Online Sales System Analysis of PT. Nutrifood Indonesia through the distributor CV. Trio Sukses Mandiri Solo With Nutrimart Home Delivery (NHD) Application

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Abstract—PT. Nutrifood Indonesia is a national private company engaged in the health food and beverage industry. The company was founded in February 1979. Nutrifood's head office is located in Jakarta, with a distribution network that reaches more than thirty countries in the world. Meanwhile, CV. Trio Sukses Mandiri is one of the distributors appointed by PT. Nutrifood to distribute nutrifood products including Hilo, L-Men, Nutrisari, W'Dank, Tropicanaslim, Lokalate for the solo raya area.

The purpose of this research is to find out how effective the application of an online sales system is by using the method of observation, interviews and literature study to determine the effectiveness of the system.

Keywords—Information system, sales, online, offline

I. INTRODUCTION

In the current era, the development of Information Technology (IT) is very fast and has become an inseparable part of everyday human life. (Nendy Akbar Rozaq Rais, Kusriini, and Pramono n.d.). PT. Nutrifood Indonesia is a national private company engaged in the health food and beverage industry. The company was founded in February 1979. Nutrifood's head office is located in Jakarta, with a distribution network that reaches more than thirty countries in the world. Meanwhile, CV. Trio Sukses Mandiri is one of the distributors appointed by PT. Nutrifood to distribute nutrifood products including Hilo, L-Men, Nutrisari, W'Dank, Tropicanaslim, Lokalate for the solo raya area.

During the pandemic the last 1 year, of course, the company experienced difficulties in terms of growing sales turnover, so a strategy was needed to increase sales. One of the strategies that can increase sales is through the internet. Through the internet network PT. Nutrifood Indonesia created an online sales system so that it can add new customers and will automatically increase turnover from online sales through applications and offline through sales visits to regular customers.

With the online sales system, it is hoped that it will be able to make it easier for customers to get nutrifood products. For CV. Trio Sukses Mandiri itself as a distributor also benefits from a wider cover area by holding online sales.

1.1. Formulation of the problem
Based on the background of the problem described above, the problem formulations in this study are as follows:
1. Will the existence of an online sales system affect sales turnover?
2. How to deal with postage on online sales?

1.2. Restricting the problem
The problem boundaries in this study are:
1. The system provides information on the products offered.
2. The system provides information on prices and the number of products sold.
3. The system can provide information to customers about the products they are most interested in through sales traffic.
4. Orders can be made if registered as a member or customer.

1.3. Destination
The objectives of the research to be carried out are as follows:
1. Explain the impact of sales after a pandemic.
2. Apply online sales / order goods online without having to wait for scheduled sales visits.
3. Seeing the impact of sales turnover after online sales.
4. Implement a system to expand the distribution of goods online.

II. RESEARCH METHODS
Research is a process of seeking the truth about a phenomenon or fact that occurs in a structured and systematic way. This process is usually carried out by scientists or experts who are related to the thing to be searched for the truth. So, in simple terms, the meaning of research is an attempt to identify a phenomenon with a systematic sequence. This research is conducted using interview, observation and literature study methods.

1.1. Method of collecting data
The following data collection methods are as follows:
1. Interview
   Namely getting information by asking the respondent directly. This method is what is mostly done in Indonesia lately. The interview is one of the most important parts of any survey. Without an interview, the researcher will lose information that can only be obtained by asking the respondent directly. Such data form the backbone of a survey research.
2. Observation
That is the activity of knowing something from phenomena. These activities are based on knowledge and ideas that aim to obtain information from the phenomenon under study. The information obtained must be objective, real, and can be accounted for.
3. Literature review
Is an activity to collect information relevant to the topic or problem that is the object of research. This information can be obtained from books, scientific papers, theses, dissertations, encyclopedias, the internet, and other sources. By conducting literature studies, researchers can take advantage of all the information and thoughts that are relevant to their research. The role of literature study before research is very important because by carrying out this activity the relationship between problems, relevant research and theory will become clearer. In addition, research will be further supported, both by existing theories and by real evidence, namely research results, conclusions and suggestions.

