

# The Implementation of Theory of Planned Behavior to Find Out the Intention and Buying Behavior in Portal Lelang Indonesia

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## **Abstract:**

The Covid-19 pandemic has caused changes in consumer behavior, including online auction transactions. Portal Lelang Indonesia is an online auction marketplace in Indonesia developed by the Directorate General of State Assets, the Ministry of Finance of Indonesia. The number of auctions in Indonesia continues to increase day by day, but there are productivity problems due to the low number of goods sold. Theory of Planned Behavior (TPB) has been widely used to conduct research in various fields studying buying behavior through online auction. Trust added to this research to get a better understanding of online auction usage. Attitude, subjective norm, perceived behavioral control and trust have a direct influence and significant positive effect on purchase intention and buying behavior in Portal Lelang Indonesia. Perceived behavioral control has an important role because it has the biggest impact on the implementation of online auctions in Indonesia. The Indonesian government should pay attention to the PCB aspect in improving the quality of Portal Lelang Indonesia because it will have the biggest impact on increasing purchase intentions and buying behavior.

**Key Word:** Theory of Planned Behavior, Trust, Online Auction, Portal Lelang Indonesia

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## **I. Introduction**

The Covid-19 pandemic has caused changes in consumer behaviour. The results of the Deloitte survey (2020) show the tendency of consumers to shop through e-commerce platform stores or other online networks compared to physical stores. Auction market in Indonesia has changed from conventional to digital method. The digitization of the auction business process in Indonesia is marked by the development of Indonesia online auction marketplace namely Portal Lelang Indonesia. Portal Lelang Indonesia developed by the Directorate General of State Assets (DJKN), the Ministry of Finance of Indonesia. This digitization has proven to be able to increase the number of auctions, but in some areas, there is a productivity issue. Auction productivity in East Java region is still below the national target.

Theory of Planned Behavior (TPB) has been widely used to conduct research in various fields including studying buying behavior through online auction applications (McLaughlin et al., 2017; McLaughlin et al., 2020). Based on TPB model, consumer behavior is influenced by intentions, while intentions are influenced by three factors, namely attitude, subjective norm and perceived behavioral control (Ajzen, 1991). This research will include an additional factor to get better understanding of online auction usage. Trust is an important factor that influences purchase intentions through online marketplaces in Indonesia (Yulisetiari et al., 2021; Chandra, 2015).

The aim of this study is to utilize the TPB framework to determine the effect of attitude, subjective norm, perceived behavioral control and trust on purchase intentions and buying behaviour on Portal Lelang Indonesia. This study uses the Structural Equation Modeling method. The respondents of this research were 143 auction winners who had made an auction purchase in East Java, Indonesia.

## **II. Literature Review**

The Theory of Planned Behavior (TPB) was developed from the Theory of Reasoned Action (TRA). Ajzen (1991) added perceived behavioral control to predict intention and behavior into the TRA. The three main determinants that affect intention in the TPB model are attitude, subjective norm and perceived behavioral control (PBC). PBC influence behavior indirectly (through intention) as well as directly (Ajzen, 1991). In previous studies, the utility of the TPB model has been successfully applied to understanding customers' online auction transactions (Pavlou and Fygenson, 2006; Huang et al., 2011; Schlaegel, 2015; McLaughlin et al., 2017; McLaughlin et al., 2020).

Attitudes are formed by behavioral beliefs and evaluation of consequences (Ajzen, 1991:191). Behavioral beliefs explain that every behavior will produce a benefit or consequence that must be borne. Consequence evaluation is a person's consideration of the consequences of behavioral beliefs. Subjective norms are formed by normative beliefs and motivation to comply (Ajzen, 1991:195). Normative beliefs explain the views of other people or other social groups on what should or should not be done based on norm considerations. Motivation to comply is a decision taken by a person to follow or not to follow the views of other people or other social groups. Perceived behavioral control is formed by control beliefs and the power of control factors/access to the control factors (Ajzen, 1991:196). Control belief is the probability that several factors support an action. The strength of the controlling factor is the subject's access or the strength of the subject related to the factors that support the behaviour. Pavlou and Gefen (2005) state that trust is a binding element of social interaction. Trust and social interaction make someone take it for granted without using careful cognitive calculations (Pavlou and Gefen, 2005).

