

ANALYSIS OF INFLUENCING FACTORS ON ONLINE PRODUCT PURCHASING TO COLLEGE STUDENTS OF FEB UBSI JAKARTA

Chusminah SM¹
Sugiyah²

^{1,2}Universitas Bina Sarana Informatika, DKI Jakarta, Indonesia

¹e_mail: chusminah.csn@bsi.ac.id

²e_mail: sugiyah.sgy@bsi.ac.id

ABSTRACT

This study aimed to determine consumer perceptions in determining online purchase decisions, to produce factors that influence online purchasing decisions, and to show the dominant factors that influence online purchases by students at college. This research, which was conducted in April-June 2020, examined the factors that influence consumer purchasing decisions online for products. The respondents were students of the Business Administration Study Program and Office Administration Study Program, FEB UBSI Jakarta, totaling 1801 respondents. The method used in this research is descriptive analysis and factor analysis using the program of SPSS 24. The results showed that 20 factors were acceptable, and the three factors with the highest value based on the communality test were Returns, Product Availability, and Demography. Refund as the most influential factor that allows consumers to replace products that are not suitable, or cashback. The available product is the second highest factor, consumers expect to shop online with adequate stock and up-to-date product variants. Demography as the third most dominant factor means that consumers of all ages, genders and varying levels of education have opportunities to shop online.

Key Words: Online Shopping, Product Purchasing Decisions

INTRODUCTION

The industrial revolution 4.0 has ushered Indonesians in an industrial era whose operations are based on the *cyber-physical production system* (CPPS), by combining the real and the virtual world. This shows how the use of information technology, especially the internet, is increasingly needed and growing very rapidly. The internet, which was originally for military purposes, is now being used to facilitate human activities in all fields from health, education, sports, arts, transportation, to commerce. According to (Rani, 2014) consumer buying behavior refers to the final consumer buying behavior. Many factors influence an individual in making decisions, having shopping habits, and showing their buying behavior towards the brands they buy.

The development of the internet and its unlimited impacts are able to reach the outside into a new environment (Bucko, Kakalejckik, Fereconva, 2018). The internet known as e-commerce in the world of commerce is developing more massively, with the existence of e-commerce services, consumers can easily access and order products from various places (Ardyanto, Susilo and Riyadi, 2015). The advantage of e-commerce lies in its efficiency and the ease (Fatikatin and Handoyo, 2014). E-commerce can be done through various mass media, including Facebook (Putra, Indraningrat and Halim, 2017). Currently e-commerce is not only growing in the field of buying and selling transactions such as online shopping or marketplaces but has touched the logistics and payment sectors. In the field of logistics, in recent years there have been new players as well as old players who are concerned with online logistics systems. Similar to the logistics sector, companies

engaged in online payment systems are also increasing. Online payments are not only driven by banking entities but also by other financial institutions. Online payments are currently indulging consumers in fulfilling their obligations in transacting with other parties.

Based on the data from DBS Vickers ([Association of Internet Providing Services in Indonesia](#)) in 2015, Indonesia is placed as the country with the largest e-commerce market in ASEAN, surpassing Thailand and Singapore. The e-commerce market in Indonesia has a transaction value of up to US\$ 1.1 billion ([Anonymous, 2017](#)). This happens because Indonesia has a high number of internet users. The great number of internet users is directly proportional to the number of e-commerce consumers. The second largest internet users percentage is achieved in Jakarta reaching 43%, the rest of the internet users are spread outside Jakarta. The data is shown in the graphic below:



Figure 1. Largest E-Commerce Market in ASEAN

Source: Katadata.co.id

Based on figure (1), internet users outside Jakarta covered in Banten 22%, West Java 27%, Central Java 24%, Yogyakarta 47%, East Java 24% and Bali 42%. This data shows that internet users are still concentrated in Java and Bali. This is partly due to the uneven distribution of internet infrastructure and networks in Indonesia. It can be imagined if all of Indonesia is already covered by an internet network with a stable and maximum connection, then Indonesia can become the largest e-commerce market not only in ASEAN but also in the Asian region.

