

Factors influencing Gen-Z customer perception online shopping in Indonesia

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ABSTRACT

This study aims to examine the relationship between benefits, ease of use, self-efficacy, safety, trust, and perceived usefulness on customer perceptions. The data in this study were collected through a survey. The samples in the study were consumers who made online purchases on Shopee, Tokopedia, and Bukalapak, which amounted to 327 respondents. This study employed simple linear regression as a statistical and hypothetical test tool with the help of SPSS version 24. The conclusion of this study is that all hypotheses have a positive and significant effect on consumer perceptions and provide new findings that perceived usefulness is a variable that affects customer perceptions.

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1. Introduction

Retail market growth has decreased in recent years, but online shopping is overgrowing [1] [2]. Global growth globally is estimated in 2021 to reach \$5 trillion [3]. This increase in growth is also inseparable from the contribution of the second-largest country in the Asia Pacific, namely Indonesia, as one of the fast-growing online markets in the world with an estimated total number of buyers as many as 12.8 million online buyers [4] [5] [6].

As a result of these changes, online shopping provides more information and opportunities to compare products with more choices and more reasonable prices, convenience, ease of ordering, speed when shopping, choosing and paying for desired products online [7] [8] [9] [10]. This tendency will certainly provide perception for consumers who want to shop online.

Literature indicates that factors such as benefits, trust, self-efficacy, ease of use, and security influence consumers' perception. However, results of research Teoh et al. [11] also showed that benefits, self-efficacy only influence customer perception and ease of use of e-payment users in Malaysia, while Tandiono et al. [12] revealed that customer perception is only influenced by benefits and security Financial Technology Pohon Dana in Indonesia.

Based on the inconsistent research results above, this study wants to test the same model with different contexts: online shopping in Indonesia, namely Shopee, Tokopedia, and Bukalapak. Besides, this study also added a new variable that is valuable perceivedness, which is a recommendation from Tandiono et al. [12]. This variable is one that is thought to affect customer perception, so the novelty of this study is to test the same model in different contexts and conduct a new test for the relationship between perceived usefulness and customer perception.

2. Theoretical Framework and Hypothesis Development

2.1. Benefit

Consumers value the net profit from the acquisition of a product or service in the decision-making process. In other words, consumers determine the profit and loss in the decision to buy or use [13] [14]. Perceived benefits are related to the product or service obtained and are an important factor in consumers' decisions to buy or use a product [14] [15]. This of course really depends on how much consumer confidence to make transactions online [16] [17] and the time difference factor between traditional and online purchases, which leads to uncertainty about the ownership of goods after purchase and the perception of delays in product delivery [18] [19]. However, online purchases can make it easier for consumers to no longer need to visit a physical store to buy a product. Hence, they can avail the service from anywhere with a few clicks [20] [21].

2.2. Ease of Use

TAM is highly recommended and can be applied to the use of online shopping sites [22]. Ease of use is the main feature of TAM (Technology Acceptance Model) [23] [24]. Rogers [25] explains that consumers perceive ease of use as a term that represents the extent to which innovation is considered not difficult to understand, learn, or operate. Ease of use is considered as the user's belief that the technology is easy to use and requires less effort to use it [26]. Yang [27] explained that if the user experiences accessing online shopping sites using a mobile phone, it can lead to achieving the desired shopping goals. User-friendly online shopping sites allow customers to believe in usability and enhance the shopping experience [28].

2.3. Self-Efficacy

Self-efficacy refers to people's judgment about their ability to organize and carry out the actions needed to achieve a specified type of performance [29] [30]. Self-efficacy is not only related to the skills possessed but also to the self-confidence that a person uses to use these skills [31] [30] [32]. Self-efficacy also refers to an individual's self-assessment of his or her capacity to complete tasks and achieve certain goals [29] [33]. Self-efficacy has been studied in relation to online shopping [34] [35]. Self-efficacy in relation to online shopping refers to an individual's self-confidence when searching for and obtaining products and services in online shopping [36] [35].

