Determinant Online Purchase Intention: The Role of Cash on Delivery as a Moderator

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Abstract. Shopping in e-commerce, consumers will have perceived value and perceived risk. Marketers need to understand the value and risk of online purchases to understand online customer behavior. In addition, companies can create clear marketing strategies to influence online purchase intentions and create sustainable online shopping behavior. This study aims to analyze the effect of perceived value, which consists of utilitarian, hedonic, and social values and perceived risk on online purchase intention, where Cash On Delivery service is a moderating variable to analyze strengthens or weakens the effect of the relationship between perceived value and perceived risk on online purchase intention. There are 247 respondents of e-commerce customers in this research object then analyzed using PLS-SEM. Based on the results of this study, it is known that COD moderates the effect of perceived risk on online purchase intention. Social values have a positive effect on utilitarian & hedonic values, utilitarian and hedonic values mediate the influence of social values on online purchase intentions.

Keywords: Online purchase intention; cash on delivery; perceived value; perceived risk, e-commerce

I. Introduction

The internet and information technology presence creates opportunities and changes in business concepts into digital business platform models. Through the concept of a digital platform, businesses can connect sellers and buyers to create real-time and efficient two-way interactions. E-commerce is one of the companies that implement a digital business platform where consumers can shop easily, comfortably, and can be accessed 24 hours anywhere via smart phones, tablets, or Personal computers (PC) and laptop sites without having to go to the physical store directly. Based on the results of the “We Are Social” survey in April 2021, it was explained that the percentage growth in the value of e-commerce in Indonesia was the highest in the world. Indonesia is included in the world's top ten highest e-commerce users, with the highest percentage value of 88.1 percent. Britain was in second place at 86.9 percent. Then, the third rank is occupied by the Philippines, 86.2 percent. Thailand and Malaysia 85 percent. E-commerce users in Germany, Ireland, and South Korea are 84 percent, while e-commerce users in Italy and Poland are 82.9 percent. The average global e-commerce user is 78.6 percent. The increasing growth in the value of e-commerce in Indonesia shows that e-commerce digital media platforms have good economic value and are widely used by people in Indonesia. Although the number of people buying online is increasing, most internet users still perceive online buying as a source of risk and uncertainty (Liao, Shu-Hsien, et al., 2021). Consumers will be guided by value (Khan et al., 2011). Perceptions of value form an expectation. Consumer expectations for consuming the product will shape attitudes (Katawetawarak and Wang, 2011). If consumer expectations are of high value, the more positive consumer attitudes will be, encouraging consumers to buy a product. Therefore, marketers need to understand the value and risk when making online purchases to understand online customer behavior. In addition, companies can create clear marketing strategies to influence online purchase intentions and create sustainable online shopping behavior.

Among the various dimensions of perceived value by consumers, perceived utilitarian value and hedonic value are the most commonly used in marketing (Babin et al., 1994). Although several studies have revealed the effect of utilitarian and hedonic values on buying behavior, there is still a lack of studies discussing the role of social values (Gan and Wang, 2017). Social value is also a value that affects consumers’ purchase intentions when shopping online. Alshibly (2015) explains that social values encourage and guide consumers to act. Among the subdimensions identified by the researchers, the role of social values is still ambiguous (Wei Wu et al., 2018). Among the subdimensions identified by the researchers, the role of social values is still ambiguous (Wei Wu et al., 2018). Based on previous research, conflicting results were obtained, namely positive, zero, and negative mixed results in the relationship between social value and online purchase intention (Wei Wu et al. 2018).

Currently, the existence of digital e-commerce platforms in Indonesia is increasingly competitive, where many e-commerce companies provide various services and promotions to attract attention, persuade and encourage customers to adopt their online channels. The Cash On Delivery (COD) payment method service is one of the e-commerce innovations to increase seller sales and reduce risk perceptions and increase customer trust in products that have been purchased. Although the COD payment method has been carried out in several studies in developing countries as a measure to increase the success of e-commerce,
there is a gap in identifying the effect of COD on increasing value and reducing the risk of online purchase intention in developing countries (Sara Hamed & Sara El-Deeb, 2020).

