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ONLINE BEHAVIORAL ADVERTISING (OBA): THE INFLUENCE OF

RECIPROCITY, PERSONALIZATION, AND AD CONTENT TYPE ON

CONSUMERS' ATTITUDE AND INTENTION

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ONLINE BEHAVIORAL ADVERTISING (OBA): THE INFLUENCE OF
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A DISSERTATION APPROVED FOR THE
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To my parents:

Nurun Nahar Sirajee

And

Shohidur Rahman

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Abstract

This research explores the role of reciprocity, personalization, and ad content type of OBA on participants' attitudes toward the OBA, attitudes toward the brand, intentions to click the ad, and intentions to purchase the advertised product. Guided by recent research on OBA, the current study intends to address some key areas of the phenomenon that need more clarification and advancement. The Social Exchange Theory (SET) and the Privacy Calculus Model are used as the theoretical foundations, which were not explored in the OBA research in the past.

Two 2 (reciprocity: reciprocal vs. non-reciprocal) X 2 (personalization: personalized vs. generic) X 2 (ad content type: verbal vs. visual) experiments were conducted to investigate the predicted hypotheses and research questions. Both studies utilized scenario-based online experiments. A fictitious brand "ArtCell" was used for Study 1 used whereas, a real brand "iPhone X" was used for Study 2 to design the stimulus materials. This research unveiled important insights that contribute to the theory and practice of OBA, and overall online advertising. Both Study 1 and 2 found similar results for most of the predicted relationships yet, there are distinctions.

Study 1 found no strong support for the influence OBA message reciprocity on participants' attitudes and intentions. None of the main effect hypotheses was supported. The interactions between reciprocity and OBA content type were approached to significance. Combinedly, these results suggest that participants could not establish a reciprocal relationship with the fictitious brand. Therefore, the reciprocal nature of the SET did not work in this case. In other words, it is evident that it is hard for a new or

unknown brand to establish a reciprocal relationship with consumer despite offering a generous discount (i.e., instant discount) in the OBA context.

However, in Study 2, message reciprocity significantly influenced participants' attitudes toward the OBA (H1a), and intentions to click the ad (H1c). Moreover, there was a significant interaction effect between OBA reciprocity, and ad content type on attitudes toward the brand. Participants who watched the reciprocal and visual ad, reported more favorable attitudes toward the brand. These findings confirm that participants could establish a reciprocal relationship with iPhone X, which is a well-known brand in the U.S. Such relationships are derived because of participants' trust and expectation toward the brand. The current study found some intriguing insights into OBA scholarship and practice. It advances the existing knowledge of OBA and online advertising. It is also the first attempt to explore the research problem from a social exchange perspective. It is expected that the findings from this research will contribute to the study of advertising and enlighten further avenues for research. Practical implications and limitations are discussed.

Chapter 1: Introduction

Digital advertising spending in the United States has been growing progressively in the past years with a total revenue of $40.1 billion in the first six months of 2017 alone (Interactive Advertising Bureau, 2017), and an estimated total revenue of $83 billion for the whole of 2017 (Johnson, 2017). The spending is expected to surpass $113 billion by the year of 2020 (Liu, 2016). Approximately 48% of those advertising dollars go to the "search" format digital advertising (Interactive Advertising Bureau, 2017). With such prospect in digital media, advertisers are focusing more on data-driven personalized advertising strategies (Boerman, Kruikemeier, & Borgesius, 2017). In general, these strategies rely heavily on potential consumers' online activities (e.g., search behavior, purchase behavior, social media activities) to harvest vast data and provide personalized advertising to those potential consumers.

One of the newest forms of digital media advertising is called Online Behavioral Advertising (OBA). Advertisers track users' online activities including sites visited, social media used, videos watched, search engines used, and products purchased and then serve users with ads of the exact same products or services afterwards wherever they visit online (Boerman et al., 2017). Because of such behavioral targeting nature, it is called OBA. Scholars and practitioners see OBA as the future of targeted advertising and claim that OBA plays a major role in the growth of digital media advertising (Boerman et al., 2017; Chen & Stallaert, 2014; Interactive Advertising Bureau, 2016). Experts further argue that OBA produces more

personalized ads for consumers and enhances advertising efficiency (Boerman et al., 2017).

Not only practitioners but also scholars argue in favor of OBA by mentioning that online ads are going to be more personalized, targeted, and precise in the coming days, and advertisers will be able to communicate individually with consumers based on their behavior (Keller, 2016; Kumar & Gupta, 2016; Rust, 2016; Schultz, 2016). Thus, OBA gains important attention from both academia and the industry (Boerman et al., 2017).

Despite the promise OBA brings to the industry, the phenomenon is raising concerns among regulators and consumers. OBA requires collecting enormous amounts of consumer data and using that data to serve precise ads to the targeted users. Therefore, consumers and regulators raise privacy concerns about OBA. Another important issue is the fact that OBA lacks clear definition and understanding among stakeholders even though it is growing its presence in the advertising industry (Boerman et al., 2017). Because of such ambiguity, OBA sends an inaccurate impression about advertisers to consumers (Boerman et al., 2017).

From a research perspective, it has been found that scholars explored different aspects of OBA (e.g., independent variables, moderating variables, mediating variables, outcome variables) "without a clear accumulation of knowledge" (Boerman et al., 2017, p. 364) of the field. Boerman et al. (2017) argue that such issues emerge because of the interdisciplinary nature of the field. Another problem is that OBA is often confused with other types of targeted ads. Experts and scholars claimed that even though OBA shares some features with other targeted and personalized ads, it is

unique in nature since it collects and uses more personally relevant and precise

consumer data, thus making it more than personalized that regular targeted ads (Bang

& Wojdynski, 2016; Boerman et al., 2017; Ketelaar et al., 2017). Furthermore, much

of such behavioral data collection happens without consumers' knowledge or explicit

permission (e.g., Ham & Nelson, 2016; Nill & Aalberts 2014). As described by

Boerman et al. (2017), "this covertness may be harmful and unethical, as consumers

are unaware of the persuasion mechanisms that entail OBA; it has led to a call for

transparency" (p. 364).

These issues suggest that more research is needed to understand the

mechanism of OBA. Specifically, it is suggested that more work is needed to address

consumers' privacy concerns (Boerman et al., 2017), understanding and attitude

(Bleier & Eisenbeiss, 2015) and implication for advertisers (Boerman et al., 2017).

Since OBA is considered the future of advertising (Schultz, 2016), it is important to

address such privacy concerns and study how that might impact consumers' attitude

and decision-making process. As Boerman et al. (2017) claim, "current transparency

approaches are not very effective in increasing understanding. Consumers who do not

understand how data are used for OBA cannot make meaningful privacy decisions"

(p. 374).

Grounded in these issues, the current study aims to shed some light on the

understanding of consumers' privacy concern and attitude toward OBA. This research

will address the specific issues related to the dilemmas consumers face when they deal

with the privacy concerns caused by OBA which is often called the "privacy paradox"

(Norberg, Horne, & Horne, 2007; Yap, Beverland, & Bove, 2009). This concept stems

from the idea that individuals do little or nothing to protect their private information, though they know the online environment threatens their privacy (Norberg et al., 2007). Scholars suggest that consumers consider an exchange factor when they engage in such privacy concern and may weigh the difference between gain and loss during marketing transactions (Norberg et al., 2007). In simple words, if consumers see that the possible benefit in a marketing transaction is more than the possible risk, they are more likely to provide their personal information to the marketer. This phenomenon is often explained by the theory of social exchange and the Privacy Calculus Model (Dinev & Hart, 2006; Laufer & Wolfe, 1977).

The current study uses the theory of social exchange and the Privacy Calculus Model as the research base. The main premise of the social exchange theory (SET) is that in a two-way social exchange situation, both parties consider the cost of engaging in the relationship and try to maximize their benefits the exchange relationship provides (Emerson, 1976; Shiau & Luo, 2012). The reciprocity rules are crucial for the SET (Cropanzano & Mitchell, 2005). The transactional reciprocity is an important one that was explored in several research studies (Cropanzano & Mitchell, 2005). The basic idea of this rule is that transactional reciprocity must be bidirectional where both parties are giving something to each other in exchange for something else. Moreover, when parties are involved in a social exchange relationship, it helps to create a strong relationship, and generate favorable behavioral and attitudinal outcomes (Cropanzano & Mitchell, 2005). It is also important to mention that the SET can the relationships between advertisers and marketers in the OBA context because this study argues that

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consumers evaluate OBA both emotionally and rationally. These are two major

features of the theory (Chou & Hsu, 2016).

The Privacy Calculus Model argues that individuals will disclose their

personal information online only if the perceived benefit of sharing such information

is equal to or greater than the risk of information disclosure (Culnan & Bies, 2003). In

other words, individuals evaluate the cost vs. benefit of information sharing before

making a decision about an exchange (Dinev & Hart, 2006). Culnan and Bies (2003)

further argued that the Privacy Calculus Model is based on the SET framework where

consumers evaluate the cost vs. benefit (reciprocity) of the transaction by performing

two types of exchanges: the monetary transaction to acquire a product or service, and

the non-monetary transaction of personal information in return for better quality

products and more tailored offers (Culnan & Bies, 2003).

As scholars suggest exploring more in the domain of OBA (Boerman et al.,

2017), this research is focused on some specific issues (i.e., influence of OBAs

reciprocity, personalization, and content type on consumers' attitudes and intentions)

of this area. A literature review of OBA studies conducted by Boerman et al. (2017)

shows that the conceptual positioning of OBA research can be divided into three

parts: advertiser-controlled factors, consumer-controlled factors, and outcomes. The

authors further described the research conducted in the field so far and argued that

(Boerman et al., 2017):

> OBA demonstrates that the field is fragmented and lacks a solid theoretical
> basis. To advance the literature on OBA, it is important to develop more
> conceptual coherence between the different theoretical ideas that focus on the
> roles of the advertiser and consumer variables in explaining consumer
> responses. (p. 371)

For example, they argued that most OBA studies to date are focused only on a few specific moderating and mediating variables (e.g., privacy concern, perceived intrusiveness, perceived usefulness, perceived risk, and ad skepticism). However, it is suggested that connecting multiple conceptual approaches and combining several mediating and moderating variables would be helpful to understand media effects of OBA (Valkenburg & Peter, 2003). Thus, Boerman et al. (2017) advised scholars to explore more integrative research on OBA, combining multiple factors that would affect the use of OBA and possible media effects generating from those ads.

Guided by such propositions, the current study aims to explore the role of some specific advertiser-controlled and mediating variables on consumers' behavioral outcomes of OBA that require further investigation. Specifically, the purpose of this research is to explore the role of reciprocity, personalization, and ad content type on attitudes toward the OBA, attitudes toward the brand, intention to click the ad, and intention to purchase the advertised product. Moreover, the study also explores the mediating influence of perceived intrusiveness, perceived privacy concerns, and reactance on consumers' attitude and behavioral intention. It is posited that this study is necessary and timely since privacy is consumers' biggest concern when it comes to personalized advertising (McDonald & Cranor, 2010; Smit, Van Noort, & Voorveld, 2014; Turow, Carpini, Draper, & Howard-Williams, 2009; Ur, Leon, Cranor, Shay, & Wang, 2012). Moreover, despite such privacy concerns, consumers' actual behavior is, in many cases, opposite to their attitude (i.e., negative) toward OBA. This suggests the existence of a privacy paradox (Boerman et al., 2017). Therefore, more research

should be conducted to understand the factors that influence consumers' OBA attitude and behavioral intention.

To address such issues, the first factor that this study introduces is the concept of "reciprocity" in the context of the OBA and how that impacts consumers' attitude and intention. As described by Schumann et al., (2014), reciprocity is a social norm that shows people's desire to return for something in exchange for something received. This concept is directly related to the Social Exchange Theory and Privacy Calculus Model because when the benefits received from an exchange are higher than the perceived cost (e.g., giving up personal information), the exchange becomes more attractive to users (Schumann et al., 2014). In the online advertisement, "the more advertising users see and the higher the impediment costs, the fewer users may feel obliged to participate in the exchange by completing a predictive behavioral targeting survey or providing personal data" (Schumann et al., 2014, p. 65). For example, we can argue that Facebook serves many ads and thus, users do not have to pay membership fees. However, we can hypothesize that if Facebook wants to charge a membership fee for its users and still serves those ads, they would see a drastic decrease in user numbers. It can be posited because users would analyze the cost vs. benefits from their Facebook exchange (i.e., getting free service vs. paid membership). Similarly, if OBAs offer something (e.g., "we offer you a 15% discount for watching/clicking this ad") to the audience in exchange for the exposure to their ads, that is likely to gain a more positive attitude from the audience than getting nothing from the ad. Research supports this notion since scholars report that reciprocity increases acceptance of targeted ads among users (Schumann et al., 2014).

Thus, consumers will feel less privacy concern from OBA in case of reciprocal conditions than non-reciprocal conditions.

OBA research further reports that "personalization" influences both consumer-related factors (e.g., perceived intrusiveness, perceived privacy concern) and behavioral outcomes (e.g., intention and attitude toward the ad and the brand) (Boerman et al., 2017). Multiple studies manipulated different levels of personalization (e.g., high vs. low) and found different effects on such consumer-related and behavioral outcomes (e.g., Aguirre, Mahr, Grewal, De Ruyter, & Wetzels, 2015; Bleier, & Eisenbeiss, 2015; Tucker, 2014; Van Doorn & Hoekstra, 2013). Personalized advertising can be defined as marketers' strategy to offer highly relevant advertising to individuals in a given time (Aguirre et al., 2015). Personalization is used in both offline and online environments. However, marketers heavily use this strategy in the digital media and social media environments (Aguirre et al., 2015; Shen & Ball, 2009). The key benefit of using personalized ads is that consumers can reduce efforts needed to shop when they are served with such ads and thus, they can easily make online shopping decisions (Montgomery & Smith, 2009). Personalization can also help positively influence consumers' purchase intention (Van Doorn & Hoekstra, 2013).

However, with the increment of personalization in the ads (i.e., by collecting more personal information) consumers feel negative toward the ads and it also decreases behavioral intention to purchase (Aguirre et al., 2015; Van Doorn & Hoekstra, 2013). This happens because consumers feel that more personalized ads are more intrusive to their lives (Aguirre et al., 2015; Van Doorn & Hoekstra, 2013).

Therefore, existing research shows that the level of personalization influences behavioral outcomes among consumers (Boerman et al., 2017). In line with the existing research (Aguirre et al., 2015; Bleier, & Eisenbeiss, 2015), the current study also predicts that the presence of personalization in OBA will have negative influence on consumers' attitude and behavioral outcome. Furthermore, this research explores the influence of personalization in OBA considering the Social Exchange Theory. In other words, this research wants to see how OBA's brand familiarity and reciprocity interact with levels of intrusiveness on consumers' attitudes and behavioral intentions.

The current study also investigates how content type of OBA influences consumers' attitudes and intention. In this study, two content types (verbal and visual) are explored. Previous research indicated that both verbal and visual content can impact consumers' attitudes and intentions (e.g., Mitchell & Olson, 1981; Mitchell, 1986; Rossiter & Percy, 1980). Research further indicates that visual content of advertising can be more powerful in influencing consumers' attitude, intention, and product belief (Mitchell, 1986). Scholars further report that individuals better recall the visual components of advertising since visuals are more available and accessible (Childers, Heckler, & Houston, 1986). Therefore, the current study also explores if such findings are valid in the case of OBA.

As indicated by the existing research, the current study also explores the mediating influence of perceived intrusiveness, perceived privacy concerns, reactance to consumers' attitudes and behavioral intentions (e.g., Aguirre et al., 2015; Bleier, & Eisenbeiss, 2015; Boerman et al., 2017; Tucker, 2014; Van Doorn & Hoekstra, 2013). Intrusiveness is defined as "a psychological reaction to ads that interfere with a

consumer's ongoing cognitive processing" (Li, Edwards, & Lee, 2002, p. 39).

Scholars argued that a high level of personalization affects consumers' cognitive

abilities by interrupting their message processing and therefore, induce intrusive

feelings (Li et al., 2002). Thus, despite having benefits, highly personalized ads can

eventually bring feelings of invasiveness, and negative influence toward consumers'

attitude and intention (Van Doorn & Hoekstra, 2013). Scholars further report that

when consumers deem the ad content "valuable," they find the ads less intrusive

(Zhao, Yang, Xie, & Wang, 2017). Research further indicated that hedonic brand-

related attributes such as brand love, consumer satisfaction, and brand passion could

lead consumers to experience the ad as less intrusive (Zhao et al., 2017). Similarly,

the current study predicts that different levels of reciprocity, personalization, and ad

content type will have different effects on consumers' attitude and intention, mediated

by perceived intrusiveness of the advertising.

Likewise, perceived privacy concerns can negatively influence consumers'

attitude and behavioral intention in the online marketplace (e.g., Culnan & Bies, 2003;

Dinev, & Hart, 2006; Sutanto, Palme, Tan, & Phang, 2013). Moreover, privacy

concerns were found to reduce effectiveness of advertising messages (Goldfarb &

Tucker, 2011), and, in turn, consumers show less intention to purchase (Van Doorn &

Hoekstra, 2013). According to Baek and Morimoto (2012), in the advertising setting,

a privacy concern is defined as "the degree to which a consumer is worried about the

potential invasion of the right to prevent the disclosure of personal information to

others" (p. 63). Scholars further reported that individuals who are less concerned

about their privacy tend to show a more positive attitude toward the ad (e.g., Baek & Morimoto 2012; Smit, et al., 2014).

Other factors such as trust, and emotional factors can also influence consumers' privacy concerns (Phelan, Lampe, & Resnick, 2016). The authors further report that people may see one online site as more trustworthy than another if the former is more well-known to them. However, there are some contradictions to these findings. Phelan et al. (2016) claimed, people's privacy concerns and actual behavior do not always match. For example, even though people talk a lot about how much they are concerned about their online privacy, they take little or no action to safeguard their data online. Similarly, the world-wide e-commerce market is rapidly growing despite rising privacy concerns from consumers (Dinev, & Hart, 2006). Therefore, we know the paradox is there, and yet we know very little about cause of such contradictions. With the fast popularity of OBA among marketers, it is expected that consumers' privacy concern will also increase. Therefore, the current study predicts that perceived privacy concerns would also mediate the influence of reciprocity, personalization, and ad content type on consumers' attitude and intention.

Next, the current study explores the mediating role of reactance on consumers' attitudes and intentions as scholars suggest (Boerman et al., 2017). The key assumption of the psychological reactance theory (PRT) is that when a persuasive message (e.g., advertising), threatens an individual's freedom, he/she tries to regain his/her freedom by taking some action that may work against the persuasive message (Brehm, 1966; Brehm & Brehm, 1981). In other words, if people feel a message is threatening their freedom, they can do the complete opposite of what the message

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suggests in attempts to regain their freedom. This is often called the boomerang effect. In the OBA context, personalized ads may lead to a higher level of threatened freedom, which could result in the audience rejecting the message (Edwards, Li, & Lee, 2002). As Boerman et al. (2017) argued, "highly personalized ads lead people to perceive a loss of choice, control, or ownership, and thus cause negative feelings and responses" (p. 367). Though consumers find personalized ads are "useful," they do find it "creepy" at some point, which can lead to reactance (Bleier, & Eisenbeiss, 2015; Van Noort et al., 2014). Therefore, more research is needed to unveil the role reactance plays in shaping consumers' attitudes and behavioral intentions in the OBA context.

In summary, guided by the Social Exchange Theory and Privacy Calculus Model, the current study addresses the following questions: how do reciprocity, personalization, and ad content type influence consumers' attitudes and behavioral intentions the OBA context? How do perceived intrusiveness, perceived privacy concern, and reactance mediate such influence? The findings of this study would advance the knowledge of the OBA, which is considered the future of advertising. Furthermore, this study would contribute to the scholarship of the Social Exchange Theory by exploring the critical issue of "privacy paradox" in the digital advertising field.

Chapter 2: Theoretical Background and Concept Explications

Considering the bright prospect of OBA in the future, it is obvious that advertisers and marketers will invest heavily in this strategy (Schultz, 2016). However, some issues need to be addressed to get a clear understanding of this approach and make it more transparent to consumers and regulators. As mentioned earlier, the biggest concern OBA raises is privacy (McDonald & Cranor, 2010; Smit et al., 2014; Turow et al., 2009). It is no secret that OBA uses large amounts of personal data to learn more about potential consumers. It promises to make closer connections with consumers in the future (Keller, 2016; Kumar & Gupta, 2016; Rust, 2016; Schultz, 2016). Nevertheless, both consumers and advertising regulators see such data collection approaches negatively.

Scholars further state that the existing privacy standards of OBA are not clear enough to give consumers a proper understanding of the phenomenon (Boerman et al., 2017). In fact, the current standards of OBA can give consumers misleading impressions about the industry (Boerman et al., 2017). Yet, on the flip side, consumers are giving up more information online than ever before despite privacy concerns. The current market data suggest that consumers are providing more information with advertisers investing more in OBA (eMarketer, 2017). Therefore, the "privacy paradox" exists in the OBA marketplace.

Furthermore, scholars claim that OBA research is still in its infancy, it lacks a clear definition, and often, research is conducted without a clear goal. As a result, it generates no useful knowledge of the field (Boerman et al., 2017). The existing research is also scattered in nature and fails to address the privacy paradox. Also,

existing research does very little to distinguish OBA from other personalized advertising. Therefore, consumers get an inaccurate impression about this strategy (Boerman et al., 2017). It is likely that this lack of understanding of the field will harm the industry's growth. In addition, Boerman et al. (2017) stress that research should focus more on specific roles of consumer-controlled, marketer-controlled, and mediating and moderating variables on the outcomes of OBA. Hence, there is a need to conduct more OBA research to address those issues.

Therefore, the purpose of this current study is to understand the roles of reciprocity, personalization, and ad content type in shaping consumers' attitudes toward the OBA content, attitudes toward the brand, intention to click the ad, and intention to purchase the advertised product. Additionally, the current research also seeks to explore the mediating role of perceived intrusiveness, perceived privacy concerns, and reactance. These variables are deemed important to study since the existing avenue of research suggests that these would help to understand the existence and mechanism of the privacy paradox in the OBA context (e.g., Aguirre et al., 2015; Bleier, & Eisenbeiss, 2015; Boerman et al., 2017; 2013; Schumann et al., 2014; Shoenberger, 2014; Shoenberger & Thorson, 2014; Tucker, 2014; Van Doorn & Hoekstra). The current study uses the Social Exchange Theory and the Privacy Calculus Model as its foundation. In the following sections, the theories and relevant research are discussed first. Then, the research explores the relevant literature that addresses the role of the theories in exploring the current research agenda.

OBA and Digital Media

OBA is considered the future of advertising (Keller 2016; Kumar & Gupta 2016; Schultz, 2016). Research shows that digital media advertising spending is replacing traditional print media advertising, and it will continue to grow in the future (eMarketer, 2017; Kumar & Gupta, 2016). The Interactive Advertising Bureau (IAB) (n.d.) defines OBA as follows:

> Online behavioral advertising—sometimes called "interest-based advertising"—is the practice of collecting data from a particular computer or device regarding Internet-viewing behavior over time and across non-affiliate websites for the purpose of inferring user preferences or interests to later deliver advertising to that computer or device based on those inferred preferences or interests. (p. 1)

However, Boerman et al. (2017) argued that scholars have used different terms to define OBA in the past, and there is a lack of consistency in those definitions. However, these definitions have two key aspects in common: 1) tracking consumers' online behavior, and 2) using that data to create personally tailored ads (Boerman et al., 2017). Based on those features, the authors presented another definition of OBA: "the practice of monitoring people's online behavior and using the collected information to show people individually targeted advertisements" (p. 364).

The main information used in OBA includes consumers' web browsing history, time spent on websites, click-through behavior, recency of the visit, IP address, geolocation, and the overall interaction with the site (Kissmetrics Blog, n.d.). This data is then used to tailor messages for individual consumers and serve those in the websites they visit afterward. Such targeting occurs in traditional web-based media, news media, and social media networks.

Despite its success in digital media, OBA received much criticism from both consumers and regulators (Smit et al., 2014). The concern is rising because OBA requires media and advertisers to collect a lot of personal, and in many cases, sensitive information about consumers. Thus, regulators are concerned about consumers' data privacy (Smit et al., 2014). Since there is a vagueness in the industry about how such private data is stored, shared, and used in practice, scholars warn that such secrecy may hurt the growth of OBA in the future (Ham & Nelson, 2016). Because of such privacy concerns, advertising regulators have established some self-regulatory guidelines to make the practice fair and understandable to consumers, and to bring all OBA efforts under one umbrella (Cranor, 2012).

Nevertheless, consumers' actual knowledge about OBA is limited. Cranor (2012) conducted some user studies to explore consumers' perceptions of OBA. They found that most participants did not know what the OBA was. However, after seeing a video about how OBA works, most participants said they were upset, some said they were concerned about compromises related to contact and financial information, and several indicated that OBA was "scary" or "creepy" (Cranor, 2012). The participants further indicated that they would be comfortable allowing marketers to send them targeted ads based on their personal data, but mostly from the marketers whose names they were familiar with (Cranor, 2012).

The participants further showed a lack of knowledge regarding the self-disclosure of OBA and opt-out information. Among 48 participants, 41 mentioned that they did not recognize the icons used to represent OBA, and none of them knew the purpose of those icons and what would happen if they had clicked the associated

links (Cranor, 2012). The participants further reported that they lacked awareness of the opt-out information. Some stated that they could not do anything to stop marketers from targeting them (Cranor, 2012). This data shows the ambiguity, and inefficiency of the OBA disclosure, which is harming the success of the industry and consumers are becoming more alarmed about their privacy.

Another stream of research suggests a different phenomenon where consumers are giving up their personal information or doing nothing to protect their privacy from marketers, despite showing growing privacy concerns. This issue is conceptualized as "privacy paradox" (Noreberg et al., 2007). Many studies were done to validate the existence of the paradox (Smit et al., 2014). However, scholars argue that the research conducted in the OBA context is scattered and has not accumulated proper knowledge of the field (Boerman et al., 2017). Scholars further argue that because of the lack of understanding of this advertising strategy, and limited existing research, the future of OBA might be threatened, and thus, more research is needed (Boerman et al., 2017). Based on this rationale, the current study attempts to apply the Social Exchange Theory and the Privacy Calculus Model to conduct research that would extend both conceptual and practical knowledge of the field.

How OBA is Different from Other Types of Online Targeted Ads

Marketers in online media use many types of targeted ads— one of the most prominent being "targeted" or "personalized" advertising (Boerman et al., 2017, Goldfarb, 2014). OBA is one of newest and sophisticated of such strategies. However, OBA has some specific characteristics that make it distinct from other forms of tailored ads. As mentioned by Boerman et al., "these concepts have a broader scope

than OBA and could include advertising amended to personal data that are not based on online behavior" (2017, p. 364). Since there is general confusion regarding such distinctions, it is necessary to address how OBA is a special type of targeted ad (Boerman et al., 2017).

In general, online ads that used some forms of "personalized" attributes of their target consumers are considered online targeted advertising (Goldfarb, 2014). For example, advertisers can target a specific group of consumers based on their demographics, location, gender, etc. In such cases, a "group" of consumers are targeted on the assumption that the targeted population might be interested in the advertisers' offerings' (Bourial, 2015). On the other hand, "OBA refers only to advertising that is based on people's online behavior" (Boerman et al., 2017, p. 364). In this case, individuals are targeted based on their individual online behavior. Ads are fully tailored to resemble their previous interaction with websites, products, search engines etc. (Goldfarb, 2014). As a result, OBA is often called "re-targeted" advertising (Bourial, 2015). In short, it can be said that targeted ads use general consumer categories such as, demographics, location, age, gender, or education to target a specific group inside a population. However, OBAs use individual-specific data such as web usage, and purchase history to provide highly tailored ads to the target consumers.

Social Exchange Theory

The Social Exchange Theory (SET) was first conceptualized by Homans (1958); and Thibaut and Kelley (1959), and later advanced by other scholars such as Bagozzi (1975a, 1975b), Blau (1964), Emerson (1976), Gergen, Greenberg, and

Willis (1980), Nord (1969). The SET posits that in interpersonal relationships, parties

consider the cost of engaging into the relationship and try to maximize their benefits

from the exchange of the relationship (Emerson, 1976; Shiau & Luo, 2012). As

defined by Yan, Wang, Chen and Zhang (2016), an "individual exchanges resources

with another individual out of the desire to receive something through contact. From

the perspective of Social Exchange Theory, the principle of individual behavior is to

maximize benefits and minimize costs" (p. 644). In general, the exchange function of

SET can be described as "the economic analysis of noneconomic social situations"

(Emerson, 1976, p. 336). Initially, the theory was used to explain informal social

interaction in small groups (Thibaut & Kelley, 1959). However, SET's application has

been expanded to explain individual behavior in the fields of technology acceptance,

information sharing, consumer behavior, online community behavior, marketing etc.

(Bagozzi, 1975a; 1975b; Yan et al., 2016).

Despite having differing views of the theory, scholars agreed that SET

includes interaction among the involved parties that generates commitment upon them

(Emerson, 1976). Moreover, such interactions are interdependent. This means that it is

dependent on the actions of the other parties (Blau, 1964). It is also argued that this

interdependent nature of SET can generate a lasting relationship among parties in

diverse areas of society (Cropanzano & Mitchell, 2005). However, to understand the

core of the SET, we need to explore some important rules and norms of exchange.

Most of the SET is dominated by the reciprocity rules (Cropanzano & Mitchell,

2005). In particular, transactional reciprocity is an important rule explored in

numerous research studies (Cropanzano & Mitchell, 2005). The basic tenet of this rule

is that transactional reciprocity must be bidirectional where both parties are giving something to the other party in return for receiving something. Because of this interdependent nature, transactional reciprocity is considered a crucial feature of the SET (Cropanzano & Mitchell, 2005).

Another important norm of social exchange is that it helps create relationships among the involved parties. Moreover, when parties are involved in a social exchange relationship, it helps generate favorable behavioral and attitudinal outcomes (Cropanzano & Mitchell, 2005). For example, when employers treat employees fairly, both parties engage in strong relationships and, in turn, this exchange behavior generates effective work behavior and positive attitudes among employees (Cropanzano & Mitchell, 2005).

Trust is another concept in the SET that helps scholars understand the exchange function of the theory (Cropanzano & Mitchell, 2005). It is also important in the online environment because parties do not have face-to-face interactions and would therefore prefer to engage in exchange transactions with people they trust more. For example, in the online marketplace, consumers might feel more comfortable purchasing a product from a seller who is more trustworthy to them (Chou & Hsu, 2016). Trust is notable here because it is one of the key rational constructs that characterizes the SET (Chou & Hsu, 2016). Despite such an importance of trust in the SET, research is scattered in terms of findings specific functions of trust and answering key questions such as why and how trust works in theory (Cropanzano & Mitchell, 2005).

Similarly, the current study posits that marketers and consumers are involved in an exchange situation in OBA because, consumers are required to give up private information in exchange for getting more tailored ad messages from marketers. The exchange is only effective when it is bidirectional, as mentioned by Cropanzano and Mitchell (2005). Such relationships can be explained by the SET because this study argues that consumers evaluate OBA both emotionally and rationally, which are two major features of the theory (Chou & Hsu, 2016). As suggested by Cropanzano and Mitchell (2005), this study also predicts that in the OBA context, factors such as reciprocity, and personalization will influence consumers' privacy concerns and, in turn, influence behavioral and attitudinal outcomes, through the social exchange relationship. It is also predicted that different ad content types (i.e., verbal and visual) may influence consumers differently since consumers can process this information differently.

However, it is important to distinguish between economic exchange and social exchange for the purpose of conceptual clarity. As Bagozzi (1975b) stated, economic exchange is governed by utilitarian principles and parties in such exchange are guided by "self-interest and only self-interest" (p. 315). Social rules and norms are deemed unnecessary and useless in such exchange. Therefore, economic exchanges are limited to material and tangible transactions of products and services (Bagozzi, 1975b). Here, both parties (i.e., buyer and seller) try to maximize their value from the transaction– the seller wants to maximize profit, while the buyer wants to maximize the utility from the product or service. Moreover, individuals' decision making in an economic transaction is considered completely rational in nature (Bagozzi, 1975b).

On the other hand, social exchange mostly deals with intangible social costs and benefits (e.g., respect, honor, trust, friendship etc.) (Gefen & Ridings, 2002) and it considers that people evaluate the exchange both emotionally and rationally (Chou & Hsu, 2016). The main difference between economic exchange and social exchange is that the latter does not offer any guarantee of reciprocal reward from the other party (Gefen & Ridings, 2002). "The only 'guarantee' in a social exchange is the assumed cooperative intentions of the other party (that is, the belief that the other party will reciprocate they are expected to" (Gefen & Ridings, 2002, pp. 50-51). Thus, belief is crucial for social exchange transactions and for the purpose of this study it is argued that consumers are engaging in an information transaction (i.e., sharing private information with advertisers in return for personalized offers) that does not seem beneficial for the consumers from the economic exchange perspective. Therefore, we see a privacy paradox–people are doing little or nothing to protect their information despite having more privacy concerns.

However, this study argues that consumers consider both rational and emotional factors (e.g., Chou & Hsu, 2016; Gefen & Ridings, 2002) when they process OBA. Factors such as the benefits of reciprocity, and personalization may give them a sense of trust that the other party would also do the same with their private information–which is the core of the SET. However, we do not know if consumers will show such faith in all types of reciprocity, and personalization in the OBA. We can assume from the existing literature that there will be different reactions from consumers due to such differentiation of OBA features, despite lacking strong research findings (Boerman et al., 2017). The SET is applicable in this case because it

characterizes both the "economic man" and "social man" (Bagozzi, 1975b), which

supports the notion that SET covers both rational and emotional evaluations of the

exchange (Chou & Hsu, 2016). Moreover, even though SET has been used to explore

different business transactions (Gefen & Ridings, 2002), its application to digital

media advertising is minor or non-existent. Therefore, considering the prospects, the

current study uses SET as the theoretical backbone in the OBA context.

