sales. Online sales that can still be reached are by using social media (Facebook, WhatsApp, and Instagram) and e-

commerce applications (Grab food and Go food). Thus, there is a need for a solution so that the MSME Aneka Makanan Albar has its own website and has own domain.

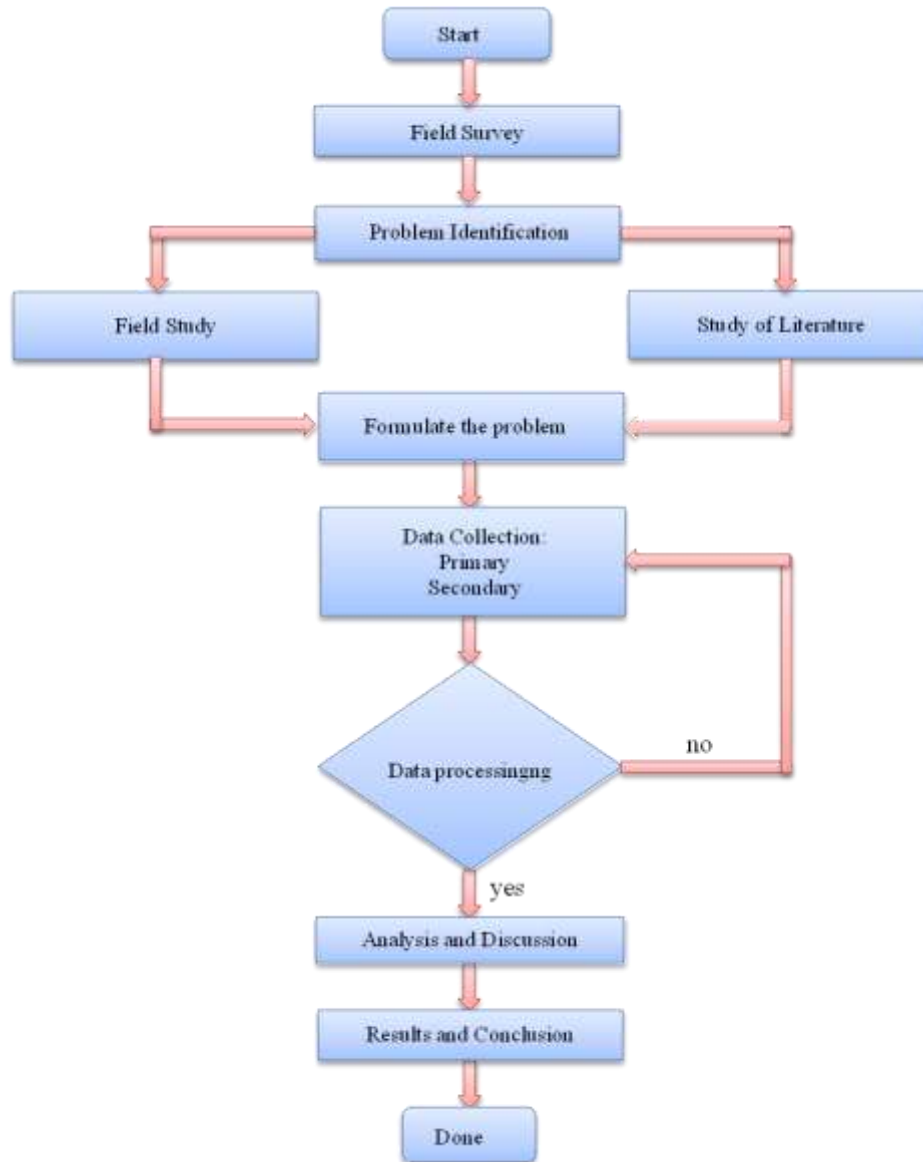


Figure 1. Research Flowchart

### 3. Result and Discussion

#### 3.1 Result

##### A. Website Design for Aneka Makanan Albar MSMEs

In the results of the study there is a data management process that will be used to design a website, which is divided into 2 parts, namely:

1. Planning Website content creation

The management of website content is done by means of documentation and interviews with leaders and the marketing department. This interview was conducted with the aim that the information needed to build a website is obtained completely and accurately. Some of the data collected:

