UDC 332

ONLINE BEHAVIORAL ADVERSTISING KNOWLEDGE ON CUSTOMER PRIVACY CONCERN, TRUST, AND REPURCHASE INTENTION IN ONLINE SHOPPING

Devita Lusy Deasyana Rahma
Department of Business Administration, University of Brawijaya, Malang, Indonesia
E-mail: lusydeasyana@ub.ac.id

ABSTRACT

This research aims to investigate how online behavioral advertising (OBA) knowledge influences customer privacy concern, customer trust, and repurchase intention. This study based on various literature discussing OBA in relation to customer privacy concerns and customer trust. A quantitative approach is used by distributing questionnaires as a research instrument and 150 respondents as a sample in Indonesia. The structural equation modeling-partial least squares approach was used in this study in processing data analysis. The findings of this study indicate that OBA knowledge has a positive and significant effect on customer privacy concern and customer trust. Whereas in a direct relationship to repurchase intention, customer privacy concern influences it positively and significantly. Meanwhile, customer trust has a negative but not significant effect on repurchase intention. In the context of OBA, it has implications for influencing customer behavior through the use of digital technology and advertising that can track consumer preferences in online shopping activities. Hence, the topics of customer privacy concern and customer trust are often strongly associated with OBA, meanwhile, OBA knowledge becomes an important factor for customer behavior.

KEY WORDS

Online behavioral advertising, privacy concern, trust, repurchase intention.

The development of digital technology has transformed the advertising landscape which makes it easier to target consumers based on general interest which is inferred from advertising content. Referring to eMarketer data, in 2020 digital advertising spending globally has increased by 2.4% compared to 2019, which reached 332.84 billion dollars (eMarketer, 2020). Thus, digital technology has been used to take advantage of the opportunity to use online data about connected consumers to personalize and target advertising content (Boerman et al, 2017; Moore et al, 2015). The data includes visited websites, articles and videos, which search engines will then detect. This phenomenon academics call it online behavioral advertising (OBA), which is an advertising network provided by companies that display advertisements from websites and then track website visits (Aguirre et al., 2015; Smit et al., 2014). OBA seeks to maximize advertising returns through content by using consumer-level information to tailor and deliver the right ads to target consumers at the right time (Tam & Ho, 2006). This influence can then be beneficial for companies in knowing consumer behavior and preferences in conveying product content (Ham, 2016).

OBA has an influence on increasing the effectiveness of promotional efforts by creating highly relevant advertising content, ensuring placement, and being able to convey the information needed by consumers (Boerman et al, 2017). Meanwhile, the existence of online shopping applications that have formed purchase intentions, consumers must input personal data for registration which can be utilized by companies in tracking consumer preferences, thus OBA works. urthermore, the findings of Tsai et al (2011) explain that consumers actually have concerns about privacy concerns in using online shopping, so that consumers consider it when obtaining the information offered. Thus, consumers are worried that their data will only be used by companies (Kokolakis, 2017). Thus, apart from the benefits of OBA for companies, this practice involves consumers' online activities which raises privacy concerns (Boerman et al., 2017; Kim and Huh, 2017; Lee and Rha, 2013; Mpinganjira and Maduku, 2019) and customer trust (Carlson et al, 2022; Lee and Rha, 2013; Leong et al, 2020). This

depends on consumer knowledge in knowing OBA, both about how OBA works, and what data OBA manages to display ads that have been personalized according to consumer preferences. This OBA knowledge can indicate concern for consumer data information in carrying out activities related to the internet and digital technology. So it depends on consumer knowledge of OBA how consumers protect personal data, especially whether consumer protection behavior is effective (Boerman et al, 2017).

Based on various literature in marketing, the existence of the internet that continues to grow, customer privacy concerns and trust have become the main subject of discussion related to online advertising and e-commerce (Anic et al, 2019; Martin and Murphy, 2017). It is true that consumer data is important for companies in achieving target markets, but currently consumers are showing concerns about privacy about misuse and data security. In research from McKinsey, Brodherson et al (2021) explained that digitization and technological sophistication have opened the door for increased personalization and targeting of ads that allow violations of consumer data privacy. Hence, OBA becomes the focus of topics related to customer privacy and trust in determining their online activities. Even in e-commerce discussions, customer privacy concerns and trust can determine a customer choosing an e-commerce platform and (re)purchase intention (Bandara et al, 2021; Boudet et al, 2019; Rita et al, 2019). Furthermore, Bandara et al (2021) revealed that online customer behavior is currently one that affects emotionally as a result of companies collecting data for advertising purposes which has the potential to be disruptive. Meanwhile, Martin et al (2017) show that the vulnerability of consumer data can cause emotional and cognitive violations that encourage consumers to divert online customer behavior. Therefore, as a result of annoying customer privacy concerns and also decreased customer trust, it has a fatal impact on e-commerce platforms where customers are reluctant to (re)purchase intention (Bandara et al, 2020; Jung, 2017).