SET has been used in a myriad of research. Scholars used this theory to

understand knowledge-sharing in the online and virtual communities (e.g., Jinyang,

2015; Park, Lee, & Lee, 2005; Yan et al., 2016), social processes of viral video

advertising (Hayes, King, & Ramirez, 2016), online purchase and repurchase

intention (Chou & Hsu, 2016; Shiau & Luo, 2012), self-disclosure in social media

(Liu, Min, Zhai, & Smyth, 2016), prosocial behavior (Zhang & Epley, 2009),

effectiveness of hotel loyalty programs (Lee, Capella, Taylor, & Gabler, 2014), and

consumers' trust and privacy concerns in e-commerce (Luo, 2002), among others.

Park et al. (2005) explored the role of relationship of investment and benefits

on information technologies (IT) service relationships among team members. They

hypothesized that team members' exchange characteristics (i.e., relationship benefits,

and relationship investments), partner characteristics (i.e., expertise, and similarities

of project value), and interaction (i.e., communication frequency) would influence

knowledge sharing among team members, mediated by dependence and trust. They

fitted survey data into a structural equation model and found that exchange

characteristics of the SET significantly influence the role of IT service dependencies

and building knowledge-sharing trust in return (Park et al., 2005). In general, this

study confirms a "trust-dependency" model of SET in the context of IT services knowledge-sharing, suggesting that both parties in a social exchange condition need to trust each other to create dependencies in an information sharing environment (Park et al., 2005).

In another study, Yan et al. (2016) proposed a benefit vs. cost model of SET to see how people share knowledge in online health communities. Their structural equation model suggests that benefits (i.e., sense of self-worth, face concern, reputation, and social support) positively influence individuals' general knowledge-sharing behavior, whereas, executional cost negatively influences general knowledge sharing behavior in online health communities. Similarly, Jinyang (2015) reported that trust and reciprocity significantly influence individuals' knowledge-sharing behavior in the virtual communities. These two studies indicate that individuals consider the tradeoff between cost and benefits in a social exchange situation along with trust and reciprocity of the other party.

Based on the SET framework, Hayes et al. (2016) conducted a study in which they tested whether brand relationships and interpersonal relationships between brands and social media users influence the likelihood of referring and accepting brands' viral video advertising links. Their results confirm that the strength of brand relationship, brand trust, and interpersonal relationship with the brand positively influences social media users' intention to forward viral video ads (Hayes et al., 2016).

Another stream of SET studies looked at the theory's role in influencing individuals' online purchase and repurchase behavior. Shiau and Luo (2012) tested a

structural equation model to investigate how core SET beliefs and marketers'

creativity influence consumers' attitudes and behavioral intentions in the online

shopping environment. Their model significantly predicted that two core SET beliefs

(i.e., reciprocity, and trust) influence consumers' attitude (i.e., satisfaction), and

behavioral intention to purchase in return. Also, marketers' creativity significantly

predicted consumers' intention to purchase in the online condition (Shiau & Luo,

2012). This portion is particularly important for the current study because creativity,

in the marketing context, can be defined based on the offered product's novelty and

relevance (Shiau & Luo, 2012). The current study posits that personalization will

influence consumers' attitudes and behavioral intentions in the OBA setting which is

similar to the argument about creativity made by Shiau and Luo (2012). In other

words, personalization is a creative strategy among marketers and this strategy should

influence consumers' attitudes and intentions. It is important because "creativity has a

key role in consumer/user satisfaction and shapes consumer intention toward product

purchases" (Shiau & Luo, 2012, p. 2435). Personalization can be also conceptualized

as an emotional factor in OBA, since consumers get highly tailored recommendation

from advertisers.

Integrating both rational and emotional perspectives of SET, Chou and Hsu

(2016) explored the role of shopping habits in repurchase intention. The authors

reported that shopping habits, in fact, moderate the influence of perceived benefit and

investment in consumers' repurchase intention. Here, perceived benefit is

conceptualized with two constructs: satisfaction with outcome quality and consumers'

satisfaction with process quality. Similarly, investment is also conceptualized with

two constructs: consumers' trust and learning in the social exchange situation. In general, the study found support for both emotional and rational evaluation mechanisms of the SET. Consumers' shopping habits indicates increased influence of emotional evaluation, while it wanes the influence of rational evaluation on repurchase intention (Chou & Hsu, 2016).

Liu et al. (2016) studied the cost vs. benefit perspective of self-disclosure in the micro-blogging context. Their structural equation model significantly predicted that relationship building, enjoyment and trust in service providers positively influence individuals' self-disclosure in the micro-blogging sites. However, perceived anonymity of the self and perceived risk negatively influences such disclosure. This research suggests that while individuals seek relationship-building in social media sites, they are also cautious about the trustworthiness of the service provider and how they treat their identity in those media. Thus, this study found support for the SET in the social networking sites and validated the essential elements of the SET–trust, and reciprocity.

Similarly, Zhang and Epley (2009) reported that individuals in a cooperative social system follow the cost vs. benefit approach while engaging in prosocial behavior. Both "giver" and "receiver" in a prosocial condition want a balance between cost and benefit from the exchange. When cost and benefit are not balanced, individuals' expectation of reciprocity is not achieved (Zhang & Epley, 2009). In another study based on the SET, Lee et al. (2014) found that hotel loyalty programs create a reciprocal relationship between the hotels and the guests and ultimately help increase hotels' profit margins. Luo (2002) also argues that trust is a key concept in

online relationship marketing. A trustworthy reciprocal relationship between the seller and buyer reduces privacy concerns in the exchange transaction, and it is becoming more crucial for the online environment, where parties have little or no face-to-face contact.

Considering the rapid growth of digital media advertising, OBA presents a good area to invest in further research. As research suggests, there should be more studies to uncover the underlying mechanism and the role of both consumer-controlled and marketer-controlled variables on OBA outcomes (Boerman et al., 2017). The current study posits that OBA is guided by the social exchange framework, but to date, no studies have explored the role of SET in this area. Therefore, the above-mentioned literature makes a strong case for using SET to explore online marketing strategies such as OBA.

Privacy Calculus Model

In conjunction with the SET, the current study also uses the Privacy Calculus Model as a theoretical framework since the model shares its core (i.e., cost vs. benefit-based exchange evaluation approach) with the SET, and this model is applicable in exploring online privacy concerns (Dinev & Hart, 2006; Schumann et al., 2014). Despite its popularity among marketers, OBA's success is threatened by consumers' privacy concerns, which is considered the biggest challenge for positive OBA outcomes (Boerman et al., 2017). Moreover, research suggests the existence of a privacy paradox in the OBA context; i.e., consumers are doing little or nothing to safeguard their privacy despite showing ever-growing concerns (Noreberg et al., 2007). These issues pose some ambiguities in the understanding of the role of privacy

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concerns in the OBA. Thus, the Privacy Calculus Model is an appropriate addition to the SET to clarify such conceptual doubts.

The Privacy Calculus Model is built upon a theory of information disclosure and privacy developed by Laufer and Wolfe (1977). The theory, called "calculus of behavior," argues that individuals' perceptions about expected benefits and unpredictable consequences influence their personal information disclosure behavior. Later, Culnan and Armstrong (1999) and then, Culnan and Bies (2003) refined this framework and proposed the Privacy Calculus Model. This model argues that individuals will disclose their personal information online only if the perceived benefit of sharing such information is equal or greater than the risk of information disclosure (Culnan & Bies, 2003). In other words, individuals evaluate the cost vs. benefit of information disclosure before making a decision about an exchange (Dinev & Hart, 2006).

Privacy can be defined as an individual's ability to control thier personal information when it is collected and used (Culnan & Armstrong, 1999). Marketers need to collect consumers' personal data for more customized and better-quality products. This data collection strategy started long before the online marketplace, when marketers used methods such as manual cash registers and automated point-of-sale systems (Culnan & Armstrong, 1999). However, modern online marketing strategies such as OBA requires higher levels of data gathering than before. Therefore, despite some benefits of personal data collection, consumers are raising privacy concerns. Culnan and Armstrong (1999) argue that such a concern is rising for two major reasons: first, consumers feel unauthorized intruders can access their

personal information if security providers do not take proper security measures, and second, personal data may be further shared with other third parties without consumers' consent. Thus, we see that consumers think about both the capabilities and trustworthiness of the service provider (i.e., marketer and advertiser in the OBA context). These factors also resemble the main assumption of the SET.

Culnan and Armstrong (1999) conducted a study to see how individuals show privacy concerns under the condition of explicit vs. non-explicit treatment of their data. They hypothesized that when individuals were not explicitly told how their personal data will be treated, those with greater privacy concerns would be less likely to share their personal information for profiling. On the other hand, when individuals were explicitly told that their personal information would be used for profiling, there would be no significant difference in privacy concerns between those who were willing to be profiled and who were not. The authors further hypothesized that prior experience with targeted marketing would significantly influence individuals' privacy concern. Based on data from 1,000 respondents, Culnan and Armstrong (1999) found support for all three hypotheses. The findings provide strong support for the idea that people calculate the risk vs. benefit in a personal information sharing exchange. As Culnan and Bies (2003) stated, "individuals will exchange personal information as long as they perceive adequate benefits will be received in return—that is, benefits which exceed the perceived risks of information disclosure" (p. 327).

Culnan and Bies (2003) further argued that the Privacy Calculus Model is based on the SET framework where consumers evaluate the cost vs. benefit (reciprocity) of the transaction by performing two types of exchanges. The first is the

monetary transaction to acquire a product or service, and the second is the non-monetary transaction of personal information in return for better quality products and more tailored offers (Culnan & Bies, 2003). However, not all companies treat consumers' private data equally. Based on a justice perspective, Culnan and Bies (2003) proposed that marketers should use consumers' personal information fairly and that there should be proper disclosure about how such data is used. Such practice of fair use would encourage individuals to confidently share their personal data with marketers. In the OBA context, such fairness is even more needed because in many cases, companies collect huge amounts of personal data without consumers' knowledge. Such secrecy would damage the future prospects of OBA (Boerman et al., 2017).

Dinev and Hart (2006) further extended the Privacy Calculus Model and showed the need for a balance between privacy risk and benefit from information transaction. The authors argued about the existence of the privacy paradox in the online marketplace since e-commerce is growing quickly despite growing privacy concerns. However, there is not enough research to explore the underlying causes of such a paradox (Dinev & Hart, 2006). In their extended model, they hypothesize that a higher level of perceived privacy would be related to a lower level of information sharing intention and a higher level of privacy concerns. They further hypothesized that a higher level of privacy concern would be related to a lower level of information sharing intention, a higher level of Internet trust. Finally, a higher level of Internet trust would be related to a lower level of information sharing intention on the Internet,

and a higher level of personal Internet interest would be related to a higher level of

information sharing intention (Dinev & Hart, 2006).

A structural equation model found support for all the hypothesized

relationships. The findings indicate that trust, privacy concern, and personal interest

influence consumers' behavioral intention to engage in an information transaction

(Dinev & Hart, 2006). As Dinev and Hart (2006) claimed:

> The pattern of these results provides insight into the complex process that leads to the decision to provide personal information over the Internet. A high level of behavioral intention must be preceded by higher levels of confidence and enticement beliefs than the levels of general and specific privacy risk beliefs. Higher levels of privacy risk beliefs would suggest user resistance to personal information disclosure. (p. 73)

Overall, the research on SET and Privacy Calculus Model suggests that the

privacy paradox exists in the online marketplace, but more research should be

conducted to uncover the major causes. Based on the existing research, the current

study posits that reciprocity and personalization in the OBA would influence

consumers' attitudinal and behavioral intentions. Also, OBAs' content type will likely

have an influence on such attitudes and intentions. Furthermore, perceived

intrusiveness, perceived privacy concern, and reactance will mediate such influence in

the OBA information transaction. In other words, the above-mentioned variables and

their relationships can help us identify how people assesses OBA and what features of

the ad may or may not affect their attitude and intention.

As a core variable of the SET and the Privacy Calculus Model, reciprocity also

helps consumers decide whether to make a favorable or unfavorable decision toward

an ad (Schumann et al., 2014). Therefore, such a relationship is expected in the OBA

context too. Similarly, personalization can work as a cue that serves the purpose of

determining whether an exchange situation is acceptable or not to consumers in the OBA. These relationships between the theories and the variables are discussed in further detail in the following sections.

Reciprocity

Reciprocity is an important feature of the SET (Cropanzano & Mitchell, 2005). It is also a crucial topic in marketing scholarship (Cialdini & Rhoads, 2001; Houston & Gassenheimer, 1987). Houston and Gassenheimer (1987) defined reciprocity as "the process whereby this mutual exchange of acceptable terms is actualized; it is a social interaction in which the movement of one party evokes a compensating movement in some other party" (p. 11). In simpler words, Cialdini and Rhoads (2001) described reciprocity as a social norm "which obligates people to return in kind what they've received from others" (p. 10). Reciprocity is considered a core variable in the understanding of the SET and the Privacy Calculus Model (Schumann et al., 2014). In the OBA context it is important to study reciprocity because marketers rely on consumers' personal information to tailor their ads. On the other hand, consumers share their information for the benefit of convenient product recommendation, which ultimately leads to easier decision making.

Reciprocity improves the quality of relationship marketing (Hoppner, Griffith, & White, 2015). A reciprocal relationship between consumers and marketers also positively influences consumers' purchase intention (Wu, Chan, & Lau, 2008). Furthermore, it is found to be strongly related to consumers' brand trust (Wu et al., 2008). Similarly, scholars reported that reciprocity increases the likelihood of consumers' acceptance of targeted ads (Schumann et al., 2014). Thus, reciprocity can

be a reason for consumers' growing acceptance of online tailored ads despite privacy

concerns. In the OBA context, it seems even more important since OBA collects

massive amounts of personal data with little or no consumer permission (Boerman et

al., 2017).

In many cases, we see a lack of a reciprocal relationship between consumers

and marketers in targeted advertising such as OBA (Smith, 2004). In online media, it

is easy for advertisers to get permission from consumers to use their personal data.

Advertisers use features like "Opt in" or "I Agree" to collect user data. Even though

such strategies are legal, it does not mean that consumers see such activities as ethical

or fair (Smith, 2004). The problem is that even though consumers give their legal

consent for such type of marketing strategies, the control still remains in the hand of

the marketers. As Smith (2004) states:

> The emotional resonance is no better because the character of the marketing is
> no different. The overall relationship is no better because marketers still have
> all the control. The form of the interaction is unchanged because the one-way
> flow remains in place. (p. 52)

Consumers want something rewarding in exchange for the permission they give

marketers. However, marketers often ignore such an exchange, which weakens the

relationship between the two parties. As Smith (2004) argues: "consumers want

instant rewards that reciprocate them for the time they spend with marketing.

Marketing itself must provide value, not simply promote the value of something to be

bought and enjoyed later" (p. 52). Otherwise, consumers will lose their trust in

marketers, and the goals of such marketing strategies would not be achieved.

Moreover, scholars caution that if consumers' personal data is not treated well, OBA

may face some major challenges in the future (Boerman et al., 2017).

Considering this background, the current study theorizes that reciprocity in the OBA will influence consumers' attitude and behavior. Specifically, in a reciprocal condition, consumers will show more positive attitudes and behaviors than in a non-reciprocal condition. Also, it is predicted that consumers' privacy concern, perception of intrusiveness, and reactance will mediate this influence.

Personalization

Personalization plays a key influential role in both consumer-related factors (e.g., perceived intrusiveness, perceived privacy concern) and behavioral outcomes (e.g., intention and attitude toward the ad and the brand) of OBA (Boerman et al., 2017). Existing research asserts that personalization can be both beneficial and harmful for consumers and marketers alike. Personalization can increase commercial messages' persuasion (e.g., Beam & Kosicki, 2014; Ha & Janda, 2014), consumers' trust, and likelihood of accepting product recommendations (Komiak, & Benbasat, 2006), and purchase intention (Van Doorn & Hoekstra, 2013). However, personalization also negatively affects consumers and marketers by reducing persuasion effect, creating ad avoidance, promoting negative attitudes toward the ad and the brand (Smit et al., 2014), and decreasing purchase intention (Aguirre et al., 2015). Therefore, Van Doorn and Hoekstra (2013) described personalization as a "double-edged sword" (p. 339).

Personalization can be used in both offline and online environments. However, at present, marketers use this strategy mostly in the web-based digital media and social media environments (Aguirre et al., 2015; Shen & Ball, 2009). Web-based personalization is defined as "the process of adapting web content to meet the specific

needs of users and to maximize business opportunities," and "the goal of web personalization is to deliver the right content to the right person at the right time to maximize immediate and future business opportunities" (Tam & Ho, 2006, pp. 866-867). Similarly, personalized advertising is defined as "customized promotional messages that are delivered to each individual consumer through paid media based on personal information (such as consumers' names, past buying history, demographics, psychographics, locations, and lifestyle interests)" (Baek & Morimoto, 2012, p. 59).

Scholars report that personalization can also trigger reactance among consumers (Bleier & Eisenbeiss, 2015). For example, White, Zahay, Thorbjørnsen, and Shavitt (2008) conducted research to see individuals' reactions to personalized email advertising messages. They found that when consumers receive highly personalized email marketing messages, they feel that marketers are closely monitoring them, subsequently triggering reactance (White et al., 2008). Furthermore, such feelings of reactance to personalization are greater when the information used in the message is more individually tailored (White et al., 2008). Tucker (2014) explored social media users' intention to click personalized ads in terms of privacy control. The author investigated how different levels of control over privacy settings influence users' intention to click such ads. The findings of the experimental study suggest that when people had less control over their privacy on Facebook, they were less likely to click the ads, and those ads generated reactance. However, when Facebook changed the policy and gave users more control over their private information, users became more likely to click the ads (Tucker, 2014).

It is important to explore the role of personalization in the OBA because this ad strategy requires collecting a vast amount of consumer behavioral data in an effort to provide more relevant and efficient ads to consumers (Boerman, 2017). From the perspective of the SET and the Privacy Calculus Model, it can be assumed that consumers will see such personalization in the OBA positively; when consumers would feel that the benefits (e.g., easier and quicker purchase decision making) from such ads are more than the cost (e.g., sacrificing personal data), or at least the equation is balanced. Therefore, it is logical to posit that consumers will see the presence (vs. absence) of personalization in the OBA differently.

The Role of Verbal and Visual Ad Content

Over decades, scholars have conducted many studies to explore how verbal and visual contents of advertising impact consumers' inference, attitude and intention. Earlier studies on this matter found that both verbal and visual content can significantly influence consumers' attitudes and intentions toward the brand and the ad (e.g., Mitchell & Olson, 1981; Mitchell, 1986; Rossiter & Percy, 1980). Rossiter and Percy (1980) reported that both verbal and visual components of advertising can improve consumers' attitudes toward the product. They called such process the "dual loop process of classical conditioning" (Rossiter & Percy, 1980, p. 15). Similarly, Mitchell argued that these two types of ad contents work as a "dual" components of advertising that influence consumers' product attribute beliefs and, attitudes toward the ad and the brand.

However, scholars indicated that verbal and visual content of advertising have different impacts on consumers' attitude toward the brand, the ad, and intention to

purchase (Mitchell & Olson, 1981; Mitchell, 1986). In their study, Mitchell and Olson (1981) found that subjects converted visual information of the ads into "meaningful semantic information" (p. 329). In fact, such meaningful conversion happened when the visual information was not even related to the product. In turn, such visual aids helped subjects form attitudes and intention toward the brand and the ad. Similarly, Mitchell (1986) argued that ads' visual information influence consumers' attitude and belief formation process, and "if the visual element is positively or negatively evaluated, it may influence brand attitudes that operates through attitude toward the advertisement" (p. 21). These arguments indicate that text only and text and image condition of ads may influence consumers differently.

Research further indicated that visual component of ad works better in terms of memory retention. Childers et al. (1986) conducted a study to see how readers can recall information from a print newspaper advertising. The authors reported that participants were able to recall more items from the visual component than the text component. Therefore, they argued that "pictorial information is more *available* in memory rather than simply more *accessible*" (Childers et al., 1986). Thus, the current research expects that there will be differences in terms of subjects' attitude and intention toward the exposure of text-based and text and image-based stimuli in the OBA context.

Perceived Intrusiveness

Intrusiveness is defined as "the degree to which a person deems the presentation of information as contrary to his or her goals (either functional or hedonic)" (Edwards et al., 2002, p. 85). Several studies found perceived intrusiveness

to be associated with negative emotional and behavioral effects (Lee, Kim, & Sundar, 2015). For example, intrusiveness found to generate ad irritation and avoidance among users in the traditional web and mobile media (Hühn et al., 2017).

Edwards et al. (2002) explored the antecedents and consequences of perceived intrusiveness of pop-up ads. From the psychological reactance theory perspective, they found that when the ads were consistent with the editorial content, subjects found those less intrusive than ads that were not or those that were less congruent. Also, the authors reported that when consumers had a heavier cognitive load to complete the primary task (i.e., evaluating content on a web page), they experienced the ads as more intrusive to their tasks (Edwards et al., 2002).

In another study, McCoy, Everard, Polak, and Galletta (2008) investigated the role of user control and content obscurity by ads on ad irritation, attitude toward the site, behavioral intention, and ad recognition via ad intrusiveness. The authors reported that when users had control over closing the ads on the web page content, they perceived the ads as less intrusive. Moreover, ad intrusiveness increased ad recognition and ad irritation. In turn, ad irritation harmed users' attitudes toward the site (McCoy, 2008). McCoy, Everard, Galletta, and Moody, (2012) conducted a similar study on a web-based banner ad platform where they hypothesized that perceived ad intrusiveness would increase ad irritation, decreases users' performance, and decrease behavioral intention to return to the site and recommend it to others. They found support for all those hypotheses.

In a later study, McCoy and colleagues predicted that with increased ad exposure, users would feel more perceived ad intrusiveness, repeating a disliked ad

would increase the ad intrusiveness, and ad intrusiveness would influence attitude toward the website (McCoy, Everard, Galletta, & Moody, 2017). Their experimental study revealed that increased ad exposure increased users' perceived ad intrusiveness, and intrusiveness further negatively influenced attitudes toward the website. Furthermore, attitudes toward the ad moderated the influence of ad exposure on intrusiveness.

Another area of the ad intrusiveness research indicates that perceived intrusiveness is related to perceived ad value (Edwards et al., 2002; Ying, Korneliussen, & Grønhaug, 2009). Pasadeos (1990) reported that when individuals find some value from an ad, they feel less irritation toward and avoidance of the ad. Ducoffe reported similar findings (1995; 1996). His studies found that ads informative and entertainment value can reduce the irritation ads cause. Likewise, individuals' perceived ad intrusiveness can also be affected by such "value" factors. The SET can explain this phenomenon. It can be assumed that when people see the benefits of being exposed to an ad are more than the cost, they would consider it a "valuable exchange," and thus, perceive less intrusion from the ad. The above findings indicate that consumers' perceived intrusiveness may mediate the influence of reciprocity, personalization, and ad content type on the attitudinal and behavioral outcomes.

Perceived Privacy Concern

The concept of privacy is more than a century old (Phelps, Nowak, & Ferrell, 2000). One of the earliest works by Warren and Brandeis (1890) defined privacy as one's right be left alone. However, we do not have a consensus on the definition of privacy (Phelps et al., 2000). Consumers' information privacy is defined as "the claim

of individuals, groups or institutions to determine for themselves when, how, and to what extent information about them is communicated to others" (Westin, 1967, p. 7). In the online and computer-based system, information privacy became a critical issue because of the collection, storing, and use of vast amounts of personal data (Okazaki, Li, & Hirose, 2009).

Previous studies found that perceived privacy concern negatively influences consumers' attitudes and behavioral intentions (e.g., Culnan & Bies, 2003; Dinev, & Hart, 2006). For example, based on the theory of reasoned action (TRA) and the theory of planned behavior (TPB), Dinev and Hart (2006) extended the traditional Privacy Calculus Model. They collected survey data and fitted it into a structural equation model. They predicted that consumers' Internet privacy concern would negatively influence their willingness to provide personal information online. The model significantly validated their prediction (Diven & Hart, 2006).

Privacy concern was also found to increase advertising skepticism and avoidance (Baek & Morimoto, 2012). Baek and Morimoto (2012) explored the determinants of consumers' personalized ad avoidance. They found that perceived privacy concern positively influenced consumers' ad irritation and intention to avoid the ads. Smit et al. (2014) conducted research in the European Union to see how Internet users cope with OBA based on their knowledge, attitudes, and online privacy concerns. Their findings showed that most users were concerned about their online privacy because of data collection by advertisers, and thus, wanted to take some measures (e.g., not accepting cookies, installing anti-spyware software etc.) to protect their privacy. These studies present the risk of using stronger personalization

techniques in the modern OBA context. As the scholars cautioned, more personal information collection and higher levels of personalization may, in fact, reduce the impact of OBA and its growth in the future (Boerman, 2017).

However, there are some contradictions to such findings of perceived privacy concern. Such issues are conceptualized as the "privacy paradox." Smith, Dinev, and Xu, (2011) described the phenomenon as "despite reported high privacy concerns, consumers still readily submit their personal information in a number of circumstances" (p. 993). In other words, individuals' expressed attitudes about privacy do not always predict their actual behavior (Noreberg et al., 2007). Noreberg et al. (2007) conducted two experimental studies to explore and validate the privacy paradox idea. They predicted that individuals would provide more personal information to marketers than the amount of information they explicitly want to share. They further argued that people's perception of risk and trust of the marketers would influence such predictions. Their studies found that people indeed disclosed more personal information than they initially intended to disclose. Moreover, people consider some important factors such as risk and trust when providing personal information despite having privacy concerns (Noreberg et al., 2007).

Similarly, Phelan et al. (2016) argued that other factors such as trust and emotion can influence consumers' privacy concerns. The authors further posited that individuals may perceive one online site as more trustworthy than another if they are more familiar with the first site. A systematic literature review by Barth and de Jong (2017) argued that people's private information-sharing decisions are influenced by risk-benefit calculation. Users calculate the risks of sharing private information and

gains from such information sharing. If the benefit is higher, users tend to share personal information, ignoring initial concern about privacy. Similarly, the variables introduced in the current study (e.g., reciprocity, personalization, and ad content type) also can be seen from the exchange perspective because users may evaluate these factors before they make information sharing decisions. For example, it can be assumed that consumers will experience less concern about privacy if they consider the return they get from sharing information to be more valuable. Also, if consumers have control over the OBA's personalization, they may feel less privacy concern (Tucker, 2014). Similarly, if consumers are positively influenced by the ad content type, they may think less about their privacy.

Considering the massive personal data collection requirements in the OBA, it is almost impossible to stop providing personal information to marketers in the online marketplace. Therefore, it is likely that consumers calculate factors such as risk, trust, etc. to make their actual information-sharing decision. Thus, the current study posits that perceived privacy concern will mediate the influence of reciprocity, personalization, and ad content type on consumers' attitudes and intentions.

Reactance

Reactance is another variable that mediates the role of highly personalized ads in ad effectiveness (Boerman, 2017; Quick & Stephenson, 2007). The concept came from psychological reactance theory (PRT), proposed by Brehm (1966), and later refined by Brehm and Brehm (1981). PRT posits that when an individual's freedom is threatened or lost, they want to eliminate that threat or regain the lost freedom (Brehm, 1966). From a consumer research perspective, reactance can be defined as "a

motivational state in which consumers resist something they find coercive by behaving in the opposite way to that intended" (Tucker, 2014, p. 546). According to Brehm (1996), there are four key components of the PRT: 1) freedom, 2) threat to freedom, 3) reactance, and 4) restoration of freedom. However, this concept of "freedom" is not general freedom. In general, this freedom is "not abstract considerations, but concrete behavioral realities" (Brehm & Brehm, 1981, p. 12). Moreover, such a feeling of reactance "occurs to the degree that (1) the behavior threatened is important, (2) the severity of the threat to the behavior increases, (3) the threat affects other freedoms, and (4) the person ever actually enjoyed the freedom" (Edwards et al., 2002, p. 85).

Previous consumer research found that highly persuasive marketing messages elicit consumer resistance and unfavorable attitudes (Edwards et al., 2002). As argued by Clee and Wicklund (1980), when a salesperson uses high-pressure selling language (e.g., "this product is made for you"), and shows his/her vested interest in the sale (e.g., "I will get a commission if you buy this"), consumers would show less or no intention to purchase the product. This argument suggests that consumers' freedom would be threatened by such hard-sell techniques and thus elicit reactance.

Research also found that personalized ads can trigger consumer reactance (e.g., Brehm, 1966; White et al., 2008). Personalized message can activate consumers' threat to freedom since they do not want marketers to closely monitor them (Brehm, 1966). If faced with such situations, consumers may regain their threatened or lost freedom (Fitzsimons & Lehmann, 2004). The same authors conducted four experimental studies to explore how consumers react to the discrepancy between

expert recommendation and consumers' initial impression of the product choice options. The results revealed that unsolicited advice that was opposite to the initial impression of the product recommendation triggered reactance among consumers. Moreover, the authors reported that such reactance influenced negative behavioral outcomes by ignoring the agents' recommendations (Fitzsimons & Lehmann, 2004).

White et al. (2008) conducted two experiments to explore the role of justification of email personalization. In general, justification for a personalized ad can be defined as the arguments a marketer gives in favor of the personalization. In both studies, participants were shown emails where the recipients were asked to provide personal information in an online movie renting and an online movie review site where justification for personalization was manipulated (i.e., present vs. absent) for two experimental groups (White el al., 2008). Later, the participants were asked to rate the offers shown in the emails. In both cases, justification or the value proposition of the personalization influenced participants' reactance, and in turn, justified personalization influenced more favored behavioral intention toward the offer (White el al., 2008).

Kivetz (2005) conducted a series of five experimental studies to understand the role of effort-reward congruity on marketing promotions. The authors argued that "consumers perceive certain promotions as intended to control their consumption and/or limit their brand choice, which gives rise to promotion reactance" (Kivetz, 2005; p. 735). They found that when consumers feel such reactance, they reduce such feelings by "selecting promotions and incentives that foster a consistency between the

reward and the reinforced behavior" (Kivetz, 2005; p. 735). Therefore, the study shows the role of reward or benefit in reducing psychological reactance.

Baek and Morimoto (2012) suggested that consumers' psychological reactance to personalized ads can be reduced by providing them more control over their privacy. They argued that if marketers explicitly offered consumers privacy control options such as "opt out" consumers would be less likely to feel reactance from the personalized offer. It was also found that consumers' reactance toward personalized ads can be assessed by the balance between perceived benefits from the personalized ad and perceived cost of personalization (Baek & Morimoto, 2012). When consumers see significant value from freedom-restricting personalized ads, their reactance against the offer may reduce (Baek & Morimoto, 2012).

Tucker (2014) also suggested that when consumers are given enhanced privacy control mechanisms, it helps reduce reactance. Based on the above studies and the SET framework, it can be assumed that the role of the predictors on the outcome variable would be mediated by consumers' reactance toward the OBA. It is posited that, while making decisions about their attitude and behavior toward the ads, consumers may assess multiple factors. For example, they may think about the perceived privacy and risk generating from the respective ad's reciprocity (i.e., reward proposition of the ad- present vs. absent) context, personalization (i.e., present vs. absent), and content type (e.g., verbal vs. visual) of the offer among others.

Brand Familiarity

Brand familiarity is considered one of the biggest heuristics consumers use to make a purchasing decision (Hoyer & Brown, 1990; Shoenberger, 2014). As a

heuristic cue, brand familiarity works as a "shortcut" to online purchase decision making (Shoenberger & Thorson, 2014). Familiarity is defined as "an understanding, often based on previous interactions, experiences, and learning of what, why, where and when others do what they do" (Gefen, 2000, p. 727). Therefore, brand familiarity can be conceptualized as one's knowledge about a brand, acquired through previous interactions with the brand. The concept of brand familiarity is not new in the marketing scholarship and practice. Over the decades, scholars have conducted research to see how brand familiarity influences consumers' product evaluation (e.g., Dodds & Monroe, 1985; Dodds, Monroe, & Grewal, 1991), knowledge sharing behavior (e.g., Yoon & Rolland, 2012), trust (e.g., Gefen, 2000; Komiak, & Benbasat, 2006), attitude (e.g., Delgado-Ballester, Navarro, & Sicilia, 2012), memory (e.g., Martí-Parreño, Bermejo-Berros, & Aldás-Manzano, 2017), brand experience (e.g., Bapat, 2017), purchase intention (e.g., Phelps & Hoy, 1996) and so on.

Numerous studies indicate that brand familiarity significantly influences consumers' brand knowledge, memory and recall, trust of the brand and the product, attitude toward the brand and product, and purchase intention. For example, Dodds and Monroe (1985) reported that brand familiarity significantly increased consumer perception about the product quality and intention to purchase. In a similar study, Dodds et al., (1991) reported that brand and store name had a positive effect on consumers' perceptions of quality, value, and purchase intention.

More importantly, research also shows that brand familiarity helps to build consumers' trust of e-commerce marketers (Gefen, 2000). Familiarity and trust are two different topics, though related. As claimed by Gefen: "familiarity deals with an

understanding of the current actions of other people or of objects, while trust deals with beliefs about the future actions of other people" (2000, p. 727). The author further argued that "familiarity and trust complement each other as complexity-reduction methods. Familiarity reduces uncertainty by establishing a structure" (Gefen, 2000, p. 727). These arguments suggest that brand familiarity reduces the complexities of e-commerce decision making since consumers can use their familiarity as a shortcut.