- Info on the price of goods, the price of the goods must be included so that customers can assess and compare the prices of goods
- Quantity info (amount), to find out the number of stock items that have been sold or are still available on the list of items
- Information on product specifications, so that customers know the specifications of the goods to be purchased
- Customer data info, used to find out customer data who will order goods and also to maintain good communication relationships with customers
- Customer service info, to facilitate customer communication in providing suggestions, criticism or input and to obtain information. Usually use a cellphone number or email.
- Info on the location of MSME, showing the location of SMEs in Albar Food, on this website using a google map.
- Payment info, showing how the payment process and the bank that can be used to make payments

2. Website Development Management

In this process the data or applications needed to build a website are grouped and placed in one folder, in order to facilitate the implementation of the website creation, the following data and applications need to be prepared :

- Corel Draw, used to create designs, MSME banner logos which are usually placed in the header and design some product content to make it more attractive
- Rumah Web, used to create domains and hosting used in building e\_commerce website

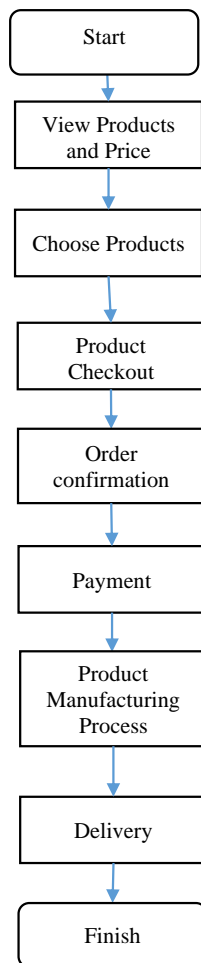


Figure 2. Sales System Diagram

From the flow chart above, it is known that consumers buy Aneka Makanan Albar products on the website through several stages, including the following:

- a. Start  
Consumers visit the homepage on the website page
- b. View products and prices  
Consumers see various types of food and the prices of Assorted Albaric Foods displayed on the website.
- c. Choose a product  
Consumers sort the desired product according to taste
- d. Checkout products  
Consumers buy the desired product on the website page
- e. Order confirmation  
Consumers contact the seller through the Contact Person listed on the website page
- f. Payment  
The seller confirms the payment via atm, digital wallet, or COD (directly)
- g. Product manufacturing process  
The seller makes the product according to the menu ordered by the consumer
- h. Delivery  
The seller sends the order to the address provided by the consumer
- i. Finish  
Consumers receive products that have been ordered and can enjoy and provide testimony about the quality of various Albar food products on the website page

## **B. Website Design**

The physical design of the website represents specific technicalities such as completeness of information, easy access, easy operation, quality, and attractive appearance. Physical design can show how the system that will be made can be implemented later. The menu for planning and creating an e-commerce website as an electronic sales medium can be seen as follows:

- a. Building a web  
In building this web, it is done offline or without using an internet connection. The things that need to be done in building and designing a web are:
  - Creating domains and hosting
  - Create an empty database
- b. Layout Designing  
Attractive or not a website is very dependent on making the basic layout and adding animation. As for the things that need to be done in designing the layout.
  - Installing templates which are then customized again as desired
  - Create a banner header logo using Adobe Photoshop and Corel Draw
  - Added animation.
- c. Input Data  
The data that has been collected as web content is then entered into the e\_commerce website, inputting product data being sold.
  - Input data information about the company
  - Input contact data and location of MSME

The following is a ready-made website that can be accessed via the internet (Google)



