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User Requirement Analysis on Sales Information System at PT. MITRA INDOLINK GROSIR

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Abstract – The era is developing very quickly and dynamically, creating many changes that result in tight competition in the business world. The business world needs to follow the progress of information systems. Analysis of user needs in the business world needs to be done in order to find out the various needs of the company. The purpose of this study is to find out the results of the analysis of user requirements that are needed and that can support sales operations in the sales information system of PT. Mitra Indolink Grosir supports the company's sales operations. The research method used is by interviewing users of the information system which is then processed using the System Usability Scale (SUS) technique. The results of the analysis show that the sales information system with the TikTok shop application can be used efficiently and meets user needs (user requirements) with a value of 69.65 which is included in grade C.

Keywords : User Requirements; Information Systems; Selling

I. INTRODUCTION

The very dynamic development of the era has resulted in many changes developing so that we will face various challenges from similar companies both domestically and internationally [1]. The tight competition in the business world requires companies to be able to use a good information system as a strategy component [2]. An information system is a collection of components for collecting, processing, storing and distributing information to assist in decision making [3].

Companies need to have a strong sales information system to deal with competition. Sales information systems can help businesses process sales data such as managerial transactions and strategic activities in the sales system, then store them in a structured document report [4]. The online sales information system is one of the advances in technology which is an internet service used to carry out online buying and selling [5].

The sales information system requires an analysis of user needs where the capabilities, requirements and criteria in the information system need to be fulfilled so that user needs can be realized [6]. Generally, online sales services require complete sales information about the products being sold. The implementation of a sales information system is expected to provide convenience and comfort to consumers in shopping. Analysis of user needs is also important to find out the various needs of the company based on the needs that become the value of market competition [7].

In the sale of online information systems, it shows that an application is needed that uses an online sales system to record and store sales and buyer data, where the online sales system can improve operational performance. Companies also need media that can handle customer service. [8].

In its development, the fashion trade, especially for women, is also very rapid. One of the companies in demand is PT. Mitra Indolink Grosir, which is a company engaged in the wholesale of women's clothing and accessories. The need to use a sales information system is very important as a tool in managing sales so that they run effectively. Seeing

the importance of a sales information system for internal control,the author is interested in conducting a study entitled "Analysis of User Requirements for Sales Information Systems at PT. Mitra Indolink Grosir". Formulation of the problem is How does the analysis of user requirements in the sales information system at PT. Mitra Indolink Grosir support the company's sales operations?, What are the recommended user requirements for the sales information system at PT. Mitra Indolink Grosir? the purpose of this study is to determine the results of the analysis of user requirements that are needed and that can support sales operations in the sales information system of PT. MITRA INDOLINK GROSIR.

In the modern business landscape, effective collaboration among team members is essential for successful project creation and management. Organizations must leverage technology not only to enhance internal communication but also to streamline operational processes. In the context of sales information systems, collaboration is critical for ensuring that user needs are accurately captured and addressed. PT. Grosir Mitra Indolink, a key player in the wholesale distribution industry, faces challenges in aligning its sales processes with user expectations.

This study highlights the importance of a user-centered approach to the development of a Sales Information System. By identifying and analyzing the specific needs of users, organizations can create systems that foster collaboration, increase efficiency, and improve overall performance. Traditional systems often fall short in accommodating the dynamic requirements of sales teams, leading to operational inefficiencies and reduced user satisfaction.

II. LITERATURE REVIEW

A. Information System

An information system is a collection of subsystems, both physical and non-physical, that are interconnected to achieve the goal of processing data into meaningful information [9]. An information system is something that can collect, store, process and analyze information to produce something specific [10].

An information system consists of a collection of interrelated parts that define boundaries, work together to achieve goals by accepting input, and producing output from an organized transformation process including hardware, software, databases, networks, procedures and people [11].

Based on research conducted by Siahaan, Fayardi, & Tamtoko who conducted an analysis of the needs of an online sales information system at the Pontianak jaulah distro store which showed that applications were needed that used an online sales system to record and store sales data and buyers could make several conclusions. First, the store needs an application that supports the delivery of information to improve operational performance. Second, the store needs media that is able to handle customer service.

B. Sale

Sales are efforts or actions taken to move a product, either goods or services, from producers to consumers as the final destination. The main purpose of sales is to gain profit from goods made by producers. Sales themselves cannot be done without other people, such as agents, traders, and marketing. Sales are efforts to encourage people to buy goods offered in a way that benefits both parties [12].

The stages of sales include: a) preparation before sales, namely by providing an understanding of the product being sold, the target market and sales strategy, b) determining potential locations, c) preliminary approach, d) making sales, e) after-sales service [13].

