# Analysis and Design of Web-Based E-Commerce At CMYK.Project

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#### **ABSTRACT**

The research objective is to design an e-commerce website in the CMYK.PROJECT company where customers can make purchases in the company's website and the company can also provide information and serve the customers in e-commerce website. Research methods in this study, using data collection and methods of system design e-commerce. Collecting data in this thesis is done through interviews, questionnaires, and direct observation to the company. In this thesis analyzes used is the analysis of SEM-PLS and E-Commerce Strategy. Designing for the e-commerce company in this thesis using OOAD and Framework 7C. Results is in getting the results of e-commerce website for the company to sell products to customers, and customers can make purchases in the e-commerce company. The conclusion obtained is with their e-commerce website, it can shorten the sales process of the company's products to customers, and also facilitates the transaction purchase the company's products.

Keywords: E-commerce, SEM-PLS, OOAD, 7C, UML.

### A. INTRODUCTION

CMYK.PROJECT is a trading company engaged in Fashion. CMYK.PROJECT is a brand that focuses on selling women's clothing, such as women's clothes and pants. CMYK.PROJECT will continue to innovate to issue bags and accessories for women. CMYK.PROJECT has an office and warehouse that contains staff to run its business processes. The business process carried out by CMYK.PROJECT is based online by using social media such as Instagram as an electronic marketing medium.

The increase in the number of customers every month causes the company to have problems in responding to customer responses who want to make transactions or order goods from CMYK.PROJECT. this has the potential to cause losses to CMYK.PROJECT, because the company cannot respond to all customers who want transactions or order goods, the losses experienced in this problem CMYK.PROJECT can lose new customers who want to order goods at CMYK.PROJECT. CMYK.PROJECT has been conducting transactions using electronic media through text messages,

e-mail, Line, and BBM to communicate and transact with customers about CMYK.PROJECT products that have been displayed on CMYK.PROJECT Instagram.

With the fact that the number of internet users increases from year to year and the number of customers increases every month, CMYK.PROJECT sees the internet as a potential market. This market can be reached by building a web application, with this website, CMYK.PROJECT hopes to overcome customer responses that were previously insurmountable.

CMYK.PROJECT thinks of using an e-commerce business strategy in order to make it easier for customers to order transactions on the website, make it easier for customers to obtain product information and help CMYK.PROJECT companies to be able to reach a wider market share outside the city of Jakarta. The owner of the CMYK.PROJECT company is also very optimistic about developing an e-commerce business strategy within his company because at this time the CMYK.PROJECT company is supported by staff who understand the development of internet technology and online-based knowledge through the internet network.

By utilizing the application of e-commerce, CMYK.PROJECT needs a website that can help deliver product information and sales transactions to customers. The website will explain how the company processes transactions so that customers get information about ordering and shipping products to customers. This research also examines the influence of Persuasive Message (PM), Beliefs and Attitude (BNA), Behavioral Intention (BI), Overall Satisfaction (OS), and Trust (T) on e-commerce.

The relationship between existing variables and the problems that occur in CMYK.PROJECT is by looking at the side of the first variable, the persuasive messages variable which means the perception of functional value (rational assessment of product information, prices, and product specifications) delivered by CMYK.PROJECT in accordance with customer desires or not, from the results of the questionnaire distributed to CMYK.PROJECT customers, the answer is that CMYK.PROJECT has a weakness in responding to customer responses because there are many

orders every day. Therefore, this research was made using existing variables to find out whether or not the old CMYK.PROJECT company's response was correct in responding to customer responses. The relationship between each variable and other variables is formed to determine the design to be made. From the persuasive messages variable where product information, prices and product specifications will be made on the website design, the beliefs and attitude variable where customer beliefs and attitudes will be towards the CMYK.PROJECT website design, the overall satisfaction variable where customers are satisfied overall in using the CMYK.PROJECT website, the trust variable where customer trust in the CMYK.PROJECT website design, and the behavioral intention variable where customer behavioral intentions towards the CMYK.PROJECT website design in its use.

### **B. OBJECTIVES**

The purpose of this web application is to design a complete e-commerce web for CMYK.PROJECT customers, namely Getting clear information about product catalogs, making it easier for customers to make online transactions and Improving relationships between the two parties. The objectives for the company include knowing the impact of persuasive messages, beliefs and attitude, overall satisfaction, trust, and behavioral intention as input for the company, e-commerce websites are used to improve product information according to customer needs and increase the effectiveness of online sales transactions through the website.

