

Consumer response to online behavioral advertising in a social media context: The role of perceived ad complicity

Tohid Ghanbarpour¹  | Easa Sahabeh² | Anders Gustafsson^{1,3} 

¹Department of Marketing, BI Norwegian Business School, Oslo, Norway

²Department of Business, Strategy and Political Sciences, USN School of Business, Drammen, Norway

³Alliance Manchester Business School, Manchester, UK

Correspondence

Anders Gustafsson, Department of Marketing, BI Norwegian Business School, Oslo, Norway.
Email: anders.gustafsson@bi.no

Abstract

Brands and social media platforms are two main players in online behavioral advertising (OBA), but the extant literature overlooks the interaction between them. Although advertising brands invest considerable resources to target potential consumers through social media advertising, our analysis indicates that publisher-platform-related activities can elicit negative consequences. Thus, we examined the role of perceived ad complicity, that is, consumers' perception regarding advertisers partnering with the social media platforms in the OBA process. We used perceived ad complicity as a moderator to explain the variation in consumers' negative responses to OBA in a social media context. Our results indicate that consumers with high perceived ad complicity experience greater perceived ad intrusiveness. This effect directly impacts their attitudes toward publisher platforms and advertising brands but consumers react more negatively toward brands (vs. publisher platforms) regarding this practice. Furthermore, we found that consumers who are more sensitive to social norms experience stronger perceived ad complicity and that informing consumers about why they are seeing specific ads on their social media platforms does not change their views on ad complicity.

KEYWORDS

online behavioral advertising, perceived ad complicity, perceived ad intrusiveness, social media advertising

1 | INTRODUCTION

Online behavioral advertising (OBA) seeks to maximize advertising returns using consumer-level information to tailor and deliver the right ad to the right person at the right time (Aguirre et al., 2015; Smit et al., 2014; Tam & Ho, 2006). The dominant business model of social media platforms entails the monetization of user information by providing advertising services to anyone who wants to reach these audiences through digital content and marketing communications. To deliver such services, platforms

utilize users' data to provide a better and effective advertising service to brands (Appel et al., 2020). As a result, any information collected about a given consumer is potentially useful for targeting them (Boerman et al., 2017; Plangger & Montecchi, 2020; Van Doorn & Hoekstra, 2013). However, a recent GlobalWitness (2021) report indicates that 57% of social media users do not want to receive any personalized ads, because this process may include practices that they can sometimes perceive as violating their privacy, resulting in negative attitudes toward the ad and platform (Boerman et al., 2017; Huang, 2019).

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In a social media context, OBA includes two main players: advertising brand (henceforth called brand) and publisher platform (henceforth called platform). Platforms (e.g., Facebook) seek to provide brands with accuracy by targeting consumers with personalized ads to generate higher revenue (Chen & Stallaert, 2014). Thus, OBA is a two-player game in which the platform comprises the context through which OBA is delivered and is responsible for consumer data collection (Varnali, 2021).

However, the extant literature has focused on one player at a time and has largely ignored consumers' perception of collaboration between platforms and brands as the main players in OBA (Table 1; Varnali, 2021). We believe it is important to consider this collaboration, because consumers' perception of more than one party being involved in the process can lead to a greater associated perceived privacy risk for consumers (Bright et al., 2021; Kim et al., 2019), which then leads to higher perceived ad intrusiveness (Boerman et al., 2017; Sutanto et al., 2013). Therefore, it is important for brands to understand the potential consequences of consumers' perception of a brand–platform relationship.

To address this issue, we investigated the moderating role of consumers' perception of a brand–platform relationship in their responses to OBA. For this purpose, we used the concept of perceived ad complicity and measurements adapted from communication literature (Oliver et al., 2015, 2019). Using perceived ad complicity, we captured consumers' perception of the extent of

brands' involvement in consumer data collection and of the targeting processes that platforms execute. We build on the communication privacy management (CPM) theory to propose that users can view the close collaboration between a brand and a platform as violating information privacy boundaries, leading to increased perceived risk and, potentially, higher perceived intrusiveness (Boerman et al., 2017; Petronio, 2002).

This article is the first to examine the concept of perceived ad complicity within the OBA literature; therefore, it is important to clarify the potential determinants of how consumers form their ad complicity perceptions. Considering that perceived ad complicity is linked to consumer social cognition, we investigated the relevance of social traits among consumers as the cognitive determinants of perceived ad complicity. Specifically, we investigated the role of consumers' personal social traits (agentic vs. communal) as antecedents of perceived ad complicity (Abele & Wojciszke, 2014). Finally, we investigated whether providing consumers with information regarding why they are seeing a specific ad changes their ad complicity perceptions (Kim et al., 2019), the idea being that this action is a common remedy that a consumer encounters on social media; therefore, it is important to determine whether this strategy affects consumers' perceptions.

Consequently, our studies primarily contribute to the literature through three aspects as follows: (I) understanding the role of consumers' perception of a brand–platform relationship as a

TABLE 1 Summary of Literature

Authors	Consumer response to OBA	Attitude toward		Role player focus		Consumer mindset
		Brand	Platform	Brand	Platform	
Li and Yin (2021)	X					Perceived ad content quality
Kim et al. (2019)	X				X	Platform trust
Huang (2019)	X	X		X		
Bellman et al. (2013)	X					
Bleier and Eisenbeiss (2015a)	X			X		Trust in the retailer
Bleier and Eisenbeiss (2015b)	X				X	
Chen and Stallaert (2014)	X					
Jai et al. (2013)	X			X		
Gironda and Korgaonkar (2018)	X					Consumer innovativeness
Ham (2017)	X					
Mpinganjira and Maduku (2019)	X	X		X		
Ozcelik and Varnali (2019)	X	X		X		
Palos-Sanchez et al. (2019)	X					
Tucker (2014)	X				X	
Van Doorn and Hoekstra (2013)	X					
Aguirre et al. (2015)	X				X	
This study	X	X	X	X	X	Perceived ad complicity

Abbreviation: OBA, online behavioral advertising.

moderator of consumers' responses to OBA; (II) understanding the influences of dispositional; and (III) situational factors on perceived ad complicity and how they affect consumers' perception of a platform–advertiser relationship in response to OBA. In the following sections, we use the abbreviation OBA.

2 | THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

As data-processing capabilities have increased, brands and platforms have been collecting, analyzing, and storing larger amounts of consumer data (Bleier & Eisenbeiss, 2015b). These data can include web-browsing data, search histories, media consumption data (e.g., watched videos), app use data, purchases, click-through responses to ads, and communication content, such as what people write in e-mails (e.g., via Gmail) or post on social networking sites (Borgesius, 2015). The rationale behind increasing data collection is straightforward: More consumer-related data used in personalization algorithms means more accurate predictions of consumer preferences. This enables brands to target their markets more effectively and achieve higher click-through and purchase rates (Dolnicar & Jordaan, 2007; Phelps et al., 2000).

However, a high level of personalization and fit and a low level of OBA transparency can increase consumers' perceived intrusiveness and deteriorate their behavioral intentions toward a brand, leading to lower purchase intention. Van Doorn and Hoekstra (2013), without contextualizing their research to a platform or brand, found that using personal information and tailoring an ad to consumers positively influence perceived intrusiveness. Moreover, their results indicated that highly personalized ads can increase purchase intention directly, while simultaneously decreasing it through greater perceived intrusiveness. This negative response is the focus of current research.

In a social media context, Tucker (2014) found that increasing consumers' perceived control over their data by changing a platform's privacy policy leads to favorable behavioral responses, which were measured using click-through rates. Furthermore, Bleier and Eisenbeiss (2015a) found that a personalized ad's perceived usefulness and associated click-through intentions are greater if the consumer has a high level of brand trust.

Existing variables—such as acceptance of behavioral targeting (Malhotra et al., 2004), privacy expectations (Martin, 2015), and trust in platform/brand (Bleier & Eisenbeiss, 2015a; Kim et al., 2019)—investigate perceived intrusiveness by separately focusing on the role of consumers' perceptions of advertising, brands, or platforms. Therefore, despite numerous previous OBA studies (for a review, see Liu-Thompkins, 2019; Varnali, 2021), no prior research has been conducted on the role of consumers' perception of a brand–platform relationship. However, according to the CPM theory, when private information is believed to be accessible by additional entities, people can experience increased levels of risk and privacy turbulence (Petronio & Child, 2020; Sutanto et al., 2013). Thus, perceptions

related to the relationship between brands and platforms can interact to shape consumers' responses to OBA.

Therefore, we argue that if consumers believe a platform (i.e., authorized information co-owner) closely collaborates with a brand (i.e., potentially unauthorized co-owner), they may view online advertising as being more intrusive. This can potentially lead to more negative consequences for brands (i.e., negative attitude) that are investing in social media OBA to attract consumers (Huang, 2019; Ozcelik & Varnali, 2019). Accordingly, it is necessary to understand consumers' perception of ad complicity as a critical factor in studying OBA. Our proposed conceptualization of ad complicity relates to consumers' perception of whether a given brand contributes to the privacy violations of a given platform. This perspective challenges the view that only the platform or the brand is responsible for employing privacy-violating OBA practices.