2.4. Security

Security can be defined as a way to protect and ensure, as well as prevent hackers from attacking customer information and privacy [37]. The security aspect is the most important factor in online shopping [38]. Protection of customer knowledge and privacy for online shopping is a fundamental concern for purchasing decisions [39]. Customers who take advantage of shopping places can gain confidence from data security and further feel comfortable buying merchandise online [40]. Privacy and security risks in online shopping are actually a major concern of customers with longer experience periods, suggesting that the accumulation of such experiences (potentially and information) may lead to greater concern about privacy concerns [41].

2.5. Trust

According to Bauman and Bachmann [42], online trust is the most important element of business strategy because it reduces perceived risk and creates positive word of mouth. Khan et al. [43] argued that there is no specific definition regarding trust as a binding force in online shopping transactions between buyers and sellers. This term consists of three main elements (predictability, reliability, and reasonableness) and is considered an economic calculation in which value is explored by a comparison between relationships, creation and maintenance with the actual costs of serving it [44] [45]. With regard to product recommendations on social networking sites such as Facebook, "perceived ability, perceived benevolence / integrity, perceived critical mass, and trust in web sites are four important factors of trust" [46].

2.6. Perceived Usefulness

Davis [24] defines perceived usefulness in the TAM model as the degree to which a person believes that implementing an innovation improves job performance. This definition comes from the word useful, which means the ability to be used profitably [28]. Literature has shown that online consumer reviews have emerged as one of the most relevant sources of information in the modern retail environment, especially for the younger generation of consumers [47] [48]. Rahman and Sloan [49] confirm that perceived usability serves as a factor influencing m-commerce adoption.

Kim and Kwahk [50] stated that perceived usefulness plays an important role in accounting for both use and intention to use m-commerce through perceived value.

2.7. Customer Perception

Perception is the process of selecting, organizing and interpreting input information, sensations received through sight, feeling, hearing, smell and touch, to produce meaning [51]. Perception does not only depend on physical stimuli but also stimuli related to the surrounding environment and the condition of the individual concerned [52]. Schiffman and Kanuk [53] explained that the perception of something is very dependent on the stimulus and individual factors. Stimulus factors are physical characteristics such as size, weight, color or shape, while individual factors are included in the process not only on the five senses but also in the process of similar experiences and the main drive and expectations of the individual himself. Benefit, ease of use, self-efficacy, security, trust and perceived usefulness are the main factors forming customer perception in online shopping [54] [55] [12] [11] [56] [57] [24] [58].

2.8. Benefit and Customer Perception

Benefit is a person's tendency to use a tool or technology, where the technology can help them do activities better [12]. The benefits that consumers feel when shopping online shopping are a convenience that is not available in traditional shopping media. Online purchases can also minimize the uncertainty caused by online shopping [59] [60] [61] [54]. Based on several researchers in information technology, benefits become a factor that affects customer perception, especially in digital payments [12] [62] [63]. Based on this explanation, the hypotheses proposed are as follows.

H1. Benefit has a positive effect on customer perception

2.9. Ease of Use and Customer Perception

Ease of use can be interpreted as a business, ease, or difficulty using technology [12]. This concept can demonstrate the clarity of the use of information systems. It also shows the ease of using a system according to the user's wishes and expectations. The implications of both of the above will consider the ease and utilization of an information system. Some researchers have shown that ease of use positively affects the perception of online shopping customers [64] [55]. Respondents felt that online shopping provides an easy-to-understand structure and content [63]. Therefore, the second hypothesis is shown as follows:

H2. Ease of use positively affect customer perception

2.10. Self-efficacy and Customer Perception

Self-efficacy is a person's perception of doing something. If one can perform a behavior, then it is easy to request the results of such behavior [12]. The results of previous studies showed that self-efficacy affects attitudes and behaviors in different situations [65]. Self-efficacy leads to competency assessments about completing specific tasks and increases confidence to move cognitive resources to successfully perform specific tasks [66]. For example, people with higher levels of self-efficacy showed a greater desire for word processors and personal computers and a higher intention to use them and showed a greater desire to use the Internet for online transactions [67]. It also shows that the technology or information system used will change one's behavior. Self-efficacy was developed in response to four sources of information: previous experience, experience representation, verbal persuasion, and affective circumstances [63]. In the context of electronic transactions, self-efficacy refers to assessing the ability to use electronic systems [12]. The third hypothesis is as follows:

