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# **Study on Impulsive Buying in Online Auction through Instagram**

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#### **Abstract**

This study aims to determine the driving factors for impulsive buying at online auctions through social media Instagram. The data used in this study are primary data. Data was obtained online from 150 online auction consumers in Indonesia within 6 months from August 2020 - January 2021. The data was processed using SmartPLS 3. The results of this study indicate a positive and significant relationship between variables, namely the driving factors consisting of ease of use, information exchange, scarcity, and hedonic needs have a positive effect on impulsive buying behavior through online auctions on Instagram, mediated by positive affect. The results of this study also contribute to previous research, namely information on the causes of impulsive buying at online auctions that can be useful for business people in related fields

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#### 1. Introduction

In making purchasing decisions, Chih et al (2012) stated that there is a unique buying behavior from consumers in the form of unplanned purchases. These purchases are called impulsive purchases. According to Liu et al (2013) Impulsive buying behavior is a form of buying a product / service because a sense of desire arises when finding an object at that moment. According to Chen et al (2018) impulsive buying behavior can occur both direct purchases and online purchases.

Indonesia is a country with the highest ecommerce adoption rate in the world in 2019 (CNN E-Business, 2020). We Are Social (2020) states that smartphone user data in Indonesia in 2020 amounted to 175.4 million, this number increased by 17% or 25 million users compared to the previous year. With a total population of 272.1 million people, it means that 64% of population Indonesia's has experienced technological advances in the form of access to cyberspace via smartphones. As many as 90 percent of internet users aged 16 to 64 years in Indonesia have purchased products online. This shows the high number of online purchases in Indonesia.

There are many alternatives to buying goods online in Indonesia, one of which is an online auction through social media Instagram. According to the statistical site Social Blade (2020), one of the largest auction service provider accounts on Instagram, Lucky Cat Auction, has a relatively high increase in the number of followers for 6 months. In May 2019, the Lucky Cat Auction account had a number of followers of 85,425 and increased rapidly 6 months after that, amounting to 189,844 in May 2020. Posts on the Lucky Cat Auction account also show the number of sellers who are auctioning off goods on this account as seen from the increase in the number of posts in the month. May 2019 totaled 20,236 posts, compared to the total posts in May 2020 which amounted to 42,990 posts. This shows that the online auction phenomenon is starting to be favored by consumers in Indonesia.

According to Chen et al (2018), impulsive buying behavior can occur in purchases through online auctions. This is influenced by several factors, including the ease of use of the online auction tool, the information available on the online auction tool, and also the scarcity of the product itself. Apart from these factors, impulsive buying behavior is also influenced by the hedonic needs of consumers (Hausman, 2000).

This study tries to understand whether ease of use, information exchange, scarcity and hedonic needs are driving factors that cause consumers to purchase products impulsively through online auctions on Instagram. Consumers assess their impulse buying behavior based on these factors, resulting in their behavior being influenced by environmental factors

(Verhagen and van Dolen, 2011; Liu et al., 2013).

Therefore, based on previous findings, this study focuses on studies related to how driving factors including ease of use, information exchange, scarcity and hedonic needs influence impulsive buying behavior in order to conceptualize consumer responses in the context of online auctions so as to enable researchers to more understand the processes behind consumer decisions (Verhagen and van Dolen, 2011; Liu et al., 2013).

#### 2. Literature Review

The objective variable in this study comes from the main issue, namely impulsive buying behavior. The basis for selecting issues and determining indicators focuses on the journal Chen et al. (2018) which states on the relationship in the consumer behavior literature, that ease of use, exchange of information and scarcity have a positive relationship to impulsive buying behavior mediated by positive affect. In addition, this study also adds a hedonic needs variable based on the journal Angela Hausman (2000) which states that variable has a positive relationship to impulsive buying behavior mediated by positive affect.

#### **Positive Affect**

Positive affect can be defined as the extent to which a person feels excited, enthusiastic and inspired (Verhagen and van Dolen, 2011). In this context, the things that cause a person to feel enthusiastic about making impulsive purchases are positive affect felt by consumers. The essence of positive affect leads to impulsive buying.

According to Lin and Lin (2013), this positive affect can be found, for example, in promotional messages through electronic media which indicate that a product is limited and only available for a certain period of time, which can trigger strong positive affect felt by consumers. This shows that positive affect arise from what consumers feel. This feeling makes consumers feel very enthusiastic about making a purchase.