With regard to customer behavior in online shopping, theoretically the OBA framework is one of the focus areas of discussion because there is an exponential developmental relationship to customer privacy concern, trust, and (re)purchase intention. Although OBA has been widely highlighted in various marketing literature, from a theoretical point of view related to customer privacy concerns and trust in the online shopping context, it is still incomplete. For instance, Bandara et al (2021) highlight privacy issues in the context of e-commerce from the perspective of a power-responsibility equilibrium theory (PRE). Meanwhile, Aiolfi et al (2021) have discussed the OBA context in terms of the potential benefits and risks of digital advertising based on online behavior and data. The basics of this research highlight the theoretical gap to clarify and prove the context of online shopping in Indonesia. In addition, this study highlights how OBA customer knowledge influences privacy concerns and customer trust so that it determines (re)purchase intention. So, this research also contributes to the deepening of OBA and customer behavior in online shopping and privacy concerns are issues that are added as part of customer perceived risk. In proving this, this research uses PLS-SEM which is a powerful statistical tool because it can be applied to all data scales, does not require many assumptions, and confirms relationships that do not yet have a strong theoretical basis (Hair et al, 2014). Furthermore, PLS-SEM is also used to develop or build hypotheses, predict complex situations, and features that facilitate multivariate data analysis (Hair et al, 2014).

LITERATURE REVIEW

Online Behavioral Advertising (OBA) in Online Shopping

Online Behavioral Advertising (OBA) is a characterization of "Advertising 3.0" characterized by the evolution of technology that has developed, which gives companies the possibility to manage new tools and to better understand and communicate with target customers and measure the results of advertising efficiency (Mardegan et al, 2016). So that OBA is often used as a communication tool that does not just persuade customers through advertising content, but conveys the values of the products offered which lead to a strong promotional strategy. In addition, OBA can function to determine the characteristics of market

behavior and companies can identify the right market using the domains regulated in digital technology (Aiolfi et al, 2021; Jai et al, 2013). Even the term digital technology calls it an algorithm that has been set to work significantly with fast and sophisticated detection capabilities, where customers search for information about products that will be connected and OBA will work (Kim and Huh, 2017; Martin et al, 2017; Smit et al, 2014). Therefore, the OBA method of work that has been adopted in various industries is proven to be able to work effectively and efficiently to obtain targeted customer data and behavior. Meanwhile, various studies have highlighted the relationship with OBA and online shopping which leads to the potential benefits and risks of the online behavior (Aiolfi et al, 2021; Ham, 2016; Moore et al, 2015), even related to consumer trust (Davis et al, 2021; Yang, 2013). This is because digital advertising is data-centric and performance-based, the success of obtaining data makes it possible to measure concretely the reliability of campaign effectiveness, and optimize over time (Ghose and Todri, 2015; Mardegan et al., 2016).

However, the OBA framework of various studies relies on factors controlled by the existence of advertising correlations, such as the level of personalization and consumer-controlled factors, such as knowledge, perceptions of OBA, and individual characteristics (Boerman et al, 2017). Some studies even highlight consumer knowledge of OBA which states that consumers who do not understand OBA cannot understand its purpose and impact (Ur et al, 2012; Van Noort et al, 2013). This consumer knowledge will better understand how OBA works to obtain personal data and can affect trust (Ham, 2017; Smit et al, 2014). Furthermore, consumer knowledge persuades to pay attention to privacy concerns that influence coping behavior to protect privacy (Smit et al, 2014). So, with this knowledge consumers will be more concerned about their personal data which also affects their trust to better protect personal data. In understanding its relation to OBA, it can actually predict consumer behavior in (re)purchase intention in online shopping. This is related to the OBA factor as Boerman et al (2017) explained that consumers are controlled by the presence of OBA on the level of personalization, knowledge, perceptions of OBA, and individual characteristics.

OBA Knowledge and Privacy Concern

OBA knowledge refers to customer behavioral actions in responding to advertisements that appear based on their knowledge (Boerman et al, 2017). How OBA works can track personal data that leads to customer preferences for a product (Kim and Huh, 2017; Martin et al, 2017). These tracking practices pose a significant threat to user privacy because research has shown that it is often easy to link tracked information to an individual's personally identifiable information. However, advertising technology can be a privacy guarantee that a broker can demonstrate to a privacy conscious user base making investing into OBA a worthwhile venture. However, privacy refers to the protection of individually identifiable information on the internet (Bart et al., 2005). Whereas customer privacy concern formalizes two fundamental privacy properties (namely, user profile privacy and profile unlinkability) as observable equality relations and billing process correctness as tracking properties (Backes et al, 2012). Even when profiling does not use personal data and thus may not be regulated under data protection law, more traditional privacy concerns about whether profiling unduly intrudes on a consumer's autonomy and personal freedoms (Alalwan, 2018; Jung, 2017). For consumers, profiling may not be transparent, making it difficult to identify the source of any privacy breach. Information systems and marketing research have studied online retailer privacy and security policy disclosures on websites, and their impact on consumer trust for online shopping (Jung, 2017). Disclosure of online retailers about various practices related to privacy and security increases consumer confidence, reduces consumer anxiety, and enhances consumer confidence.

H1: OBA Knowledge positively and significantly influences Privacy Concern.