C. Sales Information System

The sales information system processes data related to sales, from purchases to sales transactions, to support sales activities. [14]. The sales information system processes sales-related data from transaction to transaction, assists operations, is responsible for strategy, and provides reports to external parties [15]. A sales information system is an information system that combines various steps and techniques used to produce, evaluate, distribute and collect information to make sales decisions. [16].

Some of the benefits of a sales information system include: a) designing a sales plan, b) creating reports, c) calculating income and expenses. [17]

D. User Requirement

User Requirements enable users to achieve their goals When using an artifact, such as a website, software system or anything that is created, is the key to a good user experience. So the more you understand the user, the job, and the context of their job, the more you can help the user achieve their goals and the more useful the system you create will be. Requirements are questions about what users should be given from a product, so that requirements can be implemented effectively, then requirements must be clear.

E. Method System Usability Scale

System Usability Scale (SUS) is a measuring tool used in assessing the usability of an application or system. SUS is a method that will contain an interesting questionnaire compared to other questionnaire methods [18]. The characteristics of SUS include, a) SUS is relatively easier for respondents because it only consists of 10 questions, b) SUS uses agnostic technology, which is used to evaluate almost all types of interfaces, c) the questionnaire value is in the range of 1-100 and has a single value, so it is relatively easy to understand for both individuals and groups.

SUS consists of 10 questions, each of which has a 5-point scale indicating the value of "Strongly Disagree" to "Strongly Agree". In 10 questions there will be 5 positive questions and 5 negative questions. The SUS value interpreted by Jeff Sauro is with a percentage ranking and a letter class from A to E, where A is the best class while E is the worst.
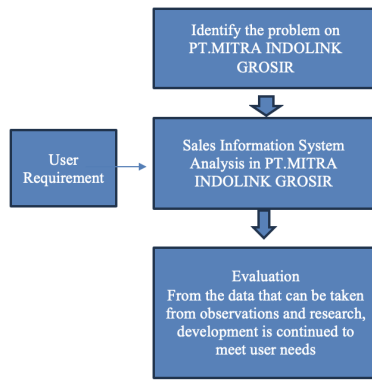
F. Framework Of Thinking

Fugure 1. Framework Of Thinking

There are several stages in this research. The first step is to identify the problem at PT. MITRA INDOLINK GROSIR, then analyze the sales information system that uses user requirements, then evaluate the data that can be taken from the results of observations and research, then continue with development to meet user needs.

III. RESEARCH METHODS

The initial step in the research is to identify various factors that affect the company's performance and develop strategies that can improve operational efficiency and productivity, especially in sales through sales information systems. It is expected that this research can provide significant contributions to an in-depth understanding of market dynamics and relevant practical applications for PT. Mitra Indolink Grosir.

A. Data Type

The type of research used is qualitative research with a descriptive approach. This method is carried out to find out the conclusion of the problem being studied in a situation, with this research, the data obtained will be analyzed to find out how the company runs the sales information system and the company's internal control system so that it can be known whether the sales information system has been run effectively and efficiently.

B. Data Source

In this study, primary data sources are used, which are data obtained directly from the company through the interview method. The data sources in this study are the operational manager, sales department and cashier at PT. Mitra Indolink Grosir, This data was taken from only 20 people due to limitations in the office to interview all employees, the positions interviewed were admin and marketing.

C. Method Of Collecting Data

Data collection methods can be carried out including, a) conducting interviews with PT. Mitra Indolink Grosir, especially with the part related to the research so that it can make it easier to find the necessary information, b) observation in this study is used to conduct observations on the objects to be studied to find out the history of the

company and the company's organizational structure, c) documentation of data expected to be obtained from the documentation is the organizational structure and cash sales procedures.

D. Analysis Method

The analysis method and data collection used is System Usability Data (SUS). In this study, an analysis of user requirements was conducted on the sales information system of PT. Mitra Indolink Grosir supports sales operations using the System Usability Scale (SUS) to measure the level of ease and speed of users of the information system [19]. The results of the analysis using the System Usability Data (SUS) method are in the form of an average score of test results that show the feasibility of the information system for user needs (user requirements).

E. Problem Analysis

Based on the background, there are several problems that have been detected, including: a) complex interface challenges if the sales system interface is too complicated, users will have difficulty finding existing features and can slow down the sales process, b) inventory synchronization controlling inventory in the TikTok store can be a challenge, especially if the company's internal system does not function properly on the platform, c) development of information systems at PT. Mitra Indolink Grosir with a web-based basis can facilitate the company's business processes, but it should be noted that the development of an effective information system also requires quite a large cost.