H3. Self-efficacy positively affects customer perception

2.11. Security and Customer Perception

Security becomes a set of consumer risk reduction related to individual data privacy and online transactions [56]. Some researchers previously gave an overview of security as a guarantee of the convenience of transactions, the accuracy of transactions, and the ease of using applications that cannot be hacked. Online shopping can guarantee increased security of online shopping sites [68]. There is also a high-risk guarantee and communication system that guarantees confidentiality during the use of such online shopping [69] [63]. This condition is why the security factor is one of the

determining factors of online shopping success. Based on this explanation, the third hypothesis is as follows:

H4. Security positively affects customer perception

2.12. Trust and Customer Perception

Trust is the level of risk involved in a relationship to get the expected results. In the context of online shopping, consumers are constantly faced with the risk of uncertainty [70], such as payment risk, products, information, time, and psychology, thus providing a sense of discomfort when deciding on an online purchase [71]. However, other research results show that trust can positively impact online shopping [57], especially online financial transactions. Also, trust can be a significant determinant in influencing customer perception to conduct online financial transactions [56]. Therefore, the fifth hypothesis is displayed as follows:

H5. trust positively affects customer perception

2.13. Perceived Usefulness and Customer Perception

Perceived usability is defined as the extent to which consumers believe that online shopping will improve transaction performance [58]. Based on this understanding shows that perceived usefulness has been applied in the context of online consumer behavior [72] and has received empirical support through various studies [73] and is associated with various technological applications that impact the predictive power of behavioral beliefs, and in particular the perception of usability [74] [75] [76]. According to Davis [24], individuals forming behavioral intentions towards online shopping are based mainly on cognitive assessments of how it will improve consumer spending performance. Ha & Stoel [77] proposes that customer perceptions about usability and attitude towards online shopping affect the intention to buy online. To change consumers' perception of e-stores, online retailers need to maximize promotional efforts and exemplary service to increase interest in online shopping [78]. Online purchases provide space to understand online shopping behavior [79]. Luarn & Lin [80] suggests that the greater the perceived usability, the greater the number of transactions. So, the hypotheses proposed are as follows.

H6. Perceived usefulness positively affects customer perception

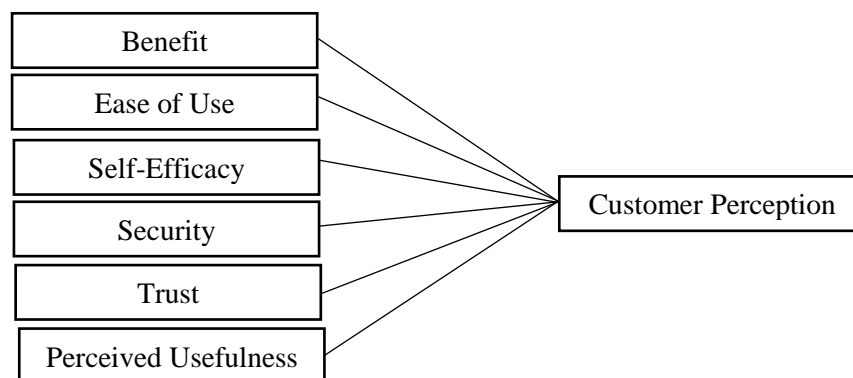


Fig. 1. Research Model

3. Method

This research is a quantitative research with hypothesis testing conducted in almost all regions in Indonesia in October-December 2020. The population in this study is those who have done online shopping in 3 online shopping in Indonesia, namely Shopee, Tokopedia, and Bukalapak. This study used a purposive sampling technique considering Generation Z, who have made purchases six times in the last two months. The reason for the selection of Generation Z is because in their daily activities, this generation is more frequent, understands and proficient in using the internet, especially in online shopping activities [81] [82] [83]. The number of samples in this study was taken based on the statement Roscoe et al., [84] that the ideal number of samples ranged from 30-