OBA Knowledge and Customer Trust

OBA is much more effective than non-targeted advertising, resulting in increased click-through and purchase rates (Bellman et al., 2013; Boerman et al., 2017). However, this effect

depends on factors controlled by the advertiser, such as the information used to personalize the ad and transparency of the advertiser, and factors controlled by the consumer, such as trust in the advertiser, perceived usefulness of the ad, feelings of intrusion and concerns about privacy (Boerman et al., 2017). The impact of online behavioral advertising on customer trust can be complex and depend on various factors. On one hand, customers may feel that their privacy is being invaded when their online activities are being tracked for advertising purposes, leading to distrust towards the companies involved in OBA (Lambrecht & Tucker, 2013). This can be especially true if customers feel like their personal information is being collected and used without their explicit consent. On the other hand, some customers may appreciate the targeted and relevant ads that OBA can deliver, and view it as a more personalized and convenient form of advertising. In fact, studies have shown that consumers are more likely to engage with and respond positively to ads that are relevant to their interests and needs (Liu-Thompkins, 2019). Additionally, companies should strive to use the data collected through OBA to deliver value to customers, such as offering personalized recommendations and discounts, rather than solely using it for advertising purposes. By being transparent and using the data collected through OBA to provide value to customers, companies can build trust and create a more positive customer experience.

H2: OBA Knowledge positively and significantly influences Customer Trust.

Privacy Concern and Repurchase Intention

The process of OBA usually involves the use of cookies, which are small files that are placed on a user's computer or mobile device. These cookies track the user's online activities and are used to build a profile of their interests and preferences. Advertisers can then use this profile to deliver targeted ads to the user. When customers feel that their privacy has been violated or that their personal information has been mishandled, it can lead to a loss of trust in the company and a decreased likelihood of repurchasing from them in the future (Alalwan, 2018; Jung, 2017). Privacy concerns can arise in many different contexts, including online behavioral advertising, data breaches, and third-party data sharing (Aiolfi et al, 2021; Chang & Fang, 2013). When customers become aware of such incidents, they may feel that their personal information is not being protected adequately, and may question the company's commitment to privacy and security (Lopez-Miguens & Vasquez, 2017). In the context of online behavioral advertising (OBA), privacy concerns can become a problem. Customers may feel that their online activities are being monitored without their knowledge or consent, leading to a sense of invasion of privacy (Xu & Du, 2018). This can be especially true if the data collected is sensitive in nature, such as health or financial information. This loss of trust can have a direct impact on repurchase intention. Customers who are concerned about their privacy are more likely to switch to competitors who they perceive as being more trustworthy and secure (Tsai et al, 2011). In fact, studies have shown that consumers are willing to pay more for products and services from companies they trust, and that trust is a key driver of customer loyalty.

H3: Privacy Concern positively and significantly influences Repurchase Intention.

Customer Trust and Repurchase Intention

OBA involves the collection and use of customer data for advertising purposes, which can raise privacy and security concerns among customers (Moore et al, 2015). These concerns can erode customer trust in the companies involved in OBA and decrease the likelihood of repurchase (Lee et al, 2015). When customers trust the companies involved in OBA, they are more likely to perceive the ads as relevant and valuable, and more likely to engage with the company's online offerings (Boerman et al, 2017; Punyatoya, 2018). This can lead to a greater likelihood of making a purchase or taking other desired actions, and ultimately increase the likelihood of repurchase. In contrast, customers who do not trust the companies involved in OBA are less likely to engage with the ads and less likely to make a purchase or take other desired actions (Cranor, 2012; Varnali, 2021). This can decrease the likelihood of repurchase and erode the company's bottom line. When customers trust a company, they are more likely to repurchase from them in the future, even in the face of

minor issues or challenges. This is because trust is a key driver of customer loyalty and satisfaction. In the context of online behavioral advertising, customer trust can also have a significant impact on repurchase intention (Aiolfi et al, 2021; Dehling et al, 2019). Customers who trust the company involved in OBA are more likely to feel comfortable with the use of their personal information for advertising purposes, and more likely to continue to engage with the company's online offerings (Cranor, 2012). Customers who trust a company involved in OBA are also more likely to perceive the company's ads as relevant and valuable, rather than intrusive or annoying. This can lead to a greater likelihood of engagement with the ads, as well as a greater likelihood of making a purchase or taking other desired actions.

H4: Customer Trust positively and significantly influences Repurchase Intention.

