

## ANALYSIS OF PRIVACY PERCEPTIONS THROUGH SHOPPING BEHAVIOR IN INDONESIAN E-COMMERCE

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### Abstract

**Purpose of the study:** The purpose of this study is to determine whether privacy perceptions have an effect on shopping decisions through shopping behaviour in Indonesian e-commerce.

**Methodology:** This is a quantitative research using the SEM-PLS method and its purpose is for exploratory research with Millennials (aged 22-37) and Baby Boomers (53- 72) as respondents. Out of 178 questionnaires, 155 of them can proceed.

**Main Findings:** Privacy perceptions affect millennials and baby boomers in their online shopping decision. Privacy Risk Company shall provide more information about how the companies secure consumers' data.

**Applications of this study:** In Indonesian e-commerce, the company needs to reduce transaction risk by giving money compensation or money-back guarantee to the customers if something happens throughout the transaction process. Besides that, Indonesian e-commerce needs to improve their website design and more information to the customer.

**Novelty/Originality of this study:** Comparison between Millennials and baby boomers' privacy perceptions through shopping behaviour in Indonesia e-commerce website.

**Keywords:** E-Commerce's Privacy Perceptions, Shopping Behaviour, Shopping Decision, Millennials, Baby Boomers.

### INTRODUCTION

Globalization already became a part of our life and nowadays everyone already connected to the internet world. Some economists have a positive outlook on the impact of globalization on economic growth and these effects have been analyzed by several studies that try to measure the impact of globalization on different economies using variables such as trade, capital flows, and openness, per capita GDP, and foreign direct investment (Pologerogis, 2017). In Indonesia, the development of E-Commerce very rapidly growing with 143,26 million people (KOMINFO, 2018). E-Commerce in Indonesia is growing up so fast such as Tokopedia, Shoppe, Jd. Id, Lazada and many more. Ease and price, these two aspects are the advantages of E-Commerce that are different from ordinary physical stores. On top of that, the young generation always up to date and use their Smartphone to buy goods from an online shop because they find it more convenient and to keep up with the trends. Millennials, the generation born between the 1980s and 1990s is being the children of the technology age, they are more dependent on their gadget. Millennials also always update to the new trend and news. Because of those E-Commerce companies targeted millennials to buying from their website. We can see the millennials are conducting shopping research online most of the time with their gadget. Because of this a lot of online shopping companies targeted their market to the millennials generation. Millennials generations are not even the second largest market leader. Frequency of baby boomers (born between 1946 and 1965) online shopping is the same as younger generations. The chart that illustrates spending per transaction shows further insight into the differences across generations, where Baby Boomers spend more than any generation (KPMG, 2017). This phenomenon is contrary to the popular belief where the tech-savvy millennials leading the e-commerce growth.

According to KPMG International, about 55 percent of global consumers say they have decided not to shop online regarding privacy issues, where less than 10 percent of respondents feel they have the ability to control how organizations manage and use their personal data. With respondents in most countries represent that privacy controls are more valuable rather than the ability to sharing personal data (KPMG, 2016). Privacy is one of the most important factors in online shopping because privacy is one of the major assets of many people. To keep relationships trustful and to protect the personal interest, privacy is needed (Bruseke L., 2016). Everybody wants to have their private information to be safe and sound. From this perspective, privacy is really important especially in the online shopping world, because user or consumer they can't know what happens with the private information that has been given. By seeing the result from that data we can say that millennials are more technological than baby boomers. But we can see from other source baby boomers are shopping from online stores as much as the millennials, even on their spending more than the millennials. This research will identify how transaction risk, privacy risk, cognition-base trust, source risk, and affect-based trust affecting shopping decisions and shopping behaviour comparing between millennial and baby boomer in Indonesia.

### LITERATURE REVIEW

Privacy protection is problematic in the online environment due to the high complexity of technology and information

