Consumer's Privacy Perception in Online Shopping Behavior using E-Commerce Platform

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Abstract. Online shopping behavior has become a choice for digital society. This activity has become a trend as various platforms come out such as e-commerce. As most companies and consumers move online goods or services business, the issue of privacy has begun to crop up. Various studies have examined research on privacy issues in online shopping e.g e-commerce. Privacy has implications for e-commerce because when conducting consumer transactions, it should include their personal information, address, phone number, and credit card number. Privacy is a sociocultural perception, depending on the dominant values of a society. Thus consumers' views on privacy in the digital world can have different views based on the socio-cultural context. This research will focus on exploring consumer perceptions of privacy in online shopping behavior. Aspects of consumer perception include aspects of awareness of online privacy information, privacy risk protection behavior, acceptance to adopt e-commerce, and regulatory and policy knowledge. This research used descriptive research and had employed (18-25) years old respondents who are living in the cities of Jabodetabek (N= 30). They have diverse opinions about privacy security in e-commerce, most of which state that e-commerce security is not guaranteed but they still adopt. Consumers never experienced cybercrime which means that they continue to adapt e-commerce.

Keywords: e-commerce; online shopping; privacy perception

1 Introduction

Online shopping behavior has become a preferred activity for the digital society. It has become a trend as various platforms come out such as e-commerce. The online shopping trend also continues increasing because of its conveniences: efficiency, lower prices, time-saving and other comparisons. Besides its benefits and conveniences, unlimited online space causes personal data and consumer preferences allowing access collected by 'third parties', which triggers privacy security issues. As most sellers and consumers move online goods or services business, the issue of privacy has begun to crop up. Privacy issues have implications for e-commerce because it involves the disclosure of consumers personal information such as mobile numbers, home addresses, e-mails, credit card numbers, and others [1].

Various studies have also examined a lot about privacy issues related to e-commerce [2] [3]. These research show that although consumers express concerns about disclosing personal

data on the internet, they share personal and sometimes intimate details of their and others lives in online shopping platforms. This is why it is often associated that the more consumers who put their trust in online shopping platforms, the more e-commerce growth will be. The 'market' data and preferences collected are thought to provide benefits in increasing efficiency and productivity [4]. According to Metzger privacy concerns in this realm include companies' use of customers' information for electronic surveillance ('cache and malware') , email suggestion ('spam or subscribe'), or data transfer (when customer database information is sold to third parties or stolen) resulting in identity or credit card theft) [1].

Principally, consumers have the right and authority over their personal information. As [5] mentioned privacy is about the right to know who collects their personal information, why the information is being collected, and how it will be used. This is unavoidable, considering that every consumer's transaction is required disclosing personally-identifying information, such as email addresses or credit card information, which is required for transactions. A number of online shopping platforms such as e-commerce, used consumer personal information as big data or databases that have high business value, and also cause greater potential for invasion of information privacy [6]. Infringement of privacy caused by e-commerce concerned sells consumer personal information to third parties for certain interests. Data in the CNN article states that utilizing to sell consumer personal information is considered a new 'marketing' strategy that can have a big impact on improving the digital economy [7]. This marketing strategy can take the form of pop-up advertisements through an algorithmic system, e-mail with promotional offers and discounts, and product sales via personal telephone.

The threat of privacy is often not realized by users, even though several incidents of violations of the user's personal information have occurred in Indonesia. Data from the Directorate General of Aptika shows that young people are often unaware of the existence of Doxing (document tracing), which is a practice to dig up someone's personal information to be distributed to third parties [8]. This is why the Indonesian government through the Minister of Communication and Information is actively campaigning on the protection of personal information to the public. One of them is the preparation of the draft personal data protection bill that was drafted in 2016. In addition to being formulated in more detail in ministerial regulation number 20 of 2016 concerning the protection of personal data in the electronic system. In the ministerial regulation, it is explained in more detail about what the electronic system providers must do when they process personal data of users.

