

## SMART PLS Analysis of Community Characteristics and Perceptions of Drug Buying Behavior through E-Commerce in the City of Blitar

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### ABSTRACT

This research aims to determine the relationship between community characteristics and community perceptions of online drug purchasing behavior via e-commerce. The research uses a quantitative sample with people living in Blitar City aged 16-50 years, who have experience purchasing using e-commerce. Data analysis using SmartPLS v.3. The results show that community characteristics and community perceptions of online drug purchasing behavior show a significant relationship

## **INTRODUCTION**

One aspect of health that is very crucial is the availability of drugs as a public health service provider. Health products in the form of drugs must be used in accordance with applicable terms and conditions, where use must refer to a doctor's prescription and the party providing the drug must have a license as a pharmacist, who has adequate knowledge of the drugs being sold. The facility used as a place to sell drugs must have a license, either in the form of a pharmacy or drug store.

Technological advances are increasingly rapid and sophisticated resulting in economic transformation which creates intense competition, especially in the field of online trading or e-commerce. One sector that takes advantage of trade online is the health sector, especially in the pharmaceutical sector. Sales of drugs through the mediaonline providing wider market opportunities, lower prices, faster processing, and the possibility of purchasing anonymously. By buying drugs through online media, people can quickly get access to certain medicines that they feel are useful for them. However, with the existence of the online market, there are several drugs that should require a doctor's prescription to purchase, but can be easily obtained by consumers without supervision from doctors and pharmacists or other medical personnel, this is a problem in regulation.

## **LITERATURE REVIEW**

Sales of drugs online it will not be a problem if the services provided are only limited to buying over the counter drugs. Over the counter drugs can be purchased without a doctor's prescription, and the risk of unwanted drug reactions is relatively small. Free sales of counterfeit drugs and illegal drugs have increased by 10 percent, according to the Deputy Commissioner for Product, Therapeutic and Drug Control at the Food and Drug Monitoring Agency (BPOM). The World Health Organization estimates that the flow of illicit drugs will increase by 20% to 30% in Africa, parts of South Asia and Latin America, and 10% to 20% throughout Asia. In Indonesia, there are currently no regulations governing the sale of drugs through the media online. Therefore, every pharmacyonline, drug store online or individuals are free to sell drugs, including hard drugs through the media online without any conditions or restrictions governing it. Several countries in the world have made regulations related to pharmacies online. Indonesia is a country that does not yet have regulations regarding this matter, so research on pharmacies is needed online in Indonesia. This research was conducted to provide information on store usage online which is safer and provides an overview of public perceptions in Indonesia of pharmacies online especially those in the city of Blitar.

## METHODOLOGY

Data collection was carried out using a cross-sectional method which was carried out from March to June 2023 in Blitar City. This research has obtained permission from the Health Research Ethics Commission at the University of Muhammadiyah Purwokerto with the registration number KEPK/UMP/64/III/2023.

Sampling research using *accidental sampling* based on inclusion and exclusion criteria. The research inclusion criteria were people living in Blitar City with an age range of 16-50 years who had an account e-commerce and experienced buying drugs using e-commerce. The sample is calculated using the Lemeshow formula approach because the total population is not known with certainty. Determination of the number of samples using the Lemeshow formula with a maximum estimate of 50% and an error rate of 10%. Based on the calculation results, the minimum number of samples to be used by researchers is 96.04 and rounded up to 97 respondents. Data collection using a questionnaire.

Analysis of research data using *Partial Least Square (PLS)* with SMART PLS software. PLS analysis consists of two sub-models, namely the structural model or often called inner model and measurement model or often called outer model. Structural model or inner model shows the strength of estimates between constructs, while the measurement model or outer model shows how indicators represent latent variables to be measured.

## RESEARCH RESULT

### a. Characteristic of Society

Table 1. Community Characteristics

Characteristics of respondents		$\Sigma$	%
gender	Man	115	50%
	Woman	116	50%
Age	16 - 20	4	2%
	21 - 25	119	52%
	26 - 30	52	22%
	31 - 36	24	14%
	37 - 50	32	10%
Education	SD	4	2%
	Junior High School	3	1%
	Senior High School	93	40%
	Diploma (D3)	40	17%
	Sarjana (S1)	83	36%
Work	Master (S2)	8	4%
	Student	29	13%
	State officials	83	36%
	Private officier	39	17%
	Self-employed	61	26%
	housewife	10	4%
	other	9	4%