overload ([Rose, G, Khoo, H, & D.W, 1999](#)). In terms risk and trust, the privacy perceptions are measured in current literature ([Luo, Li, J, & Shim, 2010](#); [Ling, Chai, & Phiew, 2010](#); [Jusoh & Ling, 2012](#); [Lee & Moon, 2015](#); [Kim, Ferrin, & Rao, 2008](#)) which shown shopping decision negatively influence by high perceptions of risk, while shopping decision positively influenced by the high perception of trust. Thus, revealing the role of privacy perceptions as one principal predictor of online shopping and measure the influence on shopping decisions are became the aim of this study. This research's outcomes would be useful in designing marketing strategies which will address and reduce privacy concerns. Privacy perceptions in this research defined as “the willingness of consumers to share information over the Internet that allows purchases to be concluded” ([Belanger, Hiller, & Smith, 2002](#)). Privacy risk leads to the consumer unknown collection of the information ([Lim, 2003](#)) and the potential of inappropriately use of personal data by the online shop ([Nyshadham, E.A.,2000](#)). Only 10% of the customers read the privacy terms and conditions in those cases, they also feel insecure if online stores do not inscribe any privacy terms ([Lim, 2003](#)). The technology of the internet is the power of privacy risk, because of this consumer fear to fill their private information data due to hackers or the website sold it to third parties. A consumer's perceived risk will influence a consumer's online decision. This situation is familiar with the online shopping's customer to prevent purchase on the website due to the sensibility of overwhelming risk that might occur, compared to the conventional shopping. The perceived risk that online store saves and uses personal data inappropriately or sells it to third parties. Indicator inside privacy risk according to ([Lee & Moon, 2015](#)) are Personal information protected, Private data, Advertisement, Spam email.

Source risk explained as the purchasing risk from an untrustworthy and online shop which is doubtful ([Lim, 2003](#)). When customers choose to make a transaction from an online store, they found it as necessary to verify the website either is reliable or real ([Belanger, Hiller, & Smith, 2002](#)). The online store or e-commerce companies are becoming sources which might occur a risk, because the fairness from customer to provide their private data to an untrustworthy online shop, moreover the product or service will never be delivered after they make a transaction. The risk of purchasing from well-known stores that are reputable or referenced by the customer's friends or family seems to be less for them ([Bruseke, 2016](#)). Indicator inside source risk according to ([Lee & Moon, 2015](#)) are Fake online shop, Purchase not delivered, No physical store.

The transaction security risk is represented as the disinclination “to provide personal information such as credit card numbers to electronic commerce outlet” ([Belanger, Hiller, & Smith, 2002](#)). Most of the customers are using a credit card for the payment method([Lim, 2003](#)). They perceive the risk of hackers stealing their bank account information or credit card details. Another transaction risk is afraid of losing money from an unreliable online shopping website and losing from undelivered goods. Indicators inside transaction security risk according to ([Lee & Moon, 2015](#)) are afraid to use a credit card, Credit card hacking, Credit card sold to third parties, Trust in general online payment.

The ground of the perceived trust of a customer is the expectation on the seller to serve the customer properly and responsibly, without taking advantage of the situation as their personal interests ([Gefen, Karahanna, & Straub, 2003](#)). The level of trust has an effect on shopping behaviour ([Büttner & Göritz, 2008](#)). Nonetheless, in the online shopping conditions, trust present as a crucial role. Trust on online shops from the customers is important because they do not have the opportunity to prove the product by themselves ([Li, Jiang, & Wu, 2014](#)).

There are three important main sub-dimensions for measuring cognition-based trust. First, the quality of information determines if the customer is able to discover enough information about the products and the process to make a transaction on the website. Thus, information quality evolves when the customer completely comprehends the website with correct and specific information. Second, the customers' confidence would increase the perceived privacy protection, by knowing that the online shop does not use their private information inappropriately. Third, measurement of the perceived security in online shops defined as the perceived security protection, by ensuring a secure online transaction process. Trust on Affect-based determines the perceived security protection which defined as "indirect interaction" ([Kim, Ferrin, & Rao, 2008](#)) among the buyer and seller by referring to the opinions of others. In measuring affect-based trust, two sub-dimensions are important. Indicator inside cognition-based trust according to ([Kim, Ferrin, & Rao, 2008](#)) are complete and understandable, accessible, fill up basic digital security

Trust on Affect-based is formed by a social-emotional affiliation that leads beyond a common business or professional relationship. The base for affect-based trust is linked with the individual's emotional ([McAllister, 1995](#)). Moreover, having trust in the pleasantest, more professional, a well-trained colleague with a complex task would be examples of the affect-based for an individual. Perceived trust based on opinions from a third party (friend, reviews, certificates). Indicator inside affects based trust according to ([Kim, Ferrin, & Rao, 2008](#)) is Safety logos and certification, Recommendations and Reviews.

Shopping behaviour is an evaluation, emotion, and the tendency of that action profitable or not profitable and lasting on someone against an object or a particular idea ([Miauw, K. H., 2016](#)). Consumer behaviour is the behaviour that indicates consumers while discovering, purchasing, utilizing, evaluating, and consuming the product fulfil the consumers' expectations in terms of making them satisfied. Indicator inside online shopping behaviour according to ([Bruseke, 2016](#)) and ([Miauw, 2016](#)) are about how often do you go, how much money, evaluation, happiness, worthy.