## C. METHOD AND IMPLEMENTATION

Data collection method, analysis method, and design method. Data Collection Method (1) Observation: Researchers directly visit and observe CMYK.PROJECT to find out the business processes that are running at the company. (2) Interview: Researchers met with the owner of CMYK.PROJECT and asked questions related to the research topic. (3) Questionnaire: Distribution of questionnaires to customers from CMYK.PROJECT to get real data to make it more valid. (4)

Literature Study: The process of obtaining theories related to the topic of Web application from books, articles, journals and obtaining information that matches the topic of researchers from sources on the internet.

Analysis Method (1) Strategic planning analysis: The method used to analyze research variables using Structural Equation Modeling (SEM). E-commerce strategy analysis: E-commerce strategy analysis was conducted using Framework and Business Model analysis (Rayport & Jaworski, 2003, p11).

#### D. RESULT AND DISCUSSIONS

From the results of data management that has been carried out by researchers, there are several things that can be discussed, namely as follows:

a. Persuasive Messages have a significant effect on Beliefs and Attitude. This proves that persuasive messages from CMYK.PROJECT's Instagram can be received well by customers and customers believe in the messages conveyed from CMYK.PROJECT's Instagram and then customers behave that the messages that have been conveyed are very useful for customers. This means that the influence of messages conveyed to customers to be addressed with trust from customers is quite large. The strongest indicator in reflecting Persuasive Messages is the 3rd indicator, which is 0.905. The statement taken as a latent variable in this third indicator is that the daily posts uploaded on CMYK.PROJECT's Instagram are very useful for customers to find out about new products. This is a strength for CMYK.PROJECT to maintain this functional value, while the lowest indicator reflecting Persuasive Messages is the 4th indicator, which is 0.780. The statement used in this latent variable that the existing message is related to convincing customer needs. The low indicator states that CMYK.PROJECT needs to provide more convincing messages to its customers.

- b. Beliefs and Attitude have a significant effect on Behavioral Intention. This proves that customers are confident about the posts provided by CMYK.PROJECT. The higher the customer's confidence in CMYK.PROJECT, the company will get the influence of customers who care about CMYK.PROJECT by sharing information with family, relatives, and friends of customers about CMYK.PROJECT. The strongest indicator in reflecting Beliefs and Attitude is the 5th indicator, which is 0.893. The statement taken as a latent variable in this fifth indicator is that customers are happy with this post on CMYK.PROJECT's Instagram. This is a strength for CMYK.PROJECT to maintain this functional value, while the indicator that reflects the lowest Beliefs and Attitude is the 3rd indicator, which is 0.800. The statement used in this latent variable is that the post is useful in the customer's daily activities. The low indicator states that CMYK.PROJECT needs to provide more useful posts for the daily lives of its customers.
- c. Overall Satisfaction has a significant effect on Behavioral Intention. This proves that customers are satisfied with the overall information updates provided by CMYK.PROJECT. The higher the customer satisfaction with CMYK.PROJECT, the company will get the influence of customers who care about CMYK.PROJECT by sharing information with family, relatives, and also customer friends about CMYK.PROJECT. The strongest indicator in reflecting Overall Satisfaction is the 3rd indicator, which is 0.907. The statement taken as a latent variable in this third indicator is that overall customers are satisfied with CMYK.PROJECT's Instagram. This is a strength for CMYK.PROJECT to maintain this functional value. While the indicator that reflects the lowest Overall Satisfaction is the 1st indicator, which is 0.851. The statement used in this latent variable is that customers are satisfied with using CMYK.PROJECT's Instagram compared to previous customer expectations. The low indicator states that CMYK.PROJECT needs to improve changes to the Instagram social media system.
- d. Trust has a significant effect on Behavioral Intention. This proves that customers trust CMYK.PROJECT's service management to its customers. The higher the trust that customers

give to the company, the more customers will care about CMYK.PROJECT by sharing information with family, relatives, and customer friends about CMYK.PROJECT. The strongest indicator in reflecting Trust is the 1st indicator, which is 0.937. The statement taken as a latent variable in this first indicator is that customers believe that admin staff do their best for customers. This is a strength for CMYK.PROJECT to maintain this functional value. while the lowest indicator reflecting Trust is the 4th indicator, which is 0.808. The statement used in this latent variable that customers believe the comparison between price and quality on CMYK.PROJECT's Instagram is still relatively reasonable. The low indicator states that CMYK.PROJECT must make customers more confident in the price and quality of CMYK.PROJECT is reasonable.

e. Trust mediates Overall satisfaction and Behavioral Intention. This proves that Trust can connect customer satisfaction with CMYK.PROJEC's consumer behavioral intentions. Customers who are satisfied overall will trust CMYK.PROJECT and have an impact on consumer behavioral intentions. The strongest indicator in reflecting Behavioral Intention is the 3rd indicator, which is 0.917. The statement taken as a latent variable in this third indicator is that customers consider posts on CMYK.PROJECT's Instagram to be the customer's first choice. This is a strength for CMYK.PROJECT to maintain this functional value, while the lowest indicator reflecting Behavioral Intention is the 1st indicator, which is 0.904, the statement used in this latent variable that customers will say positive things about CMYK.PROJECT's Instagram to others. The low indicator states that CMYK.PROJECT needs to make customers feel that customers feel comfortable transacting with CMYK.PROJECT and sharing with relatives, friends, and relatives.