#### Ease of Use

Ease of Use is an important aspect of online service quality. Ease of use can be defined as the ease felt by consumers in navigating online stores (Liu et al. 2013). Ease of use also reflects the functional comfort felt by customers (Chen et al. 2018).

According to Xie in 2003, Ease of Use has the same meaning as the term 'User Friendly' which is currently more familiar to the public. Xie added, ease of use is the ability of a site or service to be used easily by its users. In payment services when shopping online via mobile devices, one of the things consumers will ask about is the ease of use of the service. These

factors greatly affect the intensity of using mobile devices in the shopping process.

H1 = Ease of use has a positive relationship to positive affect

#### **Information Exchange**

Information exchange is an important interaction between buyers and store owners. Information exchange is also defined as behavior that includes consumer interactions with the aim of collecting, sharing, and also making use of information [Berbegal-Mirabent et al. 2016].

The exchange of information makes consumers understand in detail the products they want to buy. Information exchange can be obtained through product users or consumers who have purchased the product. The influence of this information makes it possible for prospective buyers to buy impulsively (Adjei et al., 2010).

H2 = Information exchange has a positive relationship to positive affect

#### **Scarcity**

Scarcity, or in English, "Scarcity" is defined as a method of expressing/conveying messages to customers by limiting the number of items and/or the time of availability. Scarcity increases the value and attractiveness of the product or service [Prebensen et al., 2016].

The existence of limited product scarcity is a relatively strong stimulus because it contains messages that are indirectly aimed at consumers in making immediate decisions. In the end, scarcity leads consumers to make purchases right away (Chen et al, 2018).

H3 = Scarcity has a positive relationship to positive affect

## **Hedonic Needs**

Hausman (2000) states in his research, that consumers feel entertained and meet their hedonic needs by shopping. By shopping, consumers have new experiences and can fulfill their curiosity about a product.

Hedonic shopping reflects the needs in terms of entertainment and emotional value that is needed for consumers. Hedonic needs themselves are needs that are owned by consumers in fulfilling satisfaction so that they feel happy and find new things when shopping (Chih et al, 2012).

H4 = Hedonic needs have a positive relationship to positive affect

## **Impulsive Buying Behavior**

## **Research Instrument**

The instrument in this study was a questionnaire. The questionnaire was used to measure six variables, namely ease of use, exchange of information, scarcity, hedonic needs, positive

Impulsive buying behavior is a form of buying a product / service due to a sense of desire when finding objects in the immediate environment / location (Liu et al., 2013). From Liu's (2013) explanation, this impulsive buying behavior occurs without any intention long before consumers find certain goods / services.

Consumers, directly or indirectly, feel the strong driving factors at that moment so they make a decision to buy a product. Ease of use, information exchange, scarcity, and hedonic needs are all driving factors for the emergence of positive affect that lead to impulsive buying behavior (Chen et al, 2018).

H5 = Positive affect has a positive relationship with impulsive buying behavior

#### 3. Research Methods

## Research Design

This research is applied research. Observation of the research setting is a source of problems, which in this case is in the field of online purchases, especially purchases at online auctions via Instagram social media. Researchers raise the problem of impulsive buying behavior set in Indonesia.

Research in this study was carried out at a certain time or had a cross-sectional nature (Sekaran & Bougie, 2017). There are independent and dependent variables in this study. Independent affects dependence on a phenomenon so as to explain a causal relationship (causal study). In addition, this study involves statistical calculations so that it is quantitative in nature which requires data from respondents. So, as a primary data collection tool, researchers used a survey approach with an online questionnaire

## Sample

The sample must reflect the similarities and differences found in the population, thus allowing the conclusion of the (small) sample to be able to represent the population (large) (Hair, 2017). Samples were taken of 150 respondents using non-probability sampling techniques. This technique does not take the respondent's data randomly, but rather by determining specific characteristics called the purposive sampling method. This method requires the respondent to meet the predetermined requirements. This amount is expected to be able to meet the minimum standards in using the statistical test tool Structural Equation Modeling (SEM). Respondents in this study have a special characteristic, namely online auction users on social media Instagram in Indonesia, who have made purchases before.

affect and impulsive buying behavior. Researchers used the Lime Survey as a tool for optimally compiling and distributing online questionnaires. The preparation of the questionnaire in this study refers to the journal Chen et al (2018) for the variables of ease of use,

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information exchange, scarcity, positive affect, and impulsive buying behavior. In addition, the preparation of a questionnaire on the hedonic needs variable is based on the journal Angela Hausman (2000).