Another interesting thing in Figure 1 is that even though Indonesia is reaping the achievements in terms of the largest e-commerce market yet on the other hand, Indonesia is also facing consumer perception of less significant e-commerce. Perceptions of e-commerce in Indonesia such as a negative image of online shops, consumers cannot try products, consumers feel that prices e-commerce are more expensive than in retail stores, payments are not safe, products do not match the description and most consumers do not understand the image of online shopping. The leading e-commerce market in ASEAN is not directly proportional to the perception of e-commerce that is formed in the minds of consumers.

This negative perception needs to be reexamined by involving various theories about online purchasing. According to Tonita Perea y Monsuwe Benedict G.C. Dellaert Ko de Ruyter ([Pandey](#)

and Parmar, 2019), behavior in online shopping and the intention to buy online is not only due to ease of use, usability and its convenience but also due to factors such as consumer characteristics, situational factors, product characteristics, previous online shopping experience, and trust in online shopping. This shows that online shopping behavior in Indonesia is very diverse (Harahap and Amanah, 2018).

According to (Lakshmanan, 2016), product preferences, problems faced by consumers, the number of discounts given, risk perception and after-sales service are all factors that affect consumer satisfaction when shopping online. Apart from these factors, (Jasur and Haliyana, 2015) state that the quality of the website is not only a determining factor in increasing consumer buying interest. There are another factors such as good customer service, efficient product distribution and logistics and positive reviews from customers also play an important role.

The theories previously described are also corroborated by research conducted by (Baubonienė and Gulevičiūtė, 2015) on e-commerce factors that influence online shopping decisions by consumers in Lithuania which have been formulated in groups of technological factors, consumer-related factors, pricing factors and related factors of products/service.

Liang & Lai as quoted by Kertawetawaraks & Cheng in the research (Indriani, 2016) reinforce the results of previous research that the factors that influence online product purchases consist of:

Convenience

Some people may have bad experiences with salesperson that they are more comfortable making online purchasing decisions online without having to face the salesperson in person. Even some consumers feel comfortable because they don't have to be pressured by salesperson or they are free from feeling manipulated or controlled by the marketplace.

Product Information

Product information plays an important role in e-retail because it provides an overview of the product which includes: physical condition, proper use of the product, product side effects, and another knowledge that has been mentioned on the website. This certainly makes consumers easier to make decisions in purchasing products according to their needs.

Products Availability

Product availability related to the variety and stock of products sold online. Through e-commerce, transactions also become easier and provide many benefits to consumers through the available various options.

Time and Cost Efficiency

Consumers do not have to spend more time and money searching for products in several local stores. Since online stores offer consumers a variety of products and services, this gives consumers more opportunities to compare prices from different websites and obtain products at a lower price than buying offline at a local retail store. Virtual stores also offer lower prices than retail stores because there is no need to pay taxes or rent stores and so on.

Prices

Most consumers when they see a product, the first thing to think about is price. Prices are also

purchasing stimulus and product purchasing decisions by consumers. The average consumer will look for a product at an appropriate price, but others prefer the brand and product quality as things which are more important.

Website Quality

A good website will attract consumers and beat competitors as well. Zhang in [\(Indriani, 2016\)](#) classifies the quality of websites into 5 categories according to the purpose of why they are made, namely; for promotion, service, influential information, personal efficiency, and resource facilities. Each of these five categories can influence online consumer behavior and purchasing intentions.

Brand Loyalty

Brand represents the product image and quality. Brand loyalty is only a tool for companies to survive in business competition. Brand loyalty is the goal of every manufacturing company. If consumers still like a particular product, they will try to continue buying that product.

Promotion

Promotion is one of the marketing mixture elements that plays an important role in distributing products to consumers. Promotion for online products cannot automatically use promotional methods for offline products.