F. Sampling Determination

To determine the actual number of samples from a population of 50 employees of PT. Mitra Indolink Grosir can be done using the slovin method. With this method it is possible to calculate the number of samples needed by considering the population size and the level of error allowed. If the population is more than 100 people then determine the validity of the error of 0.1. If the population is less than 100 people then to determine the validity of the error of 0.2. so the researcher uses the solvin formula with an error of 0.2.

Population calculation with the number of employees as many as 50 people as follows.

$$n = \left(\frac{N}{1+N(e^2)}\right)$$
$$n = \left(\frac{50}{1+50(0.2^2)}\right)$$
$$n = \left(\frac{50}{1+50(0.04)}\right)$$
$$n = \left(\frac{50}{1+2)}\right)$$
$$n = \left(\frac{50}{3}\right)$$
$$n = 16{,}67 \approx 17$$

(1)

Information:

- n is the desired sample size..
- N is the population size.
- e is the desired error rate, which is usually expressed as a decimal (e.g., 0.2 for a 20% error

rate).

IV. RESULT AND DISCUSSION

In this study, twenty employees of PT.Mitra Indolink Grosir should participate. All participants were asked to fill in questionnaires related to the research. They were divided by gender and their position in the company. It aims to provide an accurate picture of the participants' profiles and their relationship to the problems studied. It is expected to provide a fairly clear picture of the respondent's condition and its relationship to the problem and purpose of the study. It is hoped to give a clear understanding of the condition of respondents as well as their relationship with the problems and purposes of this study.

A. Result

- **Based on the gender of employees**

From the results of our research and data processing with the number of questionnaires as many as 20 respondents in the company. There are 12 men and 8 women. Further data of respondents by position/division can be seen in the table below:

Row Labels	Sum of Jumlah
Administrasi	6
marketing	14
Grand Total	**20**

Figure 2. Gender criteria

On the table above you can see that 20 people are in a company that has posts as an administration of 6 people, 14 respondents are employees who have posts as a marketing of 14 people.

- **The result of the System Usability Scale**

Below is a calculation of the SUS score of 20 respondents, obtained using the Slovin method to calculate the number of samples, can be seen below.

Table 1. SUS Score Calculation

R	Question										Score SUS	Total (SUSx2,5)
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10		
R1	4	4	3	3	2	3	4	2	3	2	30	75
R2	3	2	3	2	4	3	2	4	2	3	28	70
R3	3	2	3	2	3	2	4	4	2	3	28	70
R4	4	2	4	3	4	3	3	2	4	2	31	78
R5	3	3	4	3	3	2	3	3	3	3	30	75
R6	4	3	3	3	3	3	2	3	2	2	29	73
R7	4	3	4	0	4	2	3	3	3	4	30	75
R8	3	2	3	2	3	2	4	2	4	3	28	70
R9	3	1	3	3	2	2	2	2	1	2	21	53
R10	4	2	4	2	3	2	4	3	4	4	32	80
R11	3	3	3	2	3	4	3	3	4	4	32	80
R12	3	1	3	2	3	3	3	2	3	2	25	63
R13	3	1	4	2	2	3	3	2	1	2	23	58
R14	3	1	3	2	4	2	3	2	3	3	26	65
R15	3	3	2	2	3	3	4	2	3	4	29	73
R16	3	4	2	1	4	2	3	4	2	3	28	70
R17	3	2	2	3	4	2	4	2	3	2	27	68
R18	3	3	0	3	2	3	4	3	2	2	25	63
R19	3	2	2	2	1	2	3	2	1	2	20	50
R20	4	3	3	4	3	4	4	4	3	3	35	88
Total Score SUS												1393
Average Score SUS												69,65

The total SUS score of 1393 is divided by the total number of respondents, resulting in an average score of 69,65. Further, the results of the calculation of SUS scores are interpreted into various versions according to the Bangor standard, as shown in the following table:
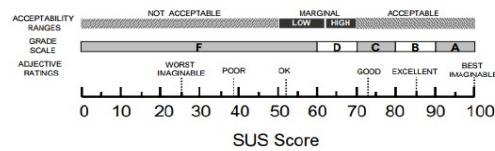
Figure 3. SUS score interpretation

According to SUS score 69,65 this application has a high marginal level and receives grade D with a rating "OK".