Income	< Rp. 1.500.000	49	21%
	Rp. 1.500.000 – Rp. 2.500.000	38	17%
	Rp 2.500.000 – Rp. 3.500.000	65	28%
	> Rp. 3.500.000	79	34%
Intensity of use social media	Every day	183	79%
	Other enough	40	17%
	Sometimes	8	4%

### b. Public Perception

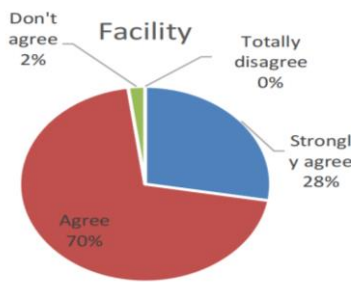


Figure 1. Facility Indicator

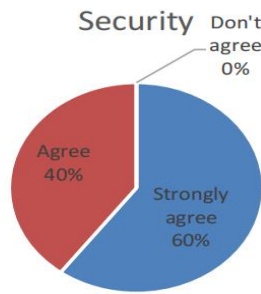


Figure 2. Security Indicator

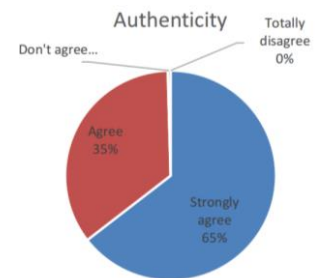


Figure 3. Authenticity Indicator

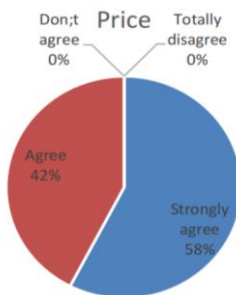


Figure 4. Price Indicator

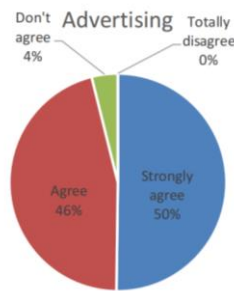


Figure 5. Advertising Indicator

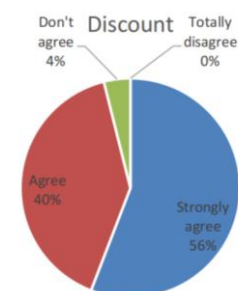


Figure 6. Price Discount Indicator

#### Drug Purchase Behavior

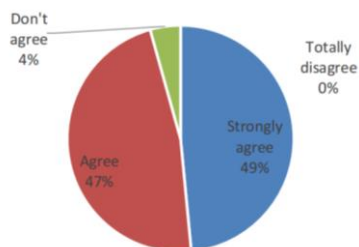


Figure 7. Drug Purchasing Behavior

**c. Data Analysis**

Table 2. Content Validity Test with Aiken's

Aspect	Indicator	Aiken's V Coefficient Value
Clarity	1. Clarity of the title questionnaire sheet	(0.83) adequate
	2. Clarity of statement item	(0.75) adequate
	3. Clarity of instruction for filling out the questionnaire	(0.75) adequate
Content accuracy	4. The accuracy of the statement with the expect answer	(0.83) adequate
Relevance	5. Statements related to research objectives	(0.75) adequate
	6. Statements in accordance with the aspect to be achieved	(0.83) adequate
Content validation	7. The statement discloses true information	(0.75) adequate
No biases	8. The statement contains one complete idea	(0.75) adequate
Language accuracy	9. The language used is easy to understand	(0.67) adequate
	10. Grammar accuracy	(0.75) adequate
	11. Writing according to EYD	(0.58) adequate
	12. The use of vocabulary and sentences is easy to understand	(0.75) adequate
	13. The language used is brief, clear and does not create double meanings	(0.75) adequate

Table 3. Test the Validity of the Process Perceptions of the Ease of Indicators Questionnaire

Statement	R count	R Table	Description
1	0,755	0,361	Valid
2	0,615	0,361	Valid
3	0,790	0,361	Valid
4	0,805	0,361	Valid
5	0,857	0,361	Valid
6	0,458	0,361	Valid
7	0,832	0,361	Valid
8	0,890	0,361	Valid

Note : r count > r table

Table 4. Test the Validity of the Questionnaire Perceptions of the Process of Security Indicators

Statement	R count	R Table	Description
1	0,895	0,361	Valid
2	0,895	0,361	Valid
3	0,782	0,361	Valid
4	0,883	0,361	Valid