Figure 3. Website Management View



Figure 4. Home Page Display

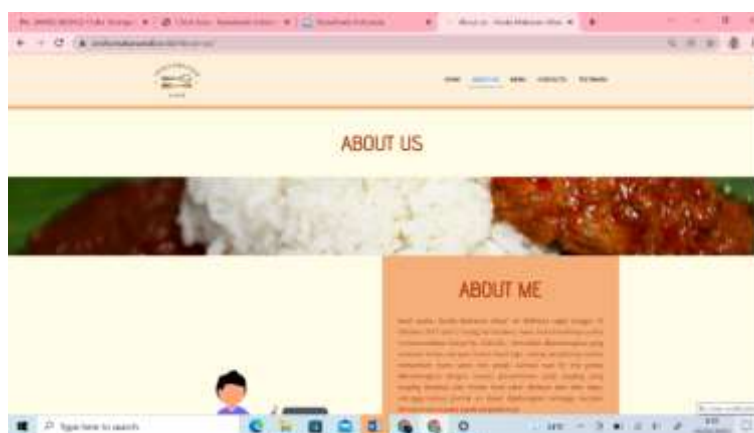


Figure 5. MSME Description Page Display



Figure 6. Menu Page Display



Figure 7. Display of Contact and Information Pages



Figure 8. Review Page Display



### 3.2 Discussion

In designing the MSME website, Aneka Makan Albar uses Rumah Web as its Web Builder to design and visually design web pages and administrator pages. With this website, people can see various kinds of food and drink menus they want, making it easier for people to choose what they want, both in terms of menus and prices. This website can make it easier for people to buy food and drinks simply by opening the internet, ordering, paying (via bank transfer, digital wallet, Cash On Delivery), and waiting for the arrival of the food and drink.

This website is the website of the MSME Aneka Makanan Alba which has the advantage of having complete content, including a company profile, menu, information system, both contact, and address. In addition, this website has a distinctive yellow color, which symbolizes the identity of the MSME and this website is a dynamic website that not only displays the menu but also has a review page as customer testimonials. A simple display will certainly make it easier for customers to understand

This study resulted in an online store website for MSME Assorted Foods Albar. This online store website serves to make it easy for customers to find information about products or goods sold by the store quickly. The seller is also a store admin who can input products, view products, delete products, edit products, manage transaction data, print sales reports, and store admins can cancel orders from customers. This admin can also manage store data, product category data, and shipping data and can see items that have been sold. This Online Store website also has a chat facility between customers and sellers so that customers and stores can easily interact with each other.

From the creation of a website page for the sale of MSME products, Various Albar Foods, there have been some progress from the old sales system to the new one as follows:

No.	Previous Sales System	Updated Sales System
1.	The seller cannot provide purchasing services for 24 hours non-stop to customers, only starting at 10.00 ± 19.00	The system is able to provide 24-hour non-stop service to customers
2.	Marketing activities are only carried out in Malang and surrounding districts	Marketing activities can be carried out in the district and city of Malang, even throughout Indonesia
3.	Customers must come to the store to make a purchase transaction	Customers can buy goods from anywhere and anytime, as long as they are connected to the internet
4.	Customers can check the condition of the goods directly	Customers can only see the condition of the goods from photos ± photos uploaded on the e-commerce website
5.	Business can only be run while in the shop	Businesses can be run from anywhere and anytime as long as they are connected to the internet
6.	Promotion costs are expensive because it requires a lot of paper and ink to print brochures and is unattractive	Promotion costs are cheaper because you only need to rent a domain and webhost and are more attractive with additional animations

A website is a computer system that acts as a server for business transactions equipped with a database system for a data warehouse. The data communication network (computer network/internet) is data traffic media between the client (buyer) and server (website). A data communication protocol is a set of data communication rules that control the exchange (sending/receiving) of data. The user interface (user interface), namely on the user side, the client computer system must be equipped with browser software to access data/information on websites, for example firefox, google chrome.

Non-technical aspects are aspects related to the implications that arise from the application of electronic technology in the world of commerce. Some important aspects to pay attention to are legal

aspects, electronic ethical aspects, global economic aspects to be used as a universally applicable basis in all countries for e-commerce customers. The concepts applied in e-commerce include business concepts, customer-to-customer concepts, business to business concepts. the concept of business to the customer is a system of transactions and communication between individuals. the customer to customer concept has the characteristics of being open to the public, where information is disseminated to the public, the business-to-business concept is an electronic transaction between one business entity or object to another business object. There are various ways that can be taken to start a business. Starting from large capital to minimal capital, starting from making your own shop to selling without a store like selling online.

#### 4. Conclusion

After analyzing and designing the planning and creation of a website as an electronic sales medium at MSMEs, Various Foods Albar, the following conclusions can be drawn:

1. MSME Aneka Makanan Albar has good potential as a trading company in the culinary field that has been trusted to help the community in providing services. The potential possessed by MSME Assorted Foods Albar is:
  - a. The number of customers both from Malang City and Malang Regency and even outside the city who come directly to MSME Assorted Foods Albar
  - b. Availability of facilities to support the activities of MSME Aneka Makanan Albar from computers and internet networks. Some MSME activities already use computers, such as recording product data, making customer deposit reports, and others.
  - c. The seller has skills in all fields
2. The application of analysis and design of the e-commerce website as an electronic sales medium will be able to improve performance in sales activities so that the MSME Aneka Makanan Albar can be better known by the wider community.

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