In this study, we argue that consumers' perception of the depth and breadth of a relationship between a brand and a platform through which consumers view the ad plays a key role in their responses to OBA. Accordingly, we examine the influence of the data collection method (private vs. nonprivate data) on consumer responses and the moderating role of perceived ad complicity in this process. We then investigate the factors that might influence consumers' perceived ad complicity. We have provided the conceptual framework of this study in Figure 1.

2.1 | CPM theory

The CPM theory offers three principles for the effective preservation of privacy, through which people balance access to and the protection of their private information: Ownership of private information, control of private information, and privacy turbulence (Petronio & Child, 2020). The CPM theory assumes that because people have full ownership of their private information, they also have the right to protect their information and control who can access it and to what degree.

2.1.1 | Ownership of private information

CPM uses the concept of “privacy boundaries” (Petronio, 2002) to metaphorically mark the ownership of private information. The information owner can decide to extend the boundaries to include other owners, who CPM designates as “authorized co-owners” with legitimate access to the information (Petronio & Child, 2020). The primary control over the information, however, remains with the original “information owner,” giving them the right to determine the degree of control they grant to a co-owner. In user–platform relationships, similar to interpersonal relationships, people need to disclose some private information and simultaneously protect the degree to which their information is shared with others. In other words, private information originally belongs within the individual privacy boundaries. However, when people engage in online

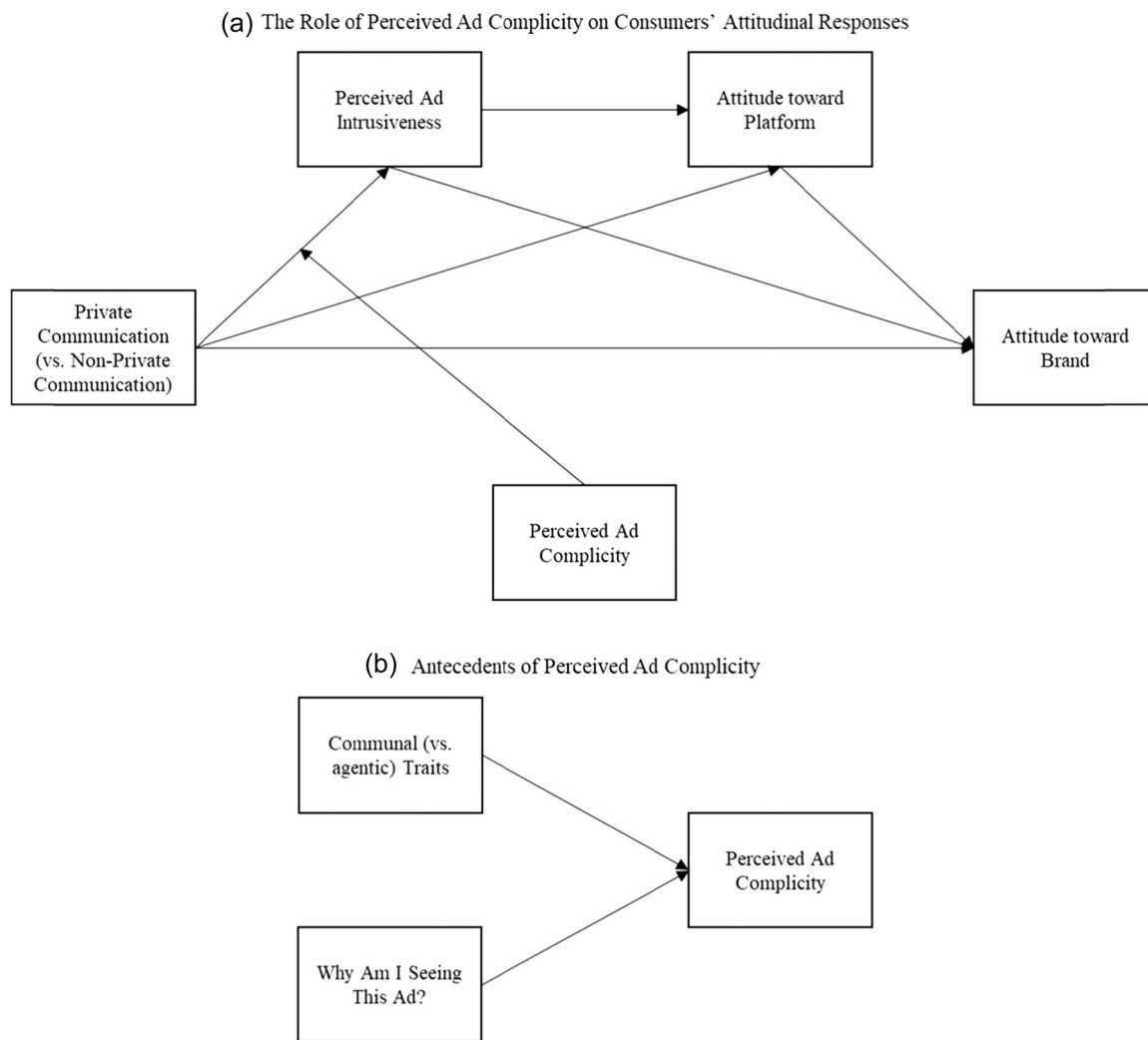


FIGURE 1 The conceptual framework

information sharing or accept the terms and conditions for using an online platform, they transfer some of their information into a co-owned collective boundary (Child & Petronio, 2011).

2.1.2 | Control of private information

According to the CPM theory, when a user decides to share their information with a platform, the recipient is viewed as an authorized co-owner of the information. Within a co-owned privacy boundary, both the user and the platform must acknowledge a shared responsibility of how the private information is treated and protected (Petronio, 2013). The CPM theory proposes that people use various kinds of personal privacy rules, such as motivational goals and risk-benefit assessments, to decide what information they reveal or conceal depending on their understanding of the co-owned privacy boundary (Child & Petronio, 2011).

In the case of OBA, the user requires the platform to be considerate of their privacy with respect to specific expectations.

These expectations include clarification of who else might access their private information (i.e., linkage rules), how much of the information is allowed to be shared with others (i.e., permeability rules), and the degree to which the user allows the platform to determine third-party access to the information (i.e., control rules; Petronio, 2002).

2.1.3 | Privacy turbulence

The CPM theory argues that because people are aware that their information can be disclosed to third parties, they form implicit or explicit expectations regarding information co-ownership boundaries. In interpersonal relationships, information owners express their privacy rules and set their expectations for co-owners of the information using phrases such as "It is OK that you know this, but do not tell anyone else" or "You can tell whomever you trust." The CPM theory refers to this process as boundary coordination (Petronio, 2002). Further, privacy turbulence refers to

situations with unclear, violated, or inconsistent boundaries (McDaniel et al., 2021).

In the case of OBA, privacy turbulence occurs when coordinated boundaries are violated and typically happens when the co-owner (platform) reveals private information to recipients who were not authorized by the original owner (user). As such, users may view unwanted access to their information as the platform's mistreatment of their co-ownership boundaries, resulting in feelings of intrusiveness and harm to the relationship. Therefore, it is important to understand the degree to which users believe a platform respects the privacy boundaries of co-owned information, particularly given the collaboration between advertisers and the platform regarding OBA. According to the CPM theory, an increase in the number of people who receive private information leads to an increased probability of privacy turbulence, which can trigger feelings of anger, fear, and sadness (Aloia, 2018).

In this study, we argue that consumers' perception of the depth and breadth of a relationship between a brand and the platform through which consumers view the ad plays a key role in shaping their privacy turbulence expectations and influence their responses to OBA. Accordingly, we examined the influence of the data collection method on consumers' attitudes toward the brand and the platform and their subsequent behavioral responses. We then investigated the role of consumers' perception of this process.

2.2 | Perceived ad intrusiveness

In an advertising context, a sense of intrusiveness is "a psychological reaction to ads that interfere with a consumer's ongoing cognitive processing" (Li et al., 2002; p. 39). Intrusiveness leads to consumers responding negatively to communication forms (Aaker & Bruzzone, 1985). In this article, we focus on perceived ad intrusiveness resulting from privacy violations. This type of intrusiveness can be explained through the CPM theory, which indicates that within the coordinated privacy boundary between the user and the platform, using unauthorized private information can lead to increased risk perception for consumers (Petronio, 2002, 2013). Therefore, such ads could elicit negative attitudinal and behavioral responses (Baek & Morimoto, 2012; Tsang et al., 2004).

In a recent study, Kim et al. (2019) found that consumers would show a negative behavioral response to an ad that targeted them based on the firm's (i.e., brand/platform) inferred data about consumers versus the data that the consumers themselves stated in the online context. Their findings indicate that consumers are sensitive to the fact that firms obtain their personal information without them knowing. Furthermore, Bleier and Eisenbeiss (2015a) found that the collection of data that is perceived as too personal/private increases perceived intrusiveness. The use of private information for advertising purposes implies privacy vulnerability, higher privacy risk, and the loss of control over personal information for consumers, which lead to higher perceived intrusiveness (Bandyopadhyay, 2009; Bleier & Eisenbeiss, 2015a;

Dinev & Hart, 2004; Slovic, 1987). Therefore, collecting data from consumers' private online communications to target them with tailored ads is viewed as even more intrusive than such advertising based on non-private online communication. Thus, we propose our first hypothesis:

H1 Targeting consumers based on their private communication data leads to an increase in perceived ad intrusiveness.