Gefen (2000) conducted an empirical study to see how familiarity influences consumers' trust of a retailer. The author found that brand familiarity positively influenced consumers' trust, intention to inquire about products, and intention to purchase. Another study found that familiarity positively influenced individuals' decision-making process in the e-commerce environment via trust (Komiak, & Benbasat, 2006). Brand familiarity also influences individuals' attitudes toward the brand. Highly familiar brands found to generate more brand awareness and a more positive attitude toward the brand among consumers (Delgado-Ballester et al., 2012).

The above findings suggest that brand familiarity works as a strong heuristics decision-making tool for consumers. It was also found that brand familiarity influences consumers' trust of the product and the marketer. However, it is important to note that when consumers are exposed to an unfamiliar brand, their attitudes and intentions may not be influenced in the same way as they are by familiar brands. Moreover, the influence of familiarity on attitude and intention my go in the opposite way depending of the type of familiarity (e.g., familiar vs. unfamiliar, high familiar vs. low familiar, positive familiarity vs. negative familiarity etc.) an individual has.

Therefore, it is necessary to control the influence of familiarity on the influence of independent variables on the dependent variables.

Attitude toward the OBA

Attitude has been conceptualized in many ways in social science scholarship. Attitudes are often defined as a general evaluation of something, and such evaluations are based on summaries of cognitive and affective reactions (Crano, & Prislin, 2006; Haugtvedt & Kasmer, 2008). Attitude formation and change occur under many circumstances, and it can be valenced both positively and negatively (Haugtvedt & Kasmer, 2008). Attitudes can be formed and changed by the exposure of persuasive messages such as advertising, and its nature can be different based on the source and the message, among many other factors (Crano, & Prislin, 2006). Another important role of attitude is that it can predict behavior. Scholars have established such attitude-behavior consistency in many studies over the years (Crano, & Prislin, 2006; Haugtvedt & Kasmer, 2008).

In summary, it can be said that attitude is one's rational and emotional evaluation of something that can be formed under the exposure of different variables. As discussed in the literature review, the current study, based on the existing research, predicts that reciprocity, personalization, and ad content type will influence consumers' attitudes toward the OBA. Therefore, this study defines attitude toward the OBA as consumers' rational and emotional evaluation of the OBA.

Attitude toward the Brand

The current study further posits that reciprocity, personalization, and ad content type will influence consumers' attitudes toward the brand. Thus, like the

previous definition, this study defines the attitude toward the brand as consumers'

rational and emotional evaluation of the brand in the OBA context.

Intention to Click the Ad

According to the Theory of Reasoned Action (TRA) and the Theory of

Planned Behavior (TPB), intentions can be defined as "the motivational factors that

influence a behavior; they are indications of how hard people are willing to try, and

how much of an effort they are planning to exert to perform the behavior" (Ajzen,

1991, p. 181). Ajzen (2008) further argued that "many studies have indeed

substantiated the predictive validity of behavioral intentions. When appropriately

measured, behavioral intentions account for an appreciable proportion of variance in

actual behavior" (p. 537). It also considered an immediate cause of behavioral

outcome (Ajzen, 2008). In the current study, intention to click the ad is defined as

one's effort invested in the willingness to click the OBA. Based on previous studies it

can be assumed that individuals' intention in the OBA context will influence their

actual behavior.

Intention to Purchase the Advertised Product

Similarly, intention to purchase the advertised product is defined as one's

effort devoted to the willingness to purchase the product communicated via the OBA.

It can be assumed that individuals' positive intention to purchase the product will

positively influence the actual purchase.

Chapter 3: Hypotheses and Research Question

The purpose of this study is to explore the role of reciprocity, personalization, and ad content type on the attitude toward the OBA, attitude toward the brand, intention to click the ad, and intention to purchase the advertised product. Moreover, the study explores the mediating influence of perceived intrusiveness, perceived privacy concern, and reactance on consumers' attitudes and behavioral intentions. Based on the literature reviewed in the previous chapter, the research hypotheses for Study 1 are presented in the following sections. The conceptual framework is presented in Figure 1.
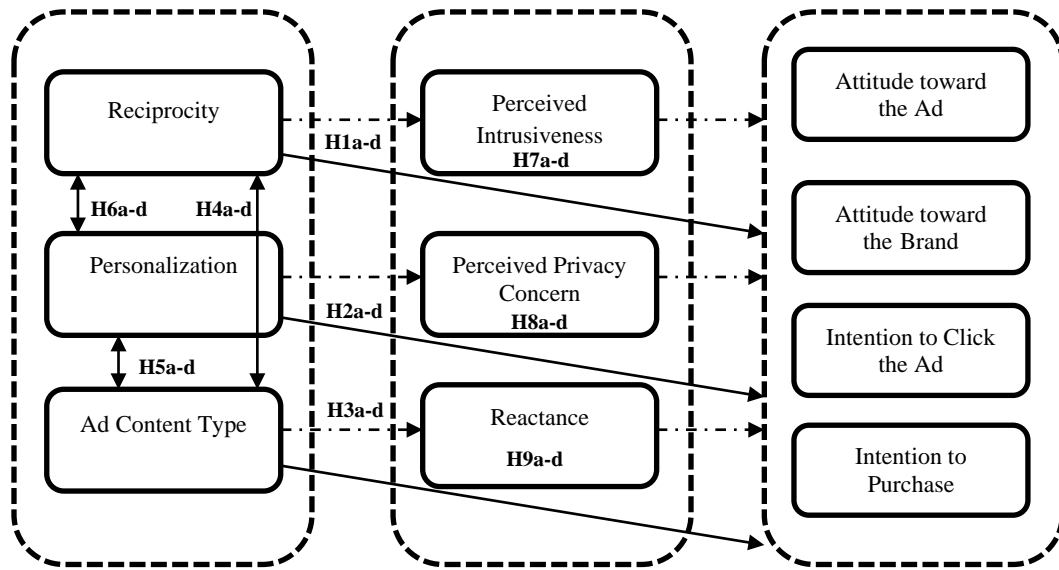
Figure 1. Conceptual research framework.

Note. Items in the segment are independent variables, items in the middle segment are mediating variables, and items in the last segment are dependent variables. Solid single-headed arrows originating from the independent variables refer main effect hypotheses, dotted arrows originating from independent variables to the dependent variables via the mediating variables indicate mediating hypotheses, and double-head arrows in the first segment indicate interaction hypotheses.

Main Effects

Main effects of the independent variables are discussed in this section.

Reciprocity

Scholars reported that reciprocal exchange between marketers and consumers can enhance consumers' brand trust (Wu et al., 2008). Therefore, reciprocity can increase the likelihood of consumers' acceptance of targeted ads (Schumann et al., 2014). In the OBA context, it is also likely that consumers would show a more positive attitude and intention toward the OBA where they get something in exchange for their personal information. It can be assumed, because OBA collects large amounts of personal data about consumers, that consumers would consider the risk vs. benefit of the exchange when making their decisions (Boerman et al., 2017). Based on such rationale, the following hypotheses are posited for this study:

H1a: Participants who are exposed to a reciprocal condition of the OBA will have a more positive attitude toward the OBA than participants who are exposed to a non-reciprocal condition when controlling for the general advertising attitude.

H1b: Participants who are exposed to a reciprocal condition of the OBA will have a more positive attitude toward the brand than participants who are exposed to a non-reciprocal condition when controlling for the general advertising attitude.

H1c: Participants who are exposed to a reciprocal condition of the OBA will have a more positive intention to click the ad than participants who are

exposed to a non-reciprocal condition when controlling for the general advertising attitude.

H1d: Participants who are exposed to a reciprocal condition of the OBA will have a more positive intention to purchase the product than participants who are exposed to a non-reciprocal condition when controlling for the general advertising attitude.

Personalization

Research suggests contradictory influence of personalization on consumers' attitude and intention. Personalization can increase commercial messages' persuasion (e.g., Beam & Kosicki, 2014; Ha & Janda, 2014), consumers' trust, likelihood of accepting product recommendation (Komiak, & Benbasat, 2006), and purchase intention (Van Doorn & Hoekstra, 2013). On the other hand, personalization may also affect consumers and marketers negatively by reducing persuasion effect, creating ad avoidance, negative attitude toward the ad and the brand (Smit et al., 2014), and decreasing purchase intention (Aguirre et al., 2015). Despite such inconsistencies, scholars report that web-based personalization in general is mostly positively associated with consumers' attitudes and intentions (e.g., Aguirre et al., 2015; Tam & Ho, 2006; Tucker, 2014; White et al., 2008). Therefore, the current study also predicts similar findings in the OBA context. Based on this, the followings are hypothesized the for this study:

H2a: Participants who are exposed to a personalized condition of the OBA will have a more positive attitude toward the OBA than participants who are

exposed to a generic condition when controlling for the general advertising attitude.

H2b: Participants who are exposed to a personalized condition of the OBA will have a more positive attitude toward the brand than participants who are exposed to a generic condition when controlling for the general advertising attitude.

H2c: Participants who are exposed to a personalized condition of the OBA will have a more positive intention to click the ad than participants who are exposed to a generic condition when controlling for the general advertising attitude.

H2d: Participants who are exposed to a personalized condition of the OBA will have a more positive intention to purchase the product than participants who are exposed to a generic condition when controlling for the general advertising attitude.

Ad Content Type

As discussed earlier, the current study assumes that ad content type of OBA will significantly influence consumers' attitudes and behavioral intentions. Previous research indicated that both visual and verbal advertising content can positively influence consumers' attitudes and intentions toward the ad. However, several studies found that visual content influenced consumers' attitude and intention more positively than verbal content (Childers et al., 1986; Mitchell & Olson, 1981; Mitchell, 1986). Similarly, it can be assumed that consumers will show a more positive attitude and

greater intention toward ads that have both verbal and visual content than ads that have verbal contents only. Therefore, the following hypotheses are proposed:

H3a: Participants who are exposed to a visual condition of the OBA will have a more positive attitude toward the OBA than participants who are exposed to a verbal condition when controlling for the general advertising attitude.

H3b: Participants who are exposed to a visual condition of the OBA will have a more positive attitude toward the brand than participants who are exposed to a verbal condition when controlling for the general advertising attitude.

H3c: Participants who are exposed to a visual condition of the OBA will have a more positive intention to click the ad than participants who are exposed to a verbal condition when controlling for the general advertising attitude.

H3d: Participants who are exposed to visual condition of the OBA will have a more positive intention to purchase the product than participants who are exposed to a verbal condition when controlling for the general advertising attitude.

Interaction

Research indicates that a reciprocal condition in an ad makes it more attractive to consumers than a non-reciprocal condition because it provides some benefits (e.g., Hoppner et al., 2015; Schumann et al., 2014; Wu et al., 2008). However, ad content type may differentiate such influence. When consumers see visual information in an ad, they may give more attention, generate better memory of the ad, and thus, may indicate a more positive attitude and intention toward the reciprocal condition. However, when the ad content is verbal, consumers may receive less information

about the reciprocity; therefore, they will show similar positive attitudes and intentions for both reciprocal and non-reciprocal conditions. Therefore, the following hypotheses are proposed for this study:

H4a: There will be an interaction between reciprocity and ad content type on participants' attitudes toward the OBA when controlling for the general advertising attitude. For a visual ad condition, a reciprocal condition will have a more positive influence on participants' attitudes toward the OBA than for a non-reciprocal condition. For a verbal ad condition, both the reciprocal and the non-reciprocal conditions will have a similarly positive influence on participants' attitudes toward the OBA.

H4b: There will be an interaction between reciprocity and ad content type on participants' attitudes toward the brand when controlling for the general advertising attitude. For a visual ad condition, a reciprocal condition will have a more positive influence on participants' attitudes toward the brand than for a non-reciprocal condition. For a verbal ad condition, both the reciprocal and the non-reciprocal conditions will have a similarly positive influence on participants' attitudes toward the brand.

H4c: There will be an interaction between reciprocity and ad content type on participants' intentions to click the ad when controlling for the general advertising attitude. For a visual ad condition, a reciprocal condition will have a more positive influence on participants' intentions to click the ad than for a non-reciprocal condition. For a verbal ad condition, both the reciprocal and the

non-reciprocal conditions will have a similarly positive influence on participants' intentions to click the ad.

H4d: There will be an interaction between reciprocity and ad content type on participants' intentions to purchase the advertised product when controlling for the general advertising attitude. For a visual ad condition, a reciprocal condition will have a more positive influence on participants' intentions to purchase the advertised product than for a non-reciprocal condition. For a verbal ad condition, both the reciprocal and the non-reciprocal conditions will have a similar positive influence on participants' intentions to purchase the advertised product.

It can be also expected that for a visual condition, participants will show more positive intentions and attitudes toward a personalized OBA. On the other hand, for a verbal condition, participants will show more a positive intention and attitude toward a generic OBA. These relationships can be posited because when consumers will see the visual ads, they will have more information about the brand and that may produce positive emotions toward the personalized ad. However, a verbal condition may fail to create such feelings toward personalized message. Therefore, consumers will prefer the generic message. Therefore, the following hypotheses are postulated for this study:

H5a: There will be an interaction between ad content type and personalization on participants' attitudes toward the OBA when controlling for the general advertising attitude. For a visual ad condition, a personalized condition will have a more positive influence on participants' attitudes toward the OBA than

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for a generic ad. For a verbal ad condition, a generic condition will have a more positive influence on participants' attitudes toward the OBA than for a personalized ad.

H5b: There will be an interaction between ad content type and personalization on participants' attitudes toward the brand when controlling for the general advertising attitude. For a visual ad condition, a personalized condition will have a more positive influence on participants' attitudes toward the brand than for a generic ad. For a verbal ad condition, a generic condition will have a more positive influence on participants' attitudes toward the brand than for a personalized ad.

H5c: There will be an interaction between ad content type and personalization on participants' intentions to click the ad when controlling for the general advertising attitude. For a visual ad condition, a personalized condition will have a more positive influence on participants' intentions to click the ad than for a generic ad. For a verbal ad condition, a generic condition will have a more positive influence on participants' intentions to click the ad than for a personalized ad.

H5d: There will be an interaction between ad content type and personalization on participants' intentions to purchase the advertised product when controlling for the general advertising attitude. For a visual ad condition, a personalized condition will have a more positive influence on participants' intentions to purchase the advertised product than for a generic ad. For a verbal ad condition, a generic condition will have a more positive influence on

participants' intentions to purchase the advertised product than for a personalized ad.

It can be further assumed that when consumers are exposed to a reciprocal condition, they will show a more positive attitude and intention toward a personalized ad because they will receive something in exchange for the personalization. However, when the ad is non-reciprocal, they will have more positive attitudes and intentions toward a generic ad. Consumers will be concerned about their privacy since the ad is personalized but they would not receive anything in exchange of providing personal information. Therefore, the following hypotheses are proposed for this research:

H6a: There will be an interaction between reciprocity and personalization on participants' attitudes toward the OBA when controlling for the general advertising attitude. For a reciprocal condition, a personalized ad will have a more positive influence on participants' attitudes toward the OBA than a generic ad. For a non-reciprocal condition, a generic ad will have a more positive influence on participants' attitudes toward the OBA than a personalized ad.

H6b: There will be an interaction between reciprocity and personalization on participants' attitudes toward the brand when controlling for the general advertising attitude. For a reciprocal condition, a personalized ad will have a more positive influence on participants' attitudes toward the brand than a generic ad. For a non-reciprocal condition, a generic ad will have a more positive influence on participants' attitudes toward the brand than a personalized ad.

H6c: There will be an interaction between reciprocity and personalization on participants' intentions to click the ad when controlling for the general advertising attitude. For a reciprocal condition, a personalized ad will have a more positive influence on participants' intentions to click the ad than a generic ad. For a non-reciprocal condition, a generic ad will have a more positive influence on participants' intentions to click the ad than a personalized ad.

H6d: There will be an interaction between reciprocity and personalization on participants intentions to purchase the advertised product when controlling for the general advertising attitude. For a reciprocal condition, a personalized ad will have a more positive influence on participants' intentions to purchase the advertised product than a generic ad. For a non-reciprocal condition, a generic ad will have a more positive influence on participants' intentions to purchase the advertised product than a personalized ad.

The current study also expects a possible interaction effect among reciprocity, personalization, and ad content type. Therefore, the following research question applies to this study:

RQ1: Will there be an interaction among reciprocity, personalization, and ad content type on participants' attitudes and intentions? If so, then what will be the nature of the interaction?

Mediating Effects of Perceived Intrusiveness, Perceived Privacy Concern, and Reactance

As discussed in the literature review, previous studies indicated that perceived intrusiveness, perceived privacy concerns, and reactance may negatively impact the influence of reciprocity, personalization, and ad content type on subjects' attitudes and behavioral intentions. Therefore, the following hypotheses are stated for this study:

H7a: Perceived intrusiveness will mediate the influence of **i)** reciprocity, **ii)** personalization, and **iii)** ad content type on participants' attitudes toward the OBA when controlling for the general advertising attitude.

H7b: Perceived intrusiveness will mediate the influence of **i)** reciprocity, **ii)** personalization, and **iii)** ad content type on participants' attitudes toward the brand when controlling for the general advertising attitude.

H7c: Perceived intrusiveness will mediate the influence of **i)** reciprocity, **ii)** personalization, and **iii)** ad content type on participants' intentions to click the ad when controlling for the general advertising attitude.

H7d: Perceived intrusiveness will mediate the influence of **i)** reciprocity, **ii)** personalization, and **iii)** ad content type on participants' intentions to purchase the advertised product when controlling for the general advertising attitude.

H8a: Perceived privacy concerns will mediate the influence of **i)** reciprocity, **ii)** personalization, and **iii)** ad content type on participants' attitudes toward the OBA when controlling for the general advertising attitude.

H8b: Perceived privacy concerns will mediate the influence of **i)** reciprocity, **ii)** personalization, and **iii)** ad content type on participants' attitudes toward the brand when controlling for the general advertising attitude.

H8c: Perceived privacy concerns will mediate the influence of **i)** reciprocity, **ii)** personalization, and **iii)** ad content type on participants' intentions to click the ad when controlling for the general advertising attitude.

H8d: Perceived privacy concerns will mediate the influence of **i)** reciprocity, **ii)** personalization, and **iii)** ad content type on participants' intentions to purchase the advertised product when controlling for the general advertising attitude.

H9a: Reactance will mediate the influence of **i)** reciprocity, **ii)** personalization, and **iii)** ad content type on participants' attitudes toward the OBA when controlling for the general advertising attitude.

H9b: Reactance will mediate the influence of **i)** reciprocity, **ii)** personalization, and **iii)** ad content type on participants' attitudes toward the brand when controlling for the general advertising attitude.

H9c: Reactance will mediate the influence of **i)** reciprocity, **ii)** personalization, and **iii)** ad content type on participants' intentions to click the ad when controlling for the general advertising attitude.

H9d: Reactance will mediate the influence of **i)** reciprocity, **ii)** personalization, and **iii)** ad content type on participants' intentions to purchase the advertised product when controlling for the general advertising attitude.

All hypotheses, as well as the research question for Study 2 will be similar to those for Study 1. However, since a real brand is used in Study 2, brand familiarity, along with participants' general advertising attitude is controlled.

Chapter 4: Methodology

As discussed earlier, the purpose of this study is to investigate the role of reciprocity, personalization, and ad content type on consumers' attitude toward the OBA, the brand, their intention to click the ad, and their intention to purchase the advertised product. Furthermore, the study explored the mediating influence of perceived intrusiveness, perceived privacy concerns, and reactance on consumers' attitudes and behavioral intentions. Given this, two experimental studies were conducted to test the hypotheses and answer the research question stated in the previous chapter. Experimental research is appropriate for this study because "experiments are well-suited to studying causal relationships" (Shadish, Cook, & Campbell, 2002, p. 7). Shadish et al. (2002) further argued that by using experiments,

> (1) we manipulate the presumed cause and observe an outcome afterward; (2) we see whether variation in the cause is related to variation in the effect; and (3) we use various methods during the experiment to reduce the plausibility of other explanations for the effect along with ancillary methods to explore the plausibility of those we cannot rule out. (p. 6)

Two 2 (reciprocity: reciprocal vs. non-reciprocal) X 2 (personalization: personalized vs. generic) X 2 (ad content type: verbal vs. visual) between-subject factorial design experiments were conducted. Both studies utilized scenario-based online experiments. Scenarios were chosen because similar previous studies showed that scenario-based experiments are common and appropriate in this area of research (e.g., Aguirre et al., 2015; Bleier & Eisenbeiss, 2015; Shoenberger, & Thorson, 2014; White et al., 2008). It is important to mention that the current study used a text-based scenario in the verbal ad condition, and a text and image-based scenario in the visual

ad condition. The first study used a fictitious brand, whereas, the second study used a real brand.

There were two reasons for conducting two experiments. First, the second study would replicate the first with a different set of scenarios and samples. As Lynch (1982) argues, replication helps to generalize research findings and research should replicate experimental research, at least at some point, for such external validity. Therefore, the current study expected to explore validity of the method using two studies, and answer questions such as why some findings in both studies are similar or different, and what such findings mean for theory and practice.

Second, individuals may process information regarding a real vs. a fictitious brand differently. Previous research reported that participants who were exposed to a real brand, showed significantly more brand information recall and experienced a significantly more persuasive effect than participants who were exposed to a fictitious brand (Nelson, Yaros, & Keum, 2006). Therefore, the currently study explores similar possibilities in the OBA context.

Product Category and Product Selection

For selecting the real brand for this study, 25 undergraduate students of the University of Oklahoma were asked to provide five product categories that they most frequently use, and the most frequently used product from each category. Twenty-four students listed "cell phone" as one of their top five most frequently used product categories, and "iPhone" as the most frequently used product in that category. Therefore, the current study used "iPhone X" as the real brand. For the fictitious

brand category, a fictitious smartphone "ArtCell" is created as suggested by Phelps

and Hoy (1996).

Pre-tests

This study has three manipulations: reciprocity (reciprocal vs. non-reciprocal),

personalization (personalized vs. generic), and ad content type (verbal vs. visual). To

check the manipulations, a series of pre-tests was conducted. The study recruited 60

participants (36 males, 24 females) online using the Amazon MTurk system.

Participants were randomly assigned to one of the manipulation groups. The

questionnaire is presented in Appendix C.

Pre-test Manipulation Check

After showing the stimulus materials, subjects were asked questions to check

the manipulations.

Reciprocity

In the reciprocal condition, the stimulus material had a sentence: "You can

instantly save 20% by clicking this ad." In the non-reciprocal condition, there was no

such sentence. After watching the scenario, participants were asked the following

question to check the reciprocity manipulation: "This ad offers me some benefits in

exchange of[sic] clicking it." A 7-point Likert-type scale (1-Strongly Disagree, 7-

Strongly Agree) was used to measure their response. An independent sample t-test

was conducted to check the manipulation. Participants in the reciprocal condition

reported higher agreement ($M = 5.07$, $SD = 1.808$) than those in the non-reciprocal

condition ($M = 3.61$, $SD = 1.857$), $t(401) = 7.965$, $p < .001$. Therefore, the

manipulation was successful.

Personalization

Personalization can be manipulated with a scenario where participants will be asked to imagine that the ad uses their personal information such as their name, browsing history, geolocation, IP address, and/or shopping history to personalize the ad. In the current study, names were used to induce personalization. In case of name, participants were asked to write their names before they began the main survey, and then, they were greeted using their names in the ad in the personalized condition. In the generic condition, they were not greeted using their names. Manipulation was checked by using a one-item scale: "This ad is directed to me personally," adapted from De Keyzer, Dens, and De Pelsmacker (2015), and Dijkstra (2004), and a 7-point Likert-type scale (1-Strongly Disagree, 7- Strongly Agree) was used to measure their response scale. An independent sample t-test was conducted to check the manipulation. Participants in the personalized condition reported higher agreement (M = 5.71, SD = 1.469) than those in the generic condition (M = 5.03, SD = 1.935), $t(400)$ = 3.947, $p <.001$. Therefore, the manipulation was successful.

Ad Content Type

Participants' perception regarding the ad content type (text vs. text and image) was evaluated by asking the following question: "This ad has image[sic]," measured using a 7-point Likert-type scale (1-Strongly Disagree, 7- Strongly Agree). An independent sample t-test was conducted to check the manipulation. Participants in the visual condition reported higher agreement (M = 6.05, SD = 1.365) than those in the verbal condition (M = 3.35, SD = 2.068), $t(401)$ = -15.543, $p <.001$. Therefore, the manipulation was successful.

Chapter 5: Study 1 with Fictitious Brand

As mentioned earlier, the current study implements two experiments. Study 1 uses a fictitious brand (ArtCell) to manipulate the ad conditions. Research demonstrated that using an unfamiliar or fictitious brand presensts several benefits. As detailed by Machleit and Wilson, (1988), individuals do not possess any pre-formed attitudes toward an unfamiliar brand. Therefore, such prior attitudes do not influence their attitudes and intentions toward the ad. The authors further argued that "when an individual is completely unfamiliar with a brand, the ad is the only information that the individual has to use in forming a brand attitude" (Machleit & Wilson, 1988, p. 28). Therefore, using "ArtCell" as the fictitious brand in this study would reduce such pre-formed attitudes toward the brand.

Similarly, scholars reasoned that individuals can have pre-established brand schema for a familiar brand (Delgado-Ballester et al., 2012). Such schemas help them to organize information in their memory and retrieve it for later use (Martí-Parreño et al., 2017). Therefore, individuals need more cognitive effort to process information regarding an unfamiliar brand than for a familiar brand.

Moreover, individuals organize brand related information differently for a familiar brand than for an unfamiliar one. Brand attribute information is stored under the existing "node" of the brand for a familiar brand, whereas, for an unfamiliar brand, such attributes are stored under the product class (Kent & Allen, 1994). Such differences in information organization influence individuals' information processing for a familiar brand as opposed to an unfamiliar one. Thus, a fictitious brand would influence participants' attitudes and intentions in the similar fashion in Study 1.

Method

Sample Size

The required (a priori) sample size for this study was calculated using the G*Power software (Faul, Erdfelder, Lang, & Buchner, 2007). The study expects a medium effect size (i.e., f = 0.25), and thus, based on an alpha probability level of 0.05, power of 0.80, and eight between-subject treatment groups, F-statistic showed that the total required sample is 240. However, considering the possibility of missing data, and outliers, the study collected more than the required responses.

Participants

Participants were recruited through the Amazon Mechanical Turk (MTurk) online survey platform. In this platform, people can sign up to take surveys in exchange for some compensation. Despite having some concerns regarding the MTurk data quality, scholars suggest that MTurk data are good alternatives for other popular data sources such as college students, and online professional panel data (Kees, Berry, Burton, & Sheehan, 2017). In fact, Kees et al. (2017) reported that MTurk data performed better in terms of quality compared to student samples and professional panel data. MTurk provides low cost and convenient nonstudent samples. Since experimental research in advertising heavily relies on convenience samples, the use of MTurk has grown drastically in recent years (Kees et al., 2017).

A total of 403 U.S. residents were recruited for this study. They were randomly assigned to one of the eight experimental groups in the following quantities: 1) reciprocal-personalized-verbal = 49; 2) reciprocal-generic-verbal = 50; 3) non-reciprocal-personalized-verbal = 48; 4) non-reciprocal-generic-verbal = 52; 5)

reciprocal-personalized-visual = 50; 6) reciprocal-generic-visual = 51; 7) non-reciprocal-personalized-visual = 51; 8) non-reciprocal-generic-visual = 52.

Among them, 210 participants were male (53.2%) and 191 were female (47.5%). Participants' ages were widely spread between 21 and 72 years ($M = 37.04$, $SD = 11.070$). A total of 319 participants reported their race as "White or Caucasian" (79.9%), 46 reported their race as "Black or African American" (11.5%), and 28 reported their race as "Asian" (7%).

Fifty-four participants reported they had an annual household income within the range of $50,000-59,000 (13.4%), 53 reported they had an annual household income within the range of $30,000-39,000 (13.2%), 50 reported they had an annual household income within the range of $40,000-49,000 (12.4%), 47 participants reported that they had an annual household income within the range of $20,000-29,000 (11.7%), 42 reported they had an annual household income within the range of $10,000-19,000 (10.4%), and 36 reported they had an annual household income within the range of $60,000-69,000 (9%).

A total of 162 participants had completed a bachelor's degree (40.3%), 87 had completed some college (21.6%), 52 had completed an associate degree (12.9%), 48 had completed high school (11.9%), and 34 had completed a master's degree (8.5%).

Two hundred and ninety-six participants reported they were employed full-time (40 hours or more per week) (73.6%), 58 reported they were employed part-time (less than 40 hours per week) (14.4%), 37 reported they were not employed (9.2%), and 11 reported they were retired (2.7%).

When asked about their smartphone usage, 146 participants reported that they use "Apple" brand phones (36.2%), 120 reported that they use "Samsung" brand phones (29.8%), 46 reported that they use "LG" brand phones (11.4%), 29 reported that they use "Motorola" brand phones (7.2%), while only 11 reported that they did not use a smartphone (2.7%).

Regarding daily usage, 92 participants reported that they use their phone for 2-3 hours per day (23%), 84 reported that they use their phone for 3-4 hours per day (21%), 74 reported that they use their phone for 30 minutes to 1 hour per day (18.5%), and 56 reported that they use their phone for less than 30 minutes per day (14%).

As far as OBA knowledge is concerned, 311 participants reported seeing OBA in the last six months (77.2%), while 92 reported that they had not seen OBA in the last six months (22.8%). When asked about their daily exposure to OBA, 92 participants reported that they see two OBAs per day (22.8%), 87 reported that they see more than five OBAs per day (21.6%), while 73 reported that they see three OBAs per day (18.1%).

Scenarios and Stimulus Materials

For this study, ArtCell was used as the "fictitious" brand. For each experimental condition, a scenario was created where respondents were asked to imagine that they would search for a phone online. Following that, they were asked to imagine that they would see an ad (i.e., the manipulated ad condition) in a news website. They were asked to answer the questionnaire based on the imaginary scenario and the ad they were exposed to. Eight versions of the ad were designed to fit each condition, and the basic language format was the same (Appendix A). A fake

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daily newspaper *"The Daily Rising Star"* was used as the medium to eliminate any influence of previous knowledge of a known medium. Participants were asked to imagine that they would see the ad while reading *The Daily Rising Star* as a "banner ad" on the front page of paper's website.

<center>*Procedure*</center>

The questionnaire was hosted on the University of Oklahoma (OU)'s Qualtrics online survey portal and linked to the Amazon MTurk platform. Participants were randomly assigned to one of the eight experimental groups. At the beginning, participants were shown the consent form approved by the OU Institutional Review Board (IRB). Upon reading the agreement and providing consent, participants were able to go to the main study screen. At this point, they were asked to answer some general attitude and usage questions and questions regarding their knowledge of OBA. The questionnaire is presented in Appendix D.

Then, participants were shown the stimulus material and asked the manipulation check questions immediately. Next, the subjects were asked questions regarding the dependent, mediating, and other variables. Finally, they were asked to answer some demographic questions. At the end of the survey, participants were asked to provide the unique code found in the "end of survey" message to the MTurk portal, as the proof of survey completion. The process took 17 minutes to complete on average. Participants were paid $0.70 each for taking part in the experiment.

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Dependent Measures

Attitude toward the OBA

Attitude toward the OBA was measured using a three-item seven-point semantic differential scale adapted from MacKenzie and Lutz (1989). The items were anchored as: 1= bad vs. 7 = good, 1 = unpleasant vs. 7 = pleasant, and 1 = unfavorable vs. 7 = favorable (Cronbach α = 0.89).

Attitude toward the Brand

Attitude toward the brand was measured using a four-item seven-point semantic differential scale adapted from Mitchell and Olson (1981). The items were anchored as: 1= bad vs. 7 = good, 1 = unpleasant vs. 7 = pleasant, 1 = dislike very much vs. 7 = like very much, and 1 = poor quality vs. 7 = high quality (Cronbach α = 0.88).

Intention to Click the Ad

Intention to click the ad was measured using a three-item seven-point semantic differential scale adapted from MacKenzie, Lutz, and Belch (1986). The items were anchored as: 1= unlikely vs. 7 = likely, 1 = improbable vs. 7 = probable, and, 1 = impossible vs. 7 = possible (Cronbach α = 0.90).

Intention to Purchase the Advertised Product

Intention to purchase the advertised product was also measured using a three-item seven-point semantic differential scale adapted from MacKenzie et al. (1986). The items were anchored as: 1= unlikely vs. 7 = likely, 1 = improbable vs. 7 = probable, and, 1 = impossible vs. 7 = possible (Cronbach α = 0.90).

Mediating Variables

Perceived Intrusiveness

Perceived intrusiveness was measured using a seven-item, seven-point Likert type scale (1-Strongly Disagree, 7-Strongly Agree) adapted from Li et al. (2002). The items were: distracting, disturbing, forced, interfering, intrusive, invasive, and obtrusive (Cronbach $\alpha = 0.90$).

Perceived Privacy Concern

Perceived privacy concern was measured using a six-item seven-point Likert type scale (1-Strongly Disagree, 7-Strongly Agree) adapted from Baek and Morimoto (2012). The items were: "I feel uncomfortable when information is shared without permission," "I am concerned about misuse of personal information," "It bothers me to receive too much advertising material of no interest," "I feel fear that information may not be safe while stored," "I believe that personal information is often misused," "I think companies share information without permission" (Cronbach $\alpha = 0.86$).

Reactance

The reactance measure is comprised four subscales and operationalized as "state reactance" as suggested by Gardner and Leshner (2016). The scales are: perceived threat to choice, counterarguing during message exposure, cognitive appraisal of the message, and state anger. Perceived threat to choice was measured using a four-item seven-point Likert type scale (1-Strongly Disagree, 7-Strongly Agree): "The message threatened my freedom to choose," "The message tried to make a decision for me," "The message tried to manipulate me," and "The message tried to persuade me" (Cronbach $\alpha = 0.83$).