According to (GTAI, 2015) Millennials are the most viable consumers among other generations on the internet. It is made significantly being dependent on technology to seeking information and purchasing the products which shape them into technologically savvy and expecting an easy purchasing process from online transactions (Harris, Stiles, & Durocher, 2011). Among the distinct of the generational group, age becomes one of the factors on determining the probability of people shopping online, which is an older age in millennials are more likely to shop online than the younger one (Lissitsa & Kol, 2016). Millennials tend to make quick buying decisions, which create more them to be impulsive in their purchasing behaviour (Lissitsa & Kol, 2016), in most cases the purchased a product without physically checking it (Ordun, 2015). The preferences on their shopping experience are doing a quick transaction more than customer service and resist on human interaction (Harris, Stiles, & Durocher, 2011). However, personalization based on their own preferences is a value able aspect in their online shopping experience (Hughes, 2008). Hence, the loyalties on certain brands for Millennials tend to be less than other generational groups (Ordun, 2015) but they still feel the importance to consider product reviews and recommendations for their shopping decisions (Mangold & Smith, 2012).

The participation of Baby boomers is still less than Millenials in making transactions on online shopping. However, they increasingly aware and realize on the internet usage can be one of as a source of shopping (Hughes, 2008). In their daily life, the use of smartphones is not only for communication but also as a device for shopping (Sullivan & Hyun, 2016) with direct and rational decisions to make a transaction. The ease of discovering product knowledge, make them understand the exact product they want and manage their shopping journey. Meanwhile, their shopping decisions have been strong lengthen by trusting experts and friend (Hughes, 2008). To decide in the specific shops, it is important for Baby boomers to have value relationships towards the shops, by knowing trusted brands and prefer to purchase in a reputable online shop (Harris, Stiles, & Durocher, 2011).

According to (Hersona, 2013) consumer purchase decision is the election of two or more alternative choice. (Alfred, 2013) explains that consumer purchasing decisions are the way consumers decide what to buy according to the value of the significance of the purchase. In shopping decision consumer first make decisions about what products are needed, when, how and where the purchase or consumption process will occur. In other words, a decision process is needed to buy something good goods or services. Based on these views, it can be understood that the consumer purchase decision is the choice of two or more alternative options that can be purchased, in which the consumer decides what is must be purchased in accordance with the value of the significance of the purchase.

H1: Privacy risk affects towards shopping decision.

H2: Source risk affects towards shopping decision.

H3: Transaction risk affects towards shopping decision.

H4: Cognition based trust affects towards shopping decision

H5: Affect based trust affects towards shopping decision.

H6: Privacy risk affects towards shopping behavior.

H7: Source risk affects towards shopping behavior.

H8: Transaction risk affects towards shopping behavior.

H9: Cognition based trust affects towards shopping behavior.

H10: Affect based trust affects towards shopping behavior.

H11: Privacy risk affects towards shopping decision through shopping behavior.

H12: Source risk affects towards shopping decision through shopping behavior.

H13: Transaction risk affects towards shopping decision through shopping behavior.

H14: Cognition based trust affects towards shopping decision through shopping behavior.

H15: Affect based trust affects towards shopping decision through shopping behavior.

H16: Shopping behavior affects towards shopping decision.

## METHODOLOGY

The sampling technique that the researcher used is non-probability sampling with purposive sampling for quantitative research. Anyone who by coincidence met with the researchers can be used as samples. The total of respondents from the questionnaire is 179 respondents but this research only uses 155 respondents due to the age criteria.

In this study, the respondents are classified into Baby Boomers and Millennials generation who ever shop online, especially on an e-commerce website. The respondents on millennials generation are from ages 22 to 37 and baby boomers from age 53 until 72. Below are the results for statistic descriptive.