2.3 | Perceived ad complicity

For the first time in OBA literature, we investigate how the perceived collaboration between a platform and a brand can influence consumers' responses to OBA. We adopt the concept of complicity that Oliver et al. (2015) introduced, in which they examined it in the context of anti-hero narratives that involve media complicity. In a follow-up study, Oliver et al. (2019, p. 175) defined the concept of complicity as "the feeling of being a partner in crime with an antihero as the plot unfolds and as the anti-hero (along with the viewer) engages in antisocial behavior." Accordingly, we introduce perceived ad complicity in the OBA context as consumers' perception of an advertiser partnering with the platform as the platform engages in violation of the coordinated privacy boundary between the user and itself.

Platforms track consumers and collect data on them to enable behavioral targeting for brands based on their requested specifications, which potentially results in financial gains for both parties. The brand-platform partnership can be broken down into three levels from the users' perspective based on the original conceptualization of complicity (Oliver et al., 2015; Oliver et al., 2019). First, if users believe that a strong brand-platform relationship exists, they may assume that the brand is aware of the intrusive means of data collection (Oliver et al., 2015, 2019). Second, given that it is the brand that demands targeting services, consumers may view the brand as the entity that induced the tracking of their data (Oliver et al., 2015, 2019). Finally, if a consumer believes that their information is shared with other parties (i.e., brand), they get worried about the consequences of such a privacy violation (Kim et al., 2019; Oliver et al., 2015; Song et al., 2021). In sum, brands may be viewed as partners in the collection of users' online information, as platforms and brands are working together for a mutual goal. Therefore, consumers may find brands complicit in online privacy boundary violations.

We argue that consumers' ad complicity perceptions can moderate the effects of OBA on their attitudinal responses. The concept of ad complicity comprises at least two parties collaborating against consumers; thus, we argue that as consumers' ad complicity perception strengthens, they are more sensitive to data privacy because of the number of entities involved and the higher risk implied (Aloia, 2018; Maseeh et al., 2021). Thus, they place more importance on the type of data collected for advertising purposes, thereby increasing the significance of the data collection method in terms of intrusiveness. Thus, we propose the following hypothesis:

H2 Ad complicity moderates the relationship between the data collection method and intrusiveness.

This hypothesis is in line with the CPM theory, which suggests that privacy turbulence occurs when private information is disclosed to other entities beyond the coordinated privacy boundary between the user and the platform. Such a breakdown in privacy expectations disrupts information co-ownership and control boundaries, leading to higher perceived intrusiveness (Petronio & Child, 2020).

2.4 | Brand attitude

Consumers' negative feelings can affect brand perceptions and attitudes (MacKenzie & Lutz, 1989). Accordingly, findings of Cases et al. (2010) imply that targeting consumers with ads based on their private information will reduce their attitudes toward the brand due to the increased associated privacy risk. In addition, intrusive ads can cultivate negative attitudes toward the ads (Edwards et al., 2002) and the brand due to the increase in privacy-related concerns (Maseeh et al., 2021). Hence, the perceived intrusion resulting from surveillance activities on consumers may change their attitudes toward the offending brand and, consequently, their purchasing behavior (Andrejevic, 2007; Plangger & Watson, 2015; Turov et al., 2008).

Furthermore, Ha and McCann (2008) indicated that irresponsible ad formats (e.g., pop-up ads) and placements may damage relationships between the consumers, the platform, and the brand. However, previous researchers did not account for these relations and the subsequent impact on both platforms and brands in the literature on consumers' privacy concerns. Consequently, in line with previous findings and considering the relationship proposed by H1, we expect the following:

H3a Perceived ad intrusiveness mediates the negative effect of the data collection method on the attitudes toward platform and brand.

Furthermore, Pavlou et al. (2006) indicated that uncertainty and unfamiliarity with a brand lead consumers to extend their feelings toward the platform to the brand. Thus, we propose the following:

H3b The attitude toward the platform mediates the negative effect of perceived intrusiveness on the attitude toward the brand.

2.5 | Role of personal traits in ad complicity

Ad complicity entails a consideration of the collaboration between two actors in relation to potential consumers. Accordingly, brands and platforms collaborate to reach a target market. From the consumer perspective, ad complicity content relates to social cognition. As a result, we argue that ad complicity perception may stem from particular aspects of social cognition. Therefore, we

examine the influence of consumers' social traits as cognitive antecedents of ad complicity perception.

The dual perspective model (DPM) of social cognition describes two broad motives for group life across cultures and history (Abele & Wojciszke, 2014). Consequently, social cognition comprises two fundamental dimensions: agency and communion. A highly communal person is honest, loyal, selfless, truthful, and sincere. Likewise, a highly agentic person could be described as competent, intelligent, and ambitious (Wojciszke et al., 2011). However, while *agency* refers to individual goal achievement, *communion* reflects group considerations and relates to the upkeep of social relationships. At its core, agency is concerned with an individual's goal pursuit, that is, getting ahead, whereas communion is concerned with the larger setting in which the individual is placed, that is, getting along (Abele & Wojciszke, 2018).

Negative communion evaluations exert a stronger influence on affiliative decisions than positive ones. Thus, highly communal people are more sensitive when it comes to detecting those who would violate the rules of social life, as opposed to detecting those who would uphold such norms (Abele & Bruckmüller, 2011; Ybarra et al., 2001). Sensitivity to negative evaluations of communion is attributed to evolutionary mechanisms that elicit extra caution to reduce potential threats (Nesse, 2005).

We argue that the more communal a person is, the more sensitive they are to information related to the initiation and preservation of social relationships—and the more likely they are to detect possible breaches of social contracts. Unlike agentic people, who take an individualistic perspective, a highly communal person is more likely to consider a collective perspective and the social contexts of an event. As a result, they may be more inclined toward perceiving violations of their online privacy for advertising purposes as an action with multiple actors, as opposed to a single actor. Thus, we propose the following hypothesis:

H4 The more communal a person is, the stronger their ad complicity perception will be.

Due to the primacy of communal traits in social cognition and their relevance to our proposed construct, we did not make a specific prediction about the relationship between agency and ad complicity.

2.6 | Why am I seeing this ad?

Ad complicity perception is subject to change, depending on many factors, including, but not limited to, consumers' knowledge about the technical aspects of OBA, as well as the privacy image of the brand and online platform. For example, Aguirre et al. (2015) demonstrated that negative reactions to OBA disappear when advertisers inform consumers about why their data are being collected and how. Accordingly, online platforms have recently begun to inform their users about why they are viewing a particular ad specifically targeted to that individual user. According

to Kim et al. (2019), this practice leads to greater transparency, leading to higher ad effectiveness. However, they indicate that if this transparency reveals the involvement of other parties in the data collection process, the effectiveness of the ad will decrease.

In real-world examples, for instance, in the case of Facebook, the “Why am I seeing this ad?” function does not reveal the source of information that is used for the targeting. It only explains that the brand aims to target specific demographics and does not reveal the other information used for targeting the user (see Appendix C). Thus, although a common perception might be that informing platform visitors may help brands shield themselves from the negative effects of online tracking, it might also trigger the ad complicity perception, as this information indicates that the brand is behind the ad as well as reminds them about the brand–platform collaboration. Thus, we propose the following hypothesis:

H5 Providing information about why a consumer is seeing an ad will increase their perceived ad complicity.

3 | OVERVIEW OF STUDIES

In this section, we report the findings from three empirical studies that we conducted in an online context. We believe that this context provided significant similarity to real OBA situations. Furthermore, the data were collected from active social media users living in the United States. In Study 1, we documented the negative effect of intrusive data collection on perceived ad intrusiveness (H1), as well as the moderating effect of perceived ad complicity on this relationship (H2). Furthermore, we investigated the influence of perceived ad intrusiveness on attitudes toward platform and brand (H3a and H3b). In Study 2, we examined the influence of two personality traits—agency and communion—on perceived ad complicity (H4). Finally, in Study 3, we tested whether different types of information about why a visitor is seeing a particular ad can influence their ad complicity perception and, subsequently, their perceived intrusiveness (H5). We adopted items from the literature to measure the required constructs (see Appendix A).

3.1 | Study 1

Study 1 aims to investigate the moderating role of perceived ad complicity on consumers' attitudinal responses toward an ad, platform, and brand. The results demonstrated that consumers' perceived ad intrusiveness changed based on the data that the platform used to target them with relevant ads. OBA practices can enhance perceived ad intrusiveness and harm the attitudes toward platform and brand. Thus, an experiment with an online, scenario-based, between-subjects (private vs. nonprivate text) design was conducted to test the associated hypotheses.