### III. Conceptual Framework

The conceptual framework of this study aims to determine the relationship between the independent variables Attitude, Subjective Norm, Perceived Behavioral Control and Trust, the intervening variable Purchase Intention, and the dependent variable Buying Behaviour. Based on the background description above, the conceptual framework of this research can be described as follows:

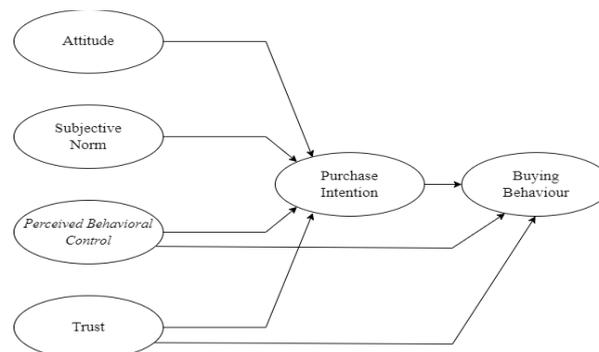


Figure 1. Conceptual Framework

#### Hypothesis

##### The Effect of Attitude on Purchase Intention

According to Ajzen (2005:123) attitude is a response by considering the good and bad of an object, person, institution or event. Although the formal definition of attitude varies, most contemporary social psychologists agree that the characteristics of attitude attributes are evaluative actions such as pro-cons or pleasant-unpleasant (Ajzen, 2005:123). Pavlou dan Fygenon (2006), Huang et al. (2011), Schlaegel (2015), McLaughlin et al. (2017) dan McLaughlin et al. (2020) in their research concluded that attitudes towards online purchasing had a significant impact on predicting purchase intentions. Based on the theory and empirical evidence above, the research hypothesis proposed is as follows:

H1: Attitude (X1) has a positive and significant effect on Purchase Intention (Z) in Portal Lelang Indonesia.

##### The Effect of Subjective Norm on Purchase Intention

People will generally act according to the norms adopted in the environment, and vice versa (Ajzen, 2005:123). Behavior that is contrary to the norm will cause pressure for the person who runs it. Previous studies have proven that Subjective Norms influence the intention to exercise (Courneya, 1995), hunting (Hrubes et al., 2001), buying stocks (East, 1993) and blood donation (Giles and Cairns, 1995). Based on the theory and empirical evidence above, the research hypothesis proposed is as follows:

H2: Subjective Norm (X2) has a positive and significant effect on Purchase Intention (Z) in Portal Lelang Indonesia.

##### The Effect of Perceived Behavioral Control on Purchase Intention

Previous research suggests that PBC construct is indicated by two factors, self-efficacy and perceived control (Terry and O'Leary, 1995). Self-efficacy is a person will measure his ability whether he is able or not to do an action, while perceived control is a person will also measure his ability to control external factors that might hinder him from doing an action (Terry and O'Leary, 1995:202). McLaughlin et al. (2017) and McLaughlin et al. (2020) in their research concluded that PCB had a significant impact on predicting purchase intention in eBay. Based on the theory and empirical evidence above, the research hypothesis proposed is as follows:

H3: Perceived Behavioral Control (X3) has a positive and significant effect on Purchase Intention (Z) in Portal Lelang Indonesia.

**The Effect of Trust on Purchase Intention**

Trust is very important in online transactions. Trust affects the adoption of online auctions in Indonesia (Chandra, 2015). Yulisetiari et al. (2021) stated that trust has an effect on purchase intention through the online travel agent Traveloka. Other researchers also found the fact that trust has an effect on intention to make transactions through the online auction application eBay (J. Chen et al., 2016; McLaughlin et al., 2017; Ow et al., 2018; McLaughlin et al., 2020), Yahoo! Auction (J. Chen et al., 2016) and other online marketplaces (Pavlou and Gefen, 2005; Zhou et al., 2007; Shareef et al., 2013). Based on the theory and empirical evidence above, the research hypothesis proposed is as follows:

H4: Trust (X4) has a positive and significant effect on Purchase Intention (Z) in Portal Lelang Indonesia.

**The Effect of Perceived Behavioral Control on Buying Behaviour**

McLaughlin et al. (2017) and McLaughlin et al. (2020) in their research concluded that PCB had a significant impact on predicting buying behaviour in eBay. Based on the theory and empirical evidence above, the research hypothesis proposed is as follows:

H5: Perceived Behavioral Control (X3) has a positive and significant effect on Buying Behaviour (Y) in Portal Lelang Indonesia.

**The Effect of Trust on Buying Behaviour**

Trust has an effect on eBay's online auction buying behaviour (Ow et al., 2018:307). The higher the trust, the better the impression and the optimal number of offers. However McLaughlin et al. (2020) and McLaughlin et al. (2017) states the opposite, trust has no effect on buying behavior in eBay online auctions. Based on the theory and empirical evidence above, the research hypothesis proposed is as follows:

H6: Trust (X4) has a positive and significant effect on Buying Behaviour (Y) in Portal Lelang Indonesia.