METHODS OF RESEARCH

This study uses a quantitative approach through distributing questionnaires to customer online shopping with a total sample of 150 respondents. Therefore, this study adopted purposive sampling with the provisions and criteria that have been determined as the research sample. As stated by Creswell & Creswell (2018), purposive sampling has criteria to be met which not all samples can be taken, so it is more specific to certain samples. The distribution of the questionnaires which had taken more than two months had successfully collected the aforementioned sample. This research has succeeded in collecting samples in various regions in Indonesia, such as Surabaya, Jakarta, Malang, Bandung, Medan, and Makassar. This study also uses statistical analysis where PLS-SEM is a causal modeling approach aimed at maximizing the explained variance of the dependent latent constructs. Due to the explanatory nature of this study is used, this study used variance-based-PLS-SEM estimation with the primary objective of maximizing the explanation of variance in the structural equation model's dependent construct. It is a potent statistical tool because it can be applied to all data scales, does not require many assumptions, and confirms relationships that do not yet have a strong theoretical foundation (Hair et al, 2014). Not only that, but PLS is also used to develop or construct hypotheses, predict complex situations, and a feature that facilitates multivariate data analysis; it differs with previous SEM based on proof of theory with parametric assumptions that must be met (Hair et al, 2019). The questionairs was designed based on previous research in similar contexts and adopting the measures of construct. All of the adapted items were measured on a Likert scale ranging from strongly disagree to strongly agree.
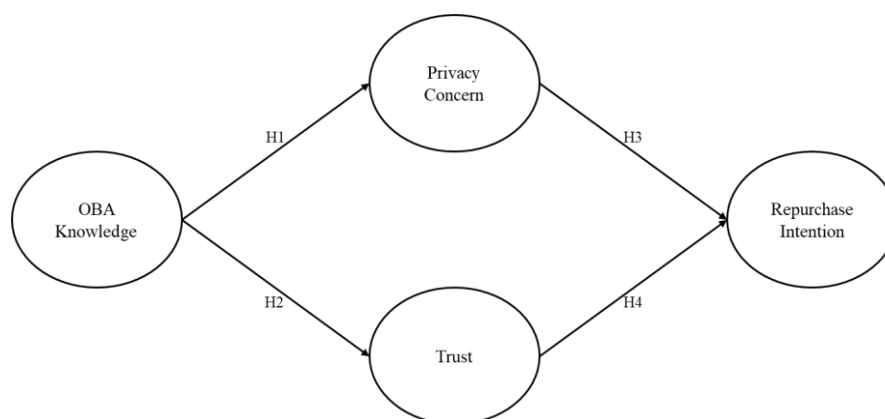
Figure 1 – Research Model

RESULTS AND DISCUSSION

The results of the descriptive analysis cover a number of points. The analysis conducted was aimed at knowing the demographic characteristics of the respondents who filled out the distributed questionnaire. Table 1 shows that male respondents (n=97; 64.67%)

outnumbered their female counterparts (n = 53; 35.33%). In terms of age, the respondents in this research were mostly aged ≥ 41 years (n = 62; 41.33%). The other respondents were aged 36–40 years (n = 30; 20%), 31–35 years (n = 26; 17.33%), 26–30 years (n = 24; 16%), and ≤ 25 years (n = 8; 5.33%). Meanwhile, in terms of income, the respondents earned averages of Rp10,000,001–Rp15,000,000 (n = 84; 56%), Rp15,000,001–Rp20,000,000 (n = 36; 24%), ≤ Rp10,000,000 (n = 24; 16%), and ≥Rp20,000,001 (n = 6; 4%) per month. The highest frequency of online shopping in the past month was 1-3 times (n=109; 72.67%), 4-6 times (n = 37; 24.67%), and >7 times (n = 4; 2.67%).

Table 1 – Respondents' Demography

Demographic Information		Frequency	Percentage
Gender	Male	97	64.67
	Female	53	35.33
Age	≤ 25	8	5.33
	26–30	24	16
	31–35	26	17.33
	36–40	30	20
	≥ 41	62	41.33
Household Income	≤ Rp10,000,000	24	16
	Rp10,000,001–Rp15,000,000	84	56
	Rp15,000,001–Rp20,000,000	36	24
	≥ Rp20,000,001	6	4
Online Shopping Frequency (in 1 Month)	1-3 times	109	72.67
	4-6 times	37	24.67
	>7 times	4	2.67

This study also measured the validity and reliability assumptions that formed the basis for the feasibility and validity of the data using a quantitative approach. PLS-SEM was used to confirm these assumptions. According to Hair et al. (2019), the use of PLS-SEM is recommended because composite reliability and Cronbach's alpha greatly determine reliability, so all items must have a Cronbach's alpha greater than 0.7. Thus, the data in this study were processed, revealing that all variables had Cronbach's alpha values of more than 0.8 (OBA knowledge: 0.841, customer privacy concern: 0.906, customer trust: 0.848, repurchase intention: 0.934). Furthermore, high composite reliability of more than 0.9 was obtained by all variables (OBA knowledge: 0.904, customer privacy concern: 0.930, customer trust: 0.911, repurchase intention: 0.956). Thus, all these values were considered acceptable and ensured adequate reliability. However, this study must also ensure that the validity shows that a set of indicators represent the same basic construct, which can be demonstrated through its dimensional unit. The validity of the discriminant variable was proven by calculating the average variance extracted (AVE) value and the correlation coefficient between variables (Hair et al., 2014). In this study, it can be seen that all variables had AVE values greater than 0.7 (OBA knowledge: 0.758, customer privacy concern: 0.727, customer trust: 0.774, repurchase intention: 0.879). Chin (1998) has explained that AVE is a measure of communality for each latent variable and is declared adequate if all variants exhibit values above 0.50. Thus, the measured constructs in this study were indicated as having strong validity.

