

## Cyber security analysis on small medium enterprise's Online Shop

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### **Abstract**

Competition in the increasingly competitive business world has resulted in people using technology or companies carrying out business strategies in order to win or survive in the world of e-commerce. This study aims to analyze matters related to cybercrime, especially regarding the threat from cybercrime itself to Yummy online shop. This study specifically discusses how cybercrime occurs in the world of e-commerce, especially in the Yummy online shop. This puts the attitude factor in each user's behavior or brainware that deviates from the rules of the technology world. The method used in this study is a survey method conducted on an online shop. The type of data used is primary data which is obtained directly from the answers of the Yummy olshop owner and the respondent's questionnaire. Direct interviews to the owner of the Yummy olshop and to respondents whose areas are still within reach. The sampling technique used was non-probability sampling using purposive sampling method. The results showed that the characteristics of online shopping respondents were dominated by women and had an age range of 16 to 25 years. Most of them are students or college students. The results of this study also show that the quality of trust from Yummy olshop customers is very high. It can be seen that male consumers have a slightly lower percentage than women, this shows that male interest in online shops is not as great as female interest. However, it is possible that cybercrime cases can also be caused by men.

Keyword : brainware, cybercrime, e-commerce, Yummy online shop

### **Introduction**

Competition in the increasingly competitive business world has resulted in people using technology or companies carrying out business strategies in order to win or survive in the world of e-commerce. In today's modern era, so that companies and individual online selling businesses can survive in business competition, it is necessary to pay attention to every factor that supports the success of the business.

In fact, sales in this online market have many enthusiasts, this is also one of the reasons why cybercrime occurs in this e-commerce world. Not when many justify any means to achieve business success. On the other hand, there are many individuals or groups who take advantage of the hectic world of e-commerce to commit crimes with various purposes, whether just to seek sensation, to gain fame, or to seek the greatest possible profit by harming other parties.

Thinking like this shows that the birth of a crime in the IT world, stems from the thought of someone who gave birth to a plan to be realized in a crime, this is where the role of brainware in IT crime, or better known as cybercrime, especially in the field of online sales (e-commerce) lies. commerce).

Yummy online shop is an online shopping site that sells fashion items such as clothes, shoes, cosmetics, and other beauty tools. Yummy online shop has experienced many ups and downs in the online sales business process. There are many incidents of cybercrime that occur in this online

shop. Both consumers and producers often commit fraud. One of the actions that often occurs is counterfeiting the products being sold.

Besides having a negative role in the world of e-commerce, brainware has a strategic role in facing today's free competition. Through the role of brainware that can research problems, visualize complex points and create useful things both in the world of e-commerce and in other fields, brainware can be said to be the key to the success of individual and company businesses in the world of e-commerce. And no exception to the cybercrime that occurred at the Yhummy online shop which was caused by brainware.

Brainware controls the hardware and software which are the main tools needed for online sales. Brainware mastery of software and hardware has a great influence on cybercrime events at the Yhummy online shop.

This paper reviews the incidence of cybercrime in online sales systems or what we know as e-commerce. This paper begins with a review of theoretical concepts or theoretical studies to provide an overview of cybercrime carried out by brainware in the field of e-commerce, especially at the Yhummy online shop.

## Method

### 1. Data Collection

The type of data used is primary data which is obtained directly from the answers of the Yhummy olshop owner and the respondent's questionnaire. Direct interviews to the owner of the Yhummy olshop and to respondents whose areas are still within reach. The sampling technique used was non-probability sampling using purposive sampling method. With the sample criteria of people who have shopped at Yhummy online shop within 1 year.

The questions in the interviews were about how cybercrime occurs, as well as approximately how many times cybercrime can occur in online shops in one year. And how did the owner overcome the cybercrime incident, and what made the Yhummy shop exist and survive until now when viewed from the number of cybercrimes that occurred which resulted in losses to the Yhummy online shop owner. Questions in interviews with respondents include how respondents' attitudes towards online shopping on information seeking intentions, attitudes towards online shopping on shopping intentions, information seeking intentions on shopping intentions and shopping intentions on shopping behavior and how the level of service quality and product quality provided by Yhummy olshop itself.