This study aims to analyze the effect of perceived value, which consists of utilitarian, hedonic, and social values, and perceived risk on online purchase intention, where COD service is a moderating variable to analyze strengthens or weakens the effect of the relationship between perceived value and perceived risk on online purchase intention in the context of consumers in Indonesia.

II. Literature Review

The theory used in this research is prospect theory. Prospect theory was developed by Daniel Kahneman and Amos Tversky (1979), which includes two disciplines, namely psychology and economics. Prospect theory explains how people choose their behavior under risk. Prospect theory suggests that individuals will be risk-averse when faced with a risky choice that leads to profit. They will prefer a particular outcome with lower expected utility. This behavioral approach can be supported through the COD method of online delivery. The COD payment system is expected to help customers avoid making online payments to avoid higher risks.

The theory of social value in this research is social capital theory. Social capital theory offers insights into any aspects of a social structure that generates value and promotes the individual actions within that structure (Coleman, 1988).

Online Purchase Intention

Online purchase intention can be defined as predicting consumer behavior towards actions to complete online negotiations (Wagner Mainardes, de Almeida, and de-Oliveira 2019). Involvement in purchasing decision-making strongly correlates with contextual and product involvement, meaning that product and contextual factors such as circumstances, situations, and phenomena will influence consumer purchasing decisions (Ramadan et al., 2019).

Perceived value

Perceived value is consumers’ perceptions of the benefits they will get from online shopping (Kumar & Kashyap, 2018). consumers shop for utilitarian, hedonic and social values. Utilitarian value occurs when consumers perceive tangible benefits when shopping. This value results from cognitive stimulation from perceptions, thoughts, memories, and information processing on customers, which will later affect customer behavior when selecting products that suit their needs. In contrast, the hedonic value refers to the affective state (e.g., pleasure, joy) resulting from the purchase activity (Riorini S.V et al, 2019).

Social value comes from the perception of utility from specific social groups (Hasan, Abdulla Al-Towfiq, et al., 2021). Social value is obtained through associations with demographic, socioeconomic, and cultural-ethnic groups that are stereotyped positively or negatively. Social value is measured on the selected profile image (J. N. Sheth et al., 1991).

Perceived Risk

Perceived risk was conceptualized by Raymond Bauer in the 1960s in the context of consumer behavior and is based on the idea that every buying activity includes risk. Perceived risk is defined as the degree to which people express uncertainty about services or goods (Wang and Lee, 2020). Perceived risk is the user's perception of uncertainties in using social trading sites, such as privacy, financial loss, and product quality risks (Chiu et al., 2014).

Cash On Delivery

COD is a payment where the customer pays in cash to the courier or vendor only after the product is shipped (Halaweh, 2017). According to Hossain (2019), people in emerging markets prefer paying cash over other forms of online payment. Tandon et al. (2018) show that cash on delivery increases customer trust online and reduces the difficulties associated with online shopping in emerging markets.

III. Research Method

Research Design

This study uses quantitative methods and the research design used is conclusive. Conclusive research is a research design that aims to test a hypothesis and a specific relationship. In addition, this study takes a descriptive approach that is single cross-sectional. A single cross-sectional study observes the analysis of variable data collected at a specific time.
Sample
In this study, the sample is determined by non-probability sampling. The researcher will use purposive sampling, where the determination of the sample is taken based on specific considerations by obtaining sampling that has predetermined characteristics (Malhotra, 2010), where the sample criteria used for sampling are aged over 17 years old, have shopped at e-commerce using the COD payment method in the last three months.

Data Collection Method
The data collection method is by distributing questionnaires in Google form (skala likert 1-5). Questionnaires were distributed through social media or online messaging and then collected and analyzed. The questionnaire consists of introductions, screening questions, respondent profiles, and core statements.

Data Analysis Method
The questionnaire the respondents have filled out is analyzed for validity and reliability at the pre-test stage. The pre-test of this research was conducted on 56 respondents and then processed using the SPSS version 25.0 application. After the data is valid and reliable, then the main test is carried out by 247 respondents using the smartPLS version 3.0 application.