3.1.1 | Manipulation check

Collecting private communication data enables advertisers to target consumers with highly tailored ads and this study aimed to assess perceived intrusiveness concerning collection of private (vs. non-private) communication data and consumers' attitudinal responses. An online, scenario-based, between-subjects experiment was conducted to verify the influence of our manipulation of communication data (private vs. nonprivate). The scenario created to test for perceived intrusiveness involved Facebook as the platform and an imaginary brand known as CobberBike. We used a fictional brand to prevent any biases caused by existing associations or brand preferences (Laufer & Jung, 2010). The participants ($N = 121$, 75.2% female, $M_{\text{age}} = 35.20$, $SD = 12.80$) were recruited from the Prolific online platform and randomly assigned to one of two conditions (targeting based on private vs. non-private text). First, participants read a specific statement (presented below); next, an ad for a fictional bicycle brand was presented to participants (see Appendix B):

Private text condition: Imagine that you are thinking of buying a new bicycle. Yesterday, you mentioned your decision to buy a bike when you were messaging a friend on WhatsApp. Today, while you have not searched for bikes on the Internet and your social media, you see the following ad [next page] when you are checking your Facebook.

Nonprivate text condition: Imagine that you are thinking of buying a new bicycle. Yesterday, you wrote about your decision to buy a bicycle on Facebook and asked your friends for their opinion. Today, while you have not searched for bikes on the Internet and your social media, you see the following ad [next page] when you are checking your Facebook.

After viewing the ad, participants responded to our manipulation check, which asked them to indicate the extent to which they felt that the ad was based on their private information using a scale (1 = *Not private at all* to 7 = *Extremely private*). As expected, the participants in the private condition reported that the ad was based on more private information ($M = 5.33$, $SD = 1.87$) than those in the non-private condition ($M = 4.49$, $SD = 2.01$); $t(119) = 2.35$, $p = .01$, $d = 0.42$, 95% confidence interval (CI) = [0.13, 1.53].

3.1.2 | Procedure

We used the same scenario from the manipulation check in the main study. Participants ($N = 370$, 54% female, $M_{\text{age}} = 34.12$, $SD = 10.97$) were recruited from the Prolific online platform and randomly assigned to one of two conditions (targeting based on private vs. nonprivate text). First, participants read the manipulation statement, then answered questions related to perceived ad intrusiveness,

TABLE 2 Perceived ad complicity dimensions and items

Dimension	Items
Awareness of means	CobberBike is aware of the means by which Facebook collects my information.
Access to data	CobberBike collects my information via Facebook.
Inducing role	CobberBike has asked Facebook to monitor my online activity to target me as a potential customer.

perceived ad complicity, and attitudes toward the platform and the brand.

3.1.3 | Measures

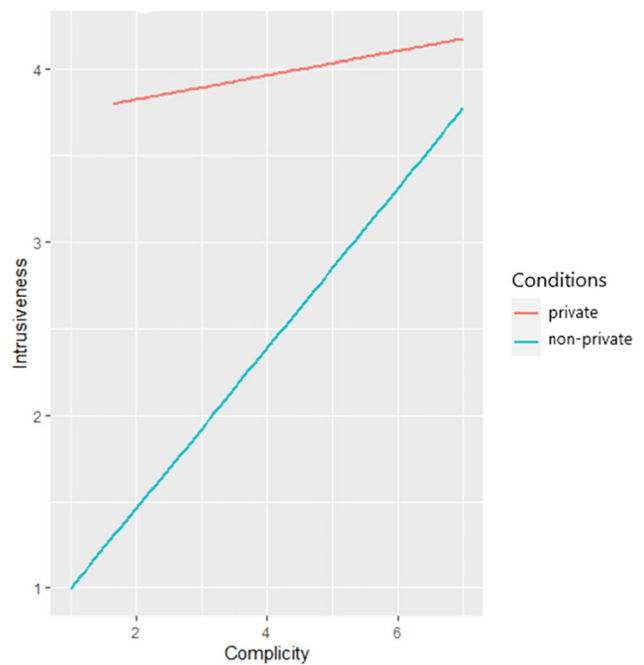
For this study, we measured ad intrusiveness, ad complicity, and attitudes toward brand and platform. The data were collected using a seven-point scale (1 = *Strongly disagree* to 7 = *Strongly agree*). We averaged the items of each measure to create a composite score for the variables. For ad intrusiveness, 10 items were adapted from Mooradian (1996) and Edwards et al. (2002), but we omitted one question because it was not applicable to this context (Cronbach's $\alpha = 0.97$). Adopting the original definition and measurement, we determined that consumers' ad complicity perception entails three aspects: awareness of the brand from the tracking methods of the platform, the potential consumer data shared by the platform with the brand, and the inducing role of the brand when it comes to tracking consumer behavior on the platform (Table 2; Oliver et al., 2019).

Accordingly, we elicited feedback from several marketing academics and practitioners to test the transparency, relevance, and redundancy of the adopted items (Cronbach's $\alpha = 0.77$).

Finally, to measure attitudes and purchase intentions, single items were adapted from MacKenzie and Lutz (1989). We believe that using single-item measures was appropriate, as Bergkvist and Rossiter (2007) found no difference in predictive validity between multiple-item and single-item measures of consumer attitudes.

3.1.4 | Results

To test our theoretical model (Figure 1a), we performed conditional process analyses using PROCESS macro (Hayes, 2017). Using PROCESS Model 6, we found that the indirect effect of targeting consumers based on their private (vs. non-private) communication data and brand attitude via perceived intrusiveness and platform attitude was significant (indirect effect: $\beta = -0.088$, bootstrapped 95% CI = [-0.146, -0.044]). Specifically, using private (vs. nonprivate) communication data increased perceived ad intrusiveness ($\beta = 1.147$, $p = 0.000$), which leads to a decrease in positive attitudes toward the platform ($\beta = -0.346$, $p = 0.000$). Furthermore, the results indicated that perceived ad intrusiveness decreases positive attitudes toward

**FIGURE 2** Moderation effect of perceived ad complicity

the brand ($\beta = -0.269$, $p = 0.000$) and that positive attitudes toward the platform improve attitudes toward the brand ($\beta = .221$, $p = 0.000$).

Moreover, to investigate the proposed hypotheses (H1–3) in a comprehensive model, we used PROCESS Model 83 (Hayes, 2017), which regressed brand attitude on the data collection method, with perceived intrusiveness and attitude toward platform as sequential mediators and perceived ad complicity as a first-stage moderator (Figure 1a). The results indicated that perceived ad complicity moderates the relationship between targeting ads based on private communication data (vs. nonprivate) and perceived ad intrusiveness ($\beta = -0.273$, $p < 0.05$; Figure 2). The index of moderated mediation was significant (95% CI = [0.001, -0.04]).

3.1.5 | Discussion

Study 1 aimed to provide a better understanding of consumers' responses to OBA and the influence of perceived ad complicity (i.e., consumer-perceived collaboration level between brand and platform) in this process. Accordingly, we adopted perceived ad complicity to measure the aforementioned perception (Oliver et al., 2019). Adopting this concept enabled us to understand what consumers think about the degree of collaboration between the two key players in social media OBA.

As predicted under the CPM theory (Petronio & Child, 2020), and in line with previous findings (e.g., Kim et al., 2019), the result of Study 1 revealed that using private communication data (vs. nonprivate) leads to greater perceived ad intrusiveness. More importantly, we observed that consumers demonstrate varying degrees of collaboration when considering the platform and the

advertising brand together, captured by our perceived ad complicity measure ($M = 4.78$, $SD = 1.45$). Specifically, when a consumer is targeted with highly intrusive advertising (private condition), ad complicity perception does not influence perceived intrusiveness level. Thus, using private communication data to target consumers with relevant ads is a strong factor in influencing consumers with any level of ad complicity perception, leading to strong perceptions of ad intrusiveness regardless of ad complicity perception. However, consumers with strong ad complicity perceptions would perceive ad intrusiveness at a comparably same level as consumers who are targeted with ads based on their private data. Furthermore, the results of serial mediation analysis demonstrated that perceived ad intrusiveness leads to negative attitudes toward the platform, which leads to negative attitudes toward the advertising brand. This finding is consistent with that of Pavlou et al. (2006), who argued that when consumers have little or no prior familiarity with the brand, their attitude toward the platform plays an important role in shaping their attitude toward the brand.

Based on the results obtained from Study 1, we uncovered perceived ad complicity as an important moderator in the OBA literature. To shed light on some of its antecedents (Figure 1b), in the next study, we investigate how consumers' personality traits can affect their ad complicity perception.

3.2 | Study 2

This study builds on Study 1 and aims to determine how agentic and communal traits, as two fundamental dimensions of personality (Abele & Wojciszke, 2014), shape consumers' ad complicity perception. To accomplish this, we conducted an online survey in which we identified the context using only the nonprivate condition scenario from previous studies.

3.2.1 | Procedure

This study followed the same procedure as Study 1. The participants ($N = 281$, 56% female, $M_{\text{age}} = 36.47$, $SD = 13.37$) first read the scenario related to the non-private targeting condition and were then exposed to the bicycle ad. Next, they answered questions related to perceived ad intrusiveness, ad complicity, and a measure of communal-agentic traits.

3.2.2 | Measures

For this study, we measured perceived ad intrusiveness, ad complicity perception, attitudes toward brand and platform, and communal and agentic traits. The data were collected through a seven-point scale (1 = *Strongly disagree* to 7 = *Strongly agree*) and we averaged the items from each measure to create a composite score for the variables. We used three items from Study 1 to measure consumers' ad complicity

perception (Cronbach's $\alpha = 0.76$) and used items similar to those in Study 1 to measure perceived intrusiveness (Cronbach's $\alpha = 0.96$). We also used single items to measure attitudes toward brand and platform. Finally, we measured agentic (Cronbach's $\alpha = 0.83$) and communal (Cronbach's $\alpha = 0.83$) traits using the items that Trapnell and Paulhus (2012) suggested.