Table 3 shows the results of the statistical analysis based on bootstrapping through PLS-SEM, which was carried out to determine the model fit and path coefficients as quantities used to determine the effect of the overall relationship on the inner model in accordance with the designed hypothesis (Figure 2). The partial sequential model was determined to perform the statistical analysis, showing that the relationships between variables resulted in such coefficients of determination (R^2), such as customer privacy concern (0.687), customer trust (0.473), and repurchase intention (0.047). Based on the bootstrapping results, the direct relationship between OBA knowledge and customer privacy concern had a significant positive effect (ß= 0.829; p-value < 0.05), hence, H1 was accepted. Meanwhile, the relationship between OBA knowledge and customer trust had a significant positive effect (ß= 0.688; p-value < 0.05), hence, H2 was accepted. The relationship between

customer privacy concern and repurchase intention had a significant positive effect (ß = 0.289; p-value < 0.05), hence, H3 was accepted. Furthermore, the direct relationship between customer trust and repurchase intention demonstrated a negative, but insignificant effect (ß =-0.059; p-value > 0.05), hence, H4 was rejected. This research also investigated the mediating role of customer privacy concern, which demonstrated a significant positive effect between OBA knowledge and repurchase intention. Furhter, the mediating role of customer trust in the relationships between OBA knowledge and repurchase intention demonstrated a negative, but insignificant effect.

Table 2 – Reliability and Validity Construct

	Item	Mean	Standard Deviation	Cronbach's Alpha	Composite Reliability	Average Variance Extracted
OBA Knowledge	OBA_K1	4.227	0.834			
	OBA_K2	4.033	0.844			
	OBA_K3	4.027	0.721			
				0.841	0.904	0.758
Customer Privacy Concern	CPC1	4.047	0.724			
	CPC2	4.107	0.809			
	CPC3	4.160	0.809			
	CPC4	3.880	0.774			
	CPC5	3.867	0.772			
				0.906	0.930	0.727
Customer Trust	CT1	3.960	0.782			
	CT2	3.853	0.786			
	CT3	3.833	0.787			
				0.848	0.911	0.774
Repurchase Intention	RI1	3.900	0.823			
	RI2	3.913	0.832			
	RI3	4.000	0.663			
				0.934	0.956	0.879

Table 3 – Hypotheses Testing

	Direct Effect (ß)	Indirect Effect (ß)	T Score	Probability	Conclusion
OBA Knowledge → CPC	0.829		22.085	0.000	*Accepted*
OBA Knowledge → CT	0.688		11.889	0.000	*Accepted*
CPC → RI	0.257		2.751	0.006	*Accepted*
CT → RI	-0.059		0.664	0.507	*Rejected*
OBA Knowledge → CPC → RI		0.213	2.727	0.007	*Accepted*
OBA Knowledge → CT → RI		-0.040	0.650	0.516	*Rejected*

N = 150
R²= CPC (0.687); CT (0.473); RI (0.047)
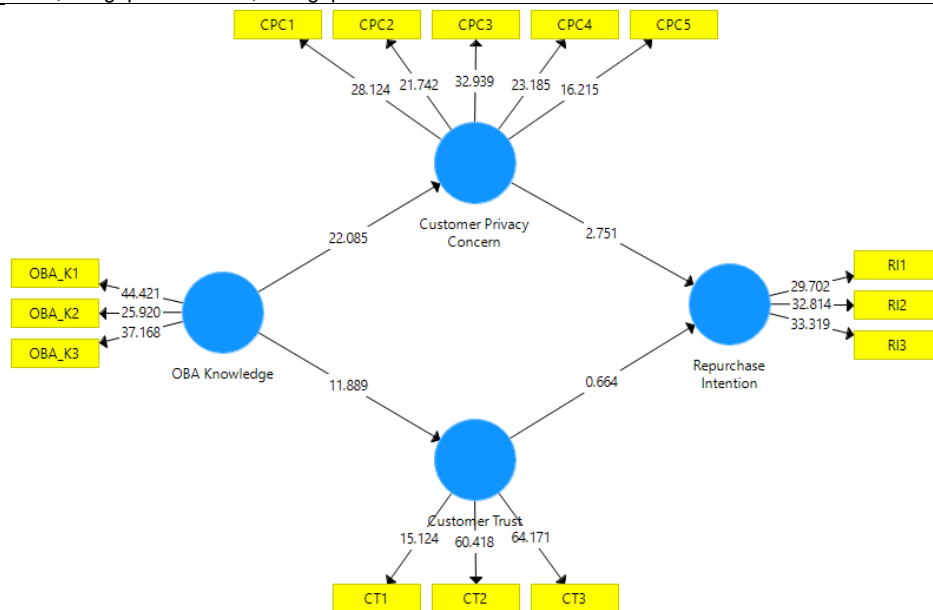*Sig. p-value < 0.10; **Sig. p-value<0.05; ***Sig. p-value<0.01

Figure 2 – Research Output Model

Online Behavioral Advertising (OBA) or Targeted Ads or also known as Behavioral targeting is a technique used by marketers in placing advertisements on websites or other online media such as Facebook, YouTube, and others according to internet user preferences in order to increase marketing campaign effectiveness. OBA displays advertisements according to internet user preferences based on internet user behavior when surfing for products or services that you want to use on the internet. OBA is one embodiment of a digital marketing strategy. Using internet user search preferences through website visitor data captured by 'cookies' and using this information with offers and advertisements that are appropriate and relevant to internet users. OBA is an effective and efficient marketing and advertising method for getting Click Through Rate (CTR), this is supported by research conducted by Lu et.al which states that behavioral targeting has a positive influence on CTR (Lu, 2016).