Note : r count > r table

Table 5. Questionnaire Validity Test of Product Perceptions of Authenticity Indicators

Statement	R count	R Table	Description
1	0,944	0,361	Valid
2	0,861	0,361	Valid
3	0,864	0,361	Valid
4	0,812	0,361	Valid
5	0,797	0,361	Valid

Table 6. Test the Validity of Perceptions of Product Perceptions of Price Indicators

Statement	R count	R Table	Description
1	0,803	0,361	Valid
2	0,891	0,361	Valid
3	0,878	0,361	Valid
4	0,866	0,361	Valid
5	0,908	0,361	Valid

Table 7. Test the Validity of Marketing Perception Questionnaire Advertising Indicators

Statement	R count	R Table	Description
1	0,848	0,361	Valid
2	0,854	0,361	Valid
3	0,902	0,361	Valid
4	0,847	0,361	Valid
5	0,921	0,361	Valid

Table 8 Test the Validity of Marketing Perceptions Questionnaire Price Discount Indicators

Statement	R count	R Table	Description
1	0,873	0,361	Valid
2	0,846	0,361	Valid
3	0,866	0,361	Valid
4	0,738	0,361	Valid
5	0,794	0,361	Valid

Table 9. Questionnaire Reliability Test

Variable	Indicator	N item	Chronbach's alpha	Note
Process perception	Convenience	8	0,865	Reliable
	security	4	0,887	Reliable
Product perception	Authenticity	5	0.904	Reliable
	Price	5	0,913	Reliable
Perception of marketing methods	Advertisement	5	0,918	Reliable
	Price discount	5	0,874	Reliable

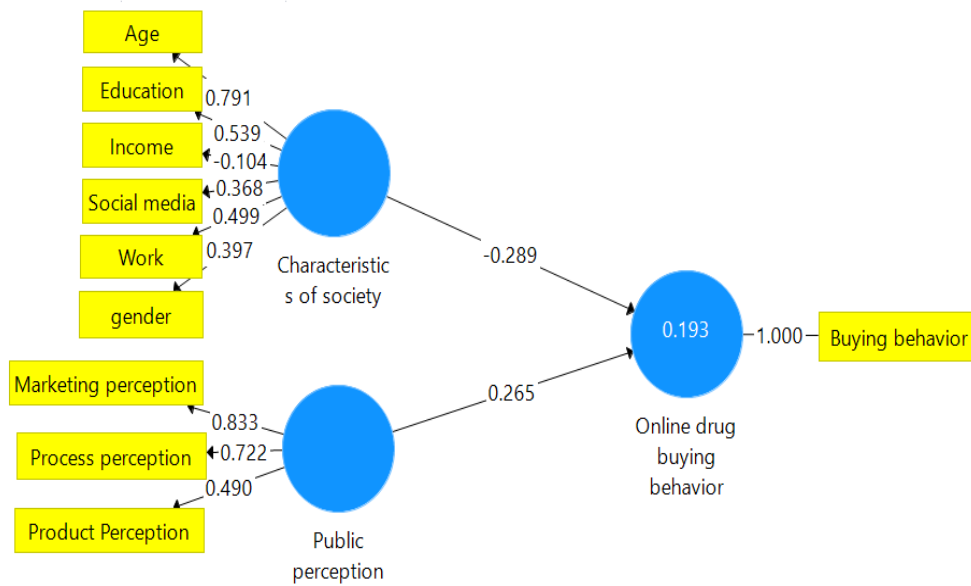


Figure 8. Analysis PLS, Test Outer Model Loading Factor Value

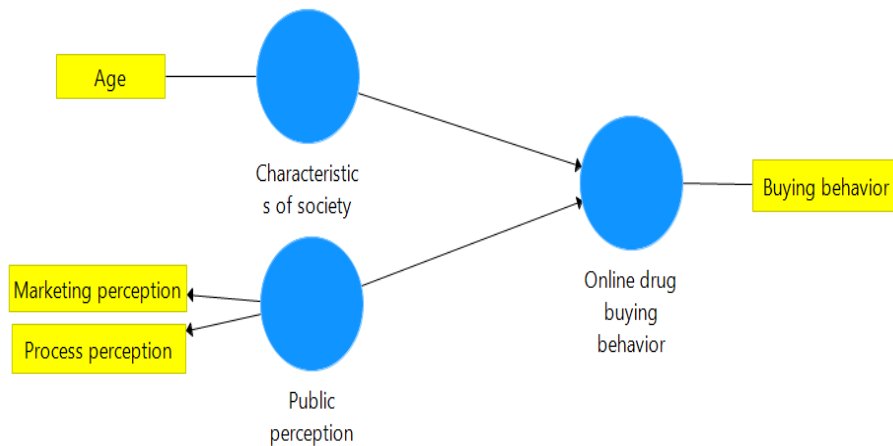


Figure 9. Analysis PLS, Outer Model Test

Table 10 Analysis PLS, Average Variance Extrad (AVE)