Brand Recognition

Some consumers will buy products from a specific brand that they trust regardless of the price. Marketing experts say that branding and features increase the information obtained, the availability of knowledge and consumer awareness.

Refund

Mistakes may occur in purchasing products. Online stores should have a refund policy to give consumers a sense of comfort so that they can easily return products and get refunds if they are not satisfied or exchange products easily according to the agreement. The seller is responsible if the consumer has a problem with the product they buy, the consumer just needs to return the product and get their money back or replace it with another product.

Information Privacy

Privacy is fundamental right that every consumer has, such as feelings, thoughts and identities that should be hidden from others. For some people, privacy is an important thing to keep confidential.

Perceived Ease of Use

Most people choose the easiest way to shop, such as the ease of navigation, ordering, easy access to information and in purchasing.

Consumer Attitude

Each consumer has their own characteristics that the seller cannot easily see. Consumer attitude will affect product purchases based on their evaluation and emotional feelings.

Consumer Satisfaction

Consumer satisfaction plays an important role in a business because this will make consumers have the desire to buy back and become loyal. Clarity, safety, money value and courtesy of employees will bring customer satisfaction. When consumers are satisfied with the products they buy, it will reduce the negative aspects of mouth-to-mouth promotion.

Demography

Besides the characteristics, every consumer has a different mindset and economical conditions. Demographic studies on population criteria such as gender, age, income, level of education and time used for online. Several studies have shown that the online population is the young, educated, and the middle-income class.

Reputation of Online Store

The company's reputation is important to survive. A good company will be trusted by consumers. Before making a purchase, consumers will first choose the best product from the best store as well.

Delivery Time

Delivery is a service from retailers to satisfy their customers. Retailers should deliver products that have been purchased safely by consumers. The delivery service system includes structure (facilities, equipment, etc.), infrastructure (job design, expertise, etc.), and the process during delivery service.

Perceived Risk

Before buying a product, consumers will evaluate all possible risks. Perceived risk refers to the nature and amount of risk experienced by consumers in considering certain purchasing decisions.

Vendor Characteristics

Vendor characteristics refer to the features of internet shops, where the products they sell and provide are prepared to support consumer purchasing decisions. The characteristics of the vendor are the views of consumer-oriented vendors related to the desire of consumers in shopping online, technology-oriented with website design and use of consumer behavior.

Personal Characteristics

Personal characteristics include what one knows about the internet, specific consumer needs, and the cultural environment. Consumers who make purchases through internet stores on a regular basis are more oriented towards convenience and have experience with it. The personal characteristics of consumers can influence their online buying attitudes and behavior.

Based on the research conducted by [\(Indriani, 2016\)](#) above, of the 20 factors, there are three most dominant factors based on the communality test which are product availability, returns and perceived ease of use. Other findings in this study indicate that respondents aged 25-35 choose online shopping because they do not have enough time to shop and online products have wider variety.

METHOD

The method in this research uses quantitative descriptive method, a research method that uses numerical data and emphasizes the research process on measuring objective results using statistical analysis. Data is obtained through the process of primary data collection by distributing questionnaire questions online using google form. This research is a case study on students of the Faculty of Economics and Business at Bina Sarana Informatika University, totaling 5,289 students. Based on calculations using the Slovin formula, a sample of 1,801 respondents from students of the Business Administration Study Program and students of the Office Administration Study Program at the Faculty of Economics and Business, Bina Sarana Informatics University located in Jakarta.

This research was processed by using Exploratory Factor Analysis (EFA) with respondents from the campus branches of UBSI in Cengkareng, UBSI in Dewi Sartika, UBSI in Fatmawati Branch, UBSI in Jatiwaringin and UBSI in Salemba 22. The obtained data then tabulated and processed using the SPSS software version 24. The processed data was to be analyzed using descriptive statistics, validity tests, reliability tests and factor analysis so that the factors that influence purchasing decisions on online products among students was obtained. The research was designed into 3 stages, namely research preparation, data collection, and data processing. The research was conducted from April 2020 with data collection run for approximately 2 months from May-June 2020.