Table 2. In-Depth Interview

Responden	Question	Answer
R1	What do you think about Tiktok Shop's UI look?	The UI of the application is very easy to understand for the public.
	What do you think about the condition of the features provided by Tiktok Shop?	Features available in the Tiktok Shop app allow us to control sales data and report against sales.
	Do you feel any obstacles when using the Tiktok Shop app?	Tiktok Shop apps often experience layout when opened on android.
R2	What do you think about Tiktok Shop's UI look?	Some users feel that the user interface (UI) display is too full of visual elements that distract from the product itself.
	What do you think about the condition of the features provided by Tiktok Shop?	It's pretty complete but sometimes confusing to me.
	Do you feel any obstacles when using the Tiktok Shop app?	At the moment we want to see the products we're selling, we need time to get into the shopping section.
R3	What do you think about Tiktok Shop's UI look?	It's been pretty good in my opinion.
	What do you think about the condition of the features provided by Tiktok Shop?	For the features available in the app already good, the buttons of each feature are easy to understand
	Do you feel any obstacles when using the Tiktok Shop app?	Obstacles felt when using Tiktok Shop often enter email and password can not auto login.

R4	What do you think about Tiktok Shop's UI look?	The TikTok Shop UI is rated user-friendly due to its simple and easy-to-use layout, so new users can quickly find their way there.
	What do you think about the condition of the features provided by Tiktok Shop?	TikTok Shop's live shopping feature is considered innovative because it allows customers to see the goods and interact with the seller directly. It enables customers to have a more personal shopping experience.
	Do you feel any obstacles when using the Tiktok Shop app?	The checkout process may be too complicated or time-consuming, so there are obstacles because the application is still web-based.
R5	What do you think about Tiktok Shop's UI look?	The Tiktok Shop application is very easy to understand.
	What do you think about the condition of the features provided by Tiktok Shop?	It's a good feature because it doesn't consume a lot of bandwidth.
	Do you feel any obstacles when using the Tiktok Shop app?	The barrier of the Tiktok Shop app is that the app is still web-based, it would be better if it was deployed with mobile apps.
R6	What do you think about Tiktok Shop's UI look?	Good enough, because in the Tiktok shop app you can instantly know the function of those buttons.
	What do you think about the condition of the features provided by Tiktok Shop?	Enough of a few features, and the most important on the sales feature is very easy to understand. As well as accelerate the process of sales activity.
	Do you feel any obstacles when using the Tiktok Shop app?	It can be found in several web browsers, because the Tiktok Shop application at the time it is opened in some web browser will appear differently.
R7	What do you think about Tiktok Shop's UI look?	Simple and quite interesting to me.
	What do you think about the condition of the features provided by Tiktok Shop?	Features are complete and meet the needs of users, especially sales features in the app.
	Do you feel any obstacles when using the Tiktok Shop app?	Autosave is already available but sometimes autosave does not appear
R8	What do you think about Tiktok Shop's UI look?	For the UI display is good because it's easy to operate.
	What do you think about the condition of the features provided by Tiktok Shop?	For features available enough to support the company's operational needs such as sales records, monthly sales data as well as easy to see profits from year to year.
	Do you feel any obstacles when using the Tiktok Shop app?	In my opinion, Android users may experience problems with applications that are not responsive or slow, especially on devices that do not have specifications or memory.

B. Discussion

In the research we conducted, the sales information system used at PT. Indolink Wholesale Partners using the TikTok Shop application have a score of 69.65. According to Sauro Jeff [20]. The SUS score must be more than 68 to be included in the acceptable category. If the resulting score is below 68 then the usability of the system is below average. However, the usability user requirements at TikTok Shop PT. Indolink Wholesale partners are expected to produce a score above 80 to get grade A.

A high SUS score will increase employee productivity in the sales marketing division because the sales information system is tailored to user needs. An easy-to-use system allows users to use the system without experience, especially Android users.

C. Solution

Results Based on the results of a thorough in-depth interview of 20 respondents, we recommend that PT. Mitra Indolink Grosir provide specific training to sales staff on how to use the TikTok store app. When employees open or use the tikTokshop app on their Android device, this training is aimed at reducing problems. In addition, these recommendations are expected to improve employee productivity and satisfaction as well as efficiency and efficiency in performing tasks related to sales through the platform. These recommendations are expected to help companies increase their sales through TikTok Store, which is becoming increasingly popular as an online platform for sales. Indolink wholesale partners can ensure that the sales department has the competence to successfully use this application, because it reduces the likelihood of operating interruptions caused by technical problems on Android devices.

PT. Mitra Indolink Grosir can ensure that all sales staff understand the use of the TikTok Shop application. This training will also help employees solve various technical problems that occur on the sales information system, especially those related to Android devices.

V. CONCLUSION

Based on the research results that can be concluded are User requirements on the sales information system at PT. Mitra Indolink Grosir in supporting the company's sales operations have a SUS score of 69.65 with a level of C indicating that the sales information system used already has Usability that can be accepted by its users.

Based on the research that has been conducted, the suggestion that can be given for further research is researchers can discuss the design of sales information systems needed by users by making improvements or adding tools that can facilitate based on the principle of human and computer interaction (IMK) to maximize users.

VI. ACKNOWLEDGMENT

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