3.2.3 | Results

The results from the regression analysis indicated that consumers' communal traits influence their perceived ad complicity ($\beta = .33$, $p = 0.000$), whereas their agentic traits do not affect perceived ad complicity ($\beta = .05$, $p = 0.402$). Furthermore, we replicated the effects found in Study 1. Perceived ad intrusiveness significantly influenced attitudes toward brand ($\beta = -0.36$, $p = 0.000$) and platform ($\beta = -0.37$, $p = 0.000$). Moreover, the attitude toward the platform affected attitude toward the brand ($\beta = .28$, $p = 0.000$).

3.2.4 | Discussion

Study 2 aimed to investigate whether and how the two fundamental dimensions of social cognition (i.e., agency and communion) affect consumers' complicity perception. According to the DPM theory (Abele & Wojciszke, 2018), individuals with stronger communal traits emphasize the initiation and preservation of social relationships, making them more attentive to the protection of their privacy boundaries. In line with the DPM theory, the results of this study support our proposed hypothesis (H_4) and indicate that consumers with stronger communal social values are more inclined toward having stronger ad complicity perception. These results demonstrate the importance of consumers' personality traits in shaping their perceived ad complicity, which complements the existing research on OBA and personality traits (Junglas et al., 2008; Taylor et al., 2015).

3.3 | Study 3

This study builds on Studies 1 and 2, and aims to determine whether explanations provided in the "Why am I seeing this ad?" section can affect consumers' ad complicity perception (H_5). To accomplish this, we conducted an online experiment comprising three conditions: baseline condition (no explanation), Facebook-oriented explanation, and advertiser-oriented explanation.

3.3.1 | Procedure

This study followed a procedure similar to that of Study 2. The participants ($N = 242$, 55% female, $M_{\text{age}} = 34.82$, $SD = 12.14$) first read the scenario related to the nonprivate targeting condition and

were then exposed to a bicycle ad. Next, participants were randomly assigned to one of the three between-subject conditions. The participants in the control condition did not receive any information as to why they were being targeted with this particular ad, whereas other participants were randomly presented with one of two versions of a description informing them about why they were seeing the ad, that is, "Why am I seeing this ad?" One version presented reasons that primarily pertaining to the brand's role, and another to the platform's role (see Appendix C). To increase the external validity of our study, we designed the stimuli using the same description and terminology (e.g., "Why am I seeing this ad?") reflected in the actual practices of Facebook, as a major social media platform. The participants then answered questions regarding perceived ad intrusiveness and ad complicity perception (Figure 3).

3.3.2 | Measures

For this study, we measured intrusiveness and ad complicity perception. The data were collected using a seven-point scale (1 = *Strongly disagree* to 7 = *Strongly agree*), and we averaged the items from each measure to create a composite score for the variables. For perceived ad intrusiveness, we used the same items as those used in Study 1 (Cronbach's $\alpha = 0.94$). Further, we used three items to measure consumers' ad complicity perception (Cronbach's $\alpha = 0.81$).

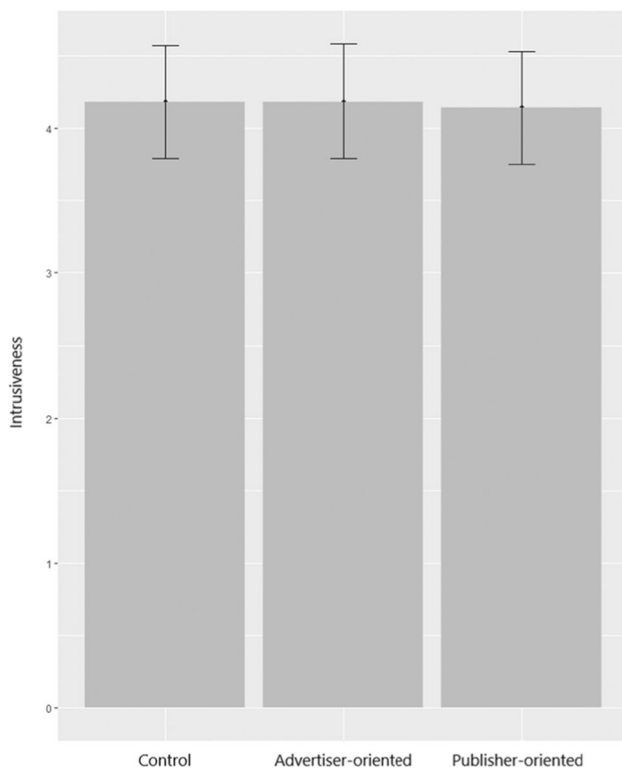


FIGURE 3 Mean comparison between conditions.

3.3.3 | Results

For Study 3, in which ad complicity perception was compared among three conditions, a one-way analysis of variance indicated that compared with the baseline condition ($M = 5.64$, $SD = 1.35$), ad complicity perception does not differ ($F[2,239] = -0.127$, $p = 0.899$) under the platform-oriented explanation ($M = 5.66$, $SD = 1.18$). Similarly, the results indicated no difference ($F[2,239] = -0.687$, $p = 0.493$) between the baseline condition ($M = 5.64$, $SD = 1.35$) and the advertiser-oriented explanation ($M = 5.77$, $SD = 1.14$).

Moreover, further analysis replicated the results from Study 1, indicating that consumers with a stronger ad complicity perception tend to perceive greater ad intrusiveness (Table 3).

As Figure 4 illustrates, consumers' ad complicity perception leads to greater perceived ad intrusiveness regardless of the type of information provided as to why the consumer is seeing the ad.

TABLE 3 Effect of perceived ad complicity on perceived ad intrusiveness in different conditions

Condition	Coefficient	t statistics	p
Baseline	0.569	4.342	0.000
Facebook-oriented	0.523	3.308	0.001
Advertiser-oriented	0.601	3.730	0.000

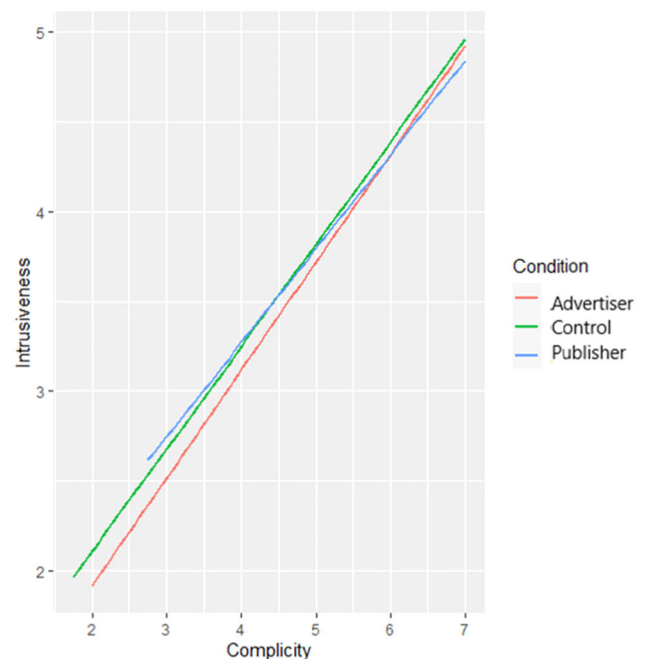


FIGURE 4 Effect of perceived ad complicity on intrusiveness level for different explanation types.

3.3.4 | Discussion

Study 3 aimed to investigate whether the information that the platform provided related to consumers' privacy ("Why am I seeing this ad?") affects consumers' ad complicity perception and perceived ad intrusiveness. The results revealed that explaining why consumers are seeing a specific ad does not change their ad complicity perception. Although such information has been found to increase OBA transparency (Kim et al., 2019), our results demonstrated that the "Why am I seeing this ad?" function might be an ineffective strategy for influencing perceived ad complicity and can fail to address the negative attitudes of consumers with high perceived ad complicity. Neither platform-oriented nor advertiser-oriented information changed perceived ad complicity. These findings indicate that perceived ad complicity can be a relatively stable consumer characteristic.

4 | GENERAL DISCUSSION

Prior research on the effect of OBA practices has examined consumers' responses to personalized ads in terms of the dynamics between consumers and brands (Goldfarb & Tucker, 2011; Van Doorn & Hoekstra, 2013; White et al., 2008), while disregarding the collaboration between brands and platforms (Varnali, 2021). In this study, we addressed this gap by investigating the role of consumers' perceived ad complicity in the process of targeting consumers with tailored ads. Accordingly, we conducted three online studies. We first assessed the effect of collected consumer data (private vs. nonprivate communication) on perceived ad intrusiveness, while delineating the moderating effect of perceived ad complicity (Study 1) and its consequences for the attitudes toward platform and brand. Furthermore, considering that this article is the first to conceptualize ad complicity and apply it as an important moderator in the OBA literature, we sought to shed light on the possible antecedents of this variable. Specifically, we investigated the potential dispositional (Study 2) and situational factors (Study 3) that could influence customers' ad complicity perception. Table 4 summarizes our obtained results.