E-commerce that operates in Indonesia has developed an approach to protect consumers' personal information through the privacy policy feature. However, in reality, the security system and privacy policy used by the platform are not under digital security standards [9]. This was proven in 2016, cybercrime occurred on major platforms in Indonesian's e-commerce platform Tokopedia and BukaLapak. Both e-commerce platforms were hacked and even the perpetrators stated that they had broad access to retrieve important consumer data such as email addresses, passwords, account numbers, and even credit card numbers [10]. The two of the biggest e-commerce platforms in Indonesia like BukaLapak and Tokopedia cannot fully guarantee the safety of consumers' personal information. It is undeniable that the potential distortion of personal information about consumers can occur in new e-commerce.

There are studies that are relevant to this research. A study by Soffer & Cohen [5] aims to make a comparison of 1428 respondents regarding the value of privacy. This research focuses more on the perception of online privacy in the use of social media which is widely used by young people. The study states that most respondents stated that privacy value is important. Personal data in the online scope has become a commodity that can be traded. A research by Ray, Wolf, Kuber, & Aviv [11] seeks to explore the meaning of privacy in digital and also

non-digital contexts. For most respondents, privacy is something that must be protected but privacy sometimes needs to be balanced with definite social interventions. The results showed that they considered that the use of personal data was not always bad, and it was not too disturbing, but some respondents also avoided technology because they had fears of misuse of personal information such as the use of web-based banking and social media. Some respondents also showed resistance to the threat of privacy.

Based on the problems outlined above, this research will examine about consumers' perceptions of online shopping security of personal information which includes aspects of consumer perception including aspects of awareness of online privacy, behavioral of privacy risk, acceptance to adopt technology, and aspects of regulatory and policy knowledge. Exploring consumer perceptions through in-depth interviews are expected to get in-depth data for various aspects. This research also takes the point of view of government and IT practitioners working in several e-commerce sites in Indonesia. This research is considered important in terms of both academic and practical aspects. In future, e-commerce will continue to grow, online shopping trends are also predicted to continue to increase. Consumer awareness, especially in online shopping behavior can be a subject of matters.

2 Method

This study uses qualitative research with in-depth interviews with age criteria 18 to 25 years and has been active in doing online shopping in recent months. Interviews were conducted for approximately 1 month in July 2019. Data collection techniques, by distributing questionnaires to about 100 respondents, out of the 100 respondents we filtered the answers that needed a deepening of the answers to meet 30 respondents who met the requirements. Data triangulation about regulatory and policy aspects with the Directorate General of Informational Application Department and aspects of big data utilization by business people to some of the E-commerce in IT division Of BukaLapak, Lazada, and Bli-Bli. Analysis and presentation of data will be reviewed phenomenologically. Researchers will analyze various answers in a structured and in-depth related to the experience of sources related to privacy during using e-commerce and look for 'essence' or the meaning of the answers of research sources. The technical analysis and presentation of phenomenological data according to Cresswell consist of describing personal experiences [12]. Researchers will describe the whole experience of respondents in online shopping starting from how they adopt and how they are aware of the risks of privacy.

3 Result And Discussion

3.1 Consumers in Adopting E-commerce

Based on respondents' demographics, 80% of the interviewees in this study mostly included college students. The distribution is in the areas of Central Jakarta, South Jakarta, and Depok, which was conducted purposive sampling. The targeted respondents are young age who regularly shopping online, so they are familiar with the term e-commerce and various features. On average, they do online shopping one to three times a month, some even more than three times. The e-commerce platform which is much in demand at a young age with female gender, Shopee. There are various reasons and goals of consumers in adopting e-

commerce as an online shopping platform because it is safer than Facebook, complete needs are available, offer flash sale, free shipping, cashback, easy and time-saving. The rapid growth of online shopping activities is due to various advantages perceived by consumers. In contrast to research conducted by Kucuk the advantages offered by time-saving, money-saving, and information richness [13]. This research explores more of the advantages they feel when shopping online. Most of the speakers showed that they installed more than two e-commerce sites on their smartphones and made them the first media to look for wants or needs or also used as a basic price. Compared with social media (e.g Facebook and Instagram) which are also used as online shopping platforms, all respondents stated that they felt more secure and comfortable shopping through e-commerce platforms. It can be concluded that e-commerce brings more 'trust' to consumers than social media. Also, several e-commerce sites in Indonesia have built this trust by creating large-scale advertisements, providing and presenting consumer review columns that have shopped. Several e-commerce platforms operating in Indonesia have developed approaches to protect consumers' personal information through privacy policy features such as Lazada, Zalora, TokoPedia, Shopee and so on. But the privacy policy feature is always placed at the bottom and bottom.