Variabel laten	Nilai AVE	Description
Community Characteristic	1,000	Valid
Community Perception	0,637	Valid
Purchasing Behavior	1,000	Valid

Table 11. Analysis PLS, Discriminant Validity Values with Cross Loading

Indicator/Variable	Characteristic	Perception	Behavior
Age	1,000	-0,304	-0,278
Process	-0,220	0,680	0,194
Marketing	-0,265	0,901	0,328
Behavior	-0,278	0,340	1,000

Table 12. Analysis PLS, Composite Validity Value

Variable	Composite Value	Description
Characteristics	0,781	Valid
Community perception	0,810	Valid
Purchase behavior	1,000	Valid

Table 13 R-Square and Q-Square values (Inner Model Testing)

Dependent variable	R square or R value2	Q value2
Drug Purchasing Behavior	0,149	0,134

Table 14. Value of T-Statistics and P-Value (Brootstraping)

Variable	T Statistics (IO/STADEV)	P Value
Community characteristics → Drug buying behavior	2,712	0,007

## DISCUSSION

### a. Characteristics of society

The characteristics of the people in this study are described using descriptive analysis. Community characteristics in this study include gender, age, education, occupation, income, and use of social media. Table 1 shows an overview of the characteristics of the respondents in this study, where the number of males and females is 50% each. In other studies which state that female consumers have a higher tendency to make impulsive purchases than men where women have a poor self-control role compared to men who only buy goods based on need and pleasure (Marianty, 2019). Other research shows that men's buying interest is more influenced by website interactivity than women's (Xiaolin, et al., 2018). The results of this study indicate that men and women have the same percentage of purchasing drugs online, this is because currently public awareness about health and the need for medicines is increasing so that the purchase of drugs is cheaponline not only done by women but also by men because men buy goods or products according to their needs and preferences, and product purchases for men are influenced by the interactivity of a website. In this study, the

characteristics based on age in table 1 obtained the results, namely 16-20 years of age 4 or 2%, 21-25 years of age 119 or 52%, 26-30 years of age 52 or 22%, 31-36 years of age as much as 24 or 10% and aged 37-50 years as much as 32 or 14%, so it can be concluded that the majority of respondents who have experience buying drugs onlineonline are 21-25 years old. This is in accordance with research which states that younger people decide to shop more e-commerce compared to older age (Yuniarty,et al., 2018). The results in this study are that people aged 21-25 years buy more drugs onlineonline This is due to the fact that younger people decide to buy products or goods throughonline market.

The results of characteristics based on education in table 1 are respondents who have elementary school education as many as 4 respondents or 2%, junior high school as many as 3 respondents or 1%, high school as many as 93 respondents or 40%, Diploma (D3) as many as 40 respondents or 17%, Bachelor (S1) as many as 83 respondents or 36%, Masters as many as 8 respondents or 4%. It can be concluded from these data that respondents who have experience buying drugs online the majority have high school education, which is equal to 40%. The results of this study are inversely proportional to other research which states that in consumer decision making, education also has an effect because the higher the level of consumer education, the consumer will know better what products are better to use (Ramadhani, 2018). This can happen because the level of education in Blitar City in 2022 is the highest, namely High School Equivalent with a percentage of 29.52% (Dispendukcapil Kota Blitar, 2022).

Characteristics based on work in table 1 shows the results of respondents who work as students as many as 29 respondents or 13%, civil servants as many as 83 or 36%, private employees as many as 39 or 17%, entrepreneurs as many as 61 or 26%, housewives as many as 10 or 4%, and others as much as 9 or 4%. It can be concluded from these data that respondents who have civil servant jobs buy more drugs onlineonline that is as much as 36%. This result can occur because one's job will affect consumption patterns (Indrawati, 2017). This is supported by the research of Ansari and friends which states that work is significantly related to the reasons a person prefers self-medication (Ansari,et al., 2020). State officials prefer to buy using ecommerce which is easier and more time efficient.