#### **Respondent Profile**

There were 150 respondents who met the questionnaire criteria in this study. Based on their ages, 125 respondents (83.3%) were 20-25 years old, 13 respondents (8.6%) were > 25 years old, and 12 respondents (8%) were <20 years old. Based on their domicile, 96 respondents (64%) came from Central Java, 18 respondents (12%) came from West Java, 12 respondents (8%) came from the Special Region of Yogyakarta, 10 respondents (6.6%) came from DKI Jakarta, 9 respondents (6%) came from outside Java Island, and 5 respondents (3.3%) came from East Java.

#### 4. Result

PLS-SEM was used in this study to analyze data. PLS has a strong statistical technique in estimating structural models in complex situations (Henseler et al, 2013).

#### Validity dan Reliability

Validity and reliability are the first criteria in PLS-SEM to assess a reflective structural model. According to Hair (2017) the criteria for the value of outer loading are divided into 3, namely: the value of outer loading is declared good if ≥0.70; the outer loading value is declared to be maintained and can be removed as needed if it is 0.4 to less than 0.7; and outer loading value should be cleared when <0.4. So that there is no data that needs to be deleted from the following test.

Table 1. Outer Loadin

Indicator	Ease of Use	Information Exchange	Scarcity	Hedonic Needs	Positive Affect	Impulsive Buying Behavior
KP1	0.772					
KP2	0.852					
KP4	0.730					
PI2		0.747				
PI3		0.742				
PI4		0.674				
KL1			0.644			
KL2			0.691			
KL4			0.556			
KL5			0.689			
KH1				0.685		
KH4				0.650		
KH6				0.747		
KH7				0.784		
PP1					0.770	
PP2					0.770	
PP3					0.684	
PP4					0.832	
PP5					0.819	
PB2						0.632
PB3						0.681
PB5						0.845

Sumber: Processed Primary Data, 2021

Table 2. Reliability

Variabel	Cronbach's Alpha	Rho_A	Composite Reliability	Average Variance Extracted (AVE)
Ease of Use	0.695	0.714	0.829	0.618
Information Exchange	0.541	0.541	0.765	0.521
Scarcity	0.540	0.548	0.741	0.419
Hedonic Needs	0.688	0.695	0.809	0.516
Positive Affect	0.834	0.841	0.883	0.603
Impulsive Buying	0.834	0.841	0.883	0.603
Behavior				

Sumber: Processed Primary Data, 2021

Based on table 2, the reliability test results of the positive feeling variables and impulsive buying behavior are stated to be good because the Cronbach's alpha value is> 0.7. For the variables of ease of use, information exchange, rarity, and hedonic need were acceptable because the Cronbach's alpha value was between 0.5 and 0.7. So it can be concluded that the reliability of all variables in this study is accepted.

# **Discriminant Validity (HTMT)**

Table 3. Discriminant Validity (HTMT)

	Hedonic Needs	Scarcity	Ease of Use	Impulsive Information Buying Behavior Exchange		Positive Affect
Hedonic Needs	0.718					
Scarcity	0.401	0.647				
Ease of Use	0.253	0.348	0.786			
Impulsive Buying Behavior	0.500	0.207	0.110	0.725		
Information Exchange	0.260	0.298	0.245	0.212	0.722	
Positive Affect	0.546	0.475	0.470	0.285	0.398	0.777

Sumber: Processed Primary Data, 2021

Regarding discriminant validity, the correlation of each variable is different from one another. Overall, the researcher considered the correlation between these variables as an

acceptable value. This is based on the test results which show the value is less than one (<1). In other words, all of these discriminant validity results are supported.