**The Effect of Purchase Intention on Buying Behaviour**

Intention is the factor that most closely affects the emergence of action (Ajzen, 2005:101). Previous research has shown that intention has an effect on ecstasy drug consumption (Orbell et al., 2001), having an abortion (Smetana and Adler, 1980), complying with speed limits (Elliott et al., 2003) and presidential elections (Ajzen and Fishbein, 1980). Based on the theory and empirical evidence above, the research hypothesis proposed is as follows:

H7: Purchase Intention (Z) has a positive and significant effect on Buying Behaviour (Y) in Portal Lelang Indonesia.

**IV. Research Method**

This study uses the Structural Equation Modeling method. The population in this study are people who have purchased through Portal Lelang Indonesia in East Java for the period 2020 to May 2022. The sample of this research is taken by using non-probability sampling technique. This study used a sample of 143 respondents. Amos version 24 is used as an analytical instrument.

**V. Result**

The model in this study meets the good fit criteria because there is only 1 marginal fit and 9 good fit. Therefore the model in the study can be accepted because there is a match between the model and the data.

**Table 1. SEM Conformity Index**

Criteria	Recommended Value	Observed Value	Result
<i>Chi Square</i>	Expected small ( $\leq X^2$ , df = 122; 148,779)	144,823	<i>Good Fit</i>
<i>Sign. Probability</i>	$\geq 0,05$	0,078	<i>Good Fit</i>
CMIN/DF	< 2	1,187	<i>Good Fit</i>
GFI	> 0,9	0,905	<i>Good Fit</i>
RMSEA	< 0,08	0,036	<i>Good Fit</i>
AGFI	$\geq 0,9$	0,866	<i>Marginal Fit</i>
TLI	$\geq 0,9$	0,98	<i>Good Fit</i>
NFI	$\geq 0,9$	0,908	<i>Good Fit</i>
PNFI	0,6 - 0,9	0,724	<i>Good Fit</i>
PGFI	0 - 1 (the higher the better)	0,945	<i>Good Fit</i>

Source: Primary Data

The next step is to do a causality test to determine the effect of exogenous variables on endogenous variables. The results of the causality test are presented in the Table No. 2

**Table 2. Causality Test Result**

			Estimate	C.R.	P	Result
Purchase Intention	<--	Attitude	0,302	3,482	***	Significant
Purchase Intention	<--	Subjective Norm	0,291	3,189	0,001	Significant
Purchase Intention	<--	PBC	0,539	3,789	***	Significant
Purchase Intention	<--	Trust	0,297	5,157	***	Significant
Buying Behaviour	<--	Purchase Intention	0,241	5,154	***	Significant
Buying Behaviour	<--	PBC	0,78	5,311	***	Significant
Buying Behaviour	<--	Trust	0,291	3,666	***	Significant

Source: Primary Data

The exogenous latent variable attitude (X1), subjective norm (X2), perceived behavioral control (X3) and trust (X4) have a direct influence on the endogenous variable intervening purchase intention (Z). In addition, the latent variables perceived behavioral control (X3) and trust (X4) have a direct influence on the endogenous variable buying behavior (Y). Purchase intention (Z) has a direct effect on buying behavior (Y). A summary of the direct influence between these variables is presented in Table No. 3

**Table 3. Direct Effects of Latent Variables**

	Trust	PBC	Subjective Norm	Attitude	Purchase Intention
Purchase Intention	0,278	0,42	0,238	0,23	0
Buying Behaviour	0,264	0,589	0	0	0,233

Source: Primary Data

## VI. Discussion

All the exogenous latent variable attitude (X1), subjective norm (X2), perceived behavioral control (X3) and trust (X4) have a direct influence and significant positive effect on the endogenous variable intervening purchase intention (Z). Perceived behavioral control (X3) and trust (X4) have a direct influence and significant positive effect on the endogenous variable buying behavior (Y). Perceived behavioral control has the greatest direct influence on purchase intention and buying behavior. People will measure his ability whether he is able or not to operate Portal Lelang Indonesia, while they will also measure his ability to control external factors that might hinder him from buying through Portal Lelang Indonesia. All hypotheses are accepted.

## VII. Conclusion

The Theory of Planned Behavior has been proven to be used to determine purchase intentions and buying behavior in Indonesian Online Auction Marketplace “Portal Lelang Indonesia”. Attitude, subjective norm, perceived behavioral control and trust have a direct influence and significant positive effect on purchase intention and buying behavior in Portal Lelang Indonesia. Perceived behavioral control has an important role because it has the biggest impact on the implementation of online auctions in Indonesia. The Indonesian government should pay attention to the PCB aspect in improving the quality of Portal Lelang Indonesia because it will have the biggest impact on increasing purchase intentions and buying behavior. The increase in purchase intention and buying behavior are expected to solve the problem of productivity issue.

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