E-commerce has to do with how to design communication strategies to offer promotions. A clear understanding of how communication strategies impact on increasing consumer confidence [14]. Through the internet, the seller can convey understanding to consumers clearly without having to spend a lot of time searching for and dealing with products [15]. Also through the internet consumers can freely wander to get the information they like. Consumers have ample opportunity to engage in communication and search for broad information. Communication does not have to be face-to-face, product catalogs can be mediated by computers to form a virtual reality in the minds of consumers [16].

The process of adoption of e-commerce also goes through an introduction phase which they mostly get from the recommendation of friends or relatives as well as from various spam advertisements that appear when they are browsing the internet. Not infrequently it makes them interested in clicking and searching for goods through e-commerce platforms. They often do not realize that the pop-up advertisements they get when browsing through the internet are a form of privacy violation. Because of their unconsciousness, and are considered trivial, they are not shy and often click 'download' and share it with their relatives. This is why e-commerce growth in Indonesia is so rapid because almost all respondents said they would provide recommendations for online shopping to their inner circle and close friends. However, besides the various conveniences, young ages consumer also has concerns about the theft of personal information, especially after we show about cases or incidents by third parties, some of which have been described in the introduction. They also feel disturbed by the results of e-commerce subscriptions that are always popping up offering a variety of products that they don't need, but often they become interested and make it consumptive. Besides, there is a small portion of them able to protect themselves from various spam by using fake email so that their email is not interrupted.

The growth of e-commerce in Indonesia experienced a fairly rapid growth accompanied by increased shopping behavior as well. Data from the Directorate General of APTIKA states that the presence of e-commerce has also proven the existence of changes in communication behavior in shopping [8], where buyers and sellers do not have to meet face to face to make transactions for products or services as in brick mortar [17].

3.2 Consumer Perceptions of Privacy Risks and Regulation

The use of the internet can be felt by users when they disclose personal information. This happens often without realizing that when browsing the internet or purchasing these tracks stored by the system [18]. Traces and personal information of consumers ranging from email, bank account information, history, cookies, to IP addresses can be used as data assets for business purposes with an algorithmic system [19]. Likewise in the context of online shopping, personal information provided as a transaction condition can be a profitable 'big data'. Utilizing a consumer database is seen as a new 'marketing' strategy that can have a major effect on improving the digital economy and also causes the potential for privacy violations to increase [6]. Some respondents said they had concerns about privacy issues when using e-commerce. However, this concern does not merely make them stop using e-commerce. One respondent representing the answer stated that the data theft case by a third party was a bad thing. According to Khaira (21), cases of data theft are difficult to predict because every consumer should always protect personal data. This answer confirms that the theft of personal information cannot be predicted because the system has created it. Privacy can be defined as "the willingness of consumers to share information via the Internet that enables purchases. Thus the main key to being vigilant in protecting personal information is the user's necessity [3].

When shopping online, customers may be very exposed to risks, which are significantly higher compared to traditional shopping [20]. Privacy risks associated with personal information provided when going online transactions and the fear of losing control over the personal information provided. Some consumers state that they only hope that their submitted data is not misused by e-commerce parties. This is in line with what was conveyed through interviews conducted with IT Staff BukaLapak, Lazada, and BliBli stated that they agreed it was our responsibility to protect consumers' personal information.

Fernandus Setu (Head of Public Relations at the Ministry of Communication and Information) stated that as far as e-commerce uses the interests of e-commerce traffic to connect buyers and sellers is legitimate. But when e-commerce parties misuse the data owned by the user or customer to be sold to other parties without the user's permission it can be said as a violation of personal data. Protection of personal information has become a priority of Kominfo. It has even been included in the ITE law, law 11 of 2008 which regulates a little about personal data protection that must be recognized even though it has not been detailed in article 26, then developed in PP 82 of 2012. Besides, more detail is formulated in ministerial regulation number 19 of 2016 concerning data protection, number 20 of 2016 concerning the protection of personal data in electronic systems [21]. Ministerial Regulation is a way to minimize the risk of privacy. However, the Head of Public Relations said that the ministerial regulation is a short-term effort and provides awareness to users of electronic systems about the importance of personal data. In the ministerial regulation, there are some administrative sanctions, in the form of sanctions, blocking sanctions for violators of electronic systems. However, it is recognized that in ministerial regulation there are no criminal sanctions. Therefore, the personal data protection bill is a long-term elucidation in protecting personal data.