In Study 1, we found that targeting consumers with personalized ads based on their private online communication is perceived as significantly more intrusive than targeting them based on nonprivate communication data. In addition, we found that perceived ad complicity moderates this relationship. Furthermore, perceived ad intrusiveness leads to a decrease in positive attitudes toward both brand and platform. Our adaptation of the ad complicity concept from communication literature (Oliver et al., 2019) contributes to the OBA literature by demonstrating that consumers' perceived ad complicity moderates the relationship between the data collection method and perceived ad intrusiveness (Study 1). The results of subsequent studies indicated that consumers with communal social values are inclined toward having stronger ad complicity perception than those with agentic traits (Study 2). Finally, we found that explaining to consumers why they are seeing a specific ad does not

TABLE 4 Summary of studies

	Hypotheses	Analytical results	Conclusion
Study 1	H1 Targeting consumers based on their private communication data leads to an increase in perceived ad intrusiveness.	$\beta = 1.147, p = 0.000$	Supported
	H2 Ad complicity moderates the relationship between the data collection method and intrusiveness.	$\beta = -0.273, p < 0.05$	Supported
	H3a Perceived ad intrusiveness increases negative attitudes toward platform and brand.	Platform: $\beta = -0.346, p = 0.000$ Brand: $\beta = -0.269, p = 0.000$	Supported
	H3b Attitude toward platform mediates the negative effect of perceived intrusiveness on attitude toward brand.	$\beta = 0.221, p = 0.000$	Supported
Study 2	H4 The more communal a person is, the stronger their ad complicity perception will be.	$\beta = 0.33, p = 0.000$	Supported
Study 3	H5 Perceived ad complicity will increase by providing information about why an ad is displayed.	$M_{\text{control}} = 5.64, SD = 1.35$, versus $M_{\text{platform}} = 5.66, SD = 1.18$, $p = 0.899$ $M_{\text{control}} = 5.64, SD = 1.35$, versus $M_{\text{platform}} = 5.77, SD = 1.14$, $p = 0.493$	Supported

affect their ad complicity perception, suggesting that perceived ad complicity is a relatively stable variable.

4.1 | Theoretical implications

We contribute to the OBA and consumer privacy literature in several ways. First, building on the CPM theory (Petronio, 2002), we examined how consumers' perception of the collaboration between an advertiser brand and a media platform shapes their responses to personalized ads and OBA practices (Varnali, 2021). More importantly, consumers with high perceived ad complicity view advertising as highly intrusive even if the targeting is based on non-private information, which is expected to be less intrusive than targeting based on private information. This finding contributes to the CPM literature by illustrating an important example of privacy turbulence (McNealy & Mullis, 2019), which occurs when consumers believe that a platform has violated their coordinated privacy boundaries through close collaboration with an advertiser brand. Furthermore, our findings contribute to the OBA literature by uncovering a novel moderating variable (perceived ad complicity), indicating that researchers should consider consumers' perception of a relationship between the brand and the platform to develop a better understanding of consumers' response to OBA practices. We utilized ad complicity perception as a new concept in OBA literature, which improves our understanding of consumers' perceived ad intrusiveness. We provided a conceptual and empirical starting point for researchers and practitioners to consider the role of consumers' perceptions about brand–platform relationships, which could improve the understanding and prediction of consumers' responses to being targeted with behavioral data.

Second, perceived ad complicity demonstrates that some consumers are highly sensitive to OBA practices even if they are not overly sensitive about the collected data. Building on the DPM, we studied two fundamental dimensions of personality to investigate the antecedents of ad complicity perception (Abele & Wojciszke, 2018). Accordingly, we found that communal social traits are positively correlated with ad complicity perception, while agentic traits do not influence perceived ad complicity. This finding contributes to both social traits literature, by identifying a consequence of communal social traits, and consumer privacy literature, by identifying an important factor in consumers' privacy considerations.

Third, we found that providing users with information as to why an ad is displayed to them does not affect their ad complicity perceptions, thereby indicating that perceived ad complicity does not simply change through such information. In particular, compared with a control condition, no difference in ad complicity perception emerged regardless of whether the information was oriented toward the brand or the platform. This result suggests that ad complicity perceptions are not instantaneously formed. Consumers may have preexisting notions about the depth and breadth of the relationship between a given brand and a platform, meaning that, to a considerable degree, perceived ad complicity might be a static

variable. Overall, we observed in our studies that consumers' ad complicity perceptions are predictable and stable, that is, the construct captures an enduring perception that is not easily influenced.

4.2 | Managerial implications

Social media advertising is considered to be a highly effective way to connect with potential consumers (Durante, 2021). However, the challenge is to reach consumers with relevant information to start a purchase process. The solution to the latter from the brand and platform perspective is to collect consumer information for purposes of targeting consumers with the right ads. From the consumer perspective, we also are only interested in relevant ads and do not want our social media feeds to be clogged with irrelevant messages (Van Doorn & Hoekstra, 2013). The solution to this is to allow our privacy to be breached by authorizing the platform to collect information about us and use it to adapt advertising content, thereby creating a paradoxical problem: We do not want to share information with unknown entities, yet we also want to see ads that interest us (Aguirre et al., 2015; Sutanto et al., 2013). This is an important balance that platforms and brands need to manage.

As a measurable construct, perceived ad complicity can contribute to the decision-making process to improve consumers' responses. The practical benefits of considering perceived ad complicity are twofold. First, brands can minimize the negative consequences associated with OBA by better understanding their customers' ad complicity perceptions, as indicated by the results of Study 1. Considering that consumers with high perceived ad complicity tend to view OBA as highly intrusive, managers would benefit from understanding ad complicity perception levels in their target market. This does not mean that platforms should covertly perform consumer surveillance activities to understand their ad complicity perceptions; rather, they can utilize the introduced measures to consult consumers directly. Second, managers should monitor the process that platforms use to identify the best targets and ensure that the platform is not generally associated with high levels of ad complicity. By doing so, brands can partially avoid the negative consequences of targeted ads. One solution to this is to include platform-related questions in the market research process or track users' opinions regarding different platforms on the internet.

Another potential solution to understanding consumers' ad complicity perception is to consider their communal traits when targeting them with relevant ads. As the results of Study 2 uncovered, personality traits (communal vs. agentic) can be an antecedent of perceived ad complicity. Thus, OBA is expected to feel less intrusive among less communal consumers. Therefore, in this context, not considering ad viewers' personalities is an ineffective strategy. The implications of this finding become even more consequential when considering that women tend to exhibit stronger communal social traits (Hall, 2011; Lippa, 2001; Locke, 2015; Locke & Heller, 2017). Therefore, demographic data

can serve as a nonprivacy-violating solution to predicting the communal traits of consumers and, consequently, their ad complicity perception.

Finally, platforms need to develop more effective ways to communicate with their users regarding the targeted ads. The results of Study 3 suggest that perceived ad complicity is a relatively stable factor in consumers' minds, implying that including privacy-related statements in platform agreements with consumers/users will not serve as a protective mechanism for brands and platforms. Platforms use the "Why am I seeing this ad?" feature to increase the transparency of the OBA process for consumers/users (Kim et al., 2019). However, our results indicate that, at least when it comes to ad complicity perception, the "Why am I seeing this ad?" tactic does not influence the psychological mechanisms that lead consumers to express negative responses to ads and, in turn, the associated brands. In the same vein, a recent study indicated that as little as 5.5% of consumers consent to the collection of their personal data, such as location information (de Matos & Adjerid, 2021). Consequently, considering the numerous data collection methods in use and the complex privacy agreements that consumers encounter daily, it seems technically impractical for consumers to be informed thoroughly and properly about how their data are being used (Libert, 2018). Therefore, platforms should consider more persuasive ways to influence consumers' perceptions that may lead to negative responses to behavioral ads. We propose that platforms communicate with their users through their social media feed and share informational content related to consumer privacy on their platforms. Additionally, and most importantly, we suggest that platforms acquire consumers' consent regarding the user data collection in a detailed manner.

4.3 | Limitations and future research

Despite our contributions to the literature, this study has several limitations that can be addressed through future research. First, although we are the first to utilize the perceived ad complicity concept and its measurement items in the consumer privacy context, we realize that more research is needed to further develop the construct and uncover different aspects of ad complicity perception. Second, although we assessed the influence of ad complicity perception in the OBA effectiveness process, other factors (e.g., communication quality, information sensitivity, and ad relevance) might still influence the OBA process and consumers' response to it (Bleier & Eisenbeiss, 2015a; Kim et al., 2019; Li & Yin, 2021; Lwin et al., 2016). Future studies can investigate the role of such factors to increase our understanding of the consumer–OBA relationship. Third, we identified communal social values as an antecedent of ad complicity perception, while acknowledging that other antecedent variables might also predict ad complicity perception. For example, it may depend on desire to control, conspiracy beliefs, and tech savviness (Diegues et al., 2015; Phelps et al., 2001; Spake et al., 2011). Accordingly, future research is

needed to study the variety of situations that can influence ad complicity perceptions. Fourth, as our results indicate, perceived ad complicity is relatively stable. For instance, information provided by the "Why am I seeing this ad?" feature cannot change it. Future research can further develop our findings by (I) identifying the mechanism(s) underlying this effect and (II) investigating other possible ways to influence consumers' ad complicity perception. Finally, we should note that, due to the scenario-based nature of the current study, the ecological validity of our findings can be improved using other methods of data collection.