**Table 1:** Statistic Descriptive

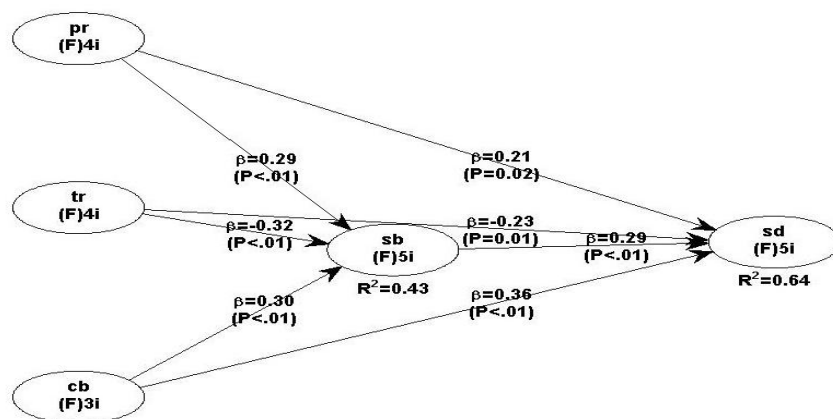
Category	Characteristics	Number of Respondents	Percentage
Gender	Male	74	41.34%
	Female	105	58.66%
Age	<20	14	7.82%
	22-37	83	46.37%
	37-52	10	5.59%
	53-72	72	40.22%
	>72	0	
Job	Student	36	20.11%
	Private employees	71	39.66%
	Entrepreneur	15	8.38%
	Government employees	8	4.47%
	Retired	49	27.37%
Incomes (per month)	< 1.000.000	11	6.15%
	1.000.000 - 3.000.000	47	26.26%
	3.000.000 - 5.000.000	43	24.02%
	5.000.000 – 8.000.000	64	35.75%
	>10.000.000	14	7.82%
Expenses (per month)	< 500.000	13	7.26%
	500.000 - 1.000.000	21	11.73%
	1.000.000 - 3.000.000	31	17.32%
	3.000.000 - 5.000.000	50	27.93%
	>5.000.000	64	35.75%
Have you been shopping online?	Yes	174	100%
	No	0	

This research is using a questionnaire to collect data for the primary data sources. The questionnaire was distributed to respondents through an online survey and shared on social media. The researcher is using Google Form because Google Form is easier to create and examined the result from the survey. On measuring seven variables in this study, which are privacy risk, source risk, transaction risk, cognition-based trust, affect-based trust, shopping behavior, and shopping decision, the questionnaire was conducted by 27 indicators.

This research will also be exploratory and SEM-PLS is a method for exploratory research. In this research, the researcher is using SEM (Structural Equation Modelling) for the data analysis technique. SEM or Structural Equation Modelling is generally used as an analysis of statistical data analysis to observed causality relationship and the approach for SEM is PLS (Partial Least Square).

## RESULTS AND FINDINGS

The convergent validity test of loading factor (structured loading) and discriminant validity test for all variables both millennials and baby boomers met the expectation. Both millennials and baby boomers passed the composite reliability and Cronbach's alpha reliability testing. After testing the mediation variables, some independent variables are eliminated because they do not meet the criteria in the previous mediation test process. Here are the estimation results after eliminating variables source risk and affect-based trust for millennials and eliminating variables privacy risk and cognition-based trust for baby boomers.



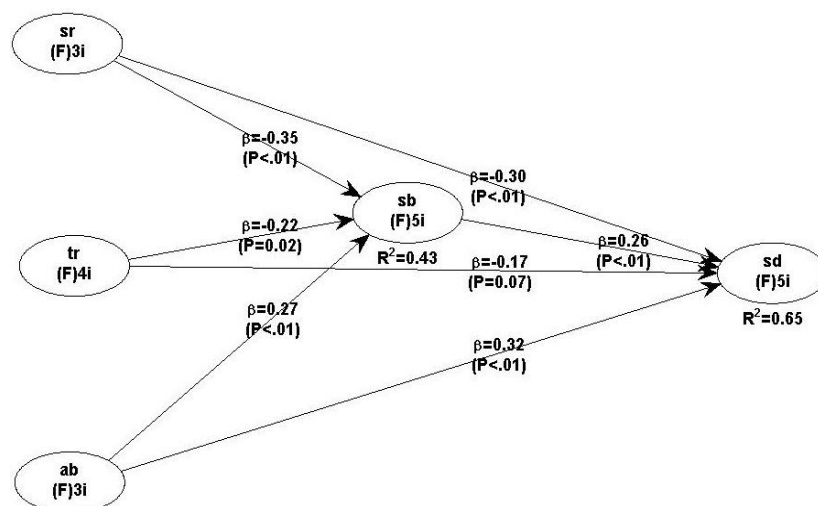
**Figure 1:** Research Model after Mediation Millennials