Counterarguing was measured using a three-item seven-point Likert type scale (1-Not at All, 7-Very Much): "Did you criticize the message you just saw while you were reading it?," "Did you think of points that went against what was being said while you were reading the message?," and "While reading the message, were you skeptical of what was being said?" (Cronbach $\alpha = 0.94$).

Cognitive appraisal was measured using a three-item seven-point Likert type scale (1-Strongly Disagree, 7-Strongly Agree): The message was pleasant," "The message was reasonable," and "The message was fair" (Cronbach $\alpha = 0.87$).

State anger was measured using a three-item seven-point Likert type scale (1-Not at All, 7-Very Much): "To what extent did this message make you feel irritated/angry/annoyed" (Cronbach $\alpha = 0.921$). A composite "reactance" was created including the four subscales (Cronbach $\alpha = 0.97$).

Other Measures

Brand Familiarity

Participants' familiarity with the brand shown in the manipulated ad was tested. A three-item scale was used to check how participants rate their familiarity with the brand: "Regarding the brand, I am": 1= Unfamiliar vs. 7= Familiar, 1= Inexperienced vs. 7= Experienced, 1= Not knowledgeable vs. 7= Knowledgeable. The scale was adapted from Kent and Allen (1994) and the scale was measured on a 7-point Likert-type intensity scale (Cronbach $\alpha = 0.85$).

General Advertising Attitude

At the beginning of the questionnaire, participants were asked to report their general advertising attitude, measured using a three-item seven-point semantic

differential scale adapted from MacKenzie and Lutz (1989). The items were anchored

as: 1= bad vs. 7 = good, 1 = unpleasant vs. 7 = pleasant, and 1 = unfavorable vs. 7 =

favorable (Cronbach α = 0.89).

<div align="center">*Involvement*</div>

After asking smartphone usage questions, participants were further asked to

indicate their involvement with the product (i.e., smartphone). A four-item scale was

adapted from Zaichkowsky (1994). The items were: "To me, my smartphone is:" 1 =

Unimportant vs. 7 = Important, 1 = Boring vs. 7 = Interesting, 1 = Irrelevant vs. 7 =

Relevant, and 1 = Uninvolving vs. 7 = Involving (Cronbach α = 0.92).

Results

Data Preparation

After finishing collection, data were downloaded from the Qualtrics portal and

tabulated. At this point, all the identifying information and unnecessary data were

removed from the data file. Then the data file was imported into SPSS 25 software for

analysis. First, variables were computed, and scale reliability was checked. All

variables had the satisfactory scale reliability (see Table 1). Then, a correlation matrix

was created using the key variables, followed by the main analyses. The correlation

matrix is presented in Table 2.

Table 1. *Scale Measurement Items and Reliability*

Scale	Items	Cronbach α
General advertising attitude (MacKenzie & Lutz, 1989)	"In general, my feeling toward advertising is:" 1= bad vs. 7 = good, 1 = unpleasant vs. 7 = pleasant, and 1 = unfavorable vs. 7 = favorable (*M* = 4.254, *SD* = .054).	0.965
Involvement (Zaichkowsky, 1994)	"To me, my smartphone is:" 1 = Unimportant vs. 7 = Important, 1 = Boring vs. 7 = Interesting, 1 = Irrelevant vs. 7 = Relevant, and 1 = Uninvolving vs. 7 = Involving (*M* = 5.667, *SD* = .077).	0.944
Brand Familiarity (Kent & Allen, 1994)	"Regarding the brand, I am": 1= Unfamiliar vs. 7= Familiar, 1= Inexperienced vs. 7= Experienced, 1= Not knowledgeable vs. 7= Knowledgeable (*M* = 3.762, *SD* = .015).	0.979
Attitude toward advertising (MacKenzie & Lutz, 1989)	"In general, my feeling toward advertising is:" 1= bad vs. 7 = good, 1 = unpleasant vs. 7 = pleasant, and 1 = unfavorable vs. 7 = favorable (*M* = 3.762, *SD* = .109).	0.958
Attitude toward the brand (Mitchell & Olson ,1981)	"Thinking about the brand, I feel:" 1= bad vs. 7 = good, 1 = unpleasant vs. 7 = pleasant, 1 = dislike very much vs. 7 = like very much, and 1 = poor quality vs. 7 = high quality (*M* = 3.820, *SD* = .063).	0.952
Intention to click the ad (MacKenzie, Lutz, & Belch, 1986).	"My intention to click the ad is:" 1= unlikely vs. 7 = likely, 1 = improbable vs. 7 = probable, and, 1 = impossible vs. 7 = possible (*M* = 3.310, *SD* = .279).	0.947

Intention to purchase the product (MacKenzie, Lutz, & Belch, 1986).	"My intention to purchase the product is:" 1= unlikely vs. 7 = likely, 1 = improbable vs. 7 = probable, and, 1 = impossible vs. 7 = possible (M = 3.347, SD = .242).	0.945
Perceived intrusiveness (Li et al., 2002)	"I think the ad was:" distracting, disturbing, forced, interfering, intrusive, invasive, and obtrusive (1-Strongly Disagree, 7-Strongly Agree) (M = 4.431, SD = .475).	0.950
Perceived privacy concern (Baek & Morimoto, 2012)	"I feel uncomfortable when information is shared without permission," "I am concerned about misuse of personal information," "It bothers me to receive too much advertising material of no interest," I feel fear that information may not be safe while stored," I believe that personal information is often misused," "I think companies share information without permission" (1-Strongly Disagree, 7-Strongly Agree) (M = 5.523, SD = .187).	0.931
Reactance (Gardner & Leshner, 2016)	**Perceived threat to choice:** "The message threatened my freedom to choose," "The message tried to make a decision for me," "The message tried to manipulate me," and "The message tried to persuade me" (1-Strongly Disagree, 7-Strongly Agree) (Cronbach α = 0.766). **Counterarguing:** "Did you criticize the message you just saw while you were reading it?," "Did you think of points that went against what was being said while you were reading the message?," and "While reading the message, were you skeptical of what was being said?" (1-Not at All, 7-Very Much) (Cronbach α = 0.848). **Cognitive appraisal:** "The message was pleasant," "The message was reasonable," and "The message was fair" (1-Strongly Disagree, 7-Strongly Agree) (Cronbach α = 0.907). **State anger:** "To what extent did this message make you feel irritated/angry/annoyed" (1-Not at All, 7-Very Much) (Cronbach α = 0.921) (M = 4.575, SD = .863).	0.804

Hypotheses Testing

Analysis of covariance (ANCOVA) was used to test the main effects and interaction hypotheses. Participants' general advertising attitude was used as the covariate.

Reciprocity Main Effects

Hypothesis 1a predicted that participants who were exposed to a reciprocal condition of the OBA would have a more positive attitude toward the OBA than participants who were exposed to a non-reciprocal condition when controlling for the general advertising attitude. ANCOVA found no significant main effect of message reciprocity on participants' attitude toward the OBA, $F(1, 394) = .524$, $p = .470$, η^2_{part} $= .001$. $M = 3.853$, $SD = 1.663$ (reciprocal); $M = 3.679$, $SD = 1.656$ (non-reciprocal). Therefore, H1a was not supported (see Table 3 for details).

Hypothesis 1b predicted that participants who were exposed to a reciprocal condition of the OBA would have a more positive attitude toward the brand than participants who were exposed to a non-reciprocal condition when controlling for the general advertising attitude. ANCOVA found no significant main effect of message reciprocity on participants' attitude toward the brand, $F(1, 393) = .531$, $p = .467$, η^2_{part} $= .001$. $M = 3.791$, $SD = 1.520$ (reciprocal); $M = 3.833$, $SD = 1.534$ (non-reciprocal). Therefore, H1b was not supported. (see Table 4 for details).

Hypothesis 1c predicted that participants who were exposed to a reciprocal condition of the OBA would have a more positive intention to click the ad than participants who were exposed to a non-reciprocal condition when controlling for the general advertising attitude. ANCOVA found no significant main effect of message

reciprocity on participants' intention to click the ad, $F(1, 392) = 1.157$, $p = .283$, η^2_{part} = .003. $M = 3.450$, $SD = 2.130$ (reciprocal); $M = 3.172$, $SD = 2.028$ (non-reciprocal). Therefore, H1c was not supported (see Table 5 for details).

Hypothesis 1d predicted that participants who were exposed to a reciprocal condition of the OBA would have a more positive intention to purchase the product than participants who were exposed to a non-reciprocal condition when controlling for the general advertising attitude. ANCOVA found no significant main effect of message reciprocity on participants' intention to purchase the product, $F(1, 394) = .007$, $p = .931$, $\eta^2_{part} = .000$. $M = 3.383$, $SD = 1.841$ (reciprocal); $M = 3.305$, $SD = 1.844$ (non-reciprocal). Therefore, H1d was not supported (see Table 6 for details).

Personalization Main Effects

Hypothesis 2a predicted that participants who were exposed to a personalized condition of the OBA would have a more positive attitude toward the OBA than participants who were exposed to a generic condition when controlling for the general advertising attitude. ANCOVA test revealed that there was a significant effect of OBA message personalization on participants' attitude toward the ad after controlling for the effect of the general advertising attitude., $F(1, 394) = 7.642$, $p = .006$, $\eta^2_{part} = .019$. Results further revealed that participants in the "generic" condition had a higher attitude toward the ad ($M = 3.930$, $SD = 1.603$) than those who were exposed to the "personalized" condition ($M = 3.596$, $SD = 1.704$). It was in the opposite direction of the hypothesized prediction. Therefore, H2a was not supported. Results are summarized in Table 3.

Table 2. *Pearson's r Correlations Matrix of Key Variables*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. Phone Usage	1																		
2. OBA Knowledge	-0.094	1																	
3. OBA Exposure	.204**	-.447**	1																
4. Age	-.248**	-0.093	.117*	1															
5. Income	.135**	-.207**	.228**	.114*	1														
6. Employment	-.118*	-0.006	-0.025	.255**	-.157**	1													
7. Reciprocity	0.088	0.016	-0.002	-0.012	0.056	-0.069	1												
8. Personalization	-0.064	-0.002	-0.043	0.014	0.045	0.063	0.007	1											
9. Content Type	-0.018	-0.054	0.029	0.074	-0.018	-0.002	-0.002	0.008	1										
10. General Advertising Attitude	.274**	-0.062	0.055	0.030	.113*	-0.052	0.040	0.030	-0.068	1									
11. Involvement	.507**	-.243**	.261**	-0.036	.212**	-0.058	0.030	0.028	-0.066	.395**	1								
12. Brand Familiarity	.208**	.119*	-0.079	-.131**	-0.042	-.112*	0.010	0.036	-0.002	.362**	0.072	1							
13. Attitude toward Ad	.241**	-0.004	0.012	0.030	.112*	-0.082	0.052	-.101*	0.040	.521**	.230**	.430**	1						
14. Attitude toward Brand	.195**	-0.040	0.023	0.094	.102*	-0.063	-0.014	-0.058	0.062	.464**	.208**	.514**	.816**	1					
15. Intention to Click	.217**	0.003	-0.009	.104*	.127*	-0.078	0.067	-0.059	0.039	.421**	.224**	.449**	.774**	.760**	1				
16. Intention to Purchase	.229**	0.016	-0.001	0.033	.122*	-.110*	0.021	-0.038	-0.014	.410**	.224**	.540**	.725**	.774**	.854**	1			
17. Perceived Intrusiveness	-0.079	-0.070	0.067	-0.026	-.110*	0.005	-0.027	.205**	-0.033	-.303**	-.140**	-.184**	-.608**	-.505**	-.588**	-.488**	1		
18. Perceived Privacy Concern	-0.081	-.226**	.182**	.127*	0.051	0.062	0.012	0.062	-0.027	-.322**	-0.023	-.362**	-.447**	-.399**	-.431**	-.431**	.610**	1	
19. Reactance	0.042	-.101*	0.036	-0.039	-0.071	0.011	0.011	.207**	-0.029	-0.069	-0.012	.109*	-.291**	-.213**	-.198**	-.148**	.623**	.453**	1
M	3.94	1.23	3.90	37.04	5.62	1.41	0.496	0.491	0.506	4.253	5.687	2.555	3.765	3.812	3.309	3.344	4.434	5.522	3.977
SD	2.016	0.420	2.040	11.070	2.886	0.769	0.500	0.500	0.500	1.616	1.401	1.950	1.660	1.525	2.081	1.841	1.808	1.453	1.049
N	400	403	403	401	402	402	403	403	403	403	403	403	403	402	401	403	403	403	403

* $p < .05$, ** $p < .01$, *** $p < .001$

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Hypothesis 2b predicted that participants who were exposed to a personalized condition of the OBA would have a more positive attitude toward the brand than participants who were exposed to a generic condition when controlling for the general advertising attitude. ANCOVA test revealed no significant main effect of OBA message personalization on participants' attitude toward the brand after controlling for the effect of the general advertising attitude., $F(1, 393) = 2.80$, $p = .095$, $\eta^2_{part} = .007$. $M = 3.898$, $SD = 1.455$ (generic); $M = 3.722$, $SD = 1.593$ (personalized). Therefore, H2b was not supported. Results are summarized in Table 4.

Hypothesis 2c predicted that participants who were exposed to a personalized condition of the OBA would have a greater intention to click the ad than those who were exposed to a generic condition when controlling for the general advertising attitude. ANCOVA test revealed no significant main effect of OBA message personalization on participants' intention to click the ad after controlling for the effect of the general advertising attitude., $F(1, 392) = 2.786$, $p = .096$, $\eta^2_{part} = .007$. $M = 3.430$, $SD = 2.131$ (generic); $M = 3.184$, $SD = 2.025$ (personalized). Therefore, H2c was not supported. Results are summarized in Table 5.

Hypothesis 2d predicted that participants who were exposed to a personalized condition of the OBA would have a greater intention to purchase than participants who were exposed to a generic condition when controlling for the general advertising attitude. ANCOVA found no significant main effect of message personalization on participants' intention to purchase the product, $F(1, 394) = 1.218$, $p = .270$, $\eta^2_{part} = .003$. $M = 3.413$, $SD = 1.836$ (generic); $M = 3.272$, $SD = 1.848$ (personalized). Therefore, H2d was not supported (see Table 6 for details).

Content Type Main Effects

Hypothesis 3a predicted that participants who were exposed to a visual condition of the OBA would have a more positive attitude toward the OBA than those who were exposed to a verbal condition when controlling for the general advertising attitude. ANCOVA test revealed that there was an approached to significance effect of OBA message content type on participants' attitude toward the OBA after controlling for the effect of the general advertising attitude., $F(1, 394) = 3.296$, $p = .070$, $\eta^2_{part} = .008$. Results further revealed that participants in the "visual" condition had a more favorable attitude toward the OBA ($M = 3.831$, $SD = 1.620$) than those who were exposed to the "verbal" condition ($M = 3.698$, $SD = 1.700$). Therefore, H3a was not supported. Results are summarized in Table 3.

Hypothesis 3b predicted that participants who were exposed to a visual condition of the OBA would have a more positive attitude toward the brand than participants who were exposed to a verbal condition when controlling for the general advertising attitude. ANCOVA test revealed that there was a significant effect of OBA message content type on participants' attitude toward the brand after controlling for the effect of the general advertising attitude., $F(1, 393) = 4.789$, $p = .029$, $\eta^2_{part} = .012$. Results further revealed that participants in the "visual" condition had a more positive attitude toward the brand ($M = 3.905$, $SD = 1.434$) than those who were exposed to the "verbal" condition ($M = 3.716$, $SD = 1.612$). Therefore, H3b was supported. Results are summarized in Table 4.

Hypothesis 3c predicted that participants who were exposed to a visual condition of the OBA would have a greater intention to click the ad than those who

were exposed to a verbal condition when controlling for the general advertising attitude. ANCOVA found no significant main effect of message content type on participants' intention to click the ad, $F(1, 392) = 2.075$, $p = .151$, $\eta^2_{part} = .007$. $M = 3.227$, $SD = 2.086$ (verbal); $M = 3.390$, $SD = 2.081$ (visual). Therefore, H3c was not supported (see Table 5 for details).

Hypothesis 3d predicted that participants who were exposed to a visual condition of the OBA would have a greater intention to purchase than those who were exposed to a verbal condition when controlling for the general advertising attitude. ANCOVA found no significant main effect of message content type on participants' intention to purchase the product, $F(1, 394) = .112$, $p = .738$, $\eta^2_{part} = .000$. $M = 3.370$, $SD = 1.870$ (verbal); $M = 3.318$, $SD = 1.816$ (visual). Therefore, H3d was not supported (see Table 6 for details).

Interactions

Hypothesis 4a predicted that there would be an interaction between reciprocity and ad content type on participants' attitudes toward the OBA when controlling for the general advertising attitude. ANCOVA test revealed that there was an approached to significance interaction effect of reciprocity and ad content type on participants' attitude toward the OBA after controlling for the effect of the general advertising attitude., $F(1, 394) = 3.107$, $p = .079$, $\eta^2_{part} = .008$.

Results further revealed that participants in the "reciprocal" and "visual" condition had a more positive attitude toward the OBA ($M = 4.003$, $SD = 1.640$) than those who were exposed to the "reciprocal" and "verbal" condition ($M = 3.700$, $SD = 1.680$). On the other hand, participants in the "non-reciprocal" and "verbal" condition

had a slightly higher attitude toward the OBA ($M = 3.696$, $SD = 1.729$) than those who were exposed to the "non-reciprocal" and "visual" condition ($M = 3.663$, $SD = 1.591$) (see Figure 2). Therefore, H4a was not supported. Results are summarized in Table 3.
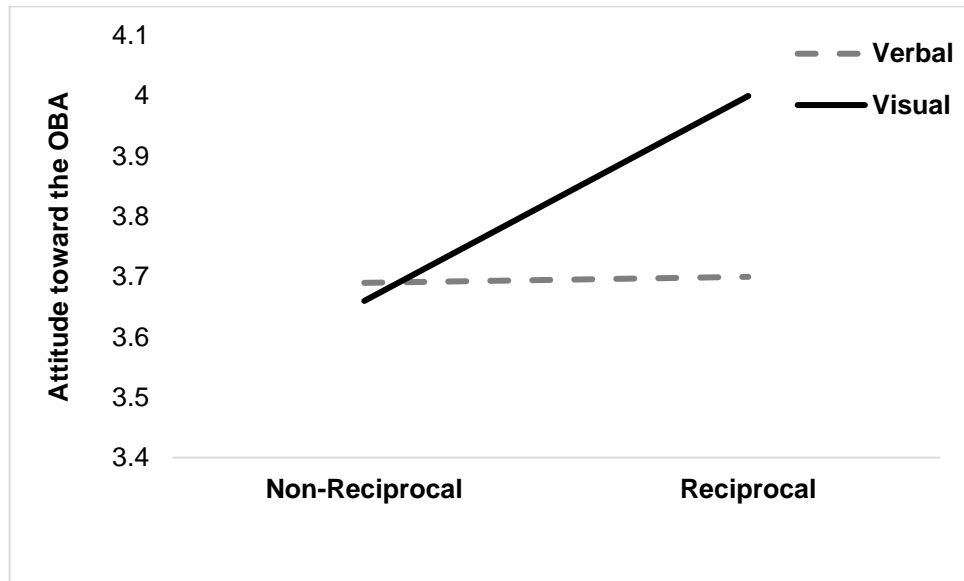
Figure 2. Interaction effects of reciprocity and ad content type on Attitude toward the OBA.

Hypothesis 4b predicted that there would be an interaction between reciprocity and ad content type on participants' attitudes toward the brand when controlling for the general advertising attitude. ANCOVA test revealed that there was an approached to significance interaction effect of reciprocity and ad content type on participants' attitude toward the brand after controlling for the effect of the general advertising attitude., $F(1, 393) = 3.210$, $p = .074$, $\eta^2_{part} = .008$,.

Results further revealed that participants in the "reciprocal" and "visual" condition had a higher attitude toward the brand ($M = 3.975$, $SD = 1.491$) than thosewho were exposed to the "reciprocal" and "verbal" condition ($M = 3.603$, $SD = 1.533$). Also, participants in the "non-reciprocal" and "visual" condition had a higher

attitude toward the brand ($M = 3.837$, $SD = 1.379$) than those who were exposed to the

"non-reciprocal" and "verbal" condition ($M = 3.829$, $SD = 1.687$) (see Figure 3).

Therefore, H4b was not supported. Results are summarized in Table 4.
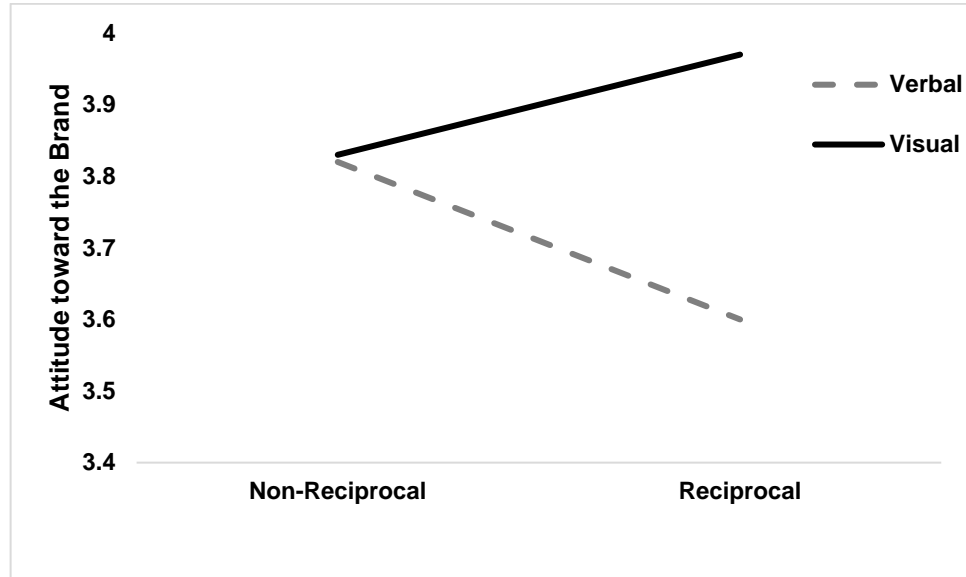
Figure 3. Interaction effects of reciprocity and ad content type on Attitude toward the Brand.

Hypothesis 4c predicted that there would be an interaction between reciprocity

and ad content type on participants' intentions to click the ad when controlling for the

general advertising attitude. ANCOVA test revealed that there was an approached to

significance interaction effect of reciprocity and ad content type on participants'

intention to click the ad after controlling for the effect of the general advertising

attitude., $F(1, 392) = 3.178$, $p = .075$, $\eta^2_{part} = .008$.

Results further revealed that participants in the "reciprocal" and "visual"

condition had a greater intention to click the ad ($M = 3.668$, $SD = 2.139$) than those

who were exposed to the "reciprocal" and "verbal" condition ($M = 3.227$, $SD =$

2.107). On the other hand, participants in the "non-reciprocal" and "verbal" condition

had a higher intention to click the ad ($M = 3.226$, $SD = 2.075$) than those who were

exposed to the "non-reciprocal" and "visual" condition ($M = 3.119$, $SD = 1.990$) (see

Figure 4). Therefore, H4c was not supported. Results are summarized in Table 5.
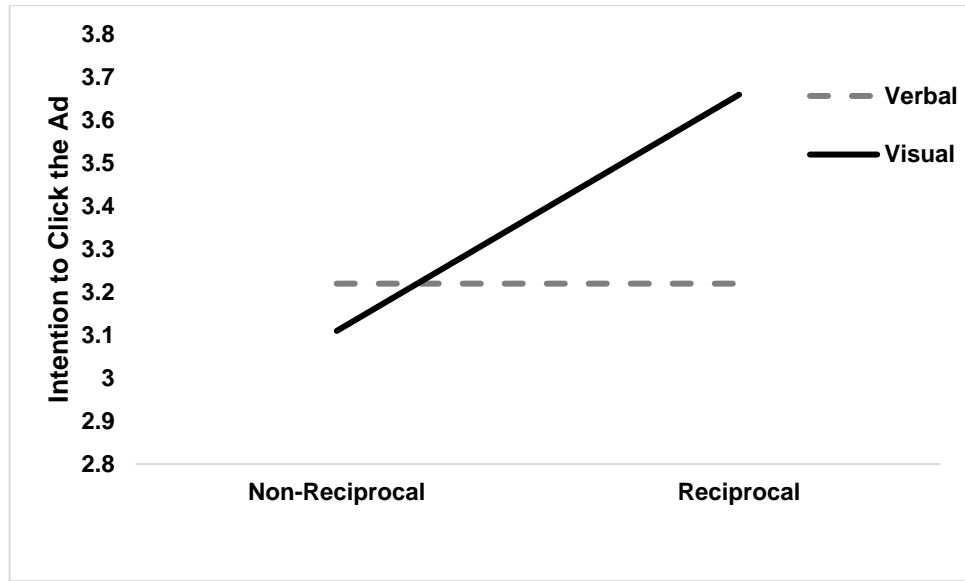
Figure 4. Interaction effects of reciprocity and ad content type on intention to click the ad.

        Hypothesis 4d predicted that there would be an interaction between reciprocity

and ad content type on participants' intentions to purchase when controlling for the

general advertising attitude. ANCOVA test revealed that there was an approached to

significance interaction effect of reciprocity and ad content type on participants'

intention to purchase after controlling for the effect of the general advertising

attitude., $F(1, 394) = 3.092$, $p = .079$, $\eta^2_{part} = .008$.

        Results further revealed that participants in the "reciprocal" and "visual"

condition had a greater intention to purchase ($M = 3.471$, $SD = 1.879$) than those who

were exposed to the "reciprocal" and "verbal" condition ($M = 3.292$, $SD = 1.800$). On

the other hand, participants in the "non-reciprocal" and "verbal" condition had a

higher intention to purchase ($M = 3.446$, $SD = 1.943$) than those who were exposed to

the "non-reciprocal" and "visual" condition ($M = 3.168$, $SD = 1.742$) (see Figure 5).

Therefore, H4d was not supported. Results are summarized in Table 6.
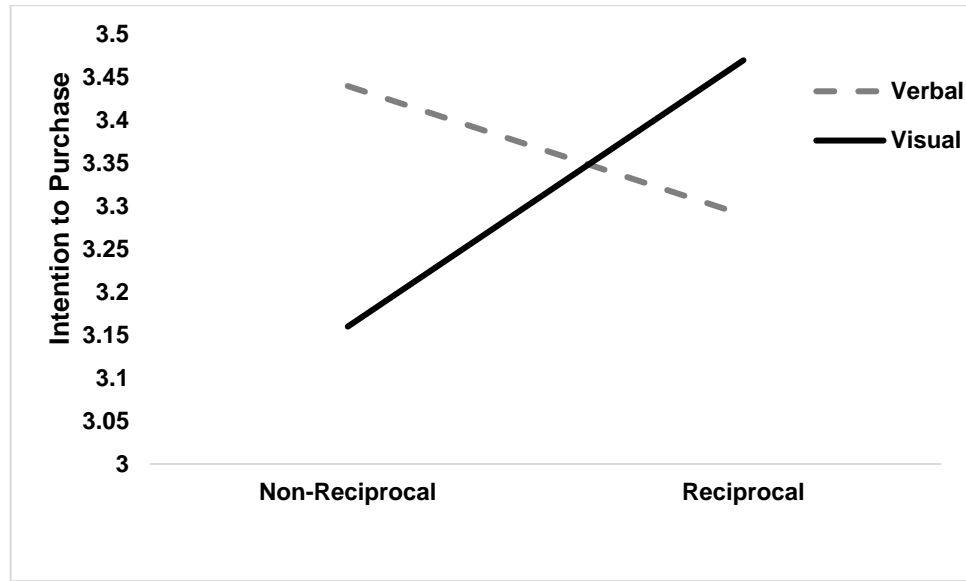
Figure 5. Interaction effects of reciprocity and ad content type on intention to purchase.

Hypothesis 5a predicted that there would be an interaction between ad content type and personalization on participants' attitudes toward the OBA when controlling for the general advertising attitude. ANCOVA found no significant interaction between ad content type and personalization on participants' attitude toward the OBA, $F(1, 394) = 1.162$, $p = .282$, $\eta^2_{part} = .003$. $M = 3.807$, $SD = 1.627$ (generic and verbal); $M = 4.051$, $SD = 1.577$ (generic and visual). $M = 3.584$, $SD = 1.775$ (personalized and verbal); $M = 3.607$, $SD = 1.641$ (personalized and visual). Therefore, H5a was not supported (see Table 3 for details).

Hypothesis 5b predicted that there would be an interaction between ad content type and personalization on participants' attitudes toward the brand when controlling for the general advertising attitude. ANCOVA found no significant interaction between ad content type and personalization on participants' attitude toward the

brand, $F(1, 393) = .062$, $p = .803$, $\eta^2_{part} = .000$. $M = 3.801$, $SD = 1.556$ (generic and

verbal); $M = 3.995$, $SD = 1.350$ (generic and visual). $M = 3.625$, $SD = 1.673$

(personalized and verbal); $M = 3.814$, $SD = 1.516$ (personalized and visual).

Therefore, H5b was not supported (see Table 4 for details).

      Hypothesis 5c predicted that there would be an interaction between ad content

type and personalization on participants' intentions to click the ad when controlling

for the general advertising attitude. ANCOVA found no significant interaction

between ad content type and personalization on participants' intention to click the ad,

$F(1, 392) = .025$, $p = .875$, $\eta^2_{part} = .000$. $M = 3.353$, $SD = 2.112$ (generic and verbal);

$M = 3.506$, $SD = 2.157$ (generic and visual). $M = 3.096$, $SD = 2.060$ (personalized and

verbal); $M = 3.270$, $SD = 1.997$ (personalized and visual). Therefore, H5c was not

supported (see Table 5 for details).

      Hypothesis 5d predicted that there would be an interaction between ad content

type and personalization on participants' intentions to purchase when controlling for

the general advertising attitude. ANCOVA found no significant interaction between

ad content type and personalization on participants' intention to purchase, $F(1, 394) =$

$.240$, $p = .624$, $\eta^2_{part} = .001$. $M = 3.496$, $SD = 1.852$ (generic and verbal); $M = 3.330$,

$SD = 1.824$ (generic and visual). $M = 3.237$, $SD = 1.890$ (personalized and verbal); M

$= 3.306$, $SD = 1.816$ (personalized and visual). Therefore, H5d was not supported (see

Table 6 for details).

      Hypothesis 6a predicted that there would be an interaction between reciprocity

and personalization on participants' attitudes toward the OBA when controlling for

the general advertising attitude. ANCOVA found no significant interaction between

reciprocity and personalization on participants' attitude toward the OBA, $F(1, 394) =$ .186, $p = .667$, $\eta^2_{part} = .000$. $M = 4.062$, $SD = 1.554$ (reciprocal and generic); $M = 3.639$, $SD = 1.749$ (reciprocal and personalized). $M = 3.801$, $SD = 1.647$ (non-reciprocal and generic); $M = 3.552$, $SD = 1.665$ (non-reciprocal and personalized). Therefore, H6a was not supported (see Table 3 for details).

Hypothesis 6b predicted that there would be an interaction between reciprocity and personalization on participants' attitudes toward the brand when controlling for the general advertising attitude. ANCOVA found no significant interaction between reciprocity and personalization on participants' attitude toward the brand, $F(1, 393) =$ .957, $p = .328$, $\eta^2_{part} = .002$. $M = 3.657$, $SD = 1.420$ (reciprocal and generic); $M = 3.621$, $SD = 1.604$ (reciprocal and personalized). $M = 3.841$, $SD = 1.494$ (non-reciprocal and generic); $M = 3.824$, $SD = 1.583$ (non-reciprocal and personalized). Therefore, H6b was not supported (see Table 4 for details).

Hypothesis 6c predicted that there would be an interaction between reciprocity and personalization on participants' intentions to click the ad when controlling for the general advertising attitude. ANCOVA found no significant interaction between reciprocity and personalization on participants' intention to click the ad, $F(1, 392) =$ .074, $p = .786$, $\eta^2_{part} = .000$. $M = 3.605$, $SD = 2.159$ (reciprocal and generic); $M = 3.292$, $SD = 2.098$ (reciprocal and personalized). $M = 3.262$, $SD = 2.100$ (non-reciprocal and generic); $M = 3.077$, $SD = 1.995$ (non-reciprocal and personalized). Therefore, H6c was not supported (see Table 5 for details).

Hypothesis 6d predicted that there would be an interaction between reciprocity and personalization on participants' intentions to purchase when controlling for the

general advertising attitude. ANCOVA found no significant interaction between

reciprocity and personalization on participants' intention to purchase, $F(1, 394) =$

.109, $p = .742$, $\eta^2_{part} = .000$. $M = 3.491$, $SD = 1.840$ (reciprocal and generic); $M =$

3.272, $SD = 1.845$ (reciprocal and personalized). $M = 3.336$, $SD = 1.837$ (non-

reciprocal and generic); $M = 3.272$, $SD = 1.861$ (non-reciprocal and personalized).

Therefore, H6d was not supported (see Table 6 for details).

Research question 1 asked whether there would be any interaction between

reciprocity, personalization, and ad content type on participants' attitudes and

intentions. The answer to this question is no. No interaction effects of these factors on

the dependent variables were found.