The characteristics of respondents based on income in table 1 are respondents who have income < Rp. 1,500,000 as many as 49 respondents or 21%, respondents with an income of Rp. 1,500,000 – Rp. 2,500,000 as many as 38 respondents or 17%, respondents with an income of IDR 2,500,000 – IDR. 3,500,000 as many as 65 respondents or 28%, and respondents with income > Rp. 3,500,000 as much as 79 or 34% so it can be concluded that the majority of respondents buy drugsonline are respondents who have income above Rp. 3,500,000, which is 34%. These results are in line with previous research which states that income has an influence on consumptive behavior where the more income, the more consumptive behavior increases. Someone will buy an item if he has enough money and income to meet his needs. The amount of a person's income depends on the type of work. Large income will make it easier to buy whatever you want. In fact, sometimes someone who has an abundant income will use it more for shopping or buying goods that satisfy their needs and desires (Lestari, 2021).

The intensity of social media use by respondents in table 1 shows the results, namely daily use of 183 (79%), frequent use of 40 (17%) and occasional use of social media of 8 (4%). The majority of respondents who purchase drugs online use social media every day. The results obtained are in line with one of Andriyani's research, et al which states that the intensity of using social media has a significant positive relationship to purchasing decisions, which means that the higher the intensity of using social media, the higher the purchasing decision (Andriyani, et al., 2022). Other studies also state that the intensity of social media use has a significant effect on consumptive behavior among students (Neti, et al., 2019)

**b. Process Perception, indicator of convenience**

Based on Figure 1, information is obtained, namely respondents who choose strongly agree regarding the ease of the process of buying through online market as many as 64 respondents or 28%, while those who chose to agree were 162 respondents or 70% and those who chose to disagree were 5 respondents or 2% so it can be concluded that the majority of the people of Blitar City agree regarding the ease of use process online market to buy medicine. These results are in line with previous research which gave the result that convenience has a positive and significant effect on purchasing decisions so that it can be stated that the easier the services provided will be able to increase the purchasing decisions of the people of Blitar City in shopping at online market (Dewi & Suardika, 2021). These results provide information that the increasing ease of use e-commerce and get products with e-commerce then consumer behavior in purchasing an item or product is getting higher. Convenience in this case is ease of use, ease of learning, ease of obtaining medicine, and ease of transaction.

**c. Process Perception, indicators of Security Indicators**

In Figure 2, information is obtained, namely respondents who strongly agree as much as 139 or 60% and agree as much as 92 or 40% so that it can be concluded that the majority of the people of Blitar City strongly agree regarding the safety of use market place to buy drugs online. The results obtained are in line with previous research which gave results, namely safety has a positive and significant effect on purchasing decisions (Dewi & Suardika, 2021). Apart from that, there are also other studies which report that the security variable has a positive and significant effect on purchasing decisions (Agustiningrum, 2021). These results can be concluded that the increased security against e-commerce then it can increase the purchasing decision of the public or consumers in shopping or buying products online through e-commerce. Security in this case is transaction security, buyer identity security, account security in maintaining user data, product security purchased.

**d. Product Perception, Authenticity indicators**

In Figure 3, the information obtained is that respondents chose to strongly agree as much as 149 or 65% and respondents chose to agree as much as 81 or 35% so it can be concluded that the majority of the people of Blitar City strongly agree regarding the authenticity of products purchased through market place. This result is in line with previous research which said that the authenticity of a brand affects the value received or felt (Wulandari & Priyogutomo, 2020). These results conclude that the authenticity of a product will increase product

purchases. Authenticity in this case is product authenticity related to registration with BPOM, authenticity in image suitability, and product content.

**e. Product perception, Price indicator**

Based on Figure 4, information is obtained, namely respondents who chose to strongly agree as much as 133 or 58% and respondents who chose to agree as much as 98 or 42% so it can be concluded that the majority of the people of Blitar City strongly agree regarding the price given when shopping at online market. These results provide information that prices determine people's perceptions. Price is related to how price information is fully understood by consumers and provides deep meaning for them, thus the benchmark for the price of a product is said to be cheap or expensive from each individual is not the same, because it depends on individual perceptions based on the environment and individual conditions (Peter & Jerry, 2000). Price indicators in this case are price affordability, comparison of shop prices online and shop offline, price variation given, and suitability of the price with the results obtained.