#### **Goodness of Fit**

Table 4. AVE and R Square

	Cronbach's Alpha	Rho_A	Composite Reliability	Average Variance Extracted (AVE)	R-Square
Ease of Use	0.695	0.714	0.829	0.618	
Information Exchange	0.541	0.541	0.765	0.521	
Scarcity	0.540	0.548	0.741	0.419	
Hedonic Needs	0.688	0.695	0.809	0.516	
Positive Affect	0.834	0.841	0.883	0.603	0.483
Impulsive Buying Behavior	0.834	0.841	0.883	0.603	0.081

Sumber: Processed Primary Data, 2021

Measurement of model suitability in PLS can be seen through the value of the Goodness of Fit (GoF) calculation with the formula:  $GOF = \sqrt{mean\ AVE \times mean\ R\ square}$ . The GoF value obtained in the above calculation is 0.208 which

is classified according to the criteria, namely between 0 to 1, so it can be concluded that this model has a good value and has the ability to explain empirical data.

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## **Hypothesis Result**

Table 5. Causality

The relation between variables	Original Sample (O)	Sample Mean (M)	Standard Deviation	T-Statistics	P-Value
Ease of Use -> Positive Affect	0.271	0.265 0.072		3.773	0.000
Information Exchange - > Positive Affect	0.185	0.191	0.085	2.179	0.030
Scarcity -> Positive Affect	0.182	0.192	0.064	2.835	0.005
Hedonic Needs -> Positive Affect	0.357	0.358	0.069	5.155	0.000
Positive Affect -> Impulsive Buying Behavior	0.285	0.299	0.082	3.465	0.001

Sumber: Processed Primary Data, 2021

Sekaran (2006) states that the value of T-statistics  $\geq 1.96$  is said to be significant or influential with a confidence level of 5% (P-Value  $\leq 0.05$ ). While the original sample value is positive, it can be concluded that the hypothesis has a positive effect and vice versa.

The results of the analysis of the structural model hypothesis 1 "Ease of Use has a positive relationship to positive affect". The results of the structural model analysis show the value of p value = 0.000 and t statistic = 3.773. The original value of the positive sample was 0.271. Thus, it can be concluded that the relationship of ease of use has a significant positive effect on positive affect so that hypothesis 1 is accepted. Supported by empirical evidence that there is a positive relationship between ease of use and positive affect (Gia-Shie Liu, Pham Tan Tai, 2016). This ease of use is a factor that greatly affects the intensity of the use of mobile devices in the shopping process (Moore & Benbasat, 1991).

The results of the analysis of the structural model hypothesis 2 "Information exchange has a positive relationship to positive affect". The results of the structural model analysis show the p value = 0.030 and the t statistic = 2.179. The original positive sample value is 0.185. Thus, it can be concluded that the information exchange relationship has a significant positive effect on positive affect so that hypothesis 2 is accepted. Supported by empirical evidence that the exchange of information has a positive relationship with positive affect for making purchases (Jun, Seung-Pyo; Park, Do-Hyung, 2016).

The results of the analysis of the structural model hypothesis 3 "Rarity has a positive relationship to positive affect". The results of the structural model analysis show the p value = 0.005 and the t statistic = 2.835. The original value of the positive sample is 0.182. Thus, it can be concluded that the scarcity relationship has a significant positive effect on positive affect so that hypothesis 3 is accepted. Supported by other research has also proven empirically that scarcity has a positive relationship to positive affect for making purchases (Chen et al., 2018). This scarcity is a strong stimulus in conveying messages to consumers that aim to encourage consumers to make purchases (Lin, 2013).

The results of the analysis of the structural model hypothesis 4 "Hedonic needs have a positive relationship to positive affect". The results of the structural model analysis show the value of p value = 0.000 and t statistic = 5.155. The original value of the positive sample is 0.357. Thus, it can be concluded that the relationship between hedonic needs has a significant positive effect on positive affect so that hypothesis 4 is accepted. Supported by other research has shown empirical evidence that hedonic needs have a positive relationship with positive affect in making purchases (Chih et al., 2012 & Hausman et al., 2000). Consumers need satisfaction that can be obtained for pleasure, a sense of belonging to something new, a satisfying experience in shopping, all of which are hedonic needs (Hausman 2000)

The results of the analysis of the structural model hypothesis 5 "Positive affect has a positive relationship to impulsive buying

behavior". The results of the structural model analysis show the p value = 0.001 and the t statistic = 3.465. The original value of the positive sample is 0.285. Thus, it can be concluded that the relationship between positive affect has a significant positive effect on impulsive buying behavior so that hypothesis 5

is accepted. Supported by empirical evidence from other studies that positive affect have a positive relationship to impulsive buying behavior (Chen et al., 2018). In addition, another study indicates that consumers who feel a positive influence are very likely to buy products that are observed at that time (Dholakia, 2000).