Based on the results of this study, it was found that its relation to OBA could have implications for privacy concern, trust, and customer repurchase intention. Based on your result analysis, it appears that there is a positive and significant relationship between online behavioral advertising knowledge and customer privacy concern. This means that as customers become more knowledgeable about OBA, they become more concerned about their privacy and the use of their personal information for advertising purposes. This finding is consistent with existing literature on the topic. Previous research has shown that customers who are more knowledgeable about OBA are more likely to be concerned about their privacy and the potential misuse of their personal information by companies engaged in OBA (Xu & Du, 2018; Yang, 2013). This concern can manifest in several ways. For example, customers may be concerned about the types of data collected by companies engaged in OBA, how that data is used, and whether it is shared with third parties (Boerman et al, 2017). Customers may also be concerned about the security of their data and the potential for unauthorized access or data breaches. Overall, this finding highlights the importance of transparency and trust-building in the context of OBA. Companies engaged in OBA need to be transparent about their data collection and usage practices, and provide clear opt-out mechanisms for customers who do not want their data used for advertising purposes (Aiolfi et al, 2021). By doing so, they can help to alleviate customer privacy concerns and build trust with their customers, ultimately increasing the likelihood of repurchase and customer loyalty.

In addition, the result analysis shows that OBA knowledge has a positive and significant effect on customer trust, it means that as customers become more knowledgeable about OBA, they are more likely to trust the companies involved in OBA (Leong et al, 2020; Punyatoya, 2018). This finding is consistent with previous research that has shown a positive relationship between knowledge and trust in various domains (Lee & Rha, 2013; Jai et al, 2013). This finding highlights the importance of educating customers about OBA and its benefits in order to build trust and increase engagement. OBA knowledge on customer trust indicates that as customers become more knowledgeable about OBA, they are more likely to trust the companies involved in OBA. This correlation has important implications for companies engaged in OBA, as it suggests that investing in education and transparency can help to build trust and increase customer engagement. By providing clear and accessible information about their data collection and usage practices, companies can help to alleviate customer concerns and build trust with their customers. This can lead to increased engagement, more positive attitudes toward the company, and ultimately, increased likelihood of repurchase and customer loyalty. Companies that engage in OBA should be transparent about their data collection and usage practices and provide clear opt-out mechanisms for customers who do not want their data used for advertising purposes (Aguirre et al, 2015). By doing so, they can help to alleviate customer privacy concerns and build trust with their customers, ultimately increasing the likelihood of repurchase and customer loyalty. In summary, the positive and significant effect of OBA knowledge on customer trust underscores the importance of transparency, education, and trust-building in the context of OBA. Companies that prioritize these factors are more likely to succeed in building long-term customer relationships and achieving their marketing goals.

The positive and significant effect of customer privacy concern on repurchase intention suggests that customers who are more concerned about their privacy are more likely to have positive repurchase intentions towards a company. Privacy concern can be a major issue for customers, particularly in the context of OBA. When customers feel that their personal information is being collected, used, or shared without their consent, they may become concerned and less likely to engage with the ads or purchase from the company (Lee et al, 2015; Martin & Murphy, 2017). However, when companies take steps to address customer privacy concerns, such as providing clear opt-out mechanisms or being transparent about their data collection and usage practices, customers may feel more comfortable engaging with the company and more likely to make a purchase (Moore et al, 2015; Smit et al, 2014). Thus, detailed actions and online shopping behavior can show better purchase tendencies and can improve purchase predictions. Guo and Sismeiro (2020) have found and explained that customer path information and online buying behavior can be a factor in predicting purchases. Therefore, companies that prioritize customer privacy concerns are more likely to build trust with their customers and increase the likelihood of positive repurchase intentions. By providing clear information about their data collection and usage practices, companies can alleviate customer concerns and build trust, ultimately increasing the likelihood of customer loyalty and repeat purchases.

In another case, customer trust has a negative but insignificant effect on repurchase intention, this could indicate that while trust is an important factor in customer decision-making, it may not be the only or the most important factor influencing repurchase intentions (Trivedi & Yadav, 2020). There could be other factors at play that have a greater impact on repurchase intentions, such as product quality, price, convenience, or customer service (Mou et al, 2020; Schnurr et al., 2017). In this case, even if customers trust the company, other factors may still influence their likelihood of making a repeat purchase. It's also possible that the negative but insignificant effect could be due to the specific sample or context of the study (Boudet et al, 2019). The effect of trust on repurchase intention may vary depending on the product or service being advertised, the target audience, or the specific OBA practices being used (Carlson et al, 2022; Dehling et al, 2019). However, even though the effect of trust on repurchase intention may be negative and insignificant in this case, it is still important for companies to prioritize building trust with their customers. Trust is an important factor in customer decision-making, and companies that prioritize transparency, communication, and ethical practices are more likely to build long-term customer relationships and achieve their marketing goals.