500 respondents for quantitative research. For respondents in the city of Ternate, the survey spread of questionnaires is conducted directly, while outside the city of Ternate using google form whose spread is done through social medial (Facebook and WhatsApp grub). Testing instruments in this study also uses analysis of factors with a loading factor value of more than 0.5 for validity testing [85] and Cronbach's alpha value of more than 0.7 for reliability testing [86].

Furthermore, for hypothesis testing, this study uses simple regression analysis with reference [87]. The questionnaire in this study was adopted from previous research in a different context to the current study. For benefits, ease of use, security, self-efficacy and customer perception using questionnaires adopted from Teoh et al., [63] and Fang et al., [88]. For trust and perceived usefulness adopted from Fang et al., [88], Tandiono et al., [12] and Porter & Donthu [89]. All variables use a Likert scale of 5 (strongly disagree until strongly agreed).

4. Results and Discussion

The results showed that based on table 1, the respondents in this study were the majority of women, as many as 210 people or 64.22%, with the minimum purchase amount more than six times in the last two months (184 times or 56.27%), most of the buyers were students and with the price of goods purchased was below the price of Rp.1.000.000. Respondents in this study came from Aceh, Banjarmasin, South Sulawesi, North Sulawesi, Maluku, North Maluku and Papua.

Table 1. Profile of Respondents

| Profile | Description | Frequency | Percentage |
|---|-----------------|-----------|------------|
| Gender | Male | 117 | 33.09 |
| | Female | 210 | 64.22 |
| Shopping frequency in the last 2 months | 6 times | 143 | 43.73 |
| | ≥ 6 times | 184 | 56.27 |
| Occupations | College student | 171 | 52.29 |
| | Student | 184 | 47.71 |
| Price of item purchased | ≤ Rp1.000.000 | 206 | 63 |
| | ≥ Rp1.000.000 | 121 | 37 |
| Province | Jakarta | 38 | 11.62 |
| | Bandung | 32 | 9.79 |
| | Yogyakarta | 36 | 11.01 |
| | Surabaya | 32 | 9.79 |
| | North Sumatera | 20 | 6.12 |
| | Aceh | 22 | 6.73 |
| | Banjarmasin | 30 | 9.17 |
| | South Sulawesi | 35 | 10.70 |
| | North Sulawesi | 26 | 7.95 |
| | Maluku | 16 | 4.89 |
| | North Maluku | 22 | 6.73 |
| | Papua | 18 | 5.5 |

Based on table 3 shows that the majority of respondents agree that the perceived benefits are the sense of security of making transactions, the convenience of using the shopping system, payment and transactions handled adequately, the speed of service, and ease of online financial transactions. For ease of use, respondents agree that online shopping should be easy to understand both the structure and content of the site, the ease in registering online, and all instructions related to governance by online shopping are available to users. Furthermore, for self-efficacy, respondents agreed that they had heard, commented, and recommended about Shopee, Tokopedia, and Bukalapak, before making a transaction. For security, respondents also agreed that respondents are not worried about security factors, so they decided to make transactions because online shopping protects the security of customer data. Furthermore, table 3 also explains about trusts that respondents also agree and believe that online buying and selling places protect the privacy of

personal data and financial transactions, will not commit fraud, minimal risk, fulfill obligations as an online shopping party, have competence related to e-commerce and have a good reputation. To perceived usefulness, respondents agree that online shopping can make someone easier, productive, and valuable. Lastly, for customer perception, respondents agree that online purchases are better, more efficient, and friendly than traditional.