In this study, 1 exogenous variable was used, namely attitudes towards Yhummy olshop and 3 endogenous variables, namely information seeking intentions, shopping intentions and shopping behavior. To achieve the research objectives, partial least squares were used as an analytical tool.

### 2. Sample size research method

The sampling technique used in this study is convenience sampling, consumers who are given a questionnaire are consumers who make purchases during the establishment of Yhummy Onlineshop.

Dutta et al (2011) define trust as people who are most often guarded about their privacy when they do not have trust in others. In this study, trust is defined as the extent to which Yhumy shop vendors can trust consumers about their privacy.

Indicators:

- a. Transaction security
- b. Websites can protect privacy
- c. Good service online vendor
- d. Online vendors can be trusted
- e. Trusted online shop

## Results and Discussion

The results showed that the characteristics of online shopping respondents were dominated by women and had an age range of 16 to 25 years. Most of them are students or college students. The products most frequently purchased by respondents online are bags, clothes, shoes and have a price range between Rp. 50,000 to Rp. 150,000.

Table 1. Value Percentage

Gender	Total	Percentage (%)
Male	3	20
Female	12	80
Total	15	100

Based on table 1, it can be seen that the research respondents are dominated by female respondents, which is 80%, while men are 20%. This is because at the time of collecting research data, many male consumers refused to be research respondents on the grounds that they did not really understand women's products.

Table 2. Overview of Respondents Based on Internet Use in a Day

Use	Total (Person)	Percentage(%)
<1 Hour	2	13,3
1-2 Hours	4	26,7
2-3 Hours	6	40
Uncertain	3	20
Total	15	100

Based on table 2, it can be seen that the use of the internet in a day has a different presentation. This is because the respondents do not have a time limit in accessing the internet in a day. So that they are free to access the internet at any time. There is no time limit to open the internet, providing great opportunities for individuals or groups who are internet users. The brainware that is the key to the emergence of cybercrime in the more specific e-commerce world is Yummy olshop.

This study examines four paths between variables, namely attitudes towards online shopping on information seeking intentions, attitudes towards online shopping on shopping intentions, information seeking intentions on shopping intentions and shopping intentions on shopping behavior. In addition, this study also analyzes how the sales process and activities of Yummy olshop are seen from the perspective of the Yummy olshop owner himself, who explains all aspects including the incidence of online crime or cybercrime.

The first path is the path between attitudes towards online shopping and online information seeking intentions. The results showed that attitudes towards online shopping had a positive effect on information seeking intentions. Changes in consumer attitudes towards online shopping will affect their intention to seek information through online stores. The better the attitude that consumers have towards online shopping attributes, the intention of consumers to seek information online will increase.

The second line tested in this study is the influence of attitudes towards online shopping on shopping intentions. The results showed that attitudes towards online shopping had an effect on shopping intentions. The influence it has is positive, so the better the consumer's attitude towards online shopping, the consumer's intention to shop online will increase. Attitudes can have a direct effect on shopping intentions. For example, in the case of repeat purchases, consumers have a tendency to skip the information search stage. Consumers will rely on information that has been obtained in previous experiences. Consumers will skip the information search stage if the goods purchased have a relatively low risk. Consumers tend to only accept information listed on online shopping websites without digging deeper into information about products or service providers.

The third path is the path between information seeking intentions and online shopping intentions. The results showed that information seeking intentions had a significant effect on online shopping intentions. In the decision-making process, consumers will go through the information search stage before deciding to buy or not. So the intention to shop online will be preceded by the intention to search for information through the internet. The stronger the intention of consumers to search for information online, the stronger the intention to shop online. This can happen because consumers will be affected by the stimulus purchased by online stores through information received by consumers through online shopping webs.

The final path in this study is the path between shopping intentions and behavior. The test results show that online shopping intentions have a significant effect on shopping behavior. This is in line with the theory presented by Ajzen (1991) which states that intention is the main predictor of behavior. Consumers with strong intentions will tend to realize these intentions through action. So online shopping behavior will be determined by the strength and weakness of a person's intention to shop.