Source: Author, 2018

**Table 2:** Significant table after mediation millennials

	Path Coef.	P-Value	Result	Path Coef	P-Value	Result
	Shopping	Decision		Shopping	Behavior	
Privacy	0.214	0.020	Significant	0.289	0.003	Significant
Transaction	-0.230	0.014	Significant negative	-0.230	<0.001	Significant negative
Cognition	0.358	<0.001	Significant	0.302	0.002	Significant
Shopping Behavior	0.287	0.003	Significant			

Source: Author, 2018



**Figure 2:** Research Model after Mediation Baby Boomers

Source: Author, 2018

**Table 3:** Significant Table after Mediation Baby Boomers

	Path Coef.	P-Value	Result	Path Coef	P-Value	Result
	Shopping Decision			Shopping Behavior		
Source	-0.297	0.004	Significant negative	-0.355	<0.001	Significant negative
Transaction	-0.169	0.068	Not significant	-0.222	0.023	Significant negative
Affect	0.325	0.002	Significant	0.273	0.007	Significant
Shopping behavior	0.261	0.009				

Source: Author, 2018

Based on the research that has been done, it can be concluded that Privacy risk gives significant positive with value (0.274) to shopping decision for millennials generation. Source risk gives significant negative with value (-0.308) to shopping decision for baby boomers generation. Transaction risk gives significant negative with value (-0.306) and (-0.219) to shopping decision for millennials and baby boomers generation. Cognition based trust gives significant positive with value (0.476) to shopping decision for millennials generation. Affect based trust gives significant positive with value (0.405) to shopping decision for baby boomers generation. Privacy risk gives significant positive with value (0.285) and (0.188) to shopping behavior for millennials and baby boomers generation. Source risk gives significant negative with value (-0.259) to shopping behavior for baby boomers generation. Transaction risk gives significant negative with value (-0.319) and (-0.233) to shopping behavior for millennials and baby boomers generation. Cognition based trust gives significant positive with value (0.287) to shopping behavior for millennials generation. Affect based trust gives significant positive with value (0.242) to shopping behavior for baby boomers generation. Privacy risk gives significant positive value (0.214) towards shopping decision through shopping behavior for millennials generation. Source risk gives significant negative with value (-0.297) to shopping decision through shopping behavior for baby boomers generation. Transaction risk gives significant negative with value (-0.230) to shopping decision through shopping behavior for millennials. Cognition based trust gives significant positive with value (0.358) to shopping decision through shopping behavior for millennials generation. Affect based trust gives significant positive with value (0.325) to shopping decision through shopping behavior for baby boomers generation. Shopping behavior gives significant positive with value (0.287) and (0.261) to shopping decision for millennials and baby boomers generation.



The result of this exploratory research shows that not all variables mediate shopping decision in both generations. In this research, transaction risk has a negative influence on shopping decision for both generations but not so significant on baby boomers  $p\text{-value} = 0.07$ . This score is really close to 0.5, and research concludes that transaction risk still gives a negative effect on baby boomers because path coef result is -0.169. Transaction risk still reduces baby boomers decision in online shopping. This finding the same with the prior findings from (Bruseke, 2016). Transaction risk also gives negative results for shopping behavior on both generations. From this finding, research can determine that both generations still have the same transaction risk. This outcome is also coherent with the findings of (Koyuncu, C. & Bhattacharya, G, 2004) about transaction risk reducing the intention to purchase online and this risk is present to the customer every time he or she pays online. Both age groups are affected by this risk similarly because money is an important issue for both generations.

Source risk becomes the highest negative significant to shopping decision from this research only to baby boomers generation. This mean source risk will decrease someone's purchase decision in an online shop. This finding doesn't give the same result for millennials with the prior findings from (Bruseke, 2016) which gives a result that source risk has a significant influence on online shopping for both generations, which is higher for baby boomers and lower for millennials. These findings may occur because of the possibility that millennials do not buy from a certain website. From (Bruseke, 2016) said that the argument in order to the difference within the two-generational groups perhaps that millennials make quick and impulsive purchases (Lissitsa & Kol, 2016) and thus, do not control an online shop fully before purchasing.