## Direct Effect, Indirect Effect, dan Total Effect

Table 6. Direct Effect, Indirect Effect, dan Total Effect

The relation between	Direct Effect		Indirect Effect		Total Effect		Evidence for Mediation
variables	P Values	T Statistics	P Values	T Statistics	P Values	T Statistics	
Ease of Use -> Positive Affect	0.006***	2.768			0.006	2.768	
Ease of Use -> Positive Affect -> Impulsive Buying Behavior			0.029	2.196			Partial
Information Exchange -> Positive Affect	0.001***	3.404			0.001	3.404	
Information Exchange -> Positive Affect -> Impulsive Buying Behavior			0.007	2.709			Partial
Scarcity -> Positive Affect	0.012**	2.529			0.012	2.529	
Scarcity -> Positive Affect -> Impulsive Buying Behavior			0.032	2.155			Partial
Hedonic Needs -> Positive Affect	0.000***	5.700			0.000	5.700	
Hedonic Needs -> Positive Affect -> Impulsive Buying Behavior			0.000	3.646			Partial
Positive Affect -> Impulsive Buying Behavior	0.000***	5.003			0.000	5.003	

p < 0.10, \*p < 0.05, \*p < 0.01 (two-sided test)

Sumber: Processed Primary Data, 2021

Based on the table above, ease of use, information exchange, scarcity, and hedonic needs have a significant indirect effect with impulsive buying behavior through positive affect variable. The significance can be seen from the p value with the criteria <0.05.

From the explanation of the table of direct effects, indirect effects, and total effects above, it

can be concluded that the relationship between ease of use, information exchange, scarcity and hedonic needs with impulsive buying behavior mediated by positive affect is called partially mediation. There is no relationship which represents total mediation in the above table explanation, all indicate partially mediation.

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## 5. Conclusions and Suggestions

#### **Conclusions**

Based on the objectives of this study, namely to determine the driving factors for impulsive buying through online auctions. This was investigated by the number of samples deemed sufficient according to the criteria (150) by processing the data using PLS SEM. The findings prove that there are several factors that cause consumers to purchase impulsively through online auctions, especially on a national scale, in Indonesia. Furthermore, the findings related to the hypothesis presented will be disclosed

The results of the testing process that has been carried out both on the instruments and hypotheses in the previous chapter, it can be concluded that this study obtained five positive and significant relationships between variables, which consist of: (1) ease of use with positive affect, (2) exchange of information with positive affect, (3) scarcity with positive affect, (4) hedonic needs with positive affect, and (5) positive affect with impulsive buying behavior. A positive and significant relationship is an indication that there is a causal relationship between variables and has a positive effect

## Limitations

This study has limitations in obtaining respondent data due to time constraints which affect the survey results where the majority of informants come from Java. Researchers were only able to complete the data according to the minimum sample standards using PLS SEM.

In addition, the object of research does not yet refer to purchases with certain, more conical segments. But all purchases in general are through online auctions, be it fashion, electronic, automotive products and anything that is sold through the online auction. So that research has not been able to measure the effect specifically on certain products.

#### Suggestions

There needs to be development on different target respondents for further studies of this research. Researchers suggest that there are special characteristics that determine the sample in purchases through online auctions, which can be different demographics, different social media, and so on.

Researchers provide suggestions for examining the characteristics of online auction consumers more deeply so that it is hoped that there will be findings of other factors that are thought to be driving consumers to make purchases, especially impulsively.

According to the results of research that shows the phenomenon of high interest in using online auctions in shopping is an indicator of opportunities to increase the macroeconomic cycle. Responding to this, it is highly recommended that there be a party that regulates the regulations so that the buying process through online auctions can run as it should.

In addition, for business people, it is necessary to know that the high number of online auction users has become a new phenomenon in recent years so that it can become a new business opportunity. The hope is that practitioners will become motors in the socialization of buying and selling practices through online auctions in a safe and procedural manner. With the practice of buying and selling through online auctions, it can facilitate the needs of both sellers and buyers.

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