**f. Marketing Perception, Advertising indicator**

Based on Figure 5, information was obtained, namely respondents who chose to strongly agree as much as 116 or 50%, and respondents who chose to agree as much as 106 or 46% while respondents who chose not to agree as much as 9 or 4% so it can be concluded that the majority of respondents chose strongly to agree regarding the advertisement that given, with these results it can be said that the advertisement given by the seller has an influence on the purchase of a product. Advertising in this case is the respondent's interest in an advertisement, the respondent's interest in the promo provided through the advertisement, and the information and messages provided through the advertisement can attract respondents in buying the product.

**g. Marketing perception, Price discount indicator**

Based on Figure 6, the information obtained is that respondents chose to strongly agree as much as 129 or 56%, and respondents who chose to agree were 93 or 40% while respondents who chose not to agree were 9 or 4% so it can be concluded that the majority of respondents chose to strongly agree regarding the discounted price. given to influence the buyer. The price discount in this case is the amount of the discount given, the period of time for giving the discount, the variety of products being discounted, vouchers or the minimum purchase that will be given a discount on a product

**h. Marketing perception, drug buying behavior**

Based on Figure 7, the information obtained is that respondents chose to strongly agree as much as 112 or 49%, and respondents who chose to agree were 109 or 47% while respondents who chose not to agree were 10 or 4% so it can be concluded that the majority of respondents chose to strongly agree to buy drugs online. However, there were some respondents who answered disagree. This is due to online purchases online consumers will find it difficult to see the authenticity of the drug so that consumers may buy counterfeit drugs which can cause unexpected side effects and can even be fatal. Purchasing behavior in this case is the desire to buy drugs online, and recommend products that have been purchased online to other consumers.

The percentage value of the process perception variable of the two indicators, namely convenience (70% agree) and safety (60% strongly agree), the percentage value of the product perception variable from the two indicators is authenticity (65% strongly agree) and price (58% strongly agree) and the percentage value of the marketing perception of the two indicators, namely advertising (50%) and price discounts (56%) chose strongly agree. The results obtained are the highest process variable, namely convenience, the highest product variable, namely authenticity, and the marketing variable, the highest discount price. The results are in line with previous research which states that convenience is one of the main factors for someone in making a purchase decision online. Online purchases can be made anywhere and anytime. The convenience provided is also convenience in terms of payment. Payment can be made via transfer or paid through a designated minimarket or direct payment on the spot (Nasution & Putri, 2019). Other research also shows that product quality, convenience, quality of information and consumer trust influence purchasing decisions in online shop. The product quality factor and convenience factor are the dominant factors that influence the decision to buy at online shop. This is because product quality is one of the main factors in consumer selection criteria in making purchases online. Quality makes a company or organization that produces products known and trusted by the wider community. Product quality can be said to be the ability of a product to carry out its functions such as suitability, which means that the greater the frequency of consumer use of the product, the greater the durability of the product. Ease of use is one of the things that buyers consider online shop. The ease of learning, using, operating according to what is desired and its flexible use are the reasons consumers choose to online shop (Augustine, 2017).

#### **i. Data Analysis**

##### *Content Validity Test*

Content validity is carried out to ensure whether the contents of the questionnaire are appropriate and relevant to the objectives study. Content validity concerns judgment made by experts. This validity was carried out by 3 experts, namely linguists, pharmacists and management experts. The content validity test measurement method that researchers use is Aiken's V where the results of Aiken's are based on the results of an assessment from a panel of experts of n people on an item in terms of the extent to which the item represents the construct being measured. Aiken's V coefficient values ranging from 0-1 are declared valid. From the data that has been obtained in table 14 it can be seen that the value of each indicator in the proposed questionnaire statement is sufficient or sufficient to be used in this study.

##### *Questionnaire Validity Test*

Testing the validity of the questionnaire by looking at the value of r count on each indicator of the variable. The following are the results obtained from the analysis using SPSS. Based on table 3 to table 9 it can be seen that the statements for all variables in each indicator have a value of r count > r table so that it can be said that these statements are valid so they can be used in this study.

##### *Questionnaire Reliability Test*

Testing the reliability of the questionnaire by using cronbach's alpha which has a conditional value cronbach's alpha  $> 0.60$ . Following are the results obtained from the analysis with SPSS v.26.