RESULTS AND DISCUSSION

Validity and Reliability Test

The testing results of the instrument from the research questionnaire were carried out by testing the validity and reliability. Validity testing is used to assess the accuracy or validity of the instrument. The test is valid if the value of $r_{count} > r_{Table}$ for degree of freedom (df) = $n-2$. According to Arikunto, reliability is used to assess the consistency of respondents' answers. The test is said to be reliable if the Cronbach alpha value is > 0.60 . In this research, the *cronbach alpha* of the work discipline variable was 0.619 and the *cronbach alpha* for the performance variable was 0.819. The *cronbach alpha* of the two variables has greater value than the required *cronbach alpha* (0, 60), so it can be concluded that all of the research variables are declared as reliable (Sugiyono, 2017).

Based on the calculation of the validity test and reliability test using SPSS 24, the data obtained was as follows:

Table 1. Results of Validity and Reliability Tests

Variable	Statement	Sig	Status	Alpha Cronbach	Status
20 Variables as Factors	60 Statements	1.000	Valid	0.970	Reliable

Source: Processed Data of 2020

Based on calculations in table. 1, shows that all 60 statement items of the 20 variables or tested factors have an alpha value < 0.50 , so it can be concluded that the whole statement is valid. The value of Cronbach Alpha for each statement is > 0.60 , so it can be concluded that all statements on the questionnaire are reliable.

Result of Factor Analysis

The first step taken after each variable will be included in the factor analysis is to test the

adequacy of the sample through the Kaiser-Meyer-Olkin (KMO) *Measure of Sampling Adequacy index and the significance value of Bartlett's Test of Sphericity*. This index is used to examine the appropriateness of the factor analysis use. If the KMO value is between 0.5 - 1 and the significance of *Bartlett's Test of Sphericity* is less than the used level of significance (α), it means that factor analysis is used appropriately. Based on calculations using SPSS 24, the KMO and *Bartlett's Test of Sphericity* values were obtained as follows:

Table 2. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.974
Approx. Chi-Square	67604.922
Bartlett's Test of Sphericity	df
	1770
	Sig.
	0.000

Source: Processed Data of 2020

In table 2, the obtained KMO value is 0.974 and the significance value of *Bartlett's Test of Sphericity* is 0.000, so it can be concluded that factor analysis is appropriate to use to simplify the collection of 60 variables above.

After the variables were determined and selected and the calculation of their correlation meets the requirements for analysis, the next step is to form factors to find the structure that underlies the relationship between the initial variables. The following table shows the results of the analysis factors based on processing with SPSS 24 which tests the aspects of communality:

Table 3. Communalities

Variable	Initial	Extraction
Convenience (K)	1.000	0.531
Product Information (IP)	1.000	0.668
Available Products (KP)	1.000	0.771
Time and Cost Efficiency (EWB)	1.000	0.610
Prices (H)	1.000	0.575
Website Quality (KW)	1.000	0.651
Brand Loyalty (LM)	1.000	0.631
Promotion (P)	1.000	0.701
Brand Recognition (PM)	1.000	0.655
Refund (P)	1.000	0.788
Privacy of the Information (PI)	1.000	0.567
Perceived Ease of Use (PKP)	1.000	0.669
Consumer Attitude (SK)	1.000	0.751
Consumer Satisfaction (KK)	1.000	0.663
Demography (D)	1.000	0.759

Reputation of Online Store (RTO)	1.000	0.705
Delivery Time (WD)	1.000	0.668
Perceived Risk (RD)	1.000	0.669
Vendor Characteristics (KV)	1.000	0.632
Personal Characteristics (KP)	1.000	0.653

Extraction Method: Principal Component Analysis

Source: Processed Data of 2020

Based on table 3, it is shown that the 20 tested variables meet the requirements of communality where the factor value is greater than 0.5 (communality > 0.5). If the values in the Extraction Communalities table are <0.5, the variable does not meet the eligible community requirements. Referring to the 20 variables above, there are 3 variables that have the highest value, namely Returns (0.788), Product Availability (0.771) and Demography (0.759).