DATA AVAILABILITY STATEMENT

We are happy to share the data if/when the paper is accepted.

ORCID

Tohid Ghanbarpour  <http://orcid.org/0000-0002-1704-9367>

Anders Gustafsson  <https://orcid.org/0000-0001-8278-1442>

REFERENCES

- Aaker, D. A., & Bruzzone, D. E. (1985). Causes of irritation in advertising. *Journal of Marketing*, 49(2), 47–57.
- Abele, A. E., & Bruckmüller, S. (2011). The bigger one of the "Big Two"? Preferential processing of communal information. *Journal of Experimental Social Psychology*, 47(5), 935–948.
- Abele, A. E., & Wojciszke, B. (2014). Communal and agentic content in social cognition. *Advances in experimental social psychology* 50, 195–255. <https://doi.org/10.1016/B978-0-12-800284-1.00004-7>
- Abele, A. E., & Wojciszke, B. (2018). *Agency and communion in social psychology*. Routledge.
- 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.
- Aloia, L. S. (2018). The emotional, behavioral, and cognitive experience of boundary turbulence. *Communication Studies*, 69(2), 180–195.
- Andrejevic, M. (2007). Surveillance in the digital enclosure. *The Communication Review*, 10(4), 295–317.
- Appel, G., Grewal, L., Hadi, R., & Stephen, A. T. (2020). The future of social media in marketing. *Journal of the Academy of Marketing Science*, 48(1), 79–95.
- Baek, T. H., & Morimoto, M. (2012). Stay away from me. *Journal of Advertising*, 41(1), 59–76.
- Bandyopadhyay, S. (2009). Antecedents and consequences of consumers online privacy concerns. *Journal of Business & Economics Research*, 7(3).
- Bellman, S., Murphy, J., Treleaven-Hassard, S., O'Farrell, J., Qiu, L., & Varan, D. (2013). Using internet behavior to deliver relevant television commercials. *Journal of Interactive Marketing*, 27(2), 130–140.
- Bergkvist, L., & Rossiter, J. R. (2007). The predictive validity of multiple-item versus single-item measures of the same constructs. *Journal of Marketing Research*, 44(2), 175–184.
- Bleier, A., & Eisenbeiss, M. (2015a). The importance of trust for personalized online advertising. *Journal of Retailing*, 91(3), 390–409.
- Bleier, A., & Eisenbeiss, M. (2015b). Personalized online advertising effectiveness: The interplay of what, when, and where. *Marketing Science*, 34(5), 669–688.
- Boerman, S. C., Kruijemeier, S., & Borgesius, F. J. Z. (2017). Online behavioral advertising: A literature review and research agenda. *Journal of Advertising*, 46(3), 363–376.

- Bright, L. F., Lim, H. S., & Logan, K. (2021). "Should I post or ghost?": Examining how privacy concerns impact social media engagement in US consumers. *Psychology & Marketing*, 38(10), 1712–1722.
- Cases, A.-S., Fournier, C., Dubois, P.-L., & Tanner, Jr., J. F. (2010). Web site spill over to email campaigns: The role of privacy, trust and shoppers' attitudes. *Journal of Business Research*, 63(9–10), 993–999.
- Chen, J., & Stallaert, J. (2014). An economic analysis of online advertising using behavioral targeting. *Mis Quarterly*, 38(2), 429–A427.
- Child, J. T., & Petronio, S. (2011). Unpacking the paradoxes of privacy in CMC relationships: The challenges of blogging and relational communication on the internet. In K. B. Wright, & L. M. Webb (Eds.), *Computer-mediated communication in personal relationships* (pp. 21–40). PeterLang.
- Dieguez, S., Wagner-Egger, P., & Gauvrit, N. (2015). Nothing happens by accident, or does it? A low prior for randomness does not explain belief in conspiracy theories. *Psychological Science*, 26(11), 1762–1770.
- Dinev, T., & Hart, P. (2004). Internet privacy concerns and their antecedents-measurement validity and a regression model. *Behaviour & Information Technology*, 23(6), 413–422.
- Dolnicar, S., & Jordaan, Y. (2007). A market-oriented approach to responsibly managing information privacy concerns in direct marketing. *Journal of Advertising*, 36(2), 123–149.
- Van Doorn, J., & Hoekstra, J. C. (2013). Customization of online advertising: The role of intrusiveness. *Marketing Letters*, 24(4), 339–351.
- Durante, J. (2021). Three reasons you should be advertising on social media in 2021. *Forbes*. Retrieved April 18, from <https://www.forbes.com/sites/forbesagencycouncil/2021/03/12/three-reasons-you-should-be-advertising-on-social-media-in-2021/?sh=419925d93f52>
- Edwards, S. M., Li, H., & Lee, J.-H. (2002). Forced exposure and psychological reactance: Antecedents and consequences of the perceived intrusiveness of pop-up ads. *Journal of Advertising*, 31(3), 83–95.
- Gironda, J. T., & Korgaonkar, P. K. (2018). iSpy? Tailored versus invasive ads and consumers' perceptions of personalized advertising. *Electronic Commerce Research and Applications*, 29, 64–77.
- GlobalWitness. (2021). Do people really want personalised ads online? GlobalWitness. Retrieved January 26, 2022, from <https://www.globalwitness.org/en/blog/do-people-really-want-personalised-ads-online/>
- de Matos, M. G., & Adjerid, I. (2021). Consumer consent and firm targeting after GDPR: The case of a large telecom provider. *Management Science*, 207–212.
- Goldfarb, A., & Tucker, C. (2011). Online display advertising: Targeting and obtrusiveness. *Marketing Science*, 30(3), 389–404.
- Ha, L., & McCann, K. (2008). An integrated model of advertising clutter in offline and online media. *International Journal of Advertising*, 27(4), 569–592.
- Hall, J. A. (2011). Sex differences in friendship expectations: A meta-analysis. *Journal of Social and Personal Relationships*, 28(6), 723–747.
- Ham, C.-D. (2017). Exploring how consumers cope with online behavioral advertising. *International Journal of Advertising*, 36(4), 632–658.
- Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Publications.
- Huang, G. (2019). Variation matters: How to curb ad intrusiveness for native advertising on Facebook, Twitter, and Instagram. *Internet Research*, 29(6), 1469–1484.
- 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.
- Junglas, I. A., Johnson, N. A., & Spitzmüller, C. (2008). Personality traits and concern for privacy: An empirical study in the context of location-based services. *European Journal of Information Systems*, 17(4), 387–402.
- Kim, T., Barasz, K., & John, L. K. (2019). Why am I seeing this ad? The effect of ad transparency on ad effectiveness. *Journal of Consumer Research*, 45(5), 906–932.
- Laufer, D., & Jung, J. M. (2010). Incorporating regulatory focus theory in product recall communications to increase compliance with a product recall. *Public Relations Review*, 36(2), 147–151.
- Li, B., & Yin, S. (2021). How perceived control affects advertising avoidance intention in a skippable advertising context: A moderated mediation model. *Chinese Journal of Communication*, 14(2), 157–175.
- Li, H., Edwards, S. M., & Lee, J.-H. (2002). Measuring the intrusiveness of advertisements: Scale development and validation. *Journal of Advertising*, 31(2), 37–47.
- Libert, T. (2018). *Track the planet: A web-scale analysis of how online behavioral advertising violates social norms*. The Annenberg School for Communication.
- Lippa, R. A. (2001). On deconstructing and reconstructing masculinity-femininity. *Journal of Research in Personality*, 35(2), 168–207.
- 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.
- Locke, K. D. (2015). Agentic and communal social motives. *Social and Personality Psychology Compass*, 9(10), 525–538.
- Locke, K. D., & Heller, S. (2017). Communal and agentic interpersonal and intergroup motives predict preferences for status versus power. *Personality and Social Psychology Bulletin*, 43(1), 71–86.
- Lwin, M. O., Wirtz, J., & Stanaland, A. J. (2016). The privacy dyad: Antecedents of promotion-and prevention-focused online privacy behaviors and the mediating role of trust and privacy concern. *Internet Research*, 919–941.
- MacKenzie, S. B., & Lutz, R. J. (1989). An empirical examination of the structural antecedents of attitude toward the ad in an advertising pretesting context. *Journal of Marketing*, 53(2), 48–65.
- Malhotra, N. K., Kim, S. S., & Agarwal, J. (2004). Internet users' information privacy concerns (IUIPC): The construct, the scale, and a causal model. *Information Systems Research*, 15(4), 336–355.
- Martin, K. (2015). Privacy notices as tabula rasa: An empirical investigation into how complying with a privacy notice is related to meeting privacy expectations online. *Journal of Public Policy & Marketing*, 34(2), 210–227.
- Maseeh, H. I., Jebarajakirthy, C., Pentecost, R., Arli, D., Weaven, S., & Ashaduzzaman, M. (2021). Privacy concerns in e-commerce: A multilevel meta-analysis. *Psychology & Marketing*, 38(10), 1779–1798.
- McDaniel, S. H., Morse, D. S., Edwardsen, E. A., Taupin, A., Gurnsey, M. G., Griggs, J. J., Shields, C. G., & Reis, S. (2021). Empathy and boundary turbulence in cancer communication. *Patient Education and Counseling*, 104(12), 2944–2951.
- McNealy, J., & Mullis, M. D. (2019). Tea and turbulence: Communication privacy management theory and online celebrity gossip forums. *Computers in Human Behavior*, 92, 110–118.
- Mooradian, T. A. (1996). Personality and ad-evoked feelings: The case for extraversion and neuroticism. *Journal of the Academy of Marketing Science*, 24(2), 99–109.
- 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.
- Nesse, R. M. (2005). Natural selection and the regulation of defenses: A signal detection analysis of the smoke detector principle. *Evolution and Human Behavior*, 26(1), 88–105.
- Oliver, M., Shade, D., Bailey, E., Ferchaud, A., & Cohen, J. (2015). *A merry band of thieves: Media-induced complicity with anti-heroes*. Annual Conference of the International Communication Association, San Juan, Puerto Rico.