CONCLUSION

This research has added findings to the literature discussing OBA and repurchase intention as factors in customer behavior in the context of online shopping. Previous research produced a theoretical framework explaining the antecedents of OBA (Boerman et al, 2017) and the effectiveness of OBA campaigns (Varnali, 2019). Meanwhile, OBA has an influence on increasing the effectiveness of promotional efforts by creating highly relevant advertising content, ensuring placement, and being able to convey the information needed by consumers. There are even various studies highlighting customer privacy concerns and trust, so that it becomes a crucial topic for discussion. The results of the empirical model strengthen the theoretical research framework and how OBA affects customer privacy concern, customer trust, and repurchase intention. The findings in this study indicate that OBA knowledge has a positive and significant impact on customer privacy concern and customer trust. However, in a direct relationship with repurchase intention, customer trust shows a negative but not significant effect. Meanwhile, the customer privacy concern shows positive and significant. Although this research has found results that discuss online buying behavior, it cannot be strongly justified in general to describe online buying behavior associated with OBA. Because in this study only represents the sample that is used as the object of research.

REFERENCES

1. Aguirre, E., Mahr, D., Grewal, D., De Ruyter, K., & Wetzels, M. (2015). Unraveling the personalization paradox: The effect of information collection and trust-building strategies on online advertisement effectiveness. Journal of Retailing, 91(1), 34–49.
2. Aiolfi, S., Bellini, S., & Pellegrini, D. (2021). Data-driven digital advertising: benefits and risks of online behavioral advertising. International Journal of Retail & Distribution Management, 49(7), 1089-1110.
3. Alalwan, A. A. (2018). Investigating the impact of social media advertising features on customer purchase intention. International Journal of Information Management, 42, 65-77.
4. Anic, I. D., Budak, J., Rajh, E., Recher, V., Skare, V., & Skrinjaric, B. (2019). Extended model of online privacy concern: what drives consumers' decisions?. Online Information Review, 43(5), 799-817.
5. Backes, M., Kate, A., Maffei, M., & Pecina, K. (2012, May). Obliviad: Provably secure and practical online behavioral advertising. In 2012 IEEE Symposium on Security and Privacy (pp. 257-271). IEEE.
6. Bandara, R., Fernando, M., & Akter, S. (2020). Explicating the privacy paradox: A qualitative inquiry of online shopping consumers. Journal of Retailing and Consumer Services, 52, 101947.
7. Bandara, R., Fernando, M., & Akter, S. (2021). Managing consumer privacy concerns and defensive behaviours in the digital marketplace. European Journal of Marketing, 55(1), 219-246.
8. Bart, Y., Shankar, V., Sultan, F. and Urban, G.L. (2005). Are the drivers and role of online trust the same for all web sites and consumers? A large-scale exploratory empirical study. Journal of Marketing, 69 (4), 133-152.
9. Boerman, S. C., Kruikemeier, S., & Zuiderveen Borgesius, F. J. (2017). Online behavioral advertising: A literature review and research agenda. Journal of advertising, 46(3), 363-376.
10. Boudet, J., Huang, J., Rathje, K., Sorel, M. (2019). "Customer concerns about the security and privacy of their online data can impede personalized marketing at scale. Best-practice companies are building protections into their digital properties", available at: https://www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/consumer-data-privacy-and-personalization-at-scale (accessed January 2023)
11. Brodherson, M., Broitman, A., Cherok, J., & Robinson, K. (2021). "Growing limits on the use of customer data cannot simply be circumvented through technical solutions. Any sustainable first-party data strategy must have the customer relationship at its core", available at: https://www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/a-customer-centric-approach-to-marketing-in-a-privacy-first-world (accessed January 2023)
12. Carlson, J. R., Hanson, S., Pancras, J., Ross Jr, W. T., & Rousseau-Anderson, J. (2022). Social media advertising: How online motivations and congruency influence perceptions of trust. Journal of Consumer Behaviour, 21(2), 197-213.
13. Chang, Y.-S. and Fang, S.-R. (2013). Antecedents and distinctions between online trust and distrust: predicting high- and low-risk internet behaviors. Journal of Electronic Commerce Research, 14 (2), 149-166.
14. Cranor, L. F. (2012). Can users control online behavioral advertising effectively?. IEEE Security & Privacy, 10(2), 93-96.
15. Dehling, T., Zhang, Y., & Sunyaev, A. (2019, July). Consumer perceptions of online behavioral advertising. In 2019 IEEE 21st Conference on Business Informatics (CBI) (Vol. 1, pp. 345-354). IEEE.
16. eMarketer (2020), "Global digital ad spending update q2 2020", available at: https://www.emarketer.com/content/global-digital-ad-spending-update-q2-2020 (accessed January 2023).

17. Guo, B. and Sismeiro, C. (2020). Between click and purchase: predicting purchase decisions using clickstream data. Advances in Consumer Research, 47, 608-609.

18. Hair Jr, J.F, Sarstedt, M., Hopkins, L., & G. Kuppelwieser, V. (2014). Partial least squares structural equation modeling (PLS-SEM) An emerging tool in business research. European business review, 26(2), 106-121.

19. Hair Jr, J. F., Sarstedt, M., Ringle, C. M., & Gudergan, S. P. (2017). Advanced issues in partial least squares structural equation modeling. Sage publications.

20. Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. European Business Review, 31(1), 2-24.

21. Ham, C. D. (2017). Exploring how consumers cope with online behavioral advertising. International Journal of Advertising, 36(4), 632-658.

22. Jai, T. M. C., Burns, L. D., & King, N. J. (2013). The effect of behavioral tracking practices on consumers' shopping evaluations and repurchase intention toward trusted online retailers. Computers in Human Behavior, 29(3), 901-909.

23. Jung, A. R. (2017). The influence of perceived ad relevance on social media advertising: An empirical examination of a mediating role of privacy concern. Computers in Human Behavior, 70, 303-309.

24. Kokolakis, S. (2017). Privacy attitudes and privacy behaviour: A review of current research on the privacy paradox phenomenon. Computers & Security, 64, 122-134.

25. Kim, H., & Huh, J. (2017). Perceived relevance and privacy concern regarding online behavioral advertising (OBA) and their role in consumer responses. Journal of Current Issues & Research in Advertising, 38(1), 92-105.

26. Lambrecht, A. and Tucker, C. (2013). When does retargeting work? Information specificity in online advertising. Journal of Marketing Research, 50(5), 561-576.

27. Lee, J. M., & Rha, J. Y. (2013). The effect of privacy concerns and consumer trust on consumer response to online behavioral advertising for travel products. International Journal of Tourism Sciences, 13(3), 1-29.

28. Lee, S., Lee, Y., Lee, J. and Park, J. (2015). Personalized e-services: consumer privacy concern and information sharing. Social Behavior and Personality: International Journal, 43(5), 729-740.

29. Leong, L. Y., Hew, T. S., Ooi, K. B., & Dwivedi, Y. K. (2020). Predicting trust in online advertising with an SEM-artificial neural network approach. Expert Systems with Applications, 162, 113849.

30. Liu-Thompkins, Y. (2019). A decade of online advertising research: What we learned and what we need to know. Journal of advertising, 48(1), 1-13.

31. Lopez-Miguens, M.J. and Vazquez, E.G. (2017). An integral model of e-loyalty from the consumer's perspective. Computers in Human Behavior, Vol. 72, July, pp. 397-411.

32. Mardegan, P., Riva, G. and Scatena, S.F. (2016), Digital Advertising 3.0. Il futuro della pubblicità digitale, Maggioli Editore, Milano.

33. Martin, K. D., Borah, A., & Palmatier, R. W. (2017). Data privacy: Effects on customer and firm performance. Journal of Marketing, 81(1), 36-58.

34. Martin, K. D., & Murphy, P. E. (2017). The role of data privacy in marketing. Journal of the Academy of Marketing Science, 45, 135-155.

35. Moore, R.S., Moore, M.L., Shanahan, K.J. and Mack, B. (2015). Creepy marketing: three dimensions of perceived excessive online privacy violation. Marketing Management, 25, 42-53.

36. Mou, J., Zhu, W., & Benyoucef, M. (2020). Impact of product description and involvement on purchase intention in cross-border e-commerce. Industrial Management & Data Systems, 120 (3), 567-586.

37. Mpinganjira, M., & Maduku, D. K. (2019). Ethics of mobile behavioral advertising: Antecedents and outcomes of perceived ethical value of advertised brands. Journal of Business Research, 95, 464-478.

38. Punyatoya, P. (2018). Effects of cognitive and affective trust on online customer behavior. Marketing Intelligence & Planning, 37(1), 80-96.

39. Rita, P., Oliveira, T., & Farisa, A. (2019). The impact of e-service quality and customer satisfaction on customer behavior in online shopping. Heliyon, 5(10), e02690.
40. Schnurr, B., Brunner-Sperdin, A., & Stokburger-Sauer, N. E. (2017). The effect of context attractiveness on product attractiveness and product quality: the moderating role of product familiarity. Marketing Letters, 28 (2), 241-253.
41. Smit, E. G., Van Noort, G., & Voorveld, H. A. (2014). Understanding online behavioural advertising: User knowledge, privacy concerns and online coping behaviour in Europe. Computers in Human Behavior, 32, 15–22.
42. Tam, K. Y., & Ho, S. Y. (2006). Understanding the impact of web personalization on user information processing and decision outcomes. Mis Quarterly, 30(6), 865–890.
43. Trivedi, S.K. and Yadav, M. (2020). Repurchase intentions in Y generation: mediation of trust and e-satisfaction. Marketing Intelligence & Planning, 38 (4), 401-415.
44. Tsai, J. Y., Egelman, S., Cranor, L., & Acquisti, A. (2011). The effect of online privacy information on purchasing behavior: An experimental study. Information Systems Research, 22(2), 254-268.
45. Varnali, K. (2021). Online behavioral advertising: An integrative review. Journal of Marketing Communications, 27(1), 93-114.
46. Xu, F. and Du, J.T. (2018). Factors influencing users' satisfaction and loyalty to digital libraries in Chinese universities. Computers in Human Behavior, Vol. 83, June, pp. 64-72.
47. Yang, H. (2013). Young American consumers' online privacy concerns, trust, risk, social media use, and regulatory support. Journal of New Communications Research, 5(1), 1-30.