Table 3. *ANCOVA Summary Table for Attitude toward the Ad*

Source	df	MS	F	p	η^2_{part}
General advertising attitude	1	309.234	157.376	***	0.285
Reciprocity	1	1.029	0.524	.470	0.001
Personalization	1	14.980	7.624	**	0.019
Content Type	1	6.477	3.296	.070	0.008
Reciprocity * Personalization	1	0.365	0.186	.667	0.000
Reciprocity * Content Type	1	6.105	3.107	.079	0.008
Personalization* Content Type	1	2.283	1.162	.282	0.003
Reciprocity* Personalization * Content Type	1	1.184	0.602	.438	0.002
Error	394	1.965			
Total	403				
Corrected Total	402				

Note. $R^2 = .301$ ($R^2_{Adjusted} = .287$).
$^{***}p < .001$; $^{**}p < .01$; $^{*}p < .05$

Table 4. *ANCOVA Summary Table for Attitude toward the Brand*

Source	df	MS	F	p	η^2_{part}
General advertising attitude	1	209.306	115.786	***	0.228
Reciprocity	1	0.959	0.531	.467	0.001
Personalization	1	5.061	2.800	.095	0.007
Content Type	1	8.657	4.789	*	0.012
Reciprocity * Personalization	1	1.731	0.957	.328	0.002
Reciprocity * Content Type	1	5.803	3.210	.074	0.008
Personalization* Content Type	1	0.113	0.062	.803	0.000
Reciprocity* Personalization * Content Type	1	0.030	0.017	.897	0.000
Error	393	1.808			
Total	402				
Corrected Total	401				

Note. $R^2 = .239$ ($R^2_{Adjusted} = .223$).
***$p < .001$; *$p < .05$

Table 5. *ANCOVA Summary Table for Intention to Click the Ad*

Source	df	MS	F	p	η^2_{part}
General advertising attitude	1	312.875	88.260	***	0.184
Reciprocity	1	4.100	1.157	.283	0.003
Personalization	1	9.875	2.786	.096	0.007
Content Type	1	7.356	2.075	.151	0.005
Reciprocity * Personalization	1	0.262	0.074	.786	0.000
Reciprocity * Content Type	1	11.299	3.187	.075	0.008
Personalization* Content Type	1	0.087	0.025	.875	0.000
Reciprocity* Personalization * Content Type	1	2.593	0.731	.393	0.002
Error	392	3.545			
Total	401				
Corrected Total	400				

Note. $R^2 = .198$ ($R^2_{Adjusted} = .182$).
***$p < .001$

Table 6. *ANCOVA Summary Table for Intention to Purchase the Product*

Source	df	MS	F	p	η^2_{part}
General advertising attitude	1	231.736	81.570	***	0.172
Reciprocity	1	0.021	0.007	.931	0.000
Personalization	1	3.460	1.218	.270	0.003
Content Type	1	0.319	0.112	.738	0.000
Reciprocity * Personalization	1	0.309	0.109	.742	0.000
Reciprocity * Content Type	1	8.784	3.092	.079	0.008
Personalization* Content Type	1	0.683	0.240	.624	0.001
Reciprocity* Personalization * Content Type	1	0.463	0.163	.687	0.000
Error	394	2.841			
Total	403				
Corrected Total	402				

Note. $R^2 = .179$ ($R^2_{Adjusted} = .162$).
***$p < .001$

Mediating Effects

The current study predicted several mediating effects. Perceived intrusiveness, perceived privacy concern, and reactance were used as mediating variables. To test the proposed mediations, the current study utilized PROCESS macro 2.16.3 for SPSS using 10,000 bootstrap samples and bias-corrected confidence intervals (CIs) (Hayes, 2013). Mediation Model 4 was used for the analyses. Participants' general advertising attitude was used as a covariate.

Since the study has three mediating variables (perceived intrusiveness, perceived privacy concern, and reactance), the mediation analysis could have been done using "parallel multiple mediator" analysis in PROCESS (Hayes, 2013). However, Hayes (2013) argued that the prerequisite for condition for conducting such multiple mediation analysis is that no mediators should influence each other. Since all

the mediators were highly corelated in this study, they were used separately in the

PROCESS model 4 instead of one multiple mediation model.

Hypothesis 7a predicted that perceived intrusiveness would mediate the

influence of i) reciprocity, ii) personalization, and iii) ad content type on participants'

attitudes toward the OBA when controlling for the general advertising attitude. No

significant mediating effect of perceived intrusiveness was found on the influence of

reciprocity on participants' attitudes toward the OBA. Therefore, H7a-i was not

supported.

However, a significant positive effect of personalization on perceived

intrusiveness was found ($b = .774$, $SE = .167$, $p < .001$). The model was significant

($F(2, 400) = 31.881$, $p < .001$, $R^2 = .137$). In turn, perceived intrusiveness negatively

influenced attitude toward the OBA ($b = -.452$, $SE = .035$, $p < .001$). The model was

significant ($F(3, 399) = 130.201$, $p < .001$, $R^2 = .494$). Although the direct effect of

personalization on attitude toward the OBA was not found ($b = -.0361$, $SE = .121$,

95% $CI = [-.274, .202]$), a significant negative indirect effect of personalization on

attitude toward the OBA was found ($b = -.035$, $SE = .079$, 95% $CI = [-.5121, -.203]$).

The total effect model was significant ($F(2, 400) = 79.862$, $p < .001$, $R^2 = .285$). These

relationships indicate that participants who were exposed to a personalized OBA

expressed more perceived intrusiveness, and in turn, reported more negative attitudes

toward the OBA than those who were exposed to a generic OBA. Therefore, H7a-ii

was supported (see Figure 6).

No significant mediating effect of perceived intrusiveness was found on the influence of content type on participants' attitude toward the OBA. Therefore, H7a-iii was not supported. Results are summarized in Table 7.

Figure 6. The effects of personalization on attitude toward the OBA mediated by perceived intrusiveness.

[***]$p < .001$; Personalization was coded as "Generic" = 0, "Personalized" = 1

Table 7. *Mediating Role of Perceived Intrusiveness on the Direct and Indirect Relationship between Personalization and Attitude toward the OBA*

Specific Effect	Point Estimate	*Boot SE*	95% Bootstrap CI	
			LL	UL
Personalization → Aad	-.036	.121	-.274	.202
Personalization → PI → Aad	-.035	.079	-.512	-.203

Note. PI = Perceived Intrusiveness; Aad = Attitude toward the Ad (OBA).

Hypothesis 7b predicted that perceived intrusiveness would mediate the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' attitudes toward the brand when controlling for the general advertising attitude. No significant mediating effect of perceived intrusiveness was found on the influence of reciprocity on participants' attitudes toward the brand. Therefore, H7b-i was not supported.

However, a significant positive effect of personalization on perceived intrusiveness was found ($b = .766$, $SE = .168$, $p < .001$). The model was significant ($F(2, 399) = 31.039$, $p < .001$, $R^2 = .134$). In turn, perceived intrusiveness negatively

influenced attitude toward the brand ($b = -.342$, $SE = .036$, $p < .001$). The model was

significant ($F(3, 398) = 75.468$, $p < .001$, $R^2 = .362$). Although the direct effect of

personalization on attitude toward the brand was not found ($b = .033$, $SE = .125$, 95%

$CI = [-.207, .284]$), a significant negative indirect effect of personalization on attitude

toward the brand was found ($b = -.262$, $SE = .064$, 95% $CI = [-.402, -.146]$). The total

effect model was significant ($F(2, 399) = 56.40$, $p < .001$, $R^2 = .220$). These

relationships indicate that participants who were exposed to a personalized OBA

expressed more perceived intrusiveness, and in turn, reported more negative attitude

toward the brand than those who were exposed to a generic OBA. Therefore, H7b-ii

was supported (see Figure 7).

No significant mediating effect of perceived intrusiveness was found on the

influence of content type on participants' attitude toward the brand. Therefore, H7b-iii

was not supported. Results are summarized in Table 8.
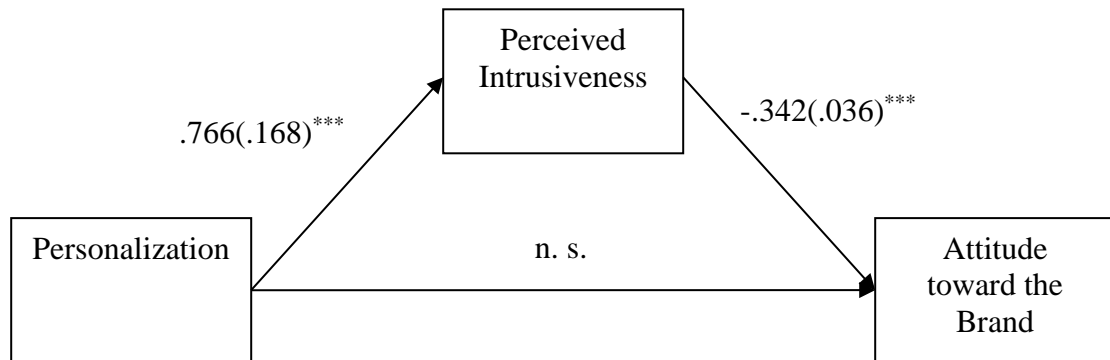
Figure 7. The effects of personalization on attitude toward the brand mediated by perceived intrusiveness.

[***]$p < .001$; Personalization was coded as "Generic" = 0, "Personalized" = 1

Table 8. *Mediating Role of Perceived Intrusiveness on the Direct and Indirect Relationship between Personalization and Attitude toward the Brand*

Specific Effect	Point Estimate	*Boot SE*	95% Bootstrap CI	
			LL	UL
Personalization → Ab	.033	.125	-.207	.284
Personalization → PI → Ab	-.262	.064	-.402	-.146

Note. PI = Perceived Intrusiveness; Ab = Attitude toward the Brand.

Hypothesis 7c predicted that perceived intrusiveness would mediate the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' intentions to click the ad when controlling for the general advertising attitude. No significant mediating effect of perceived intrusiveness was found on the influence of reciprocity on participants' intentions to click the ad. Therefore, H7c-i was not supported.

However, a significant positive effect of personalization on perceived intrusiveness was found ($b = .789$, $SE = .168$, $p < .001$). The model was significant ($F(2, 398) = 32.669$, $p < .001$, $R^2 = .141$). In turn, perceived intrusiveness negatively influenced participants' intention to click the ad ($b = -.592$, $SE = .047$, $p < .001$). The model was significant ($F(2, 397) = 92.446$, $p < .001$, $R^2 = .411$). Although the direct effect of personalization on participants' intention to click the ad was not found ($b = .152$, $SE = .164$, 95% $CI = [-.171, .475]$), a significant negative indirect effect of personalization on participants' intention to click the ad was found ($b = -.468$, $SE = .107$, 95% $CI = [-.689, -.269]$). The total effect model was significant ($F(2, 398) = 44.620$, $p < .001$, $R^2 = .183$). These relationships indicate that participants who were exposed to a personalized OBA expressed more perceived intrusiveness, and in turn, reported less intention to click the ad than those who were exposed to a generic OBA. Therefore, H7c-ii was supported (see Figure 8).

No significant mediating effect of perceived intrusiveness was found on the

influence of content type on participants' participants' intention to click the ad.

Therefore, H7c-iii was not supported. Results are summarized in Table 9.
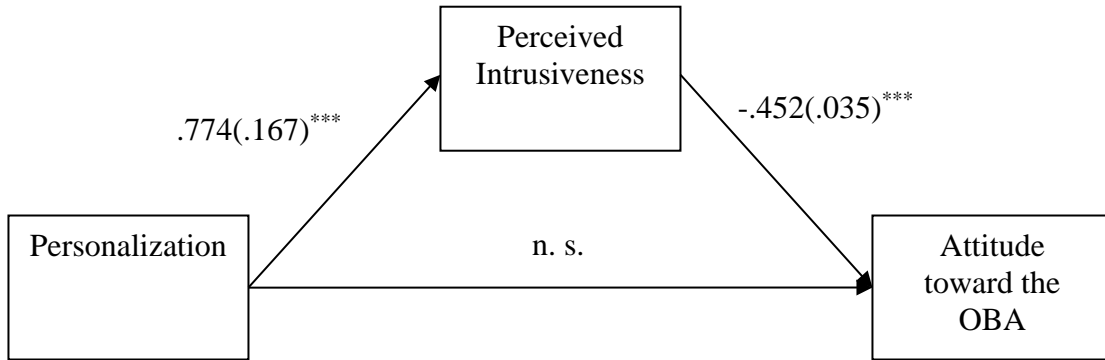

Figure 8. The effects of personalization on intention to click the ad mediated by
perceived intrusiveness.
***$p < .001$; Personalization was coded as "Generic" = 0, "Personalized" = 1

Table 9. *Mediating Role of Perceived Intrusiveness on the Direct and Indirect
Relationship between Personalization and Intention to Click the Ad*

Specific Effect	Point Estimate	*Boot SE*	95% Bootstrap CI	
			LL	UL
Personalization → IC	-.152	.164	-.475	.171
Personalization → PI → IC	.468	.107	.264	.691

Note. PI = Perceived Intrusiveness; IC = Intention to Click the Ad.

Hypothesis 7d predicted that perceived intrusiveness would mediate the

influence of i) reciprocity, ii) personalization, and iii) ad content type on participants'

intentions to purchase when controlling for the general advertising attitude. No

significant mediating effect of perceived intrusiveness was found on the influence of

reciprocity on participants' intentions to purchase. Therefore, H7d-i was not

supported.

However, a significant positive effect of personalization on perceived

intrusiveness was found ($b = .774$, $SE = .167$, $p < .001$). The model was significant

($F(2, 400) = 31.881$, $p < .001$, $R^2 = .137$). In turn, perceived intrusiveness negatively

influenced participants' intention to purchase ($b = -.416$, $SE = .045$, $p < .001$). The

model was significant ($F(2, 393) = 61.337$, $p < .001$, $R^2 = .315$). Although the direct

effect of personalization on participants' intention to purchase was not found ($b =$

.137, $SE = .156$, 95% $CI = [-.170, .444]$), a significant negative indirect effect of

personalization on participants' intention to purchase was found ($b = -.322$, $SE = .079$,

95% $CI = [-.496, -.182]$). The total effect model was significant ($F(2, 400) = 41.264$, p

$< .001$, $R^2 = .171$). These relationships indicate that participants who were exposed to

a personalized OBA expressed more perceived intrusiveness, and in turn, reported less

intention to purchase the product than those who were exposed to a generic OBA.

Therefore, H7d-ii was supported (see Figure 9).

No significant mediating effect of perceived intrusiveness was found on the

influence of content type on participants' participants' intention to purchase.

Therefore, H7d-iii was not supported. Results are summarized in Table 10.

Figure 9. The effects of personalization on intention to purchase mediated by
perceived intrusiveness.
***$p < .001$; Personalization was coded as "Generic" = 0, "Personalized" = 1

Table 10. *Mediating Role of Perceived Intrusiveness on the Direct and Indirect Relationship between Personalization and Intention to Purchase*

Specific Effect	Point Estimate	*Boot SE*	95% Bootstrap CI	
			LL	UL
Personalization → IP	.134	.156	-.170	.444
Personalization → PI → IP	-.322	.079	-.496	-.182

Note. PI = Perceived Intrusiveness; IP = Intention to Purchase.

Hypotheses 8a- 8d predicted that perceived privacy concerns would mediate the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' i) attitude toward the OBA, ii) attitude toward the brand, iii) intention to click the ad, and iv) intention to purchase the product when controlling for the general advertising attitude. No significant mediating effect of perceived privacy concerns was found on the above relationships. Therefore, H8a were not supported.

Hypothesis 9a predicted that reactance would mediate the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' attitudes toward the OBA when controlling for the general advertising attitude. No significant mediating effect of reactance was found on the influence of reciprocity on participants' attitudes toward the OBA. Therefore, H9a-i was not supported.

However, a significant positive effect of personalization on reactance was found ($b = .439$, $SE = .102$, $p < .001$). The model was significant ($F(2, 400) = 10246$, $p < .001$, $R^2 = .048$). In turn, reactance negatively influenced attitude toward the OBA ($b = -.383$, $SE = .065$, $p < .001$). The model was significant ($F(3, 399) = 68.879$, $p < .001$, $R^2 = .341$). Although the direct effect of personalization on attitude toward the OBA was not found ($b = -.217$, $SE = .137$, 95% $CI = [-.488, .053)$, a significant negative indirect effect of personalization on attitude toward the OBA was found ($b = -.168$, $SE = .049$, 95% $CI = [-.283, -.086]$). The total effect model was significant

$(F(2, 400) = 79.862, p < .001, R^2 = .285)$. These relationships indicate that participants who were exposed to a personalized OBA expressed more reactance, and in turn, reported more negative attitude toward the OBA than those who were exposed to a generic OBA. Therefore, H9a-ii was supported (see Figure 10).

No significant mediating effect of reactance was found on the influence of content type on participants' attitude toward the OBA. Therefore, H9a-iii was not supported. Results are summarized in Table 11.
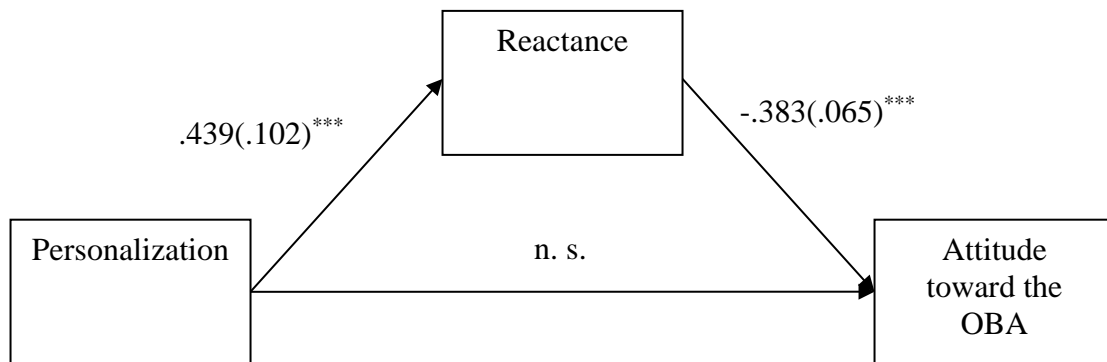
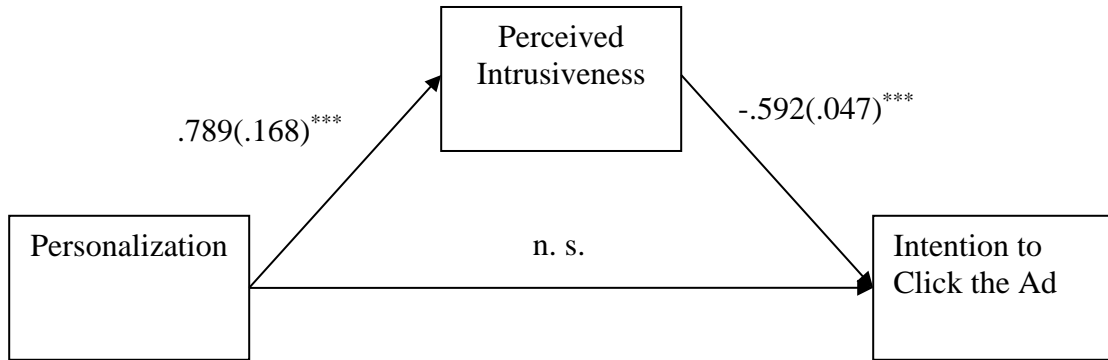*Figure 10.* The effects of personalization on attitude toward the OBA mediated by reactance.
***$p < .001$; Personalization was coded as "Generic" = 0, "Personalized" = 1

Table 11. *Mediating Role of Reactance on the Direct and Indirect Relationship between Personalization and Attitude toward the OBA*

Specific Effect	Point Estimate	Boot SE	95% Bootstrap CI	
			LL	UL
Personalization → Aad	-.217	.137	-.488	.053
Personalization → RCT → Aad	-.168	.049	-.283	-.086

Note. RCT = Reactance; Aad = Attitude toward the Ad (OBA).

Hypothesis 9b predicted that reactance would mediate the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' attitudes toward the brand when controlling for the general advertising attitude. No significant

mediating effect of reactance was found on the influence of reciprocity on participants' attitudes toward the brand. Therefore, H9b-i was not supported.

However, a significant positive effect of personalization on reactance was found ($b = .433$, $SE = .102$, $p < .001$). The model was significant ($F(2, 399) = 9.839$, $p < .001$, $R^2 = .047$). In turn, reactance negatively influenced attitude toward the brand ($b = -.256$, $SE = .064$, $p < .001$). The model was significant ($F(3, 398) = 44.202$, $p < .001$, $R^2 = .249$). Although the direct effect of personalization on attitude toward the brand was not found ($b = -.112$, $SE = .135$, 95% $CI = [-.379, .153]$), a significant negative indirect effect of personalization on attitude toward the brand was found ($b = -.111$, $SE = .040$, 95% $CI = [-.208, -.047]$). The total effect model was significant ($F(2, 399) = 56.403$, $p < .001$, $R^2 = .220$). These relationships indicate that participants who were exposed to a personalized OBA expressed more reactance, and in turn, reported more negative attitude toward the brand than those who were exposed to a generic OBA. Therefore, H9b-ii was supported (see Figure 11).

No significant mediating effect of reactance was found on the influence of content type on participants' attitude toward the brand. Therefore, H9b-iii was not supported. Results are summarized in Table 12.

```
                           ┌──────────────┐
                           │  Reactance   │
                           │              │
      .433(.102)***       └──────────────┘      -.256(.064)***
                ↗                                    ↘
┌──────────────┐                                   ┌──────────────┐
│Personalization│ ──────── n. s. ───────────────→  │  Attitude    │
│              │                                   │ toward the   │
└──────────────┘                                   │   Brand      │
                                                   └──────────────┘
```
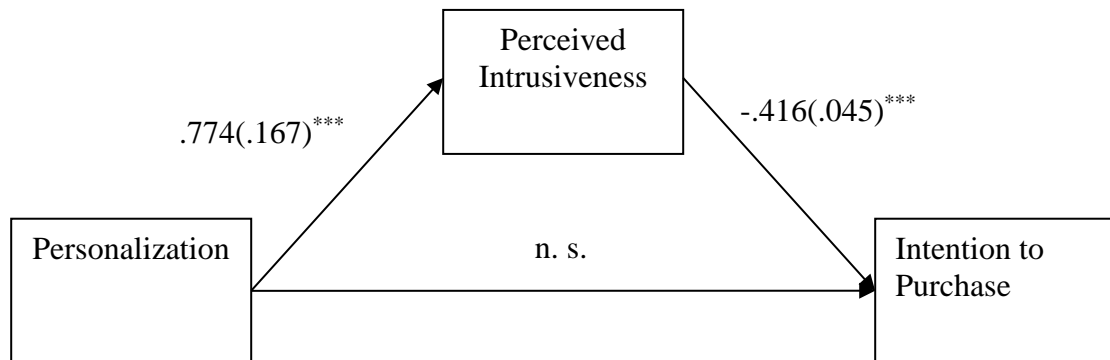
Figure 11. The effects of personalization on attitude toward the brand mediated by reactance.

***$p < .001$; Personalization was coded as "Generic" = 0, "Personalized" = 1

Table 12. *Mediating Role of Reactance on the Direct and Indirect Relationship between Personalization and Attitude toward the Brand*

Specific Effect	Point Estimate	*Boot SE*	95% Bootstrap CI	
			LL	UL
Personalization → Ab	-.112	.135	-.379	.153
Personalization → RCT → Ab	-.111	.040	-.208	-.047

Note. RCT = Reactance; Ab = Attitude toward the Brand.

Hypothesis 9c predicted that reactance would mediate the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' intentions to click the ad when controlling for the general advertising attitude. No significant mediating effect of reactance was found on the influence of reciprocity on participants' intentions to click the ad. Therefore, H9c-i was not supported.

However, a significant positive effect of personalization on reactance was found ($b = .440$, $SE = .102$, $p < .001$). The model was significant ($F(2, 398) = 10.105$, $p < .001$, $R^2 = .048$). In turn, reactance negatively influenced participants' intention to click the ad ($b = -.319$, $SE = .010$, $p < .001$). The model was significant ($F(2, 397) = 34.741$, $p < .001$, $R^2 = .207$). Although the direct effect of personalization on participants' intention to click the ad was not found ($b = -.175$, $SE = .190$, 95% $CI = [-.549, .198]$), a significant negative indirect effect of personalization on participants' intention to click the ad was found ($b = -.140$, $SE = .056$, 95% $CI = [-.278, -.052]$).

The total effect model was significant ($F(2, 398) = 44.620$, $p < .001$, $R^2 = .183$). These

relationships indicate that participants who were exposed to a personalized OBA

expressed more reactance, and in turn, reported less intention to click the ad than

those who were exposed to a generic OBA. Therefore, H9c-ii was supported (see

Figure 12).

No significant mediating effect of reactance was found on the influence of

content type on participants' participants' intention to click the ad. Therefore, H9c-iii

was not supported. Results are summarized in Table 13.
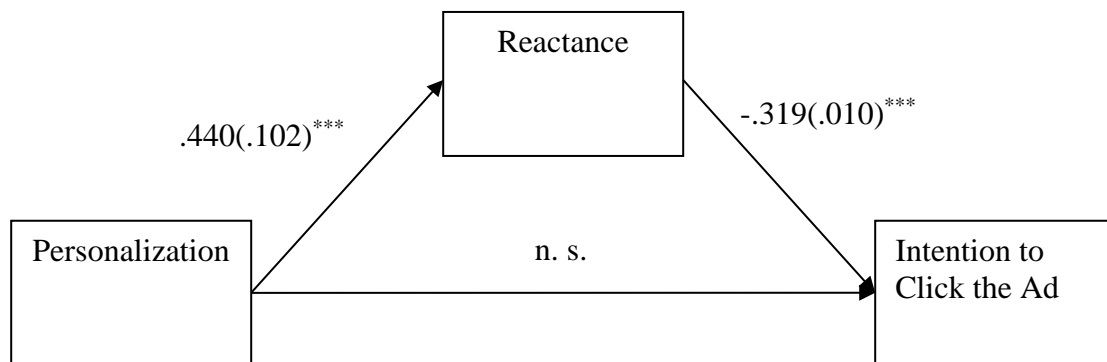
Figure 12. The effects of personalization on intention to click the ad mediated by
reactance.
***$p < .001$; Personalization was coded as "Generic" = 0, "Personalized" = 1

Table 13. *Mediating Role of Reactance on the Direct and Indirect Relationship
between Personalization and Intention to Click the Ad*

Specific Effect	Point Estimate	*Boot SE*	95% Bootstrap CI	
			LL	UL
Personalization → IC	-.175	.190	-.549	.198
Personalization → RCT → IC	-.140	.056	-.278	-.052

Note. RCT = Reactance; IC = Intention to Click the Ad.

Hypothesis 9d predicted that reactance would mediate the influence of i)

reciprocity, ii) personalization, and iii) ad content type on participants' intentions to

purchase when controlling for the general advertising attitude. No significant

mediating effect of reactance was found on the influence of reciprocity on participants' intentions to purchase. Therefore, H9d-i was not supported.

However, a significant positive effect of personalization on reactance was found ($b = .439$, $SE = .102$, $p < .001$). The model was significant ($F(2, 400) = 10246$, $p < .001$, $R^2 = .048$). In turn, reactance negatively influenced participants' intention to purchase ($b = -.200$, $SE = .081$, $p < .05$). The model was significant ($F(3, 399) = 29.885$, $p < .001$, $R^2 = .183$). Although the direct effect of personalization on participants' intention to purchase was not found ($b = -.097$, $SE = .170$, 95% $CI = [-.432, .237]$), a significant negative indirect effect of personalization on participants' intention to purchase was found ($b = -.088$, $SE = .045$, 95% $CI = [-.196, -.016]$). The total effect model was significant ($F(2, 400) = 41.264$, $p < .001$, $R^2 = .171$). These relationships indicate that participants who were exposed to a personalized OBA expressed more reactance, and in turn, reported less intention to purchase the product than those who were exposed to a generic OBA. Therefore, H9d-ii was supported (see Figure 13).

No significant mediating effect of reactance was found on the influence of content type on participants' participants' intention to purchase. Therefore, H9d-iii was not supported. Results are summarized in Table 14. A summary of results of the hypotheses and the research question is presented in Table 15.

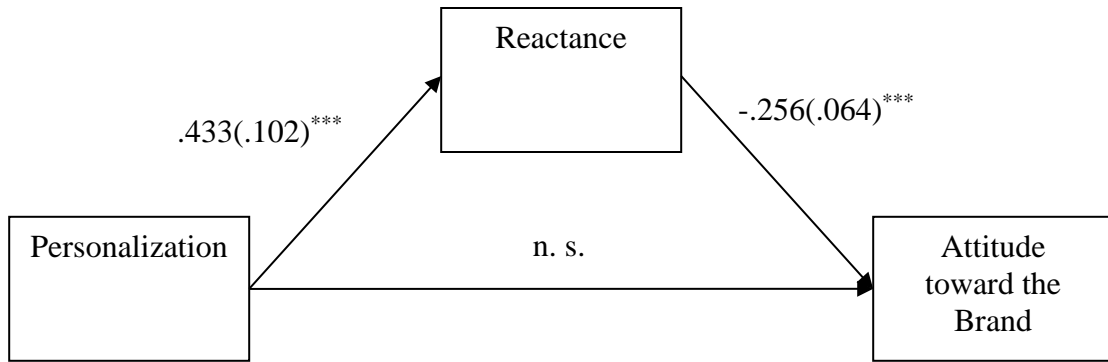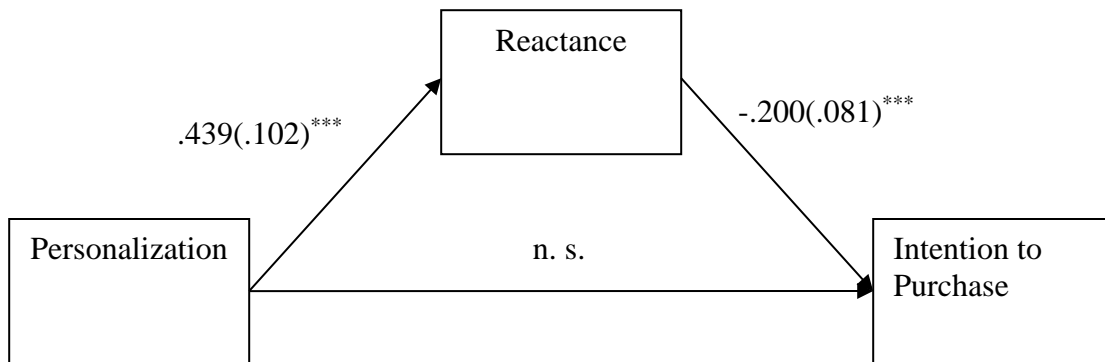*Figure 13.* The effects of personalization on intention to purchase mediated by reactance.

[***]$p < .001$; Personalization was coded as "Generic" = 0, "Personalized" = 1

Table 14. *Mediating Role of Reactance on the Direct and Indirect Relationship between Personalization and Intention to Purchase*

Specific Effect	Point Estimate	*Boot SE*	95% Bootstrap CI	
			LL	UL
Personalization → IP	-.097	.170	-.432	.237
Personalization → RCT → IP	-.088	.045	-.196	-.016

Note. RCT = Reactance; IP = Intention to Purchase.

Table 15. *Summary Table for Study 1 Hypotheses and Research Question*

	Predicted Relationship	Outcome
H1a	Main effect of reciprocity on participants' attitude toward the OBA when controlling for the general advertising attitude.	Not supported.
H1b	Main effect of reciprocity on participants' attitude toward the brand when controlling for the general advertising attitude.	Not supported.
H1c	Main effect of reciprocity on participants' intention to click the ad when controlling for the general advertising attitude.	Not supported.
H1d	Main effect of reciprocity on participants' intention to purchase the product when controlling for the general advertising attitude.	Not supported.
H2a	Main effect of personalization on participants' attitude toward the OBA when controlling for the general advertising attitude.	Not supported.
H2b	Main effect of personalization on participants' attitude toward the brand when controlling for the general advertising attitude.	Not supported.
H2c	Main effect of personalization on participants' intention to click the ad when controlling for the general advertising attitude.	Not supported.
H2d	Main effect of personalization on participants' intention to purchase the product when controlling for the general advertising attitude.	Not supported.
H3a	Main effect of ad content type on participants' attitude toward the OBA when controlling for the general advertising attitude.	Not supported.
H3b	Main effect of ad content type on participants' attitude toward the brand when controlling for the general advertising attitude.	**Supported.**
H3c	Main effect of ad content type on participants' intention to click the ad when controlling for the general advertising attitude.	Not supported.
H3d	Main effect of ad content type on participants' intention to purchase the product when controlling for the general advertising attitude.	Not supported.
H4a	Interaction effect of reciprocity and ad content type on participants' attitude toward the OBA when controlling for the general advertising attitude.	Not supported.
H4b	Interaction effect of reciprocity and ad content type on participants' attitude toward the brand when controlling for the general advertising attitude.	Not supported.
H4c	Interaction effect of reciprocity and ad content type on participants' intention to click the ad when controlling for the general advertising attitude.	Not supported.
H4d	Interaction effect of reciprocity and ad content type on participants' intention to purchase the product when controlling for the general advertising attitude.	Not supported.