Conceptual Model
This study adopts a research model from previous research conducted by Sara Hamed & Sara El-Deeb (2020). For the new variables tested (social values) the authors refer to research conducted by Wei wu et al. (2018).

IV. Results and Discussion
Characteristics of Respondents
The demographics of the respondents in this research survey consisted of gender, age, domicile, frequently used e-commerce platforms and the average cost of shopping in e-commerce.
Table 1. Characteristics of Respondents

<table>
<thead>
<tr>
<th>Demographics</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>98</td>
<td>39.7%</td>
</tr>
<tr>
<td>Female</td>
<td>149</td>
<td>60.3%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 – 22 years old</td>
<td>26</td>
<td>10.5%</td>
</tr>
<tr>
<td>23 – 28 years old</td>
<td>78</td>
<td>31.0%</td>
</tr>
<tr>
<td>29 – 34 years old</td>
<td>69</td>
<td>27.9%</td>
</tr>
<tr>
<td>34 – 40 years old</td>
<td>44</td>
<td>17.8%</td>
</tr>
<tr>
<td>&gt; 40 years old</td>
<td>30</td>
<td>12.1%</td>
</tr>
<tr>
<td>Domicile</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jabodetabek</td>
<td>173</td>
<td>70%</td>
</tr>
<tr>
<td>Outside Jabodetabek</td>
<td>74</td>
<td>30%</td>
</tr>
</tbody>
</table>

Platform E-commerce Used

- Shopee 98 (39.7%)
- Tokopedia 85 (34.4%)
- Lazada 34 (13.8%)
- Blibli 17 (6.8%)
- Zalora 12 (4.9%)
- Jd.id 1 (0.3%)

The average cost of shopping in e-commerce

- < Rp 300,000 | 12 | 4.8% |
- Rp 250,000 - 500,000 | 102 | 41.3% |
- Rp 500,000 - 750,000 | 77 | 31.2% |
- Rp 750,000 - 1,000,000 | 19 | 7.7% |
- > Rp 1,000,000 | 37 | 15% |

Source: Primary Data, 2022

**Outer Model Evaluation**

The reliability test was carried out to measure the instrument’s consistency and accuracy in measuring the construct. If the composite reliability value constructs > 0.70, then it was declared reliable. (Hair, 2014)

![Figure 2. Reliability test](image)

Based on Figure 2 above, the results of the composite reliability test on all variables have > 0.7, proving that the instruments are reliable. In addition to reliability testing, it is necessary to convergent validity test through Average Variance Extracted (AVE) where the minimum score of each indicator variable is above 0.5 so that it can be ascertained its convergent validity.
From Figure 3, it can be seen that the AVE value for all variables is above 0.5. It meets the requirements.