#### *Test Outer Model Loading Factor Value*

Loading Factor is the initial stage in testing the validity of a model, the condition is that the factor loading value is said to be valid if  $> 0.6$ . If it is not valid then it must be removed from the model. Based on the diagram in Figure 8, it can be analyzed on the latent variables of community characteristics, there are five indicators (manifest variables) that must be removed from the model because the value factor loading  $< 0.6$  namely gender (0.397), media (0.368), occupation (0.499), education (0.539), income (-0.104). Whereas in the public perception latent variable there is one indicator (manifest variable) that must be eliminated, namely product perception with a loading factor value of 0.490. Because there are several manifest variables that are removed from the model, it will affect the model so that a re-analysis is carried out and gives the results in Figure 9. After value factor loading met the requirements for further analysis.

#### *Average Variance Extracted (AVE) Value*

Average variance extracted (AVE) is the value used in testing convergent validity because the value is obtained from the output convergent validity. In this study, the expected AVE value is  $> 0.5$  and when viewed from the latent variable constructs, all constructs have a value of  $> 0.5$  or greater than 0.5.

#### *Discriminant validity with Cross Loading*

In this study the results are seen from the table cross loading where this output is used to test discriminant validity at the indicator level with the condition that the correlation between indicators and their latent variables is  $>$  compared to the correlation between indicators and other latent variables. The colors in the table are used to make it easier to read the results where the blue color is the community characteristic variable, the orange color is the community perception variable and the green is the buying behavior variable. From table 11 it can be seen that the results of the indicators in the characteristics column for work and age are greater than the perception and behavior column as well as the indicator values in the perception column, namely product and marketing, which are greater than the characteristics and behavior column. The value of the behavior indicator in the behavior column is also greater than the value in the characteristics and perception column. It can be concluded that discriminant validity by using cross loading valid. Composite reliability, this test is done to ensure that there are no problems related to the measurement hence the last step in the evaluation outer model is testing unidimensionality of models. Test unidimensionality this is done using composite reliability and alpha cronbach. For both point indicators cut off value is  $> 0.7$ . Table 12 shows that all constructs have value composite reliability above 0.7, this indicates that all research variables have fulfilled composite reliability and has a high reliability value.

#### *Inner Model*

This test is carried out to specify the relationship between latent variables (structural model). This test is done by looking at the value of the coefficient of determination  $R^2$ . Goodness of fit in PLS can be known by the value of  $Q^2$  where. In table 14 it can be seen that the R Square value is 0.149 (14.9%). This value can

be interpreted to mean that the ability of the independent variables, namely community characteristics and public perceptions in explaining the dependent variable, namely drug buying behavior, is 14.9%. This means that the remaining 85.1% of the effect is explained by other variables outside those discussed in this study. For  $Q^2$  obtained 0.134, the condition for the value of  $Q^2$  i.e. if the value of  $Q^2 > 0$ , it can be concluded that variables and data can predict the model well.

#### *Brootstraping*

Brootstraping analysis in PLS can be done by using the calculated  $t$  value ( $t_0$ ) compared to the  $t$  table value ( $t$ -alpha).  $T$ -table values with a significance of 5% and degree of freedom (DF) = amount of data ( $n$ ) - 2 which is  $232-2=230$  is  $1.651506 \sim 1.651$  ( $t$  table). From table 14, the community characteristic  $t$ -statistic value on drug buying behavior is  $2.712 > t$ -table 1.651. This shows that the influence of community characteristics is significant on drug buying behavior. The  $t$ -statistic value of public perception of drug buying behavior is  $5.221 > t$  table value of 1.651 indicating that public perception has a significant influence on drug buying behavior. The influence between variables can also be seen from the  $p$ -value where the  $p$ -value is for community characteristics (0.007) and public perception (0.000). In this study the alpha value taken was 5%. The requirement for a  $p$ -value for alpha is 5%, namely the influence between variables is said to be significant if the  $p$ -value is  $\leq 0.05$ . So it can be concluded in the picture above that the characteristics of the community have a significant influence on drug buying behavior online and for public perception also significantly influences drug buying behavior online.

#### **j. Relations Between Variables**

Based on the results of the analysis that has been done, community characteristics have a significant influence on drug buying behavior online. The characteristics of the people that influence this research are age. Age influences respondents to buy drugs on a regular basis online. This is in line with one of the studies which says that younger people decide more to shop e-commerce compared to older age (Yuniarty, et al., 2018). This is evidenced by the results obtained in this study where the age between 21 and 25 years is the majority buying drugs online namely 69% of the total respondents.