From this research privacy risk give significant positive to shopping decision on millennials generations but not in baby boomers generation. In baby boomers generation privacy risk only give significant result to shopping behavior. Quite a risk provide significant positive through shopping decision on millennials generations except in baby boomers generation. This finding is not in accordance with previous research from (Bruseke, 2016) that showed privacy risk is the strongest perceived risk from baby boomers. This is not necessarily wrong because there may be a shortage of respondents in this study. In this case, the P-value generated by the privacy risk into behavior actually already shows the significant effect but when privacy risk tested directly to shopping decision it gives insignificant value and gives the same path coefficient with or without mediation so the mediation cannot be done. A reason for this could be the same with (Bruseke, 2016) research that privacy at the same time vaguely, which distinguishes it from its source and complexity, which often has a direct effect on people's lives. Internet users know about personal measuring data theft, however, they do not understand what is going on their data. But in this result millennials generations give significant positive, this could happen because when a customer believes that their privacy is safe then the chances of spending on online shopping are even greater. Internet users have personal calculating data theft; after all, they do not perceive what is bustling on their data. But in this issue, millennials generations provide positive significant, this could arise because when the customer considers that their privacy is secure then the prospects of spending in online shopping are even huge.

The result from perceived trust in this research are millennials give a positive significant result on cognition based trust to shopping decision and baby boomers give a significant positive result on effect based trust to shopping decision. Affect based trust give a significant positive result on baby boomers meanwhile cognition-based trust give insignificant result to shopping decision. From the prior research (Bruseke, 2016) this reason could be the reason why this is happening. (Hsiao, K. L., Chuan-Chuan Lin, J., Wang, X. Y, Lu, H. P., & Yu, H., 2010) expose that trust in a limited website develop the intention to purchase on that specific website, but has no effect on the intention to purchase online at all. In the argument of online shopping, baby boomers could set up an affect-based trust by learning reviews, judgments, or checking certifications. Even if the reviews are essential for baby boomers, they do not always notice if they are credible and only influence the objective to purchase for specific websites, but generally are not online shopping.

While cognition-based trust is affected positively significantly to shopping decision on millennials. These findings could happen because acknowledgment based on trust is influenced positively significant to purchase decision on millennials generations. This decision could happen as a result of millennial tend to be more individual in their life and according to research from (Grant G. B., 2017) said millennials generation is the most self-absorbed, greedy, self-involved so they are actually interested on their life purpose. Company or brands that identify them also define them, this thanks to the authenticity of their ads, the quality of the graphics and that the content is socialized, which also gives a plus to the anchorage that is generated between the seller and consumer on this generation (Moreno, Lafuente, Carreón, & Moreno, 2017). Companies or brands can identify them by the authenticity of their ads, the quality of the graphics and the socialized content, which gives a plus to generated between seller and customer on this generation.

Consumer behavior has significant positive to shopping decision over both generations and this finding the same with prior research by (Miauw, 2016). Prior research revealed that consumer behavior has a significant effect partially or on individuals against consumer purchasing decisions. The results of this study are similar to (Widayanto, 2017) their research said that direct positive and significant purchase behavior to purchase decision. This could happen because (Schiffman & Kanuk, 2007) which states that attitude is an expression of feelings that come from within the individual that reflects whether someone likes or dislikes, likes or dislikes, and agrees or disagrees with an object.

These findings also explain that consumer behavior affects consumer purchasing decisions. Shopping behavior affects positive significant to shopping decision also give the same result with research from (Widayanto, 2017) and (Miauw, 2016). The positive presence is providing feelings towards objects and influence on positive results. The similarities that occur indicate that the results of this study can strengthen the results of previous research.

## CONCLUSION

From this research, the company needs to improve to reduce transaction risk by giving compensation money or money-back guarantee to the customer if something happens during the buying and selling process. Customers will feel safe when they know they get their money back in case something happens. The company also can provide a money-back guarantee when the goods are damaged on the way to the customer's place. This money-back guarantee can increase consumer desire in their shopping decision from a website. The company also can promote this marketing method on its website, so it's easier for the customer to realize this marketing promotion. Source risk gives the highest negative significant effect towards shopping decision with and without shopping behavior on baby boomers generation. E-Commerce companies need to improve their website design and give more information to the customer. E-commerce companies desire to raise their website design and provide more information to their customer. Customers need to feel save during the process of buying on the website, therefore the company can provide more information about the company, such as the address of the office. E-Commerce companies also can provide more information about their security system and give customer call contact on their website. By doing this customer can feel safe because the customer knows that the company is real. Privacy risk does not give a good result in this research, but the researcher can conclude privacy risk still gives effect to both generations. The company can gain more trust from the customer on their privacy information by giving them information that all their data will always safe and secure with their website. The company also need to be more transparent with its customer about privacy or information issues. The key strategy of online marketers to increase consumer trust in online exchanges is to display privacy and security seals on their web sites.