Table 2. Respondents Perception on Benefit, Ease of Use, Self-Efficacy, Security, Trust, Perceived Usefulness, and Customer Perception

| Variable | (%) Strongly Disagree | (%) Disagree | (%) Neutral | (%) Agree | (%) Strongly Agree | Mode |
|----------------------|--------------------------|-----------------|----------------|--------------|-----------------------|-------|
| Benefit | - | - | 24.5 | 52 | 23.5 | Agree |
| Ease of Use | - | - | 10.7 | 48 | 41.3 | Agree |
| Self-Efficacy | - | - | 13.8 | 44.6 | 41.6 | Agree |
| Security | - | 3.7 | 10.4 | 51.7 | 34.3 | Agree |
| Trust | - | 3.7 | 17.4 | 68.8 | 10.1 | Agree |
| Perceived Usefulness | - | 3.4 | 17.4 | 65.7 | 13.5 | Agree |
| Customer Perception | 3.4 | 3.4 | 34.9 | 41 | 17.4 | Agree |

Source: Data Process

Validity test results also showed that both variable benefits, ease of use, self-efficacy, security, trust, perceived usefulness, and customer perception, also met the loading factor of more than 0.5. Similar to validity test results, reliability test results also show a Cronbach alpha value of more than 0.7. This result suggests that the question items in this study are valid and reliable [85] [86] [90]. Hypothetical test results showed that benefits positively affect customer perception ($\beta = 0.573$, $t = 8.649$, $P < 0.05$), ease of use positively affect customer perception ($\beta = 0.655$, $t = 9.481$, $P < 0.05$), self-efficacy positively affects customer perception ($\beta = 0.488$, $t = 7.128$, $P < 0.05$), security positively affect customer perception ($\beta = 0.208$, $t = 3.118$, $P < 0.05$), trusts have a positive effect on customer perception ($\beta = 0.569$, $t = 7.692$, $P < 0.05$) and perceived usefulness positively affect customer perception ($\beta = 0.708$, $t = 10.600$, $P < 0.05$), so the hypothesis proposed in this study, all supported. The hypothetical test results are shown in table 4. The hypothesis testing results show that benefits have a significant positive influence on customer perception. These results are also supported by Wang & Li [91], Teoh et al., [11], Tandiono et al., [12] and Gera et al., [54] that benefits are the main factors that shape consumer perception. The benefits felt by consumers are security, convenience, transaction and speed, and convenience, thus forming a good consumer perception about Shopee, Tokopedia, and Bukalapak.

Hypothetical test result two, namely the effect of ease of use on customer perception, is also positively significant. This study's results are similar to the research of Abrazhevich [64], Pikkarainen et al. [92] and Jadhav & Khanna [55]. This result shows that Shopee, Tokopedia and Bukalapak are easy to use with easy-to-understand structure and content, to easily use clear instructions, stages of completing transactions, and minimized for user convenience will give consumers perception to use this three online shopping. Hypothesis 3, based on the test results, also showed a significant positive between self-efficacy and customer perception. This study's result is in line with the results of previous research, namely Teoh et al. [63]. The results showed that respondents ideally had a lot of experience, skills, and knowledge to use and complete transactions online. Self-efficacy refers to assessing a person's ability to use electronic payment systems to shape consumer perception [12].

Table 2. Validity and Reliability Testing Results

| Factor | Factor 1 | Factor 2 | Factor 3 | Factor 4 | Factor 5 | Factor 6 | Factor 7 | Cronbach Alpha |
|----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------------|
| Benefit1 | 0.849 | | | | | | | |
| Benefit2 | 0.803 | | | | | | | |
| Benefit3 | 0.781 | | | | | | | |
| Benefit4 | 0.883 | | | | | | | |
| Benefit5 | 0.826 | | | | | | | |