Public perception in this study has a significant influence on drug buying behavior online. The higher a person's perception of the product, the higher the level of decision making to buy the product (Syahputro, et al., 2018). Public perceptions used in this study are process perceptions with convenience indicators and safety indicators and marketing perceptions with advertising indicators and price discount indicators. The perception of the process seen from the convenience indicator is in line with previous research which stated that the convenience variable for purchasing decisions provides significant results (Dewi & Suardika, 2021). Ease of use can reduce a person's efforts, both time and energy, to study systems or technology because individuals believe that systems or technology are easy to understand (Ekanova, 2022).

The process perception of security indicators is also in line with previous research which states that the security variable has a positive and significant effect on the buying decision of the people of the province of Bali in shopping

through applications online shopee (Dewi & Suardika, 2021). Security guarantees play an important role in establishing trust by reducing consumer concern about the misuse of personal data and perishable data transactions, when the level of security guarantees is acceptable and meets consumer expectations, a consumer may be willing to disclose his personal information and will buy with a feeling of security. Ekanova, 2022).

Marketing perception seen from advertising is in line with one study (Yosepha, et al., 2021) which states that advertising has an influence on purchasing decisions where advertising. This is also reinforced by other research which states that advertising on social media has an influence on purchasing decisions (Ritonga, 2016). Advertising aims to introduce the product, attract the attention of consumers about the existence of the product so they want to buy it. Unique, varied and persuasive advertisements will trigger consumers to make unplanned purchases (Trimulyani & Herlina, 2022). Whereas for marketing perceptions seen from price discounts, the results are also in line with previous studies which also stated the same thing, namely price discounts or discounts have an influence on purchasing decisions (Yosepha, et al., 2021). Discounts can attract consumers' attention to make impulsive purchases because with discounts consumers do not need to think twice and will indirectly trigger consumers to make unplanned purchases (Trimulyani & Herlina, 2022).

Description of the drugs purchased by respondents in this study were herbal medicines, vitamins, pain relievers, antipyretics, cough cold medicines, antiacne, ulcers, alkes, antifungals, asthma medicines, keratolytics, wound medicines, antibiotics, antiinflammatories, and eye medicines. The drugs that were purchased were mostly over-the-counter drugs (72%) and herbal medicines (26%) where these drugs were included in drugs that were intended for self-medication but there were some who bought hard drugs (2%) which should have needed education or counseling in its use. In Indonesia drug distribution through online specified in article 7 of the Regulation of the Drug and Food Control Agency Number 8 of 2020 concerning Control of Drugs and Food that are circulated online regulates the distribution of drugs onlineonline may only be administered to the class of over-the-counter drugs, limited over-the-counter drugs, and hard drugs in accordance with statutory provisions. The distribution of these drugs must have a distribution permit and meet the requirements for production and distribution methods regulated by law (Siswanto, et al., 2022). The drugs purchased by the respondents in this study were in accordance with the laws circulating in Indonesia. Market place used by the respondents in this study the majority used Shopee as many as 189 respondents (82%), Tokopedia as many as 18 respondents (8%), Lazada as many as 18 respondents (8%), Bukalapak 1 respondent (1%), Others 5 respondents (2%). Shopee is still the number one choice for some respondents as a place of purchase online.

## CONCLUSIONS AND RECOMMENDATIONS

Description of community characteristics in purchasing drugs online in this study are people who buy drugs online men and women have the same percentage (50%) with an age range of 21-25 years (52%), with a majority high school education level (40%) and work as civil servants (36%), who have income > Rp. 3,500,000 (34%) and are users who use social media every day (79%). Community perceptions in this study the majority of respondents answered strongly agree on all variables where there are three perception variables, namely perceptions of process indicators of convenience (70%) and security indicators (60%), perceptions of product authenticity indicators (65%) and price indicators (58%) and marketing perceptions of advertising indicators (50%) and discount indicators (56%). Community characteristics (age) and people's perceptions (process perceptions and marketing perceptions) have a significant influence on drug buying behavior online where the two variables have p-values sequentially, namely  $0.007$  and  $0.000 \leq 0.05$  and the t-statistical value is greater than the t-table (1.651) sequentially the t-statistical value is 2.712 and 5.221.

## ADVANCED RESEARCH

This research still has several limitations and future researchers are expected to improve them. Limitations to this research are:

1. The number of respondents collected was quite small, namely only 231 people, so the results were not comprehensive.
2. The method of collecting data through questionnaires has weaknesses, because some respondents answered not seriously and could not be controlled.
3. This research is only limited to one city, namely Blitar City, so it cannot cover the entire population in that city

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