1.2. Systems Development Method
The following methods in system development are as follows:
1. System Planning
At this stage a sales system will be designed starting from the planning stage. This system is a finished product that can still be adjusted according to the requirements needed. It modified the system at the request of the shop to suit the needs of daily use.
2. System analysis
The stages of system analysis are as follows:
1. Context Diagram
Context diagram is a special case of Data Flow Diagram (DFD) which functions to map the circle model which is represented by a single circle that represents the whole system.
2. Data Flow Diagram
Data Flow Diagram is a logical description of the system. This description is independent of hardware, software, data structure or file organization.
3. HIPO
Design tools and documentation techniques in the system development cycle from the top level of the main system to level 1 branches of input, process and output.
4. ERD
Entity Relationship Diagram
ERD is a model to explain the relationship between data in a database based on basic data objects that have relationships between relationships.
5. System Design
This stage is an attempt to construct a system that satisfies functional requirements specifications, meets targets, meets implicit or explicit needs in terms of performance and resource use, satisfies limits on the design process in terms of cost, time and equipment.
6. System Implementation
In making this sales system using the Visual FoxPro programming language with a MySQL database and using the Water Fall method. This system is a finished product that just needs to be adjusted (set up) and there needs to be an adjustment to the database plot. This stage is the application stage of the previous stages that have become a system. The completed system is designed to be easily understood and understood by the user. Users use this system in accordance with the work parts that have been determined. This is related to the limitation of access for each work computer.
8. System Testing
System testing is carried out to check whether a resulting system can be run according to certain standards (wishes). This is important in order to find errors or deficiencies in the system being tested. This is done to briefly check the accuracy of the system. The test carried out is black box testing. Where black box testing focuses on the functional requirements of software that is made without testing the design and program code. Testing is intended to determine whether the functions, input and output of the software comply with the required specifications.

III. Literature Review
3.1 Management information System
The system is a group that is integrated and collaborates to achieve the same goal by receiving input and producing output in a well-organized transformation process (O’Brien, 2003).
Information systems can provide services to its users in various fields, for example the fields of education, transportation, politics etc. (Nendy Akbar Rozaq Rais 2018)
An information system can be a regular combination of people, hardware, software, communication networks and data sources that collect, modify and disseminate information within an organization (O’Brien 2003).
An information system is a collection of interconnected components that collect (or retrieve), process, store and distribute information to support decision making, coordination and control within an organization (Laudon, 2003).
A management information system is an information-producing system that supports a group of managers representing an organizational unit such as a management level or a functional area (McLeod, 2001).
“Batik Information System Design in Toko Andini Plupuh”. This research is about the problems faced by the batik shop Andini Plupuh, namely the processing of sales process data processing and processing is still manual using Microsoft Excel. By paying attention to various problems and the development of technology, the authors propose to design a web-based sales information system that can connect store admins and consumers so as to improve sales performance and data processing. The method used in the design or development with SDLC. The design of this information system is expected to make it easier for companies to promote with the internet and the admin can process data on goods to make it easier, faster and more accurate in reporting. (Nendy Akbar Rozaq; Rais and Efendi 2020)
E-Commerce Batik at Batik Center, Pilang Masaran Village. This research is about the problems faced by the village of Pilang Masaran in promoting batik products. With current technological developments, the researcher proposes to design an e-commerce that will make it easier for batik entrepreneurs in Pilang Masaran village to promote and further increase sales results. The method used is data collection and system development. The e-commerce design is expected to help the Pilang Masaran community in

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promoting and increasing sales. (Nendy Akbar Rozaq Rais and Fadlilah 2015)

A management information system is a system that provides information in the form of reports and descriptions to be given to managers and professionals, such as sales analysis, production performance, cost reporting systems (O’Brien, 2003).

3.2 Title (example: SPK Scholarship)

The era of increasingly fierce technological developments today makes business competition in any field more varied. Many business methods are used by a company to attract as many consumers as possible (Kotler, 2003, p. 3). Starting from giving bonuses, placing advertisements, distributing brochures and selling via electronic media such as the internet.

This increasingly fierce business competition makes large companies and small companies compete with each other to improve their quality and sales techniques. Entering this era of globalization, many companies have many companies using online sales services to help market their products as well as provide convenience to consumers in choosing and ordering the products they want.

3.3. Supporting component

Write a basic theoretical description of the title taken, you can look for references from books, articles, proceedings or scientific journals. Make sure to give the citation at the end of the paragraph. At the end of the paragraph is given a reference citation. Writing format: Font: Arial, Size: 11, space: 1, if there is a citation, a [ ] is made at the end of the paragraph. In it are given numbers and then referenced in the bibliography. The writing format is arranged according to the template and lecturer examples.

3.4. Application Model

Analyze the application you choose from the company agency and determine whether the application model is online or offline, then explain the system mechanism of the application. This data is taken according to a field case study. Make sure to give the citation at the end of the paragraph. At the end of the paragraph is given a reference citation. Writing format: Font: Arial, Size: 11, space: 1, if there is a citation, a [ ] is made at the end of the paragraph. In it are given numbers and then referenced in the bibliography. The writing format is arranged according to the template and lecturer examples.