H5a	Interaction effect of ad content type and personalization on participants' attitude toward the OBA when controlling for the general advertising attitude.	Not supported.
H5b	Interaction effect of ad content type and personalization on participants' attitude toward the brand when controlling for the general advertising attitude.	Not supported.
H5c	Interaction effect of ad content type and personalization on participants' intention to click the ad when controlling for the general advertising attitude.	Not supported.
H5d	Interaction effect of ad content type and personalization on participants' intention to purchase the product when controlling for the general advertising attitude.	Not supported.
H6a	Interaction effect of reciprocity and personalization on participants' attitude toward the OBA when controlling for the general advertising attitude.	Not supported.
H6b	Interaction effect of reciprocity and personalization and personalization on participants' attitude toward the brand when controlling for the general advertising attitude.	Not supported.
H6c	Interaction effect of reciprocity and personalization and personalization on participants' intention to click the ad when controlling for the general advertising attitude.	Not supported.
H6d	Interaction effect of reciprocity and personalization and personalization on participants' intention to purchase the product when controlling for the general advertising attitude.	Not supported.
RQ1	Would there be any interaction between reciprocity, personalization, and ad content type on the dependent variables?	No, there was no three-way interaction.
H7a	Mediating effect of perceived intrusiveness on the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' attitude toward the OBA when controlling for the general advertising attitude.	**H7a-ii supported.**
H7b	Mediating effect of perceived intrusiveness on the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' attitude toward the brand when controlling for the general advertising attitude.	**H7b-ii supported.**
H7c	Mediating effect of perceived intrusiveness on the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' intention to click the ad when controlling for the general advertising attitude.	**H7c-ii supported.**
H7d	Mediating effect of perceived intrusiveness on the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' intention to purchase when controlling for the general advertising attitude.	**H7d-ii supported.**
H8a	Mediating effect of perceived privacy concerns on the influence of i) reciprocity, ii) personalization, and iii) ad	Not supported.

	content type on participants' attitude toward the OBA when controlling for the general advertising attitude.	
H8b	Mediating effect of perceived privacy concerns on the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' attitude toward the brand when controlling for the general advertising attitude.	Not supported.
H8c	Mediating effect of perceived privacy concerns on the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' intention to click the ad when controlling for the general advertising attitude.	Not supported.
H8d	Mediating effect of perceived privacy concerns on the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' intention to purchase when controlling for the general advertising attitude.	Not supported.
H9a	Mediating effect of reactance on the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' attitude toward the OBA when controlling for the general advertising attitude.	**H9a-ii supported.**
H9b	Mediating effect of reactance on the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' attitude toward the brand when controlling for the general advertising attitude.	**H9b-ii supported.**
H9c	Mediating effect of reactance on the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' intention to click the ad when controlling for the general advertising attitude.	**H9c-ii supported.**
H9d	Mediating effect of reactance on the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' intention to purchase when controlling for the general advertising attitude.	**H9d-ii supported.**

<center>**Discussion**</center>

The goal of the current research was to explore the role of some specific advertiser-controlled factors of OBA on consumers' attitude and behavioral intention. Specifically, this research investigated the role of reciprocity, personalization, and ad content type of OBA on participants' attitudes toward the OBA, attitudes toward the brand, intention to click the ad, and intention to purchase the advertised product. As put forward by Boerman et al. (2017), OBA fails to gain research attention from both scholars and practitioners despite having a bright future in the online advertising arena. Boerman et al. (2017) argued that the existing research on OBA is scattered and often misleading. In short, prevailing research effort is not making any valuable contribution in building knowledge about the OBA. Thus, Boerman et al. (2017) suggested to conduct organized research that would focus on specific attributes (e.g., advertiser-controlled and consumer-controlled factors, mediating and moderating variables etc.) of the phenomenon. Considering such suggestions, the current study explored the influence of some advertiser-controlled factors on consumers' attitude and behavioral intention.

Furthermore, the current study also explored the mediating influence of perceived intrusiveness, perceived privacy concerns, reactance on consumers' attitude and behavioral intention. These variables are proposed as mediators because the existing research on personalized ads suggests that "information privacy" is one of the major consumer concerns when it comes to online advertising (McDonald & Cranor, 2010; Smit et al., 2014; Turow et al., 2009). The conceptual framework of this research is built upon the theoretical propositions of the Social Exchange Theory

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(SET) and the Privacy Calculus Model. These theories explain some core attributes of OBA. However, no prior research on OBA used these theoretical frameworks till date.

The manipulations (reciprocity, personalization, and ad content type) were successful. For all three factors, participants were able to distinguish the manipulated conditions significantly. Therefore, the stimulus materials worked as expected. Discussions related to the hypothesized relationships are presented in the following sections.

Influence of Message Reciprocity

It was hypothesized that the reciprocal nature of the OBA would influence participants' attitude toward the OBA, attitude toward the brand, intention to click the ad, and intention to purchase the product. No significant influence of message reciprocity was found in this study. There are several reasons for such findings. First, this study used a fictitious brand in the advertising. Therefore, participants might not necessarily establish the reciprocal connection with the product. According to the SET, a reciprocal relationship exists where both parties give something to the other party in exchange for something else. Also, the amount of receiving should be at least equal to or higher than the amount of giving. Since the brand was completely unknown to participants, they did not expect to receive anything in exchange for providing their personal information. Therefore, the reciprocal nature of the message had no impact on their attitude and intention.

On reciprocal relationship, Wu et al., (2008) suggest that to make a valid reciprocal connection between a consumer and a brand, consumers first need to establish trust and commitment with the brand. Since participants could not arrive at

such relationships for the fictitious brand, message reciprocity did not have any impact in this study.

Influence of Message Personalization

It was hypothesized that the message personalization of the OBA would influence participants' attitude toward the OBA, attitude toward the brand, intention to click the ad, and intention to purchase the product. Only one hypothesized relationship (H2a) was found to be significant. Personalization significantly influenced participants attitude toward the ad. However, the direction of the relationship was the opposite what was expected. Participants who were exposed to the "generic" condition expressed higher attitude toward the ad than those who were exposed to the "personalized" condition.

Research on personalized advertising suggests opposing influence of personalization on consumers' attitude and intention. On the one hand, personalization can increase commercial messages' persuasion (e.g., Beam & Kosicki, 2014; Ha & Janda, 2014), consumers' trust, likelihood of accepting product recommendations (Komiak & Benbasat, 2006), and purchase intention (Van Doorn & Hoekstra, 2013). On the other hand, personalization may also negatively affect consumers by reducing persuasion effect, creating ad avoidance, negative attitude toward the ad and the brand (Smit et al., 2014), and decreasing purchase intention (Aguirre et al., 2015). However, the current study found evidence for the negative effect of message personalization. This can be explained by the fact the consumers do not like to see their behavioral and personal information in an online ad. It is important to note that participants' names were used in this study to create

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personalized messages. Therefore, the finding indicates that participants preferred a generic ad (without the name) than a personalized ad (with name) in terms of their attitude toward the ad.

Previous studies suggest that such results emerge for several reasons. Van Doorn and Hoekstra (2013) reported that individuals felt higher intrusiveness when exposed to higher degrees of personalized ads, and in turn, reported lower attitude and intention. In other words, intrusiveness weakened the positive influence of the ad on participants' attitude and behavioral intention. Similar possibilities are also expected in the current study. Since the brand is fictitious, it might have caused higher intrusiveness for the individuals who were exposed to the personalized ad and thus showed lower attitude toward the ad than those who were shown the generic ad.

Moreover, Li and Liu (2017) argued that the type of personalization in the ad may have different effects on consumers' attitude and behavioral intention. Their study suggested that only using "name" as the personalization attribute may not work well for the ad to generate positive influence. Since the current study also used names, it might have reduced participants' positive feeling toward the ad significantly. This is an interesting finding because, it tells us to conduct more research on different types of personalization techniques and find out which one consumers prefers.

However, it is necessary to note that no significant influence of personalization was found on participants' attitude toward the brand, intention to click the ad, and intention to purchase the product. All the insignificant results are possibly linked to their feeling of perceived intrusiveness. Nonetheless, the unfamiliarity of the

brand might have caused message personalization to produce no impact on participants attitudes and intentions.

Influence of OBA Content Type

The current study hypothesized that ad (OBA) content type would influence participants' attitude toward the OBA, attitude toward the brand, intention to click the ad, and intention to purchase the product. Ad content type was found as a significant influencer to participants' attitude toward the brand (H3b). Participants who saw the "visual" ad reported significantly higher attitude toward the brand than those who saw the "verbal" ad. This finding is crucial because it confirmed the superiority of visual elements over verbal elements of advertising.

Scholars are conducting research for several decades to understand the role of advertising content type on consumers' cognition, emotion, and persuasion. A good number of studies confirmed that in general, consumers prefer visual contents more than verbal contents. Visual contents were found to have a more positive impact on their attitude and intention (e.g., Childers et al., 1986; Mitchell & Olson, 1981; Mitchell, 1986). The reason behind such a different effect is that humans process visual and verbal contents differently. Visuals are attractive and easier to understand. Visuals also help to create better memory and information retention (Childers et al., 1986). Thus, it can be argued that the same line of findings is revealed in the current study. Despite the brand being unknown to the participants, the visual OBA generated more favorable positive attitude toward the brand than the verbal OBA. An approached to significance result was also found for attitude toward the ad which suggests similar assumptions.

However, the rest of the predicted influences of ad content type was found insignificant and again, the reasons can be explained by participants' feeling of intrusiveness and privacy issues. Because of the unfamiliar brand, it is possible that participants faced a higher level of intrusiveness in their personal information and thus showed no significant intention to click the ad, and intention to purchase.

Interaction Effect of Reciprocity and OBA Content Type

Hypotheses 4a–4d predicted that there would be an interaction effect between reciprocity and ad content type on participants' attitude toward the OBA, attitude toward the brand, intention to click the ad, and intention to purchase. None of the relationships were found to be statistically significant. However, all the hypotheses were approached to significance.

It was found that participants in the "reciprocal" and "visual" condition had a higher attitude toward the OBA than those who were exposed to the "reciprocal" and "verbal" condition. On the other hand, participants in the "non-reciprocal" and "verbal" condition had a slightly higher attitude toward the OBA than those who were exposed to the "non-reciprocal" and "visual" condition. This finding is worth mentioning because it can be connected to the existing theoretical frameworks. First, it supports the superiority of visual contents in the persuasive message. Second, it is possible that the perceived exchange value from such OBA reduces participants intrusiveness and privacy concerns. It is also likely that such a preference on the visual contents led participants to consider the reciprocal condition more appealing.

Despite there being no main effect of message reciprocity on the attitude toward the ad, visual contents along with the reciprocal message generated higher

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attitude toward the ad than verbal and reciprocal OBA. Moreover, it was also found that for the non-reciprocal condition, both verbal and visual OBA had a similar impact on participants' attitude toward the ad. Therefore, it can be said that when the ad has nothing to offer in exchange of consumers' action, participants do not feel any difference regarding verbal or visual ads.

A similar result was found for attitude toward the brand (H4b). For the reciprocal condition, visual OBA influenced greater attitude toward the brand than the verbal condition; and for the non-reciprocal condition, both visual and verbal condition had a similar influence. Therefore, it can be said that visual stimuli, added with message reciprocity works well in generating positive ad and brand attitude in the OBA domain.

Hypothesis 4c predicted that there would be an interaction effect between reciprocity and ad content type on participants' intention to click the ad. Like the previous two hypotheses, visual and reciprocal condition influenced higher intention to click the ad than the reciprocal and verbal condition. However, for the non-reciprocal condition, visual OBA influenced less favorable intention to click the ad than the verbal condition. The same pattern was also found in case of participants' intention to purchase (H4d). Visual OBA had a higher influence for reciprocal messages, but verbal OBA had a higher influence for non-reciprocal messages.

These two hypotheses provided some important insights. In H4a and H4b, visual condition had a better influence on attitudes than verbal condition for reciprocal messages. But for non-reciprocal OBA, there were no notable differences between verbal and visual OBA. However, in case of intentions, the relationships were

completely opposite. Participants showed more intention to click the ad and purchase the product for visual and reciprocal condition, and for non-reciprocal and verbal condition. Therefore, it can be asserted that individuals process their attitude and intention related decisions differently. It is possible that in terms of attitudes, individuals preferred the visual OBA regardless of the exchange condition since there was no perceived action related to it. However, in terms of intentions, participants might process the information using different mindset since intentions are "action" oriented.

It is likely that participants preferred visual OBA in the reciprocal condition because they would get something in exchange despite the brand being fictitious. In other words, both visual and reciprocal elements combined invoked positive intentions among participants. But when there was no reciprocity, participants did not like the visuals as it was unknown; and thus, might have created a greater feeling of intrusiveness in them. Therefore, participants in the non-reciprocal and verbal condition had a higher influence toward intention to click the ad and purchase the product.

Even though hypotheses 4a–4d were not statistically significant, the findings revealed some valuable insights for the behavioral advertising practice. It can be suggested that advertisers should carefully design the OBAs with appropriate attributes such as reciprocity and content type to receive proper attention from the consumers. However, it is also necessary to craft the ads in such a way that would not make consumers feel that the ads are intruding their personal information.

Interaction Effect of Personalization and OBA Content Type

Hypotheses 5a–5d predicted that there would be an interaction effect between personalization and ad content type on participants' attitude toward the OBA, attitude toward the brand, intention to click the ad, and intention to purchase. None of the relationships were found to be statistically significant. The reason for such findings is that participants did not like personalized OBA (seeing their names) in general. Thus, there was no interaction between personalization and OBA content type, regardless of the difference in the content.

Interaction Effect of OBA Message Reciprocity and Personalization

Hypotheses 6a–6d predicted that there would be an interaction effect between message reciprocity and personalization on participants' attitude toward the OBA, attitude toward the brand, intention to click the ad, and intention to purchase. No significant interaction effects were found. There was no impact of the message reciprocity on participants' attitudes and intentions. It happened because the brand was fictitious and thus, participant did not expect any reciprocity from the unknown brand. Also, since participants disliked personalization from an unknown brand, there were no interaction effects.

Mediating Effects

Hypotheses 7–9 predicted a series of mediating effects of participants' perceived intrusiveness, perceived privacy concern, and reactance, on the relationship between the independent and the dependent factors. Hypothesis 7a-7d predicted that perceived intrusiveness would mediate the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' i) attitude toward the OBA,

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ii) attitude toward the brand, iii) intention to click the ad, and iv) intention to purchase the product.

Among all the relationships, perceived intrusiveness was found as a significant mediator only for personalization. OBA personalization caused perceived intrusiveness among participants, and in turn perceived intrusiveness negatively affected their attitude toward the OBA, attitude toward the brand, intention to click the ad, and intention to purchase. Previous research supports this mediating effect of personalization since scholars reported that personalized ads can reduce consumers' attitudes and intentions (e.g., Aguirre et al., 2015; Smit et al., 2014; Van Doorn & Hoekstra, 2013). As discussed before, using "name" in the ad might cause them to feel such intrusiveness. Individuals' names are one of most personal elements that people are "in love" with (Li & Liu, 2017). In other words, it is expected that individuals would show higher positive attitude toward their names than a generic message.

But the current study found that seeing their names in the ad caused participants to feel intrusiveness. Thus, they indicated a lower degree of attitudes and intentions. This result suggests that personalization in the OBA, in general, does not always work. It can, in fact, reduce the persuasive capabilities of the advertisement. Moreover, it can be assumed that personalization with only the names may not be enough or appropriate for designing OBA. Further research should determine if there are any differences on consumer attitude and intention when using name and other personalization attributes in OBA.

Hypotheses 8a-8d predicted that perceived privacy concern would mediate the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' i) attitude toward the OBA, ii) attitude toward the brand, iii) intention to click the ad, and iv) intention to purchase the product. Perceived privacy concern was found to have no mediating effects on all the relationships.

Although the outcomes were not expected, these revealed some interesting insights for the scholarship on online privacy. In general, the results indicate that the participants did not feel any privacy concern while watching the ad. This is the opposite of what was found for perceived intrusiveness. Although they thought that the ad was invasive, they did not feel any privacy issues. This finding resembles with the so called "privacy paradox" where individuals do little or nothing to protect their personal information despite showing privacy concerns. However, in the current study, despite perceiving intrusiveness, participants reported no privacy concerns.

One reason for no privacy concern could be that the level of personalization was not high enough for participants to notice privacy concerns. As argued by Boerman et al. (2017), the higher the level of personalization (i.e., use of personal information), the higher the possibilities of perceiving privacy concerns.

Another explanation is that participants considered the fact that the ad was based on an experimental study and hence, there was no chance of mishandling their personal information. Nevertheless, it is important to mention that there could be other reasons for participants' not reporting significant privacy concern. Therefore, further research is needed.

Hypotheses 9a-9d predicted that reactance would mediate the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' i) attitude toward the OBA, ii) attitude toward the brand, iii) intention to click the ad, and iv) intention to purchase the product. Reactance was found to mediate the role of OBA personalization on the dependent factors.

The cause for such a reactance can be explained by the fact that the participants were not familiar with the brand. They did not like the unknown brand enough to persuade them online. On top of that, since the ad used personalized information, it created a heightened threat to their individual freedom. As reported by Fitzsimons and Lehmann (2004), unsolicited product recommendation triggers reactance and in turn, negative behavioral outcomes. A similar pattern can be observed here. The personalized OBA from the unknown brand activated reactance and therefore, negatively influenced their attitudes and intentions. Thus, marketers should be aware of this fact when dealing with OBAs for a new or unknown product.

In summary, it is evident that the core assumption of the Social Exchange Theory (SET) was not supported in this study. Participants were not influenced by the ad even though they were given some incentives by the brand. Therefore, it is an addition for the SET scholarship.

However, given the mediating effects of perceived intrusiveness and reactance, it is clear that because of such anxieties about personal information security online, participants were reluctant to show a positive attitude and intention toward the reciprocal ad. It can be also reasoned that because of the unknown (fictitious) nature of the product, participants were highly reluctant to give up their personal information

in exchange for the incentive. Thus, it is seen here that the participants "calculated" their privacy against the possible gain from the ad. It is the core idea of the Privacy Calculus Model. Hence, this study reestablished the role of the Privacy Calculus Model in the OBA context.

It is also found that since the participants calculated an unfavorable transaction between the incentive from the ad and giving up personal information, they did not show a positive attitude and intention toward the reciprocal message. Therefore, this study confirms that the SET and the Privacy Calculus Model are complimentary. Specially, in the OBA context, consumers calculate both risks and gains from online personalized messages and make their decisions based on the overall benefit or loss. Thus, this study confirms that the SET and the Privacy Calculus Model play significant roles in the OBA context and explain how consumers make their decisions regarding OBA.

Chapter 6: Study 2 with Real Brand

Study 2 used a real brand (iPhone X) for manipulating the ad. As discussed previously, Study 2 would replicate Study 1, and at the same time, test some possible differential effects of brand familiarity. Individuals have different associations with a familiar brand and thus, store information from those previous experiences in their memories (Campbell & Keller, 2003). Such prior experiences make individuals' information processing for a familiar brand different from an unfamiliar brand.

Furthermore, it is argued that individuals have separate processing information processing goals for familiar and unfamiliar brands (Campbell & Keller, 2003). When people are exposed to an unfamiliar brand, they tend to learn new information and create an impression toward the brand. However, when exposed to a familiar brand, they tend to update their existing knowledge of the brand. Therefore, it is possible that in case of an exposure to a familiar brand, individuals focus more on processing the brand-related information than the product-specific attributes (Kent & Allen, 1994).

Moreover, individuals may show strong feeling toward a familiar brand since they already possess information about the brand (Machleit & Wilson, 1988). Therefore, if an individual has prior positive interaction with a brand, he/she may show stronger positive attitude and intention when exposed to an ad from that familiar brand. In short, it is expected that "iPhone X" in Study 2 would influence participants' attitude and intention differently than it would do for "ArtCell" in Study 1, despite the overall design of the manipulated ads being the same.

Method

Participants

A total of 402 U.S. residents were recruited for this study from the Amazon Mechanical Turk (MTurk) online survey platform. They were randomly assigned to one of the eight experimental groups in the following quantities: 1) reciprocal-personalized-verbal = 50; 2) reciprocal-generic-verbal = 50; 3) non-reciprocal-personalized-verbal = 50; 4) non-reciprocal-generic-verbal = 50; 5) reciprocal-personalized-visual = 51; 6) reciprocal-generic-visual = 50; 7) non-reciprocal-personalized-visual = 50; 8) non-reciprocal-generic-visual = 51.

Among them, 174 participants were male (43.3%) and 226 were female (56.2%). Participants' age was widely spread between 20 to 80 years (*M* = 40.90, *SD* = 13.238). A total of 326 participants reported their race as "White or Caucasian" (81.9%), 38 reported their race as "Black or African American" (9.5%), and 31 reported their race as "Asian" (7.8%).

Sixty-three participants reported that they had an annual household income within the range of $20,000-29,000 (15.7%), 46 reported they had an annual household income within the range of $50,000-59,000 (11.5%), 44 reported they had an annual household income within the range of $30,000-39,000 (11%), 40 reported they had an annual household income within the range of $40,000-49,000 (10%), 40 \ reported they had an annual household income within the range of $10,000-19,000 (10%), and 39 reported they had an annual household income within the range of $60,000-69,000 (9.7%).

A total of 142 participants had completed a bachelor's degree (35.5%), 89 had completed some college (22.3%), 51 had completed a master's degree (12.8%), 50 had completed an associate degree (12.5%), and 44 had completed high school (11%).

Two hundred and sixty-six participants reported they were employed full-time (40 hours or more per week) (66.3%), 79 reported they were employed part-time (less than 40 hours per week) (19.7%), 38 reported they were not employed (9.5%), and 18 reported they were retired (4.5%).

When asked about their smartphone usage, 143 participants reported that they use "Apple" brand phone (35.6%), 129 reported they use "Samsung" brand phone (32.1%), 48 reported that they use "LG" brand phone (11.9%), 19 reported that they use "Motorola" brand phone (4.2%), and only 8 participants reported that they did not use a smartphone (2%).

Regarding daily usage, 92 participants reported that they use their phone for 3-4 hours per day (23.1%), 89 reported they use their phone for 2-3 hours per day (22.4%), 61 reported they use their phone for 30 minutes to 1 hour per day (15.3%), 48 reported they use their phone for 4- 5 hours per day (12.1%), and 47 reported they use their phone for less than 30 minutes per day (11.8%).

Regarding OBA knowledge, 311 participants reported seeing OBA in the last six months (77.6%), while 90 reported that they had not seen OBA in the last six months (22.4%). When asked about their daily exposure to OBA, 101 participants reported that they see more than five OBAs per day (25.2%), 84 reported that they see three OBAs per day (20.9%), 71 reported that they see two OBAs per day (17.7%), 50

reported that they see one OBA per day (12.5%), and 45 reported that they do not see

OBAs (11.2%). Overall, the descriptive statistics show a similar pattern to Study 1.

Scenarios and Stimulus Materials

For this study, iPhone X was used as the real brand. Other than the product

name and image, everything else was the same as in Study 1. Eight versions of the ad

were designed to fit each condition, and the basic language format was the same

(Appendix B). The same fake daily newspaper *"The Daily Rising Star"* was used as

the medium.

Procedure

The procedure and the questionnaire were like that foe Study 1. The

questionnaire is presented in Appendix D. At the end of the survey, participants were

asked to provide the unique code found in the "end of survey" message to the MTurk

portal, as the proof of the survey completion. The process took approximately 17

minutes to complete. Participants were paid $0.70 each for taking part in the

experiment.

Measures

All measures were similar to Study 1 measures.

Results

Data Preparation

All data preparation procedures were the same as Study 1. First, variables were computed, and scale reliability was checked. All variables had the satisfactory scale reliability (see Table 16). Then, a correlation matrix was created using the key variables, followed by the main analyses. The correlation matrix is presented in Table 17.

Table 16. *Scale Measurement Items and Reliability*

Scale	Items	Cronbach α
General advertising attitude (MacKenzie & Lutz, 1989)	"In general, my feeling toward advertising is:" 1= bad vs. 7 = good, 1 = unpleasant vs. 7 = pleasant, and 1 = unfavorable vs. 7 = favorable (M = 4.528, SD = .044).	0.965
Involvement (Zaichkowsky, 1994)	"To me, my smartphone is:" 1 = Unimportant vs. 7 = Important, 1 = Boring vs. 7 = Interesting, 1 = Irrelevant vs. 7 = Relevant, and 1 = Uninvolving vs. 7 = Involving (M = 5.890, SD = .144).	0.917
Brand Familiarity (Kent & Allen, 1994)	"Regarding the brand, I am": 1= Unfamiliar vs. 7= Familiar, 1= Inexperienced vs. 7= Experienced, 1= Not knowledgeable vs. 7= Knowledgeable (M = 5.265, SD = .353).	0.910
Attitude toward advertising (MacKenzie & Lutz, 1989)	"In general, my feeling toward advertising is:" 1= bad vs. 7 = good, 1 = unpleasant vs. 7 = pleasant, and 1 = unfavorable vs. 7 = favorable (M = 3.907, SD = .083).	0.961
Attitude toward the brand (Mitchell & Olson ,1981)	"Thinking about the brand, I feel:" 1= bad vs. 7 = good, 1 = unpleasant vs. 7 = pleasant, 1 = dislike very much vs. 7 = like very much, and 1 = poor quality vs. 7 = high quality (M = 4.756, SD = .181).	0.953
Intention to click the ad (MacKenzie, Lutz, & Belch, 1986).	"My intention to click the ad is:" 1= unlikely vs. 7 = likely, 1 = improbable vs. 7 = probable, and, 1 = impossible vs. 7 = possible (M = 3.273, SD = .415).	0.933
Intention to purchase the product	"My intention to purchase the product is:" 1= unlikely vs. 7 = likely, 1 = improbable vs. 7 = probable, and, 1 = impossible vs. 7 = possible (M = 3.718, SD = .277).	0.945

(MacKenzie, Lutz, & Belch, 1986).		
Perceived intrusiveness (Li et al., 2002)	"I think the ad was:" distracting, disturbing, forced, interfering, intrusive, invasive, and obtrusive (1-Strongly Disagree, 7-Strongly Agree) ($M = 4.492$, $SD = .538$).	0.940
Perceived privacy concern (Baek & Morimoto, 2012)	"I feel uncomfortable when information is shared without permission," "I am concerned about misuse of personal information," "It bothers me to receive too much advertising material of no interest," I feel fear that information may not be safe while stored," I believe that personal information is often misused," "I think companies share information without permission" (1-Strongly Disagree, 7-Strongly Agree) ($M = 5.558$, $SD = .176$).	0.923
Reactance (Gardner & Leshner, 2016)	**Perceived threat to choice:** "The message threatened my freedom to choose," "The message tried to make a decision for me," "The message tried to manipulate me," and "The message tried to persuade me" (1-Strongly Disagree, 7-Strongly Agree) (Cronbach α = 0.723). **Counterarguing:** "Did you criticize the message you just saw while you were reading it?," "Did you think of points that went against what was being said while you were reading the message?," and "While reading the message, were you skeptical of what was being said?" (1-Not at All, 7-Very Much) (Cronbach α = 0.841). **Cognitive appraisal:** "The message was pleasant," "The message was reasonable," and "The message was fair" (1-Strongly Disagree, 7-Strongly Agree) (Cronbach α = 0.901). **State anger:** "To what extent did this message make you feel irritated/angry/annoyed" (1-Not at All, 7-Very Much) (Cronbach α = 0.922) ($M = 4.651$, $SD = .833$).	0.795

Hypotheses Testing

Analysis of covariance (ANCOVA) was used to test the main and interaction effect hypotheses. Participants' general advertising attitude, and brand familiarity were used as covariates.

Reciprocity Main Effects

Hypothesis 1a predicted that participants who were exposed to a reciprocal condition of the OBA would have a more positive attitude toward the OBA than those who were exposed to a non-reciprocal condition when controlling for the general advertising attitude, and brand familiarity. ANCOVA test revealed that there was a significant effect of OBA message reciprocity on participants' attitude toward the ad after controlling for the effect of the general advertising attitude, and brand familiarity., $F(1, 391) = 7.590$, $p = .006$, $\eta^2_{part} = .019$. Results further revealed that participants in the "reciprocal" condition had a higher attitude toward the ad ($M = 4.046$, $SD = 1.673$) than those who were exposed to the "non-reciprocal" condition ($M = 3.771$, $SD = 1.677$). Therefore, H1a was supported. Results are summarized in Table 18.

Hypothesis 1b predicted that participants who were exposed to a reciprocal condition of the OBA would have a more positive attitude toward the brand than those who were exposed to a non-reciprocal condition when controlling for the general advertising attitude, and brand familiarity. ANCOVA found no significant main effect of message reciprocity on participants' attitude toward the brand, $F(1, 391) = 1.070$, $p = .302$, $\eta^2_{part} = .003$. $M = 4.656$, $SD = 1.678$ (reciprocal); $M = 4.881$, $SD = 1.579$ (non-reciprocal). Therefore, H1b was not supported (see Table 19 for details).

Hypothesis 1c predicted that participants who were exposed to a reciprocal condition of the OBA would have a more positive intention to click the ad than those who were exposed to a non-reciprocal condition when controlling for the general advertising attitude. ANCOVA test revealed that there was a significant effect of OBA message reciprocity on participants' intention to click the ad after controlling for the effect of the general advertising attitude, and brand familiarity., $F(1, 388) =$ 5.425, $p = .020$, $\eta^2_{part} = .014$. Results further revealed that participants in the "reciprocal" condition had a higher intention to click the ad ($M = 3.431$, $SD = 2.004$) than those who were exposed to the "non-reciprocal" condition ($M = 3.131$, $SD =$ 1.973). Therefore, H1c was supported. Results are summarized in Table 20.

Hypothesis 1d predicted that participants who were exposed to a reciprocal condition of the OBA would have a more positive intention to purchase the product than those who were exposed to a non-reciprocal condition when controlling for the general advertising attitude, and brand familiarity. ANCOVA found no significant main effect of message reciprocity on participants' intention to purchase the product, $F(1, 391) = .891$, $p = .664$, $\eta^2_{part} = .000$. $M = 3.640$, $SD = 1.895$ (reciprocal); $M =$ 3.802, $SD = 1.954$ (non-reciprocal). Therefore, H1d was not supported (see Table 21 for details).

Table 17. *Pearson's r Correlations Matrix of Key Variables*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. Phone Usage	1																		
2. OBA Knowledge	-0.079	1																	
3. OBA Exposure	0.026	-.390**	1																
4. Age	-.343**	0.079	0.086	1															
5. Income	.123*	-.115*	0.079	-0.055	1														
6. Employment	-.174**	0.018	0.002	.307**	-.260**	1													
7. Reciprocity	0.012	0.023	-0.080	-.130**	-0.020	-0.019	1												
8. Personalization	0.054	-0.011	0.043	-0.022	-0.002	-0.078	0.005	1											
9. Content Type	0.050	0.032	-0.012	-0.011	-0.049	-0.008	0.000	0.000	1										
10. General advertising attitude	.140**	.186**	-.127*	0.017	0.062	-0.078	-0.060	0.009	0.021	1									
11. Involvement	.437**	-0.036	0.089	-.133**	.167**	-.122*	-0.011	0.035	0.038	.226**	1								
12. Brand Familiarity	.144**	-.185**	.110*	-.174**	.212**	-.131**	-0.002	0.009	0.010	.154**	.352**	1							
13. Attitude toward Ad	.146**	.200**	-.131**	0.008	0.055	-0.016	0.081	-0.023	.139**	.525**	.195**	.162**	1						
14. Attitude toward Brand	0.048	0.007	-0.020	0.071	.152**	-0.036	-0.071	-0.022	.105*	.466**	.194**	.376**	.514**	1					
15. Intention to Click	.102*	.150**	-.167**	0.023	-0.007	0.020	0.074	-0.021	.098*	.464**	.130**	0.070	.745**	.478**	1				
16. Intention to Purchase	.105*	-0.004	-0.068	-0.022	.140**	-0.073	-0.044	0.009	0.017	.409**	.153**	.280**	.531**	.592**	.657**	1			
17. Perceived Intrusiveness	-0.069	-.128*	.135**	0.042	-0.030	-0.012	-0.055	.123*	-.108*	-.387**	-0.070	0.011	-.592**	-.336**	-.559**	-.331**	1		
18. Perceived Privacy Concern	-0.068	-0.069	.173**	.163**	-0.008	-0.052	-0.053	-0.015	0.053	-.308**	0.028	-0.015	-.403**	-.259**	-.408**	-.278**	.546**	1	
19. Reactance	0.002	-.111*	0.090	0.028	-0.018	0.031	-0.021	0.063	-0.058	-.292**	0.022	0.068	-.356**	-.223**	-.356**	-.176**	.675**	.497**	1
M	4.16	1.22	4.16	40.90	5.63	1.52	0.500	0.500	0.502	4.537	5.928	5.267	3.907	4.765	3.277	3.718	4.482	5.565	4.040
SD	1.962	0.418	2.045	13.238	3.020	0.843	0.500	0.500	0.500	1.576	1.193	1.625	1.677	1.631	1.989	1.923	1.7135	1.3927	0.925
N	398	401	401	402	401	401	402	402	402	401	402	402	402	402	399	402	402	402	402

* *p* <.05, ** *p* <.01, *** *p*<.001

Hypothesis 2a predicted that participants who were exposed to a personalized condition of the OBA would have a more positive attitude toward the OBA than those who were exposed to a generic condition when controlling for the general advertising attitude, and brand familiarity. ANCOVA found no significant effect of OBA message personalization on participants' attitude toward the ad, $F(1, 391) = .543$, $p = .462$, η^2_{part} $= .001$. $M = 3.948$, $SD = 1.641$ (generic); $M = 3.869$, $SD = 1.719$ (personalized). Therefore, H2a was not supported (see Table 18 for details).

Hypothesis 2b predicted that participants who were exposed to a personalized condition of the OBA would have a more positive attitude toward the brand than those who were exposed to a generic condition when controlling for the general advertising attitude, and brand familiarity. ANCOVA found no significant effect of OBA message personalization on participants' attitude toward the brand, $F(1, 391) = .608$, $p = .436$, $\eta^2_{part} = .002$. $M = 4.808$, $SD = 1.650$ (generic); $M = 4.730$, $SD = 1.615$ (personalized). Therefore, H2b was not supported (see Table 19 for details).