The important strategy of online marketers is to increase their customer trust by making display privacy and security seals on their websites. The company also can provide more protection on their website by giving authentication, authorization, encryption, and auditing. The company needs to prevent unauthorized actions to customer's private information from hackers. E-commerce companies should develop mechanisms that would ensure the privacy of the customer is safe on the website even from their own workers. To gain perceived trust from consumers, the company should give to the customer the opportunity to assess their credibility. The company should give the opportunity to the customer by assessing customer credibility. This can be done by giving a free sample. In this way, customers can ensure product quality, delivery performance, and delivery times. If the company can implement those strategies by giving a free sample of their products so the customer can provide quality of the product, delivery of products, and how long will it take for that. Or the company should give the customer a promo discount for their first purchase, by doing this consumers will give opportunities to try buying from an online shopping website.

## LIMITATION AND STUDY FORWARD

The limitation of this research is where this research only uses 155 respondent data for two generations. For further research is expected to use a bigger sample to be more able to describe the result. This research limitation also only provide respondent from people that have been shopping online. Further and in-depth research is needed, by adding other factors to better understand what factors can affect shopping decision and shopping behavior. Especially in privacy risk could have another indicator or factor to find a better result. Also, further research can find out is there any difference if only collect data from a certain age to provide new information about the other generation. Future research also can from people that have not been shopping online to provide more information about why they do not want to shop from an online website.

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## REFERENCES

1. Alfred, O. (2013). Influences of Price and Quality on Consumer Purchase of Mobile Phone in The Kumasi Metropolis in Ghana a Comparative Study. *European Journal of Business and Management*, 179-199.
2. Belanger, F., Hiller, J., & Smith, W. (2002). Trustworthiness in Electronic Commerce: The Role of Privacy, Security, and Site Attributes. *The Journal of Strategic Information Systems*, 11(3), 245-270. [https://doi.org/10.1016/S0963-8687\(02\)00018-5](https://doi.org/10.1016/S0963-8687(02)00018-5)
3. Bruseke, L. (2016). The influence of privacy perceptions on online. *7th IBA Bachelor Thesis Conference*.
4. Büttner, O., & Göritz, A. (2008). Perceived trustworthiness of online shops. *Journal of Consumer Behaviour*, 7(1), 35-50. <https://doi.org/10.1002/cb.235>
5. Gefen, D., Karahanna, E., & Straub, D. (2003). Trust and TAM in online shopping: an integrated model. *MIS Quarterly*, 27(1), 51-90. <https://doi.org/10.2307/30036519>