Result and Discussion

A study on consumers who shop online are strongly influenced by factors that influence their decisions when making purchases at online stores. This must be fully realized by the marketing team of a company, especially companies that provide online sales services so that they are able to formulate appropriate and effective marketing strategies in identifying real consumer wants and needs.

Research conducted on students of the Business Administration Study Program and Office Administration Study Program at the Faculty of Economics and Business at Bina Sarana Informatika University has tested 20 (twenty) factors that affect consumer online purchasing decisions which include: Convenience, Product Information, Product Availability, Time and Cost Efficiency, Prices, Website Quality, Brand Loyalty, Promotion, Brand Recognition, Refunds, Privacy of Information, Perceived Ease of Use, Consumer Attitude, Consumer Satisfaction, Demography, Reputation of Online Stores, Delivery Time, Perceived Risk, Vendor Characteristics and Personal Characteristics.

Based on the factor analysis that has been carried out with the SPSS 24 program, of the twenty variables, there are 3 variables that have the highest value, namely: Returns (0.788), Product Availability (0.771) and Demography (0.759). This shows that in the case study above, students when shopping online prioritize the return or refund factor, which is usually in the form of cashback or a refund if there is an mistake in the delivery of the product by the producer. Product availability is also a high-value factor in this research, which means that respondents really consider the desired product stock factor when shopping online. The third highest variable is demography, this is related to the availability of products for all levels of age, sex and education.

The results of this study are in line with the research that has been conducted by (Indriani, 2016) which examines the factors that influence consumer purchasing decisions when shopping for clothes online on consumers in Manado. Similar research was also conducted by (Ardi, 2016) on the factors that influence online shopping motives for students of the Faculty of Economics and Business at the Muhammadiyah University of Surakarta. The factors studied included price, trustworthiness, psychology, and internet knowledge. Similar research was also conducted (Yi, Osman, Salahuddin, Romle and Abdullah, 2015) in Malaysia which examined the factors that influence online purchasing behavior with purchase intention as the mediating variable.

CONCLUSION

The results of the reasearch resulted in 3 variables that had the most dominant values, namely: Returns, Product Availability and Demography. This study already tested 20 (twenty) factors that influence consumer online purchasing decisions which included: Convenience, Product Information, Available Products, Time and Cost Efficiency, Prices, Website Quality, Brand Loyalty, Promotion, Brand Recognition, Refunds, Privacy of Information, Perceived Ease of Use Ease of Use, Consumer Attitude, Consumer Satisfaction, Demography, Reputation of Online Store, Delivery Time, Perceived Risk, Vendor Characteristics, and Personal Characteristics conducted on students of the Business Administration Study Program and Office Administration Study Program in Faculty of Economics and Business at the University of Bina Sarana Informatika Jakarta.

Recommendations that can be delivered based on the results of this research are: 1) Availability of products (Available Products) Companies that provide online sales must pay attention to the availability of products in sufficient quantities both in terms of stock or quantity, product variants and product novelty according to the times. This must be done so that consumers do not have to wait long and remain loyal to the product. 2) Refunds, Returns or refunds must be one of the services provided by online companies. This is to anticipate if there is an mistake in the delivery of products by producers so that consumers are not harmed. Refunds can also be in the form of cashback which can be given to consumers as a form of marketing strategy. 3) Demographics in this reseacrh are related to age, gender and consumer education. Companies that sell online must be able to provide products with quality and the same services for all ages, genders or consumer education levels.

Compassion

Our gratitude goes to the KEMENRISTEK/BRIN of the Ministry of Research, Technology and Higher Education for the funding provided for the implementation of Lecturer Competitive Research through the Beginner Lecturer Research Grant Program for the 2019-2020 Period.

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