Hypothesis 2c predicted that participants who were exposed to a personalized condition of the OBA would have a more positive intention to click the ad than those who were exposed to a generic condition when controlling for the general advertising attitude, and brand familiarity. ANCOVA found no significant effect of OBA message personalization on participants' intention to click the ad, $F(1, 388) = .427$, $p = .514$, $\eta^2_{part} = .001$. $M = 3.324$, $SD = 1.973$ (generic); $M = 3.235$, $SD = 2.013$ (personalized). H2c was not supported (see Table 20 for details).

Hypothesis 2d predicted that participants who were exposed to a personalized condition of the OBA would have a more positive intention to purchase than those who were exposed to a generic condition when controlling for the general advertising attitude, and brand familiarity. ANCOVA found no significant main effect of message personalization on participants' intention to purchase the product, $F(1, 391) = .001$, $p = .981$, $\eta^2_{part} = .000$. $M = 3.708$, $SD = 1.988$ (generic); $M = 3.734$, $SD = 1.864$ (personalized). Therefore, H2d was not supported (see Table 21 for details).

Content Type Main Effects

Hypothesis 3a predicted that participants who were exposed to a visual condition of the OBA would have a more positive attitude toward the OBA than those who were exposed to a verbal condition when controlling for the general advertising attitude, and brand familiarity. ANCOVA test revealed that there was a significant effect of OBA message content type on participants' attitude toward the OBA after controlling for the effect of the general advertising attitude, and brand familiarity., $F(1, 391) = 9.701$, $p = .002$, $\eta^2_{part} = .024$. Results further revealed that participants in the "visual" condition had a higher attitude toward the OBA ($M = 4.142$, $SD = 1.686$) than those who were exposed to the "verbal" condition ($M = 3.673$, $SD = 1.642$). Therefore, H3a was supported. Results are summarized in Table 18.

Hypothesis 3b predicted that participants who were exposed to a visual condition of the OBA would have a more positive attitude toward the brand than those who were exposed to a verbal condition when controlling for the general advertising attitude, and brand familiarity. ANCOVA test revealed that there was a significant effect of OBA message content type on participants' attitude toward the brand after

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controlling for the effect of the general advertising attitude, and brand familiarity., $F(1,$ 391) = 5.641, p = .018, η^2_{part} = .014. Results further revealed that participants in the "visual" condition had a higher attitude toward the brand (M = 4.944, SD = 1.555) than those who were exposed to the "verbal" condition (M = 4.593, SD = 1.690). Therefore, H3b was supported. Results are summarized in Table 19.

Hypothesis 3c predicted that participants who were exposed to a visual condition of the OBA would have a more positive intention to click the ad than those who were exposed to a verbal condition when controlling for the general advertising attitude, and brand familiarity. ANCOVA test revealed that there was a significant main effect of message content type on participants' intention to click the ad after controlling for the effect of the general advertising attitude, and brand familiarity., $F(1, 388)$ = 4.137, p = .043, η^2_{part} = .011. Results further revealed that participants in the "visual" condition had a higher attitude toward the brand (M = 3.476, SD = 1.973) than those who were exposed to the "verbal" condition (M = 3.079, SD = 1.996). Therefore, H3c was supported. See Table 20 for details.

Hypothesis 3d predicted that participants who were exposed to a visual condition of the OBA would have a more positive intention to purchase than those who were exposed to a verbal condition when controlling for the general advertising attitude, and brand familiarity. ANCOVA found no significant main effect of message content type on participants' intention to purchase the product, $F(1, 391)$ = .040, p = .842, η^2_{part} = .000. M = 3.685, SD = 1.980 (verbal); M = 3.757, SD = 1.872 (visual). Therefore, H3d was not supported (see Table 21 for details).

Interactions

Hypothesis 4a predicted that there would be an interaction between reciprocity and ad content type on participants' attitude toward the OBA when controlling for the general advertising attitude, and brand familiarity. ANCOVA test found no significant interaction between reciprocity and ad content type on participants' attitude toward the OBA, $F(1, 391) = .169$, $p = .681$, $\eta^2_{part} = .000$. $M = 3.800$, $SD = 1.652$ (reciprocal and verbal); $M = 4.293$, $SD = 1.666$ (reciprocal and visual). $M = 3.546$, $SD = 1.631$ (non-reciprocal and verbal); $M = 3.993$, $SD = 1.701$ (non-reciprocal and visual). Therefore, H4a was not supported (see Table 18 for details).

Hypothesis 4b predicted that there would be an interaction between reciprocity and ad content type on participants' attitude toward the brand when controlling for the general advertising attitude, and brand familiarity. ANCOVA test revealed that there was a significant interaction effect of reciprocity and ad content type on participants' attitude toward the brand after controlling for the effect of the general advertising attitude, and brand familiarity, $F(1, 391) = 3.891$, $p = .049$, $\eta^2_{part} = .010$.

Results further revealed that participants in the "reciprocal" and "visual" condition had a higher attitude toward the brand ($M = 4.957$, $SD = 1.461$) than those who were exposed to the "reciprocal" and "verbal" condition ($M = 4.355$, $SD = 1.828$). Also, participants in the "non-reciprocal" and "visual" condition had a higher attitude toward the brand ($M = 4.930$, $SD = 1.650$) than those who were exposed to the "non-reciprocal" and "verbal" condition ($M = 4.832$, $SD = 1.512$) (see Figure 14). Therefore, H4b was supported. Results are summarized in Table 19.

Figure 14. Interaction effects of reciprocity and ad content type on attitude toward the brand.

Hypothesis 4c predicted that there would be an interaction between reciprocity and ad content type on participants' intention to click the ad when controlling for the general advertising attitude, and brand familiarity. ANCOVA test found no significant interaction between reciprocity and ad content type on participants' intention to click the ad, $F(1, 388) = .291$, $p = .590$, $\eta^2_{part} = .001$. $M = 3.202$, $SD = 2.026$ (reciprocal and verbal); $M = 3.653$, $SD = 1.966$ (reciprocal and visual). $M = 2.960$, $SD = 1.968$ (non-reciprocal and verbal); $M = 3.300$, $SD = 1.973$ (non-reciprocal and visual). Therefore, H4c was not supported (see Table 20 for details).

Hypothesis 4d predicted that there would be an interaction between reciprocity and ad content type on participants' intention to purchase when controlling for the general advertising attitude, and brand familiarity. ANCOVA found no significant interaction between reciprocity and ad content type on participants' intention to purchase, $F(1, 391) = .256$, $p = .613$, $\eta^2_{part} = .001$. $M = 3.566$, $SD = 2.015$ (reciprocal and verbal); $M = 3.713$, $SD = 1.774$ (reciprocal and visual). $M = 3.803$, $SD = 1.946$

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(non-reciprocal and verbal); $M = 3.802$, $SD = 1.972$ (non-reciprocal and visual).

Therefore, H4d was not supported (see Table 21 for details).

Hypothesis 5a predicted that there would be an interaction between ad content type and personalization on participants' attitude toward the OBA when controlling for the general advertising attitude, and brand familiarity. ANCOVA test revealed that there was a significant interaction effect of ad content type and personalization on participants' attitude toward the OBA when controlling for the general advertising attitude, and brand familiarity, $F(1, 391) = 5.303$, $p = .022$, $\eta^2_{part} = .013$.

Results further revealed that participants in the "personalized" and "visual" condition had a higher attitude toward the OBA ($M = 3.973$, $SD = 1.815$) than those who were exposed to the "personalized" and "verbal" condition ($M = 3.763$, $SD = 1.618$). Also, participants in the "generic" and "visual" condition had a higher attitude toward the OBA ($M = 4.313$, $SD = 1.535$) than those who were exposed to the "generic" and "verbal" condition ($M = 3.583$, $SD = 1.669$) (see Figure 15). Therefore, H5a was supported. Results are summarized in Table 18.

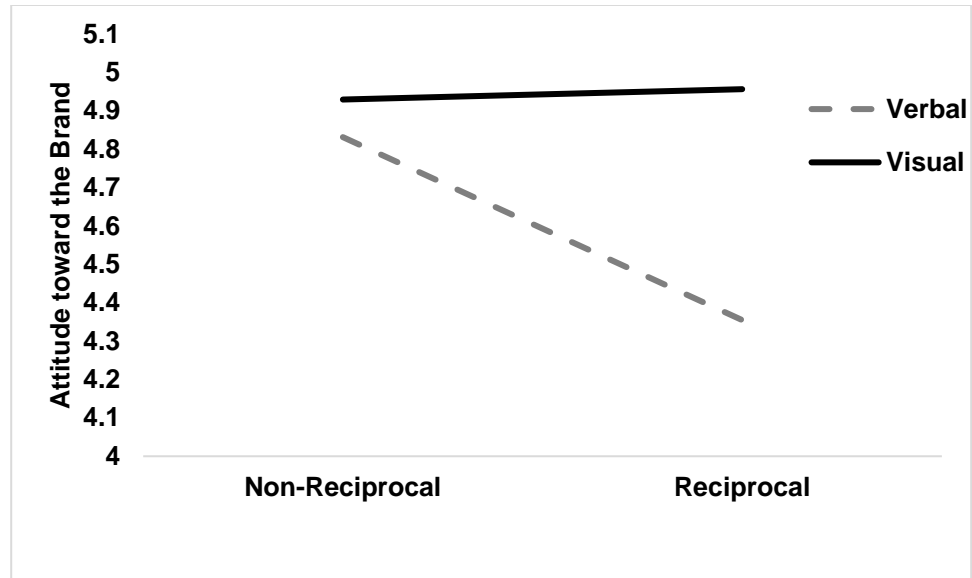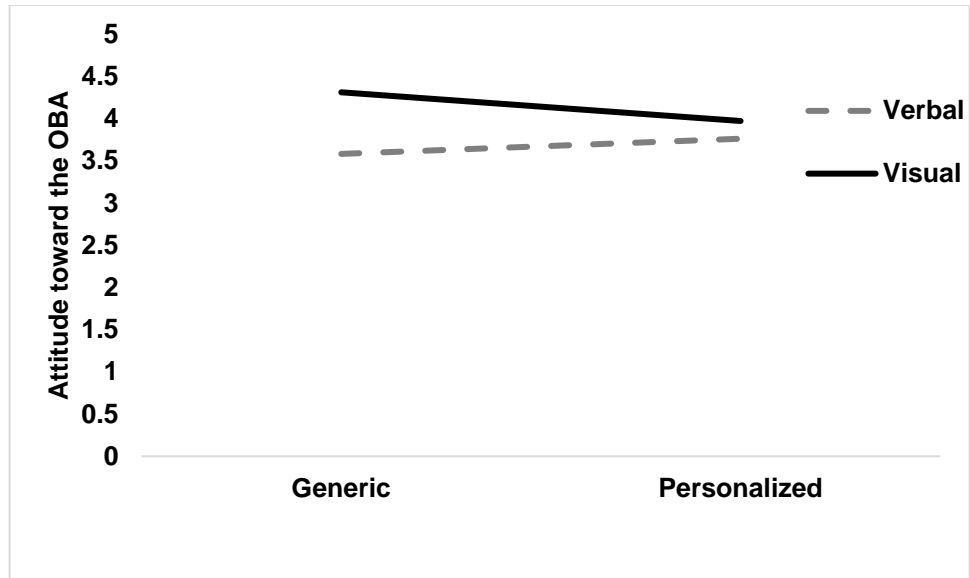*Figure 15.* Interaction effects of content type and personalization on attitude toward the OBA.

Hypothesis 5b predicted that there would be an interaction between ad content type and personalization on participants' attitude toward the brand when controlling for the general advertising attitude, and brand familiarity. ANCOVA found no significant interaction between ad content type and personalization on participants' attitude toward the brand, $F(1, 391) = 2.665$, $p = .103$, $\eta^2_{part} = .007$. $M = 4.567$, $SD = 1.766$ (generic and verbal); $M = 5.050$, $SD = 1.496$ (generic and visual). $M = 4.620$, $SD = 1.619$ (personalized and verbal); $M = 4.839$, $SD = 1.611$ (personalized and visual). Therefore, H5b was not supported (see Table 19 for details).

Hypothesis 5c predicted that there would be an interaction between ad content type and personalization on participants' intention to click the ad when controlling for the general advertising attitude, brand familiarity. ANCOVA found no significant interaction between ad content type and personalization on participants' intention to click the ad, $F(1, 388) = .194$, $p = .660$, $\eta^2_{part} = .000$. $M = 3.108$, $SD = 2.030$ (generic and verbal); $M = 3.536$, $SD = 1.902$ (generic and visual). $M = 3.055$, $SD = 1.971$

(personalized and verbal); $M = 3.415$, $SD = 2.047$ (personalized and visual). Therefore, H5c was not supported (see Table 20 for details).

Hypothesis 5d predicted that there would be an interaction between ad content type and personalization on participants' intention to purchase when controlling for the general advertising attitude, and brand familiarity. ANCOVA found no significant interaction between ad content type and personalization on participants' intention to purchase, $F(1, 391) = .001$, $p = .979$, $\eta^2_{part} = .000$. $M = 3.713$, $SD = 2.106$ (generic and verbal); $M = 3.703$, $SD = 1.873$ (generic and visual). $M = 3.656$, $SD = 1.855$ (personalized and verbal); $M = 3.811$, $SD = 1.879$ (personalized and visual). Therefore, H5d was not supported (see Table 21 for details).

Hypothesis 6a predicted that there would be an interaction between reciprocity and personalization on participants' attitude toward the OBA when controlling for the general advertising attitude, and brand familiarity. ANCOVA found no significant interaction between reciprocity and personalization on participants' attitude toward the OBA, $F(1, 391) = .224$, $p = .636$, $\eta^2_{part} = .001$. $M = 4.124$, $SD = 1.609$ (reciprocal and generic); $M = 3.970$, $SD = 1.738$ (reciprocal and personalized). $M = 3.775$, $SD = 1.662$ (non-reciprocal and generic); $M = 3.766$, $SD = 1.701$ (non-reciprocal and personalized). Therefore, H6a was not supported (see Table 18 for details).

Hypothesis 6b predicted that there would be an interaction between reciprocity and personalization on participants' attitude toward the brand when controlling for the general advertising attitude, and brand familiarity. ANCOVA found no significant interaction between reciprocity and personalization on participants' attitude toward the brand, $F(1, 391) = .437$, $p = .492$, $\eta^2_{part} = .001$. $M = 4.744$, $SD = 1.690$ (reciprocal and

generic); $M = 4.569$, $SD = 1.670$ (reciprocal and personalized). $M = 4.871$, $SD = 1.616$ (non-reciprocal and generic); $M = 4.892$, $SD = 1.550$ (non-reciprocal and personalized). Therefore, H6b was not supported (see Table 19 for details).

Hypothesis 6c predicted that there would be an interaction between reciprocity and personalization on participants' intention to click the ad when controlling for the general advertising attitude, and brand familiarity. ANCOVA found no significant interaction between reciprocity and personalization on participants' intention to click the ad, $F(1, 388) = .120$, $p = .729$, $\eta^2_{part} = .000$. $M = 3.450$, $SD = 2.025$ (reciprocal and generic); $M = 3.413$, $SD = 1.993$ (reciprocal and personalized). $M = 3.204$, $SD = 1.995$ (non-reciprocal and generic); $M = 3.056$, $SD = 2.027$ (non-reciprocal and personalized). Therefore, H6c was not supported (see Table 20 for details).

Hypothesis 6d predicted that there would be an interaction between reciprocity and personalization on participants' intention to purchase when controlling for the general advertising attitude. ANCOVA test revealed that there was an approached to significance interaction between reciprocity and personalization on participants' intention to purchase when controlling for the general advertising attitude, and brand familiarity, $F(1, 391) = 3.392$, $p = .066$, $\eta^2_{part} = .009$.

Results further revealed that participants in the "reciprocal" and "personalized" condition had a higher intention to purchase ($M = 3.805$, $SD = 1.772$) than those who were exposed to the "reciprocal" and "generic" condition ($M = 3.471$, $SD = 2.009$). On the other hand, participants in the "non-reciprocal" and "generic" condition had a higher intention to purchase ($M = 3.940$, $SD = 1.949$) than those who were exposed to the

"non-reciprocal" and "personalized" condition ($M = 3.663$, $SD = 1.960$) (see Figure 16).

Therefore, H6d was not supported. Results are summarized in Table 21.
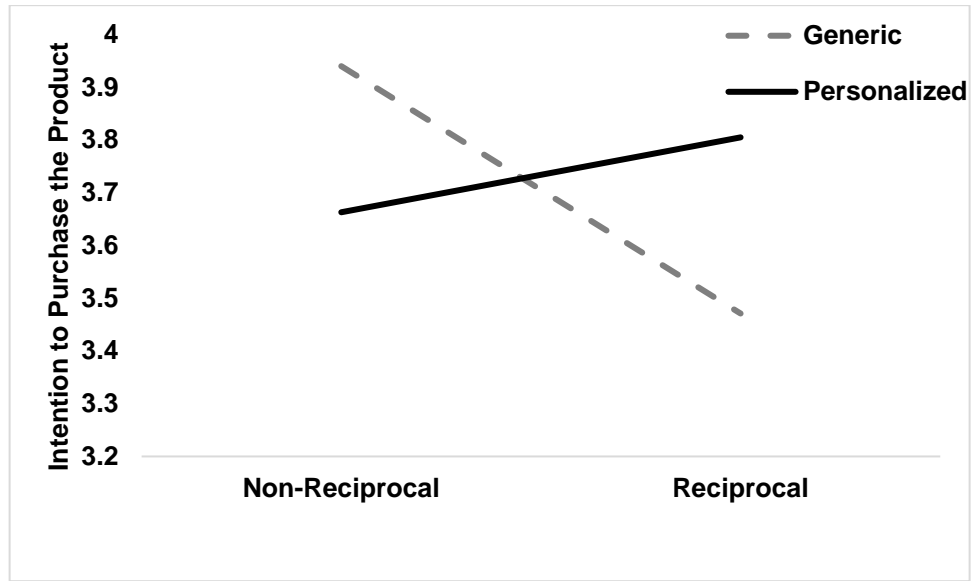
Figure 16. Interaction effects of reciprocity and personalization on intention to purchase the product.

Research question 1 asked whether there would be any interaction between reciprocity, personalization, and ad content type on participants attitudes and intentions. ANCOVA found a significant interaction among OBA message's reciprocity, personalization, and ad content type on participants' attitude toward the brand when controlling for the general advertising attitude, and brand familiarity, $F(1, 391) = 4.566$, $p = .033$, $\eta^2_{part} = .012$.

Results further revealed that for "verbal" message condition, participants in the "non-reciprocal" and "generic" condition had a higher attitude toward the brand ($M = 4.925$, $SD = 1.627$) than those who were exposed to the "non-reciprocal" and "personalized" condition ($M = 4.740$, $SD = 1.398$). On the other hand, participants in the "reciprocal" and "personalized" condition had a higher attitude toward the brand (M

= 4.500, *SD* = 1.821) than those who were exposed to the "reciprocal" and "generic"

condition (*M* = 4.210, *SD* = 1.842) (see Figure 17).
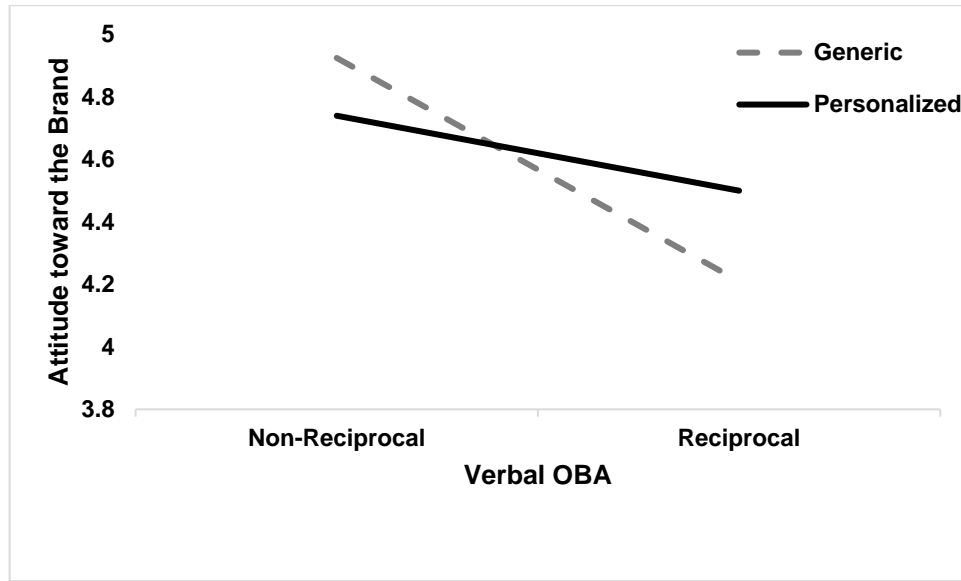
Figure 17. Interaction effects of reciprocity and personalization on attitude toward the brand for verbal OBA.

Moreover, for the "visual" message condition, participants in the "reciprocal"

and "generic" condition had a higher attitude toward the brand (*M* = 5.290, *SD* = 1.329)

than those who were exposed to the "reciprocal" and "personalized" condition (*M* =

4.637, *SD* = 1.522). On the other hand, participants in the "non-reciprocal" and

"personalized" condition had a higher attitude toward the brand (*M* = 5.045, *SD* =

1.688) than those who were exposed to the "non-reciprocal" and "generic" condition (*M*

= 4.818, *SD* = 1.620) (see Figure 18). Results are summarized in Table 19.
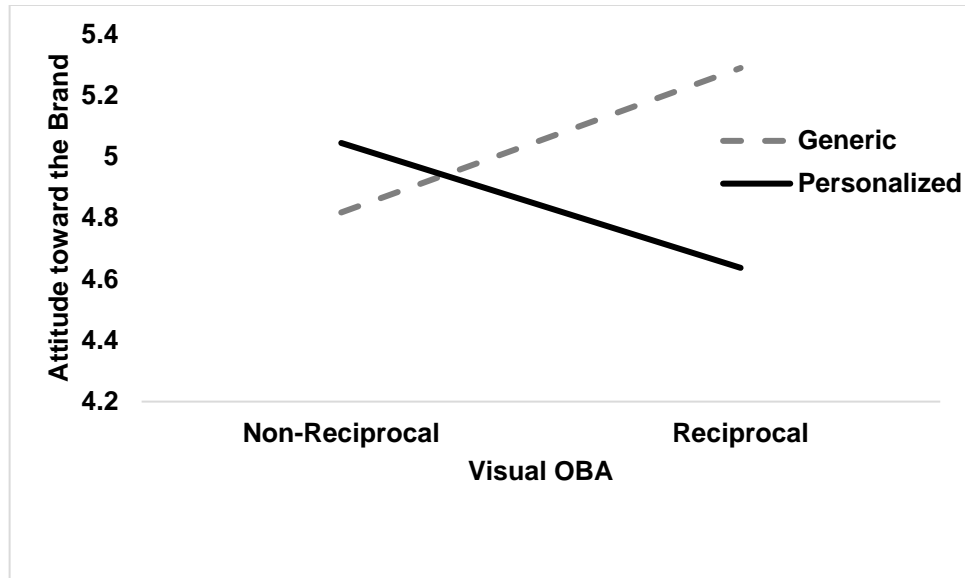
Figure 18. Interaction effects of reciprocity and personalization on attitude toward the brand for visual OBA.

Table 18. *ANCOVA Summary Table for Attitude toward the Ad*

Source	df	MS	F	p	η^2_{part}
General Advertising Attitude	1	290.160	148.705	.000[*]	0.276
Brand Familiarity	1	8.436	4.323	.038[*]	0.011
Reciprocity	1	14.809	7.590	.006[*]	0.019
Personalization	1	1.059	0.543	.462	0.001
Content Type	1	18.929	9.701	.002[*]	0.024
Reciprocity * Personalization	1	0.437	0.224	.636	0.001
Reciprocity * Content Type	1	0.329	0.169	.681	0.000
Personalization* Content Type	1	10.348	5.303	.022[*]	0.013
Reciprocity* Personalization * Content Type	1	1.720	0.882	.348	0.002
Error	391	1.951			
Total	401				
Corrected Total	400				

Note. $R^2 = .324$ ($R^2_{Adjusted} = .308$).
[*]$p < .05$

Table 19. *ANCOVA Summary Table for Attitude toward the Brand*

Source	df	MS	F	p	η^2_{part}
General Advertising Attitude	1	173.866	97.364	.000*	0.199
Brand Familiarity	1	104.216	58.360	.000*	0.130
Reciprocity	1	1.910	1.070	.302	0.003
Personalization	1	1.086	0.608	.436	0.002
Content Type	1	10.073	5.641	.018*	0.014
Reciprocity * Personalization	1	0.844	0.473	.492	0.001
Reciprocity * Content Type	1	6.949	3.891	.049*	0.010
Personalization* Content Type	1	4.759	2.665	.103	0.007
Reciprocity* Personalization * Content Type	1	8.154	4.566	.033*	0.012
Error	391	1.786			
Total	401				
Corrected Total	400				

Note. R^2 = .344 ($R^2_{Adjusted}$ = .329).
*p < .05

Table 20. *ANCOVA Summary Table for Intention to Click the Ad*

Source	df	MS	F	p	η^2_{part}
General Advertising Attitude	1	331.929	107.361	.000*	0.217
Brand Familiarity	1	0.000	0.000	.994	0.000
Reciprocity	1	16.772	5.425	.020*	0.014
Personalization	1	1.319	0.427	.514	0.001
Content Type	1	12.789	4.137	.043*	0.011
Reciprocity * Personalization	1	0.371	0.120	.729	0.000
Reciprocity * Content Type	1	0.898	0.291	.590	0.001
Personalization* Content Type	1	0.600	0.194	.660	0.000
Reciprocity* Personalization * Content Type	1	3.253	1.052	.306	0.003
Error	388	3.092			
Total	398				
Corrected Total	397				

Note. R^2 = .238 ($R^2_{Adjusted}$ = .221).
*p < .05

Table 21. *ANCOVA Summary Table for Intention to Purchase the Product*

Source	df	MS	F	p	η^2_{part}
General Advertising Attitude	1	198.397	67.557	.000*	0.147
Brand Familiarity	1	72.482	24.681	.000*	0.059
Reciprocity	1	0.555	0.189	.664	0.000
Personalization	1	0.002	0.001	.981	0.000
Content Type	1	0.117	0.040	.842	0.000
Reciprocity * Personalization	1	9.960	3.392	.066	0.009
Reciprocity * Content Type	1	0.752	0.256	.613	0.001
Personalization* Content Type	1	0.002	0.001	.979	0.000
Reciprocity* Personalization * Content Type	1	1.984	0.676	.412	0.002
Error	391	2.937			
Total	401				
Corrected Total	400				

Note. $R^2 = .225$ ($R^2_{Adjusted} = .207$).
*$p < .05$

Mediating Effects

The current study predicted several mediating effects. Perceived intrusiveness, perceived privacy concern, and reactance were used as mediating variables. To test the proposed mediations, the current study utilized PROCESS macro 2.16.3 for SPSS using 10,000 bootstrap samples and bias-corrected confidence intervals (CIs) (Hayes, 2013). Mediation Model 4 was used for the analyses. Participants' general advertising attitude, and brand familiarity were used as covariates. Separate mediation analyses were run instead of a multiple mediation analysis because of highly correlated mediators (Hayes, 2013).

Hypothesis 7a predicted that perceived intrusiveness would mediate the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' attitude toward the OBA when controlling for the general advertising attitude, and

brand familiarity. No significant mediating effect of perceived intrusiveness was found

on the influence of reciprocity on participants' attitude toward the OBA. Therefore,

H7a-i was not supported.

However, a significant positive effect of personalization on perceived

intrusiveness was found ($b = .438$, $SE = .156$, $p < .01$). The model was significant ($F(3,$

$397) = 27.255$, $p < .001$, $R^2 = .170$). In turn, perceived intrusiveness negatively

influenced attitude toward the OBA ($b = -.461$, $SE = .039$, $p < .001$). The model was

significant ($F(4, 396) = 86.770$, $p < .001$, $R^2 = .467$). Although the direct effect of

personalization on attitude toward the OBA was not found ($b = .103$, $SE = .124$, 95% CI

$= [-.140, .348]$), a significant negative indirect effect of personalization on attitude

toward the OBA was found ($b = -.202$, $SE = .075$, 95% $CI = [-.361, -.063]$). The total

effect model was significant ($F(3, 397) = 52.196$, $p < .001$, $R^2 = .282$). These

relationships indicate that participants who were exposed to a personalized OBA

expressed more perceived intrusiveness, and in turn, reported less favorable attitude

toward the OBA than those who were exposed to a generic OBA. Therefore, H7a-ii was

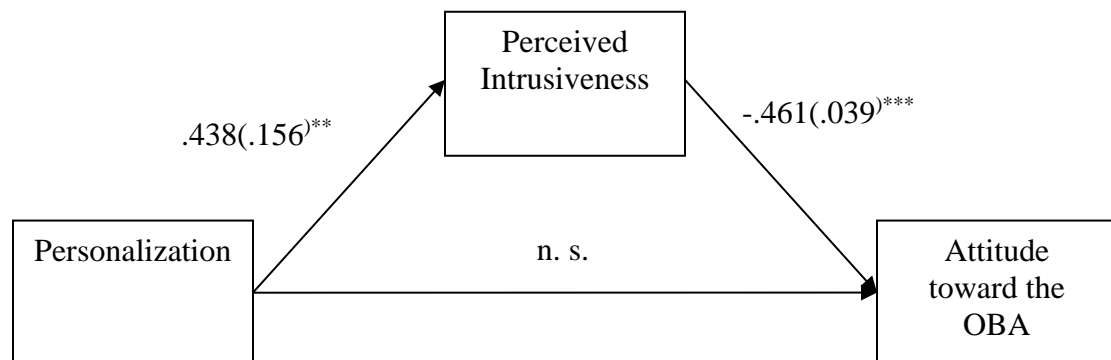supported (see Figure 19). Results are summarized in Table 22.

Figure 19. The effects of personalization on attitude toward the OBA mediated by perceived intrusiveness.
$^{**}p < .01$; $^{***}p < .001$; Personalization was coded as "Generic" = 0, "Personalized" = 1

Table 22. *Mediating Role of Perceived Intrusiveness on the Direct and Indirect Relationship between Personalization and Attitude toward the OBA*

Specific Effect	Point Estimate	*Boot SE*	95% Bootstrap CI	
			LL	UL
Personalization → Aad	.013	.124	-.140	.340
Personalization → PI → Aad	-.202	.075	-.361	-.063

Note. PI = Perceived Intrusiveness; Aad = Attitude toward the Ad (OBA).

A significant negative effect of content type on perceived intrusiveness was found ($b = -.352$, $SE = .157$, $p < .05$). The model was significant ($F(3, 397) = 26.147$, $p < .001$, $R^2 = .165$). In turn, perceived intrusiveness negatively influenced attitude toward the OBA ($b = -.447$, $SE = .039$, $p < .001$). The model was significant ($F(4, 396) = 88.762$, $p < .001$, $R^2 = .472$). Beside a significant positive direct effect of content type on attitude toward the OBA ($b = .274$, $SE = .123$, 95% $CI = [.031, .516]$), a significantly positive indirect effect of content type on attitude toward the OBA was found ($b = .157$, $SE = .071$, 95% $CI = [.021, .303]$). The total effect model was significant ($F(3, 397) = 56.303$, $p < .001$, $R^2 = .298$). These relationships indicate that participants who were exposed to a visual OBA expressed less perceived intrusiveness, and in turn, reported more favorable attitude toward the OBA than those who were exposed to a verbal OBA. Therefore, H7a-iii was supported. See Figure 20. Results are summarized in Table 23.
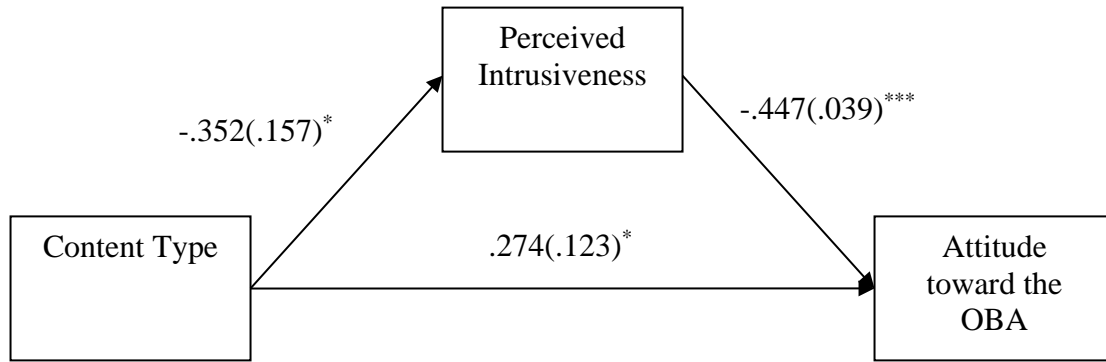
Figure 20. The effects of content type on attitude toward the OBA mediated by perceived intrusiveness.

$^*p < .05$; $^{**}p < .01$; $^{***}p < .001$; Content Type was coded as "Verbal" = 0, "Visual" = 1

Table 23. *Mediating Role of Perceived Intrusiveness on the Direct and Indirect Relationship between Content Type and Attitude toward the OBA*

Specific Effect	Point Estimate	*Boot SE*	95% Bootstrap CI	
			LL	UL
Content Type → Aad	.274	.123	.031	.516
Content Type → PI → Aad	.157	.071	.021	.303

Note. PI = Perceived Intrusiveness; Aad = Attitude toward the Ad (OBA).