0.880

| Factor | Factor 1 | Factor 2 | Factor 3 | Factor 4 | Factor 5 | Factor 6 | Factor 7 | Cronbach Alpha |
|-----------------------|----------|----------|----------|----------|----------|----------|----------|----------------|
| Ease-of-Use1 | | 0.866 | | | | | | 0.822 |
| Ease-of-Use2 | | 0.913 | | | | | | |
| Ease-of-Use3 | | 0.813 | | | | | | |
| Self-Efficacy1 | | | 0.891 | | | | | 0.833 |
| Self-Efficacy2 | | | 0.946 | | | | | |
| Self-Efficacy3 | | | 0.757 | | | | | |
| Security1 | | | | 0.889 | | | | 0.840 |
| Security2 | | | | 0.869 | | | | |
| Security3 | | | | 0.859 | | | | |
| Trust1 | | | | | 0.720 | | | 0.859 |
| Trust2 | | | | | 0.784 | | | |
| Trust3 | | | | | 0.842 | | | |
| Trust4 | | | | | 0.838 | | | |
| Trust5 | | | | | 0.819 | | | |
| Trust6 | | | | | 0.521 | | | |
| Trust7 | | | | | 0.665 | | | |
| Perceived-Usefulness1 | | | | | | 0.889 | | 0.774 |
| Perceived-Usefulness2 | | | | | | 0.828 | | |
| Perceived-Usefulness3 | | | | | | 0.789 | | |
| Customer-Perception1 | | | | | | | 0.914 | 0.820 |
| Customer-Perception2 | | | | | | | 0.907 | |
| Customer-Perception3 | | | | | | | 0.742 | |

Table 4 also shows the test results of hypothesis 4 that security positively and significantly affects customer perception. The results of this study are also in the direction of Pudaruth & Nursing [56] and Tandiono et al. [12] that consumers are not worried about the security system and the hacking of personal consumer data from Shopee, Tokopedia, and Bukalapak in making transactions, so this automatically forms the consumer perception that the level of security offered by all three online shopping has been excellent.

Table 4. Hypotheses Testing

| Independent Variable | Customer Perception | | |
|----------------------|---------------------|--------|-------|
| | β | t | Sig |
| Benefit | 0.573 | 8.649 | 0.000 |
| Ease of Use | 0.655 | 9.481 | 0.000 |
| Self-Efficacy | 0.488 | 7.128 | 0.000 |
| Security | 0.208 | 3.118 | 0.002 |
| Trust | 0.569 | 7.692 | 0.000 |
| Perceived Usefulness | 0.708 | 10.600 | 0.000 |

Abbreviation: Beta (β), t count (t), significant (Sig)

Like the test results of the previous four hypotheses, trust also positively and significantly influences customer perception. These results are also supported by Pudaruth & Nursing [56] and Nghia et al. [57] that trust reflects the willingness of online consumers to rely on online shopping. In particular, trust is formed on an emotional basis and rational evaluation of online shopping consumers, including reputational assessment and positive perceptions [93] [94]. Furthermore, online transaction facility providers are also taking the initiative by actively developing and incorporating privacy policies into their code of practice. Consumers view the risk of using electronic systems as low and impact strong trust [63]

Lastly, based on the results of hypothesis testing also showed that perceived usefulness has a significant positive effect on customer perception. This condition can be seen from the average value of perceived usefulness, and high customer perception concerning online shopping can form a positive relationship. The high value of perceived usefulness and customer perception means that the Internet can make consumers easy, productive, and valuable related to online shopping. This tendency shows that perceived usefulness can be applied in online shopping [72].

5. Conclusion

The study's results can be concluded that first, all hypotheses proposed in this study have a significant positive effect on customer perception. Second, provide new findings that perceived usefulness is a variable that affects customer perception. In addition, this study also has some limitations, namely, first, respondents in this study are only generation z; we recommend that future research also involve millennials, generation X, and baby boomers to generalize research. Second, this study also does not mention the price of goods purchased, so this study does not conclude the most purchased products in online shopping. Third, this research is also limited to three online shopping in Indonesia. Besides conclusions and limitations, this study also has recommendations for future research; first, the research will come with the same context but can compare not only on three but also 4 or 5 (Lazada and bli-bli.com) online shopping in Indonesia. Second, future research can add variables and consequences such as consumer knowledge, e-service quality, e-satisfaction, and purchase intention.

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