3.5. PHP Programming Language

Analyze the application you choose from the company agency and determine what programming language was used in making the application. After knowing the programming language, then look for references to explain the meaning and explanation of the programming language. Make sure to give the citation at the end of the paragraph. At the end of the paragraph is given a reference citation. Writing format: Font: Arial, Size: 11, space: 1, if there is a citation, a [ ] is made at the end of the paragraph. In it are given numbers and then referenced in the bibliography. The writing format is arranged according to the template and lecturer examples.

Analyze the application that you choose from the company agency and determine the type of database used in making the application. After knowing the type of database, then look for references to explain the meaning and explanation of the database.

IV. Results And Discussion

In the discussion, discussing the results of research in the form of system design as a whole are as follows:

4.1. Computerized Systems Analysis

System analysis is a process that must be carried out to determine the problems that must be faced. This stage is very important, because the inaccurate analysis process causes the results that are not as expected. So for this process it must be really in accordance with the use so that the results can satisfy the user and have the right benefits.

During the past year, it can be concluded that distributor has decreased due to the effects of the pandemic. Therefore, an online sales system was created to increase store / customer sales and create new channels that sales had not previously been able to cover through offline orders.

4.2. System planning

This stage is the system development and creation of new procedures in accordance with the desired needs. The design of this system is to meet the needs of system users and provide a clear picture of the computer program that will build the new system.

1. Context Diagram

Context Diagram is a part that is used to show / describe the data flow throughout the network, input and output. Identify the beginning and end of data, the beginning and end of the entry and output of the system. In this system, there are three entities, namely admin, distributor, customer and area manager. The admin distributor is in charge of providing products and packaging, providing input / data input to the system and obtaining the output from the system, while the customer and area manager are in charge of receiving the results / output from the system.

![Figure 1. Context Diagram](https://ijcis.net/index.php/ijcis/index)

2. HIPO

HIPO (Hierarchy Input Process Output) is used as a tool for system development and program documentation techniques. The most important goal of HIPO is to produce correct output and meet user requirements. The following is the HIPO of the sales system:

3.6. MySQL database

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3. DAD (Data Flow Diagram)

Data Flow Diagram (DAD) is a diagram that uses notations to describe the flow of system data, the use of which is very helpful for understanding the system in a logical, structured and clear manner. The following is a Data Flow Diagram Level 0, Level 1 Process 1, Level 1 Process 2 and Level 1 Process 3:

4.3. System Implementation

Implementation of the system is the process of making a system in the form of designing an application for scholarship admissions:

1. Account login

   ![Figure 7. Account login form](https://example.com/login_form.png)
2. Home view of the application

Figure 8. Home view

3. Report Result Display

Figure 9. Report Result Display

4. Successfully selected to continue to payment

5. Select Address

Figure 10. Successfully selected

Figure 11. Select Address
6. Enter the address

![Figure 12. Enter the Address](image12.png)

7. Select a payment method

![Figure 13. Select a payment method](image13.png)

8. Enter the voucher code (if there is a promo) and make a payment

![Figure 14. Enter the voucher code](image14.png)

9. Display of purchases that have been ordered

![Figure 15. Display of Purchases](image15.png)

10. Orders have been successful will get an incoming email

![Figure 15. Display of Purchases](image15.png)
4.4. System Testing
Testing is the final part of a system process. The purpose of system testing is to test whether the system is what the user expects.

4.4.1. Questionnaire Testing
This test contains the system test process through a questionnaire. The following are the results of testing the questionnaire by the author, as shown in table 1:

| No. | Respondents |
|-----|--------------|
| 1   | Marketing    |
| 2   | Marketing    |
| 3   | Marketing    |
| 4   | Marketing    |

4.5. SWOT analysis
The SWOT analysis of the system produces the following data, as shown in table 2:

| STRONGS | WEAKNESSES | OPPORTUNITIES | THREATS |
|---------|-------------|---------------|---------|
| Marketing | No. 12345678 | No. 98765432 | No. 43210987 |

V. Conclusions
At the end of this pentup is made in the form of conclusions and suggestions, namely as follows:

5.1. Conclusion
Based on the results of research and discussion in the previous chapter, the authors can conclude:

1. The existence of a new system in a computerized sales system can solve problems that occur in the old system (manual), because the old system in carrying out transaction processes produces less effective and efficient results. With the new, more modern sales system, it can produce results that are more effective and efficient as well as a solution to problems in the old system (manual).

2. The functionality testing carried out on the system uses the Black Box testing method. This produces normal results or is in accordance with the function of the system itself.

5.2. Suggestion
As for suggestions for agencies in using this system in order to be useful and run well, the user is expected to continue to carry out system maintenance regularly. In addition, it is also hoped that the agencies will improve the performance of the system so that it is even faster and there is a need for innovation in its development so that it can survive and can maintain consumer confidence (customers).

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