### E. SUMMARY

After conducting research on the analysis of Persuasive Messages, Beliefs and Attitude, Overall Satisfaction, Trust, and Behavioral Intention as well as designing website-based e-Commerce at CMYK.PROJECT, the following conclusions can be drawn:

- 1. Persuasive Messages have a significant effect on Beliefs and Attitude. This proves that the perception of functional value (rational assessment of product information, prices, and product specifications) affects customer beliefs and attitudes towards the product information offered by CMYK.PROJECT. Preferably, the function of product information, prices and product specifications provided by the company needs to be adjusted to what customers need because information from products, prices, and specifications can increase customer confidence attitudes.
- 2. Beliefs and Attitude have a significant effect on Behavioral Intention. This proves that the attitude of customer confidence affects customer behavioral interest in the products, prices and specifications offered by CMYK.PROJECT. The higher the attitude of customer confidence, the interest in consumer behavior to recommend the company again also increases, talk positively about the company, and even intend to reuse the CMYK.PROJECT company is getting higher.
- 3. Overall Satisfaction has a significant effect on Behavioral Intention. This proves that the perception of overall customer satisfaction affects customer behavioral interest. It can be concluded that CMYK.PROJECT customers are satisfied with the CMYK.PROJECT company, thus forming customer behavioral interest. Increased customer satisfaction with the company makes customers further increase their behavioral interest.
- 4. Overall Satisfaction has a significant effect on Trust. This proves that the perception of customer satisfaction affects customer trust in the company. It can be concluded that CMYK.PROJECT customers are satisfied with the services provided by the

- CMYK.PROJECT company, which encourages strong trust in the company. Increased customer satisfaction with the company makes customers increasingly trust the company so that it is easier for the company to have the potential to successfully sell its products.
- 5. Trust has a significant effect on Behavioral Intention. This proves that customer trust in the company affects behavioral interest. It can be concluded that CMYK.PROJECT customers believe in product quality, price, and product specifications so that they intend to say positive things about the company to others and encourage others to shop at the company. Increased customer trust in the company can increase positive behavioral interest in the company.
- 6. Trust can mediate between Overall Satisfaction and Behavioral Intention. This proves that trust plays an important role in connecting customer satisfaction variables with customer behavioral intentions. The trust that is formed due to satisfaction is finally able to produce customer behavioral intentions for more positive behavior towards the company. Customers who are satisfied overall and trust CMYK.PROJECT will later recommend it to other potential customers.
- 7. Current Overall Satisfaction, Behavioral Intention, and Trust towards Web-based e-Commerce Design. Overall, customers are satisfied with the services provided by the company. The more customers are satisfied with the services of the company, the company are required to continue to increase the value even better so that behavioral interest and customer trust in the company can be maintained and can be developed. Customer behavioral interest in the company to transact continuously must be maintained properly, therefore the company needs to create customer satisfaction programs that can increase customer trust. A service program that can be an option and a priority at this time is the availability of a website that is able to provide customers with flexibility in accessing information and helping them make transactions more easily. Considering the current

situation where customers use the internet more as a media source of information, recommendations are needed that are in accordance with customer satisfaction services, namely the availability of transaction services, and for this reason, an e-commerce website design is needed at CMYK.PROJECT.

8. The features produced in the design of the e-commerce website at CMYK.PROJECT are customer registration, viewing products by category, placing an online order, confirming payment, and order status.

## F. SUGGESTIONS

Based on the analysis and design of e-Commerce at CMYK.PROJECT, the following are suggestions that can be given for further system development:

- 1. It is necessary to notify customers about the new system, this can be seen in the fourth stage of e-Commerce design, namely market communication and branding.
- 2. It is necessary to develop an electronic payment system that is connected to the website.
- 3. It is necessary for the admin to carry out regular monitoring so that the system can run properly and minimize the possibility of damage to the system.
- 4. Perform data backup to anticipate data loss in the event of a system disruption.
- 5. It is necessary to implement security on the website so that the data on the website can be kept safe.
- 6. It is necessary to develop the level of popularity of the CMYK.PROJECT website by implementing a Search Engine Optimization system so that it can occupy the top position when customers search for the CMYK.PROJECT website using Search Engines.

- 7. Need to develop a website system with a User Interface display that can follow the width and height of the smartphone screen.
- 8. Need to have other features on the website so that if the website traffic is large, it can get revenue from advertising.

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