- Oliver, M. B., Bilandzic, H., Cohen, J., Ferchaud, A., Shade, D. D., Bailey, E. J., & Yang, C. (2019). A penchant for the immoral: Implications of parasocial interaction, perceived complicity, and identification on liking of anti-heroes. *Human Communication Research, 45*(2), 169–201.
- Ozcelik, A. B., & Varnali, K. (2019). Effectiveness of online behavioral targeting: A psychological perspective. *Electronic Commerce Research and Applications, 33*, 100819.
- Palos-Sanchez, P., Saura, J. R., & Martin-Velicia, F. (2019). A study of the effects of programmatic advertising on users' concerns about privacy overtime. *Journal of Business Research, 96*, 61–72.
- Pavlou, P., Liang, H., & Xue, Y. (2006). Understanding and mitigating uncertainty in online environments: A programme manager-agent perspective. *Mis Quarterly, 31*(1), 105–136.
- Petronio, S. (2002). *Boundaries of privacy: Dialectics of disclosure*. Suny Press.
- Petronio, S. (2013). Brief status report on communication privacy management theory. *Journal of Family Communication, 13*(1), 6–14.
- Petronio, S., & Child, J. T. (2020). Conceptualization and operationalization: Utility of communication privacy management theory. *Current opinion in psychology, 31*, 76–82.
- Phelps, J., Nowak, G., & Ferrell, E. (2000). Privacy concerns and consumer willingness to provide personal information. *Journal of Public Policy & Marketing, 19*(1), 27–41.
- Phelps, J. E., D'Souza, G., & Nowak, G. J. (2001). Antecedents and consequences of consumer privacy concerns: An empirical investigation. *Journal of Interactive Marketing, 15*(4), 2–17.
- Plangger, K., & Montecchi, M. (2020). Thinking beyond privacy calculus: Investigating reactions to customer surveillance. *Journal of Interactive Marketing, 50*, 32–44.
- Plangger, K., & Watson, R. T. (2015). Balancing customer privacy, secrets, and surveillance: Insights and management. *Business Horizons, 58*(6), 625–633.
- Slovic, P. (1987). Perception of risk. *Science, 236*(4799), 280–285.
- 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.
- Song, Y. W., Lim, H. S., & Oh, J. (2021). "We think you May like this": An investigation of electronic commerce personalization for privacy-conscious consumers. *Psychology & Marketing, 38*(10), 1723–1740.
- Spake, D. F., Finney, R. Z., & Joseph, M. (2011). Experience, comfort, and privacy concerns: Antecedents of online spending. *Journal of Research in Interactive Marketing, 5*, 5–28.
- Sutanto, J., Palme, E., Tan, C. -H., & Phang, C. W. (2013). Addressing the personalization-privacy paradox: an empirical assessment from a field experiment on smartphone users. *Mis Quarterly, 37*(4), 1141–1164.
- 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.
- Taylor, J. F., Ferguson, J., & Ellen, P. S. (2015). From trait to state: Understanding privacy concerns. *Journal of Consumer Marketing, 32*(2), 99–112.
- Trapnell, P. D., & Paulhus, D. L. (2012). Agentic and communal values: Their scope and measurement. *Journal of Personality Assessment, 94*(1), 39–52.
- Tsang, M. M., Ho, S. -C., & Liang, T. -P. (2004). Consumer attitudes toward mobile advertising: An empirical study. *International Journal of Electronic Commerce, 8*(3), 65–78.
- Tucker, C. E. (2014). Social networks, personalized advertising, and privacy controls. *Journal of Marketing Research, 51*(5), 546–562.
- Turow, J., Hennessy, M., & Bleakley, A. (2008). Consumers' understanding of privacy rules in the marketplace. *Journal of Consumer Affairs, 42*(3), 411–424.
- Varnali, K. (2021). Online behavioral advertising: an integrative review. *Journal of Marketing Communications, 27*(1), 93–114.
- White, T. B., Zahay, D. L., Thorbjørnsen, H., & Shavitt, S. (2008). Getting too personal: reactance to highly personalized email solicitations. *Marketing Letters, 19*(1), 39–50.
- Wojciszke, B., Baryla, W., Parzuchowski, M., Szymkow, A., & Abele, A. E. (2011). Self-esteem is dominated by agentic over communal information. *European Journal of Social Psychology, 41*(5), 617–627.
- Ybarra, O., Chan, E., & Park, D. (2001). Young and old adults' concerns about morality and competence. *Motivation and Emotion, 25*(2), 85–100.
- Borgesius, F. Z. (2015). Improving privacy protection in the area of behavioural targeting. Available at SSRN 2654213. <https://ssrn.com/abstract=2654213>

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APPENDIX A


Table A1

TABLE A1 Table of measures

Variables	Items	Study	Source
Perceived ad intrusiveness	<ol style="list-style-type: none"> 1. I think this offer is disturbing. 2. I think this offer is alarming. 3. This offer gives me an uneasy feeling. 4. This offer gives me an unsafe feeling. 5. I think this offer is obtrusive. 6. I think this offer is irritating. 7. I think this offer is annoying. 8. I think this offer is uncomfortable. 9. I think it is uncomfortable that personal information is used in this offer. 	Studies 1, 2, and 3: $\alpha = 0.97, 0.96,$ and $0.94,$ respectively	Edwards et al. (2002); Mooradian (1996)
Brand attitude	Please evaluate your feelings toward CobberBike as a brand. Please evaluate your feelings toward Facebook.	Studies 1, 2, and 3	MacKenzie and Lutz (1989)
Perceived ad complicity	<ol style="list-style-type: none"> 1. CobberBike is aware of the means by which Facebook collects my information for advertising purposes. 2. CobberBike collects my information via Facebook. 3. CobberBike has asked Facebook to monitor my online activity to target me as a potential customer. 	Studies 1, 2, and 3: $\alpha = 0.77, 0.76,$ and $0.81,$ respectively	Oliver et al. (2019)
Agentic and communal social traits	<p>Please indicate the importance of each of the below values to yourself.</p> <ol style="list-style-type: none"> 1. COMPETENCE (displaying mastery, being capable, effective). 2. ACHIEVEMENT (reaching lofty goals). 3. POWER (control over others, dominance). 4. STATUS (high rank, wide respect). 5. RECOGNITION (becoming notable, famous, or admired). 6. SUPERIORITY (defeating the competition, standing on top). 7. FORGIVENESS (pardoning others' faults, being merciful). 8. ALTRUISM (helping others in need). 9. LOYALTY (being faithful to friends, family, and group). 10. HONESTY (being genuine, sincere). 11. COMPASSION (caring for others, displaying kindness). 12. CIVILITY (being considerate and respectful toward others) 	Study 2; Items 1–6 measure agentic traits, and Items 7–12 measure communal traits; agentic: $\alpha = 0.83;$ communal: $\alpha = 0.83$	Trapnell and Paulhus (2012)

APPENDIX B

Bicycle ad used in Studies 1–3



CobberBike™ has introduced a new model!

Our new bike offers:

- Full-day battery-life
- A new clean design
- Adjustable to your size
- Comfortable seat
- Light-weight

Always enjoy a smooth ride using the new Easy Gear Mechanism and safe internal brakes. The brand-new internal lock mechanism will make it easier for you to lock your bike as well.

APPENDIX C

Explanations for "Why am I seeing this ad?" in Study 3

(a) Platform-oriented explanation

Why You're Seeing This Ad

🔒 Only you can see this

You're seeing this ad because your information matches CobberBike's advertising requests. There could also be more factors not listed here. [Learn More](#)


-  CobberBike is trying to reach people Facebook thinks are interested in bicycle. >
-  CobberBike is trying to reach people whose primary location is US. >
-  CobberBike is trying to reach people, ages 18 to 70. >

(b) Advertiser-oriented explanation

Why You're Seeing This Ad

🔒 Only you can see this

You're seeing this ad because your information matches CobberBike's advertising requests. There could also be more factors not listed here. [Learn More](#)

-  CobberBike wants to reach people who may be similar to their customers. >
-  CobberBike is trying to reach people whose primary location is US. >
-  CobberBike is trying to reach people, ages 18 to 70. >