**Inner Model Evaluation**

There are nine hypotheses tested in this study. The first hypothesis is the influence of social value (SV) on utilitarian value. The second hypothesis is the influence of social value (SV) on hedonic value (HV). The third hypothesis is the direct influence of social value (SV) on online purchase intention (OPI). The fourth hypothesis is utilitarian value (UV) mediates the influence of social values on online purchase intentions (OPI). The fifth hypothesis is hedonic value (HV) mediates the influence of social values on online purchase intentions (OPI). The sixth hypothesis is the effect of perceived risk (PR) on online purchase intention (OPI). The seventh hypothesis is COD moderating the influence of Utilitarian Value (UV) and online purchase intention (OPI). The eighth hypothesis is COD moderating the influence of Hedonic Value (HV) on online purchase intention (OPI). The ninth hypothesis is COD moderating the influence of perceived risk (PR) and online purchase intention (OPI). It is said that there is a significant direct effect if the p-value <0.05.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path</th>
<th>Coeff.</th>
<th>T Statistics</th>
<th>P Values</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>SV -&gt; UV</td>
<td>0.371</td>
<td>5.347</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2</td>
<td>SV -&gt; HV</td>
<td>0.371</td>
<td>5.347</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H3</td>
<td>SV -&gt; OPI</td>
<td>0.076</td>
<td>0.884</td>
<td>0.188</td>
<td>Rejected</td>
</tr>
<tr>
<td>H4</td>
<td>SV-&gt;UV -&gt; OPI</td>
<td>0.186</td>
<td>2.438</td>
<td>0.007</td>
<td>Accepted</td>
</tr>
<tr>
<td>H5</td>
<td>SV-&gt;HV -&gt; OPI</td>
<td>0.221</td>
<td>2.287</td>
<td>0.011</td>
<td>Accepted</td>
</tr>
<tr>
<td>H6</td>
<td>PR -&gt; OPI</td>
<td>-0.198</td>
<td>1.202</td>
<td>0.115</td>
<td>Rejected</td>
</tr>
<tr>
<td>H7a</td>
<td>UV*COD_- -&gt; OPI</td>
<td>-0.132</td>
<td>1.330</td>
<td>0.092</td>
<td>Rejected</td>
</tr>
<tr>
<td>H7b</td>
<td>HV*COD -&gt; OPI</td>
<td>-0.089</td>
<td>1.290</td>
<td>0.099</td>
<td>Rejected</td>
</tr>
<tr>
<td>H7c</td>
<td>PR*COD -&gt;OPI</td>
<td>-0.228</td>
<td>1.948</td>
<td>0.026</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

Based on Table 2, it can be seen that from nine hypotheses, there are five accepted hypotheses (H1, H2, H4, H5, and H7c).

- Social value positively affects utilitarian value, which means that if the social value is high, consumers will also increase the utilitarian value perceived by consumers.
Social value has a positive effect on the hedonic value, which means that the higher the social value, the hedonic value perceived by consumers will also increase.

Utilitarian value mediates the influence of social values on online purchase intentions, which means if the utilitarian value is higher when shopping online in e-commerce, the influence of social value on online purchase intentions of consumers to shop on e-commerce platforms will also increase.

Hedonic value mediates the influence of social values on online purchase intentions, which means if the utilitarian value is higher when shopping online in e-commerce, the influence of social value on online purchase intentions of consumers to shop on e-commerce platforms will also increase.

Cash on delivery moderates the relationship between perceived risk and online purchase intentions. The availability of COD payment method services in e-commerce will weaken the relationship between Hedonic value and Purchase intention.

V. Conclusion

This study found that COD could not moderate the relationship between the perceived value on online purchase intention. However, COD moderated a significant adverse effect on the relationship between perceived risk and online purchase intention. It means that when the effect of COD is high, the influence of the perceived risk value will decrease on online purchase intention. The research of Tandon et al. (2018) highlights the use of cash on delivery as a payment method to be the reason for the growth of online buying in India. Before the introduction of this payment method, online payment was mostly limited to credit and debit cards. Payment by card has reduced online shopping behavior in the country due to the fear of providing personal information online. For customers in Indonesia, sharing personal privacy information in e-commerce payments is not the most significant risk; this can be seen in the questionnaire indicators in descriptive analysis, where the statement has the lowest mean value (1.97) compared to other indicator items. The highest mean value (2.38) indicates financial loss is the absence of a guarantee on the goods in case of an error. The second highest mean value (2.30) is the product suitability indicator. The results of descriptive analysis explain that the presence of the payment method COD in e-commerce is not to strengthen the effect of perceived value but to weaken the effect relationship between perceived risk on online purchase intention. This result is in line with prospect theory. Prospect theory shows that people who have an irrational tendency are more reluctant to risk gains (gains) than losses (losses). If someone is in a profit position, that person tends to avoid risk, which is called risk aversion.

The limitations of this study are the number of samples that are not large, and the scope of the respondent's area is still general, namely outside Jabodetabek. It is not specified whether the island is outside Java or so there is no sharper analysis of the characteristics of the respondents. This research uses quantitative methods; further research can continue with qualitative methods to obtain more in-depth research results. Further research can elaborate on consumption value theory and prospect theory by adding other variables. Further research can also examine the effect of COD on other variables by existing literature because research on COD is still minimal.

References


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