6. Grant, G. B. (2017). Exploring the Possibility of Peak Individualism, Humanity's Existential Crisis, and an Emerging Age of Purpose. *Frontiers in Psychology*. <https://doi.org/10.3389/fpsyg.2017.01478>
7. GTAI. (2015). The ECommerce Market in Germany. [https://www.gtai.de/GTAI/Content/EN/Invest/\\_Shareddocs/Downloads/GTAI/Fact-sheets/Businessservices-ict/fact-sheet-e-commerce-en.pdf?v=5](https://www.gtai.de/GTAI/Content/EN/Invest/_Shareddocs/Downloads/GTAI/Fact-sheets/Businessservices-ict/fact-sheet-e-commerce-en.pdf?v=5).
8. Harris, K., Stiles, J., & Durocher, J. (2011). A preliminary evaluation of the millennial shopping experience: Preferences and plateaus. *Hospitality Review*, 29(1), 2.
9. Hersona, S. M. (2013). Analisis Pengaruh Bauran Promosi Terhadap Keputusan Pembelian di Lembaga Pendidikan Speaking Karawang. *Jurnal Manajemen*, 10(3), 1149-1159.
10. Hsiao, K. L., Chuan-Chuan Lin, J., Wang, X. Y., Lu, H. P., & Yu, H. . (2010). Antecedents and consequences of trust in online product recommendations: An empirical study in social shopping. *Online Information Review*, 34(6), 935-953. <https://doi.org/10.1108/14684521011099414>
11. Hughes, A. (2008). Y and how: Strategies for reaching the elusive Generation Y consumer. *Honors College Theses*, 74.
12. Jusoh, Z., & Ling, G. (2012). Factors influencing consumers' attitude towards e-commerce purchases through online shopping. *International Journal of Humanities and Social Science*, 2(4), 223-230.
13. Kim, D., Ferrin, D., & Rao, H. (2008). A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents. *Decision support systems*, 44(2), 544-564. <https://doi.org/10.1016/j.dss.2007.07.001>
14. KOMINFO. (2018, February). *Jumlah Pengguna Internet 2017 Meningkat, Kominfo Terus Lakukan Percepatan Pembangunan Broadband*.
15. Koyuncu, C., & Bhattacharya, G. (2004). The impacts of quickness, price, payment risk, and delivery issues on on-line shopping. *The Journal of SocioEconomics*, 33(2), 241-251. <https://doi.org/10.1016/j.socec.2003.12.011>
16. KPMG. (2016, November 3). *Over half of consumers have decided against an online purchase due to privacy concerns: KPMG International*.
17. KPMG. (2017). *The truth about online consumers*. Swiss: KPMG International.
18. Lee, H., & Moon, H. (2015). Perceived Risk of Online Apparel Mass Customization Scale Development and Validation. *Clothing and Textiles Research Journal*, 33(2), 115-128. <https://doi.org/10.1177/0887302X15569345>
19. Li, H., Jiang, J., & Wu, M. (2014). The effects of trust assurances on consumers' initial online trust: A two-stage decision-making process perspective. *International Journal of Information Management*, 34(3), 395-405. <https://doi.org/10.1016/j.ijinfomgt.2014.02.004>
20. Lim, N. (2003). Consumers' perceived risk: sources versus consequences. *Electronic Commerce Research and Application*, 2(3), 216-228. [https://doi.org/10.1016/S1567-4223\(03\)00025-5](https://doi.org/10.1016/S1567-4223(03)00025-5)
21. Ling, K., Chai, L., & Phiew, T. (2010). The effects of shopping orientations, online trust and prior online purchase experience toward customers' online purchase intention. *International Business Research*, 3(3), 63. <https://doi.org/10.5539/ibr.v3n3p63>
22. Lissitsa, S., & Kol, O. (2016). Generation X vs. Generation Y—A decade of online shopping. *Journal of Retailing and Consumer Services*, 31, 304-312. <https://doi.org/10.1016/j.jretconser.2016.04.015>
23. Luo, X., Li, H., J. Z., & Shim, J. (2010). Examining multi-dimensional trust and multi-faceted risk in initial acceptance of emerging technologies: An empirical study of mobile banking services. *Decision support systems*, 49(2), 222-234. <https://doi.org/10.1016/j.dss.2010.02.008>
24. Mangold, W., & Smith, K. (2012). Selling to Millennials with online reviews. *Business Horizons*, 55(2), 141-153. <https://doi.org/10.1016/j.bushor.2011.11.001>
25. McAllister, D. (1995). Affect- and Cognition-Based Trust as Foundations for Interpersonal Cooperation in Organizations. *The Academy of Management Journal*, 38(1), 24-59. <https://doi.org/10.2307/256727>
26. Miauw, K. H. (2016). Motivasi Konsumen Dan Sikap Konsumen Terhadap Keputusan Pembelian Di WILD. *Jurnal Manajemen dan Start-Up Bisnis*, 567-575.
27. Moreno, F. M., Lafuente, J. G., Carreón, F. Á., & Moreno, S. M. (2017). The Characterization of the Millennials and Their Buying Behavior. *International Journal of Marketing Studies*. <https://doi.org/10.5539/ijms.v9n5p135>
28. Nyshadham, E.A. (2000). Privacy policies of air travel web sites: a survey and analysis. *Journal of Air Transport Management*, 6(3), 143-152. [https://doi.org/10.1016/S0969-6997\(00\)00007-7](https://doi.org/10.1016/S0969-6997(00)00007-7)
29. Ordun, G. (2015). Millennial (Gen Y) consumer behavior their shopping preferences and perceptual maps associated with brand loyalty. *Canadian Social Science*, 11(4), 40-55.
30. Pologerogis, N. (2017, March 6). *How Globalization Affects Developed Countries*.
31. Rose, G, Khoo, H, & D.W, S. (1999). Current technological impediments to business-to-consumer electronic commerce. *Communications of the AIS*, 1. <https://doi.org/10.17705/1CAIS.00116>
32. Schiffman, & Kanuk. (2007). Perilaku Konsumen, dialih bahasakan oleh Zulkifli Kasip, Edisi Ketujuh.
33. Sullivan, P., & Hyun, S. (2016). Clothing Retail Channel Use and Digital Behavior: Generation and Gender Differences. *Journal of Business Theory and Practice*, 4(1), 125. <https://doi.org/10.22158/jbtp.v4n1p125>
34. Widayanto, R. A. (2017). Pengaruh Kepercayaan Dan Risiko Terhadap Keputusan Pembelian Melalui Sikap Pengguna Pada Situs Belanja Online Lazada.com. *Administrasi Bisnis*.