From interviews conducted directly based on the questions asked, data obtained from the owner of the Yhummy olshop stated that there were many cybercrimes that occurred in a year, but there were several cases of cybercrime that often occurred which also caused considerable losses to Yhummy olshops. The cybercrime case that occurred was an incident such as a fraud from a producer to a Yhummy olshop, one of the big cases that ever happened was when the owner ordered fashion items from manufacturers that had a high quantity of prices, but when the item came into the hands of the Yhummy olshop owner the goods it does not match the data or images that have been published or shared. Other events such as when a payment transaction has been made but the goods are not sent.

Table 3. Percentage of losses caused by cybercrime incidents

Case	How many times happened (in a year)	amount of loss (%)
Fraud	>3	20
Counterfeit	>12	80

From the presentation in table 3, it can be seen that the losses experienced were quite large, especially in the case of cybercrime product counterfeiting which reached a loss of 80%. To solve this problem, the owner of Yhummy olshop is more careful in choosing a trusted manufacturer, has direct verification from the central company where the trade takes place and is published, creates a website that can protect privacy, provides good service, trusted and guarantees online vendors and stores. transaction security. Due to the incidence of fraud and forgery, the owner of Yhummy Olshop had time to change manufacturers with the aim of finding a reliable manufacturer.

The reason Yhummy olshops still exist and survive when viewed from the number of cybercrime cases that occur is because there are still many consumers who have a high interest in online shops. In addition, Yhummy olshop itself already has many loyal consumers and trusts in Yhummy olshops, thus making Yhummy olshops still exist and survive in the midst of competition, even though cybercrime remains a problem that persists. Besides, in modern times like this, people's interest, especially young people, in social networking or the internet is increasing. This makes online shops more attractive to people than buying goods manually. This makes Yhummy olshop much in demand and still exists and survives to this day.

Table 4. the extent to which Yhumy shop vendors can trust consumers about their privacy

Things surveyed	Percentage of Yummy olshop trust from student consumers	
	Female	Male
Websites can protect privacy	98%	75%
Good service online vendor	80%	93%
Online vendors can be trusted	100%	80%
Trusted online shop	95%	88%
Transaction security	95%	90%
Number of surveyed	12	3

Based on table 4, the data obtained shows that the quality of trust from Yhummy olshop customers is very high. It can be seen that male consumers have a slightly lower percentage than women, this shows that male interest in online shops is not as great as female interest. However, it is possible that cybercrime cases can also be caused by men. Forester and Morrison define computer crime as the main weapon, while Girasa (2013) defines cybercrime as a crime that uses computer technology as the main component. Besides that, M.Yoga (2013) provides a more interesting definition of cybercrime, namely crimes where criminal acts can only be carried out using cyber technology and occur in the cyber world. According to John R.B, brainware is a human force that regulates processes and operates computers, for example programmers, operators, and users. Brainware controls the hardware and software which are the main tools needed for online sales. Brainware mastery of software and hardware has a great influence on cybercrime events at the Yhummy online shop.

## Conclusion

Based on the problems described above, there are several actions that can be taken to deal with cybercrime related to e-commerce at Yummy Olshop. One of them, as explained by the owner/owner of Yummy Olshop, states that when the owner orders fashion items from manufacturers that have a high quantity of prices, but when the item comes into the hands of the Yummy Olshop owner, the item does not match the data or images that have been provided. publish or share.

As for the form of action taken in connection with the handling of these problems, especially in Yummy olshops, it is necessary to be more careful in choosing a trusted manufacturer, having direct verification from the central company where the trade takes place and is published, creating a website that can protect privacy, providing good service, vendors and online shops that can be

trusted and guarantee transaction security. The results showed that the characteristics of online shopping respondents were dominated by women and had an age range of 16 to 25 years. Most of them are students or college students. This study examines four paths between variables, namely attitudes towards online shopping on information seeking intentions, attitudes towards online shopping on shopping intentions, information seeking intentions on shopping intentions and shopping intentions on shopping behavior. In addition, this study also analyzes how the sales process and activities of Yhummy olshop are seen from the perspective of the Yhummy olshop owner himself, who explains all aspects including the incidence of online crime or cybercrime.

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