The results show that many consumers are worried about the misuse of personal information in online shopping, besides that they feel disturbed by spam advertisements that are often sent by e-commerce parties to improve their business. So far there have been no reports that e-commerce parties in Indonesia have never sold or abused third parties, but privacy threats can be found if e-commerce security systems are weak such as hacking or doxing. This is certainly a concern for e-commerce parties in Indonesia so that similar incidents do not happen again, because maintaining personal information or consumer big data

is the responsibility of e-commerce parties.

3.3 Consumers Strategies in Carrying Out Privacy Protection of Online Shopping

In minimizing and avoiding the risk of privacy in shopping online consumers should have certain strategies. In addition to increasing sensitivity and awareness in cyberspace, as a young generation, they must be able to navigate the features presented by technology, especially e-commerce. Several technical aspects can improve consumer security in protecting themselves, including understanding digital signatures, platform privacy preferences, and system algorithms. Some consumers state that they do not know the technical aspects, besides they also claim to rarely read the privacy policy listed on e-commerce features. Although in fact, every e-commerce company must have its security system, the role of consumers in equipping themselves as 'digital natives' to minimize the risk of theft of personal information. Bukalapak, for example, uses a user's data security system that is encrypted and visible with certain codes, making it difficult to read and recognize. This is stated in the privacy policy. With this privacy policy, it is hoped that e-commerce consumers can understand all the regulations made by Bukalapak and most users already believe in Bukalapak's credibility.

Contrary, Lazada which does not have its own big data server, but instead pays a third party to provide storage space and big data settings. This is done because e-commerce companies believe that other companies are more professional in handling big data than they have to have big data servers themselves. As for the big data management company Kafi (IT Division), said that it was not his authority, because Lazada was under the auspices of the Alibaba Group so it was too far to understand. This states that e-commerce Lazada is indicated to conduct big data transactions without the permission of its owner. When will register, the Lazada will confirm to each user about the data regulation that will be done. If the user has given a checklist, then the user has agreed with all the rules and conditions. If something unexpected happens like theft of data by third parties.

The less awareness of consumers to understand privacy causes paradoxical behavior, on the one hand, they are worried and alarmed about the misuse of personal information, on the other hand, consumers are apathetic to read because it is considered too complicated and long so they choose to skip and go directly to the checklist in agreement. In this case, it is necessary to provide a special strategy for the e-commerce party to display the things that are considered essential or important that are displayed. Besides, some consumers also carry out several strategies in protecting themselves, namely not using personal email, using passwords with special characters, and only one respondent knows where to report violations of personal information, namely through the Ministry of Communication and Information. While the other respondents said they did not know where to report where there was an invasion of privacy. According to the Head of Public Relations has conducted various socialization. Information dissemination activities carried out by the Ministry of Communication and Information are conducted through seminars, workshops, and education forum literacy. Also, they have a digital literacy forum for cyber creations that not only talks about hoaxes, the dangers of radicalism, the dangers of terrorism on social media but also discusses the importance of protecting personal data. According to the explanation, even though the reach in the seminar was around 200 people, then it was distributed to couples, children in the last few years were around 100,000 people who had obtained information regarding the importance of protecting personal information.

4 Conclusion

The issue of privacy, especially related to e-commerce, has been debated by several researchers in various countries. In Indonesia, this debate is still minimal because there are no matters considered as threatening national security. Some e-commerce sites in Indonesia have also made digital security to protect consumers' personal information. The low awareness of consumers to understand privacy causes paradoxical behavior, on the one hand, they are worried and anxious about the misuse of personal information, on the other hand, consumers are lazy to read because it is considered too complicated and long so they choose to skip and go directly to the checkmark in agreement. For the need for awareness and improvement of the strategy to all parties concerned, namely consumers and e-commerce parties. The government, in this case, the ministry of communication and informatics has a significant role in bridging the problem of personal information through formal regulations, so that it can bind and protect all parties.

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