Hypothesis 7b predicted that perceived intrusiveness would mediate the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' attitude toward the brand when controlling for the general advertising attitude, and brand familiarity. No significant mediating effect of perceived intrusiveness was found on the influence of reciprocity on participants' attitude toward the brand. Therefore, H7b-i was not supported.

However, a significant positive effect of personalization on perceived intrusiveness was found ($b = .438$, $SE = .156$, $p < .01$). The model was significant ($F(3, 397) = 27.255$, $p < .001$, $R^2 = .170$). In turn, perceived intrusiveness negatively influenced attitude toward the brand ($b = -.198$, $SE = .042$, $p < .001$). The model was significant ($F(4, 396) = 53.232$, $p < .001$, $R^2 = .349$). Although the direct effect of

personalization on attitude toward the brand was not found (b = -.015, SE = .133, 95%

CI = [-.277, .246]), a significant negative indirect effect of personalization on attitude

toward the brand was found (b = -.086, SE = .037, 95% CI = [-.175, -.026]). The total

effect model was significant ($F(3, 397)$ = 60.537, p < .001, R^2 = .313). These

relationships indicate that participants who were exposed to a personalized OBA

expressed more perceived intrusiveness, and in turn, reported less favorable attitude

toward the brand than those who were exposed to a generic OBA. Therefore, H7b-ii

was supported (see Figure 21). Results are summarized in Table 24.

Figure 21. The effects of personalization on attitude toward the brand mediated by perceived intrusiveness.

$^*p$ < .05; $^{**}p$ < .01; $^{***}p$ < .001; Personalization was coded as "Generic" = 0, "Personalized" = 1

Table 24. *Mediating Role of Perceived Intrusiveness on the Direct and Indirect Relationship between Personalization and Attitude toward the Brand*

Specific Effect	Point Estimate	*Boot SE*	95% Bootstrap CI	
			LL	UL
Personalization → Ab	-0.15	.133	-.277	.246
Personalization → PI → Ab	-.086	.037	-.175	-.026

Note. PI = Perceived Intrusiveness; Ab = Attitude toward the Brand.

A significant negative effect of content type on perceived intrusiveness was

found (b = -.352, SE = .157, p < .05). The model was significant ($F(3, 397)$ = 26.147, p

$< .001$, $R^2 = .165$). In turn, perceived intrusiveness negatively influenced attitude toward

the brand ($b = -.189$, $SE = .042$, $p < .001$). The model was significant ($F(4, 396) =$

54.557, $p < .001$, $R^2 = .170$). Although there was no significant direct effect of content

type on attitude toward the brand ($b = .246$, $SE = .132$, 95% $CI = [-.014, .506]$), a

significant positive indirect effect of content type on attitude toward the brand was

found ($b = .066$, $SE = .034$, 95% $CI = [.013, .151]$). The total effect model was

significant ($F(3, 397) = 62.881$, $p < .001$, $R^2 = .322$). These relationships indicate that

participants who were exposed to a visual OBA expressed less perceived intrusiveness,

and in turn, reported more favorable attitude toward the brand than those who were

exposed to a verbal OBA. Therefore, H7b-iii was supported (see Figure 22). Results are
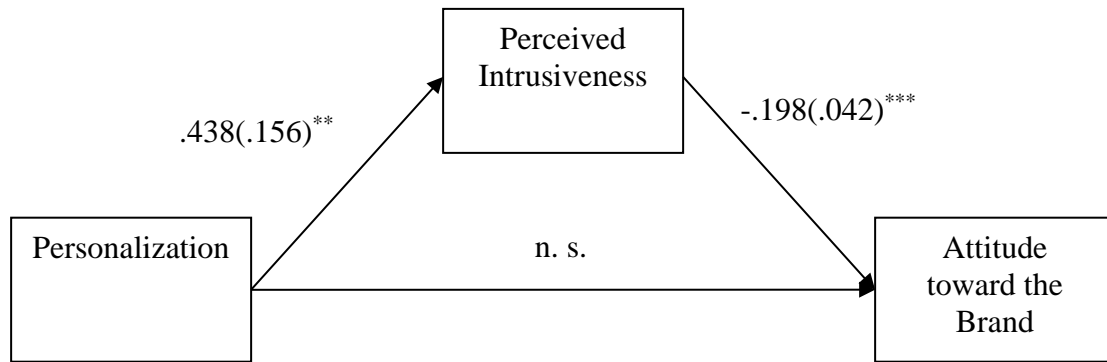
summarized in Table 25.
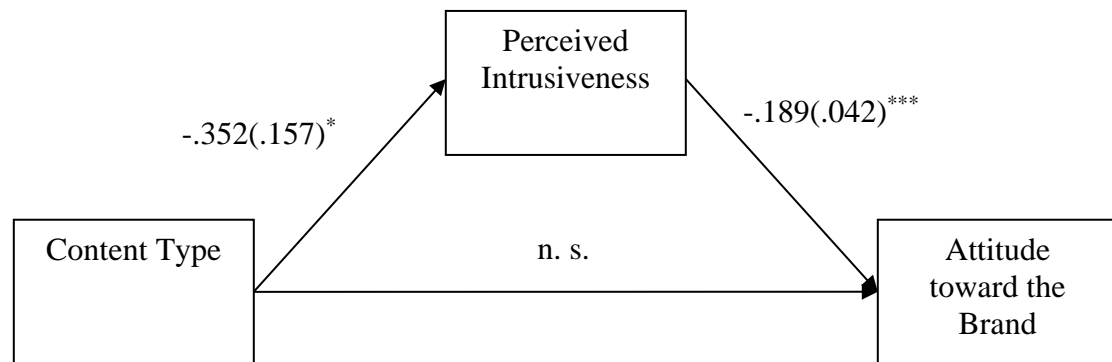
Figure 22. The effects of content type on attitude toward the brand mediated by
perceived intrusiveness.

$^*p < .05$; $^{**}p < .01$; $^{***}p < .001$; Content Type was coded as "Verbal" = 0, "Visual" = 1

Table 25. *Mediating Role of Perceived Intrusiveness on the Direct and Indirect
Relationship between Content Type and Attitude toward the Brand*

Specific Effect	Point Estimate	*Boot SE*	95% Bootstrap CI	
			LL	UL
Content Type → Ab	.246	.132	-.014	.506
Content Type → PI → Ab	.066	.034	.013	.151

Note. PI = Perceived Intrusiveness; Ab = Attitude toward the Brand.

Hypothesis 7c predicted that perceived intrusiveness would mediate the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' intention to click the ad when controlling for the general advertising attitude, and brand familiarity. No significant mediating effect of perceived intrusiveness was found on the influence of reciprocity on participants' participants' intention to click the ad. Therefore, H7c-i was not supported.

However, a significant positive effect of personalization on perceived intrusiveness was found ($b = .436$, $SE = .157$, $p < .01$). The model was significant ($F(3, 394) = 26.724$, $p < .001$, $R^2 = .169$). In turn, perceived intrusiveness negatively influenced participants' intention to click the ad ($b = -.525$, $SE = .050$, $p < .001$). The model was significant ($F(4, 393) = 62.051$, $p < .001$, $R^2 = .170$). Although the direct effect of personalization on participants' intention to click the ad was not found ($b = .116$, $SE = .158$, 95% $CI = [-.195, .428]$), a significant negative indirect effect of personalization on participants' intention to click the ad was found ($b = -.229$, $SE = .086$, 95% $CI = [-.411, -.072]$). The total effect model was significant ($F(3, 394) = 36.261$, $p < .001$, $R^2 = .216$). These relationships indicate that participants who were exposed to a personalized OBA expressed more perceived intrusiveness, and in turn, reported less intention to click the ad than those who were exposed to a generic OBA. Therefore, H7c-ii was supported (see Figure 23). Results are summarized in Table 26.

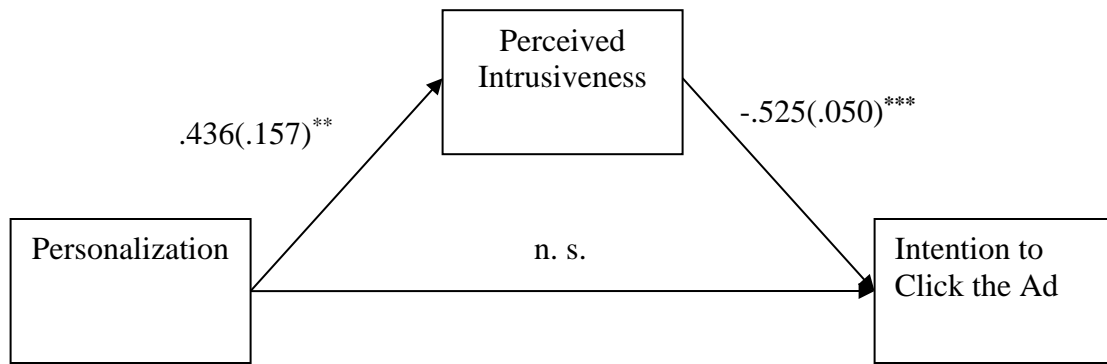*Figure 23.* The effects of personalization on intention to click the ad mediated by perceived intrusiveness.
$^*p < .05$; $^{**}p < .01$; $^{***}p < .001$; Personalization was coded as "Generic" = 0, "Personalized" = 1

Table 26. *Mediating Role of Perceived Intrusiveness on the Direct and Indirect Relationship between Personalization and Intention to Click the Ad*

Specific Effect	Point Estimate	*Boot SE*	95% Bootstrap CI	
			LL	UL
Personalization → IC	.116	.158	-.195	.428
Personalization → PI → IC	-.229	.086	-.411	-.072

Note. PI = Perceived Intrusiveness; IC = Intention to Click the Ad.

A significant negative effect of content type on perceived intrusiveness was found ($b = -.349$, $SE = .158$, $p < .05$). The model was significant ($F(3, 394) = 25.631$, $p < .001$, $R^2 = .163$). In turn, perceived intrusiveness negatively influenced intention to click the ad ($b = -.514$, $SE = .040$, $p < .001$). The model was significant ($F(4, 393) = 62.352$, $p < .001$, $R^2 = .388$). Although there was no significant direct effect of content type on intention to click the ad ($b = .178$, $SE = .158$, 95% $CI = [-.132, .489]$), a significant positive indirect effect of content type on intention to click the ad was found ($b = .179$, $SE = .083$, 95% $CI = [.027, .352]$). The total effect model was significant ($F(3, 394) = 37.838$, $p < .001$, $R^2 = .223$). These relationships indicate that participants who were exposed to a visual OBA expressed less perceived intrusiveness, and in turn,

reported more intention to click the ad than those who were exposed to a verbal OBA.

Therefore, H7c-iii was supported (see Figure 24). Results are summarized in Table 27.
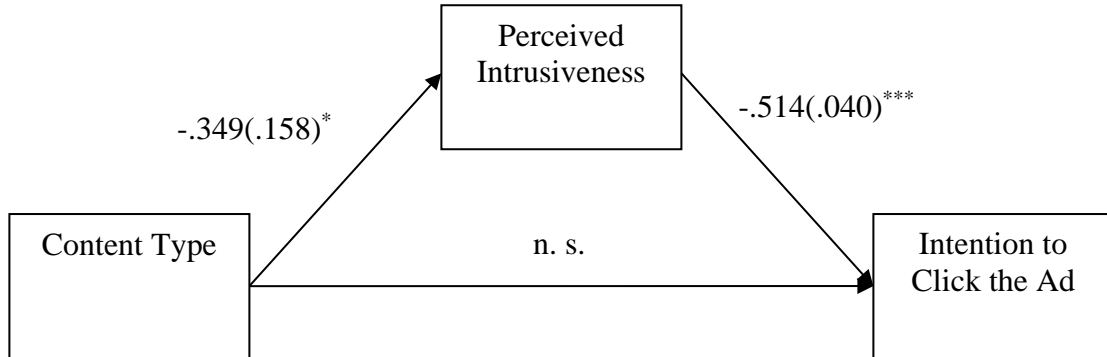

Figure 24. The effects of content type on intention to click the ad mediated by perceived intrusiveness.

$^*p < .05$; $^{**}p < .01$; $^{***}p < .001$; Content Type was coded as "Verbal" = 0, "Visual" = 1

Table 27. *Mediating Role of Perceived Intrusiveness on the Direct and Indirect Relationship between Content Type and Intention to Click the Ad*

Specific Effect	Point Estimate	*Boot SE*	95% Bootstrap CI	
			LL	UL
Content Type → IC	.178	.158	-.032	.489
Content Type → PI → IC	.179	.083	.027	.352

Note. PI = Perceived Intrusiveness; IC = Intention to Click the Ad.

Hypothesis 7d predicted that perceived intrusiveness would mediate the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' intention to purchase when controlling for the general advertising attitude, and brand familiarity. No significant mediating effect of perceived intrusiveness was found on the influence of reciprocity on participants' intention to purchase. Therefore, H7d-i was not supported.

However, a significant positive effect of personalization on perceived intrusiveness was found ($b = .438$, $SE = .156$, $p < .01$). The model was significant ($F(3, 397) = 27.255$, $p < .001$, $R^2 = .170$). In turn, perceived intrusiveness negatively

influenced participants' intention to purchase ($b = -.254$, $SE = .043$, $p < .001$). The

model was significant ($F(4, 396) = 34.562$, $p < .001$, $R^2 = .258$). Although the direct

effect of personalization on participants' intention to purchase was not found ($b = .115$,

$SE = .168$, 95% $CI = [-.215, .445]$), a significant negative indirect effect of

personalization on participants' intention to purchase was found ($b = -.114$, $SE = .047$,

95% $CI = [-.229, -.034]$). The total effect model was significant ($F(4, 397) = 36.511$, p

$< .001$, $R^2 = .216$). These relationships indicate that participants who were exposed to a

personalized OBA expressed more perceived intrusiveness, and in turn, reported less

intention to purchase the product than those who were exposed to a generic OBA.

Therefore, H7d-ii was supported (see Figure 25). Results are summarized in Table 28.
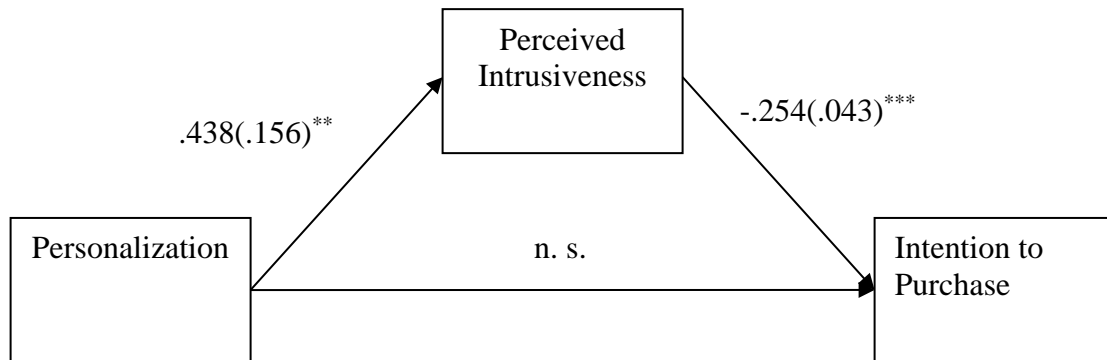
Figure 25. The effects of personalization on intention to purchase mediated perceived
intrusiveness.
$^*p < .05$; $^{**}p < .01$; $^{***}p < .001$; Personalization was coded as "Generic" = 0,
"Personalized" = 1

Table 28. *Mediating Role of Perceived Intrusiveness on the Direct and Indirect
Relationship between Personalization and Intention to Purchase*

Specific Effect	Point Estimate	*Boot SE*	95% Bootstrap CI	
			LL	UL
Personalization → IP	.115	.168	-.215	.445
Personalization → PI → IP	-.114	.047	-.229	-.034

Note. PI = Perceived Intrusiveness; IP = Intention to Purchase.

A significant negative effect of content type on perceived intrusiveness was found ($b = -.352$, $SE = .157$, $p < .05$). The model was significant ($F(4, 397) = 26.147$, $p < .001$, $R^2 = .165$). In turn, perceived intrusiveness negatively influenced intention to purchase ($b = -.251$, $SE = .053$, $p < .001$). The model was significant ($F(4, 396) = 34.438$, $p < .001$, $R^2 = .258$). Although there was no significant direct effect of content type on intention to purchase ($b = -.053$, $SE = .167$, 95% $CI = [-.382, .276]$), a significant positive indirect effect of content type on intention to purchase was found ($b = .088$, $SE = .044$, 95% $CI = [.015, .195]$). The total effect model was significant ($F(3, 397) = 36.529$, $p < .001$, $R^2 = .216$). These relationships indicate that participants who were exposed to a visual OBA expressed less perceived intrusiveness, and in turn, reported more intention to purchase than those who were exposed to a verbal OBA. Therefore, H7d-iii was supported (see Figure 26). Results are summarized in Table 29.
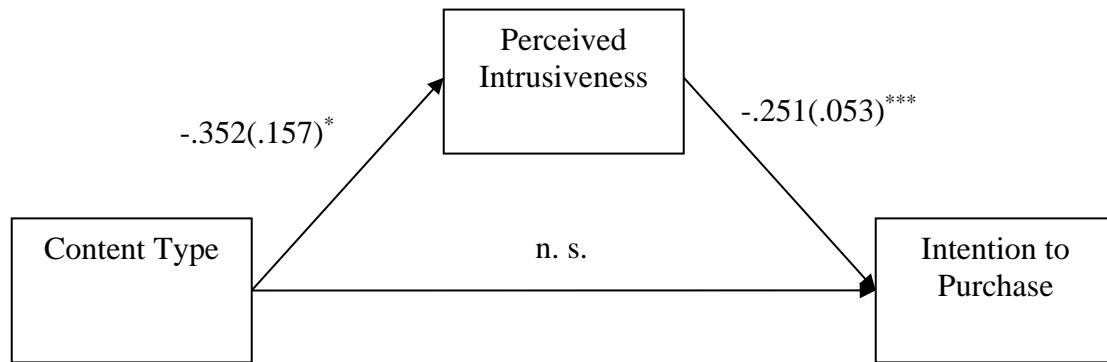

Figure 26. The effects of content type on intention to purchase mediated by perceived intrusiveness.
$^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$; Content Type was coded as "Verbal" = 0, "Visual" = 1

Table 29. *Direct and Indirect Relationship between Content Type and Intention to Purchase*

Specific Effect	Point Estimate	*Boot SE*	95% Bootstrap CI	
			LL	UL
Content Type → IP	-053	.167	-.382	.276
Content Type → PI → IP	.088	.044	.015	.195

Note. PI = Perceived Intrusiveness; IP = Intention to Purchase.

Hypotheses 8a- 8d predicted that perceived privacy concerns will mediate the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' i) attitude toward the OBA, ii) attitude toward the brand, iii) intention to click the ad, and iv) intention to purchase the product when controlling for the general advertising attitude, and brand familiarity. No significant mediating effect of perceived privacy concerns was found on the above relationships. Therefore, H8a were not supported.

Hypotheses 9a- 9d predicted that reactance would mediate the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' i) attitude toward the OBA, ii) attitude toward the brand, iii) intention to click the ad, and iv) intention to purchase the product when controlling for the general advertising attitude, and brand familiarity. No significant mediating effect of reactance was found on the above relationships. Therefore, H9a were not supported. A summary of results of the hypotheses and research question is presented in Table 30.

Table 30. *Summary Table for Study 2 Hypotheses and Research Question*

	Predicted Relationship	Outcome
H1a	Main effect of reciprocity on participants' attitude toward the OBA when controlling for the general advertising attitude, and brand familiarity.	**Supported.**
H1b	Main effect of reciprocity on participants' attitude toward the brand when controlling for the general advertising attitude, and brand familiarity.	Not supported.
H1c	Main effect of reciprocity on participants' intention to click the ad when controlling for the general advertising attitude, and brand familiarity.	**Supported.**
H1d	Main effect of reciprocity on participants' intention to purchase the product when controlling for the general advertising attitude, and brand familiarity.	Not supported.
H2a	Main effect of personalization on participants' attitude toward the OBA when controlling for the general advertising attitude, and brand familiarity.	Not supported.
H2b	Main effect of personalization on participants' attitude toward the brand when controlling for the general advertising attitude, and brand familiarity.	Not supported.
H2c	Main effect of personalization on participants' intention to click the ad when controlling for the general advertising attitude, and brand familiarity.	Not supported.
H2d	Main effect of personalization on participants' intention to purchase the product when controlling for the general advertising attitude, and brand familiarity.	Not supported.
H3a	Main effect of ad content type on participants' attitude toward the OBA when controlling for the general advertising attitude, and brand familiarity.	**Supported.**
H3b	Main effect of ad content type on participants' attitude toward the brand when controlling for the general advertising attitude, and brand familiarity.	**Supported.**
H3c	Main effect of ad content type on participants' intention to click the ad when controlling for the general advertising attitude, and brand familiarity.	**Supported.**
H3d	Main effect of ad content type on participants' intention to purchase the product when controlling for the general advertising attitude, and brand familiarity.	Not supported.
H4a	Interaction effect of reciprocity and ad content type on participants' attitude toward the OBA when controlling for the general advertising attitude, and brand familiarity.	Not supported.
H4b	Interaction effect of reciprocity and ad content type on participants' attitude toward the brand when controlling for the general advertising attitude, and brand familiarity.	**Supported.**

H4c	Interaction effect of reciprocity and ad content type on participants' intention to click the ad when controlling for the general advertising attitude, and brand familiarity.	Not supported.
H4d	Interaction effect of reciprocity and ad content type on participants' intention to purchase the product when controlling for the general advertising attitude, and brand familiarity.	Not supported.
H5a	Interaction effect of ad content type and personalization on participants' attitude toward the OBA when controlling for the general advertising attitude, and brand familiarity.	**Supported.**
H5b	Interaction effect of ad content type and personalization on participants' attitude toward the brand when controlling for the general advertising attitude, and brand familiarity.	Not supported.
H5c	Interaction effect of ad content type and personalization on participants' intention to click the ad when controlling for the general advertising attitude, and brand familiarity.	Not supported.
H5d	Interaction effect of ad content type and personalization on participants' intention to purchase the product when controlling for the general advertising attitude, and brand familiarity.	Not supported.
H6a	Interaction effect of reciprocity and personalization on participants' attitude toward the OBA when controlling for the general advertising attitude, and brand familiarity.	Not supported.
H6b	Interaction effect of reciprocity and personalization and personalization on participants' attitude toward the brand when controlling for the general advertising attitude, and brand familiarity.	Not supported.
H6c	Interaction effect of reciprocity and personalization and personalization on participants' intention to click the ad when controlling for the general advertising attitude, and brand familiarity.	Not supported.
H6d	Interaction effect of reciprocity and personalization and personalization on participants' intention to purchase the product when controlling for the general advertising attitude, and brand familiarity.	Not supported.
RQ1	Would there be any interaction between reciprocity, personalization, and ad content type on the dependent variables?	**Yes, there was a three-way interaction.**
H7a	Mediating effect of perceived intrusiveness on the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' attitude toward the OBA when controlling for the general advertising attitude, and brand familiarity.	**H7a-ii and H7a-iii supported.**
H7b	Mediating effect of perceived intrusiveness on the influence of i) reciprocity, ii) personalization, and iii) ad content type	**H7b-ii and H7b-iii supported.**

	on participants' attitude toward the brand when controlling for the general advertising attitude, and brand familiarity.	
H7c	Mediating effect of perceived intrusiveness on the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' intention to click the ad when controlling for the general advertising attitude, and brand familiarity.	**H7c-ii and H7c-iii supported.**
H7d	Mediating effect of perceived intrusiveness on the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' intention to purchase when controlling for the general advertising attitude, and brand familiarity.	**H7d-ii and H7d-iii supported.**
H8a	Mediating effect of perceived privacy concerns on the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' attitude toward the OBA when controlling for the general advertising attitude, and brand familiarity.	Not supported.
H8b	Mediating effect of perceived privacy concerns on the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' attitude toward the brand when controlling for the general advertising attitude, and brand familiarity.	Not supported.
H8c	Mediating effect of perceived privacy concerns on the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' intention to click the ad when controlling for the general advertising attitude, and brand familiarity.	Not supported.
H8d	Mediating effect of perceived privacy concerns on the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' intention to purchase when controlling for the general advertising attitude, and brand familiarity.	Not supported.
H9a	Mediating effect of reactance on the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' attitude toward the OBA when controlling for the general advertising attitude, and brand familiarity.	Not supported.
H9b	Mediating effect of reactance on the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' attitude toward the brand when controlling for the general advertising attitude, and brand familiarity.	Not supported.
H9c	Mediating effect of reactance on the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' intention to click the ad when controlling for the general advertising attitude, and brand familiarity.	Not supported.
H9d	Mediating effect of reactance on the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' intention to purchase when controlling for the general advertising attitude, and brand familiarity.	Not supported.

Discussion

Like Study 1, the goal of Study 2 also was to investigate the role of reciprocity, personalization, and ad content type of OBA on participants attitudes toward the OBA, attitudes toward the brand, intention to click the ad, and intention to purchase the advertised product. However, Study 2 used a real brand, "iPhone X," as the product instead of a fictitious brand. Study 2 also explored the mediating influence of perceived intrusiveness, perceived privacy concerns, reactance on consumers' attitude and behavioral intention.

Study 2 revealed some important findings as there is a mixture of similarities and dissimilarities with Study 1. The manipulations (reciprocity, personalization, and ad content type) were successful. For all three factors, participants were able to distinguish the manipulated conditions significantly. Discussions related to the hypothesized relationships are presented in the following sections.

Influence of Message Reciprocity

It was hypothesized that the reciprocal nature of the OBA would influence participants' attitude toward the OBA, attitude toward the brand, intention to click the ad, and intention to purchase the product. Message reciprocity was found to have a significant influence on participants' attitude toward the OBA (H1a), and intention to click the ad (H1c). In other words, participants in the "reciprocal" condition had a significantly more positive attitude toward the ad, and intention to click the ad than the participants who were exposed to the "non-reciprocal" condition.

There are several explanations for the findings. First, participants preferred the reciprocal nature of ad for iPhone X. It suggests that they could establish an exchange

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relationship with the brand and thus showed a more positive attitude toward the brand and intention to click the ad. Therefore, it can be said that reciprocity in the OBA works for a known or favored brand but not for a fictitious or a new brand.

Second, it is possible that the participants in the reciprocal condition trusted that the brand (iPhone X) would fulfil the reciprocity with them and thus showed a higher attitude toward the ad and intention to click. This possibility is supported by a previous study where Wu et al. (2008) argued that consumers need to assess the legitimacy of the reciprocal nature of the brand before they can establish trust and commitment with the brand. Therefore, it can be stated that a reciprocal ad is effective for a familiar brand but may not work well for an unknown brand.

However, it is also clear from this research that there was no significant impact of reciprocity on participants' attitude toward the brand, and intention to purchase the product. It can be explained by the fact that iPhone X is already a well-known brand and considered a leader in the industry. Therefore, just because the ad was reciprocal, participants did not feel it had any impact on their attitude toward the brand. For the purchase intention, it is possible that participants had to think about different other aspects of the product to show their behavioral intention to purchase. Some of those aspects might include price and software. iPhone X costs more than a $1,000 which many consumers cannot afford. Moreover, it uses a proprietary iOS software system that is not easily customizable. Therefore, it is posited that despite having a favorable attitude toward the ad, participants were reluctant to show their behavioral intention to purchase the product. It can be also asserted that since most participants already owned an iPhone, they were not interested to buy a new phone.

Influence of Message Personalization

It was hypothesized that the message personalization of the OBA would influence participants' attitude toward the OBA, attitude toward the brand, intention to click the ad, and intention to purchase the product. No support was found in favor of these hypotheses. Although there is evidence that that personalization can enhance message persuasion and consumers' attitude and intention, Study 2 failed to establish such influence of personalization.

Like in Study 1, it is also likely for Study 2 that participants' perceived intrusiveness negatively impacted their attitudes and intentions. Despite the brand being well-known, personalization did not influence OBAs favorability. Therefore, it can be assumed that consumers do not like personalized OBA, in general.

Similar to Study 1, it is also necessary to investigate whether using participants' "names" caused any problems. Therefore, more research is needed to understand the role or name and other personal attributes in OBA personalization.

Influence of OBA Content Type

The current study hypothesized that ad (OBA) content type would influence participants' attitude toward the OBA, attitude toward the brand, intention to click the ad, and intention to purchase the product. Three (H3a-H3c) out of the four hypotheses were supported. Unlike Study 1, participants in Study 2 who saw the "visual" ad reported significantly higher attitude toward the OBA, attitude toward the brand, and intention to click the ad than the participants who saw the "verbal" ad. The findings again confirmed the dominance of visual components over verbal components of advertising. Therefore, it can be suggested that regardless of the brand, advertisers

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should focus on the visual presentation to grab consumers' attention toward OBA. Thus, they may get a positive attitude and intention regarding their product from consumers.

However, the predicted influence of ad content type on participants' purchase intention (H3d) was found insignificant. Again, it can be asserted that since purchase decision making requires more cognitive effort and rational judgement, only crafting a visual OBA may not be enough to generate consumers' behavioral intention to purchase. Nonetheless, more research is needed to uncover other aspects of the issue.

Interaction Effect of Reciprocity and OBA Content Type

Hypotheses 4a–4d predicted that there would be an interaction effect between reciprocity and ad content type on participants' attitude toward the OBA, attitude toward the brand, intention to click the ad, and intention to purchase. Only H4b (attitude toward the brand) was supported from the results of the experiment.

It was found that participants in the "reciprocal" and "visual" condition had a higher attitude toward the brand than those who were exposed to the "reciprocal" and "verbal" condition. Similarly, participants in the "non-reciprocal" and "visual" condition had a higher attitude toward the brand than those who were exposed to the "non-reciprocal" and "verbal" condition. This finding again supports the superiority of visual contents in the OBA in general. Furthermore, for a non-reciprocal condition, participants liked verbal contents more than the reciprocal condition. This finding suggests that individuals process persuasive messages differently based on the content. In simple words, it can be asserted that in the presence of a reciprocal message, individuals pay less attention to the verbal arguments of the ad. However, when there is no incentive, consumers tend to consider verbal arguments more favorable than the

reciprocal condition. Regardless of the reciprocity, visual contents are preferred by the consumers. Therefore, reciprocal nature of the OBA influences consumers' attitude toward the brand more than the non-reciprocal OBA, when the ad is verbal.

However, no other interaction effect between reciprocity and ad content type on the rest of the predicted relationships was significant. Although the relationships were approached to significance for the fictitious brand (Study 1), these did not work for the real brand. Therefore, it can be concluded that the individuals' perception toward reciprocity and content type of the OBA works differently for unknown versus known brands. For an unknown or a new brand, the combination of reciprocity and content type may show some usefulness in getting a significant influence on participants' attitude toward the ad, intention to click the ad, and intention to purchase, but for a recognized brand, it does not have an impact.

Interaction Effect of Personalization and OBA Content Type

Hypotheses 5a–5d predicted that there would be an interaction effect between personalization and ad content type on participants' attitude toward the OBA, attitude toward the brand, intention to click the ad, and intention to purchase. Only the interaction effect of personalization and OBA content type on participants' attitude toward the ad (H5a) was found significant.

Participants in the "personalized" and "visual" condition had a higher attitude toward the OBA than the participants exposed to the "personalized" and "verbal" condition. Also, participants in the "generic" and "visual" condition had a higher attitude toward the OBA than the participants who were exposed to the "generic" and "verbal" condition. However, it is important to note that there is a pattern of decreasing

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influence of visual content and increasing influence of verbal content for personalized OBA. The pattern indicates that for personalized OBA, participants might prefer the verbal arguments more than the visual aesthetics. It might happen because for the visual OBA, participants noticed the personalization element (name) more than the verbal ad and did not like the personalization from the iPhone X. But for the verbal condition, they might have ignored the brand and showed better attitude toward the ad.

Hypotheses 5b–5d were not supported. In line with Study 1, the insignificance shown from the results suggest that participants did not like to see their names (personalization) in the OBA in general.

Interaction Effect of OBA Message Reciprocity and Personalization

Hypotheses 6a–6d predicted that there would be an interaction effect between message reciprocity and personalization on participants' attitude toward the OBA, attitude toward the brand, intention to click the ad, and intention to purchase. No significant interaction effects were found.

However, there was an approached to significant interaction effect of reciprocity and personalization on participants' intention to purchase (H6d). One on hand, results revealed that participants in the "reciprocal" and "personalized" condition had a higher intention to purchase than those who were exposed to the "reciprocal" and "generic" condition. On the other hand, for the "non-reciprocal" condition the findings were opposite. Although there was no significant main effect of personalization, the result suggests that advertisers should incorporate reciprocal messages with the personalized OBAs, whereas, they should focus on generic messages if the ad is non-reciprocal. This result is important because it shows that the reciprocal nature of OBA can offset the

negative perception toward the personalization and make it appealing to consumers. However, for a generic OBA, a non-reciprocal message is better since it does not pose any sense of intrusion to the consumers.

Three-Way Interactions

Research Question 1 asked whether there would be any three-way interaction among reciprocity, personalization, and ad content type. A significant interaction among OBA message's reciprocity, personalization, and ad content type on participants' attitude toward the brand was found.

The interaction shows that for the verbal OBA, participants in the reciprocal and personalized condition had a higher attitude toward the brand than in the participants in the reciprocal generic condition. Participants in the non-reciprocal and generic condition had a higher attitude toward the brand than in the participants in the non-reciprocal and personalized message. For the visual OBA, the finding was the exact opposite.

It is likely that for the verbal OBA, participants pay more attention to the text-based argument and thus preferred the reciprocal and personalized message over the non-reciprocal and generic message. However, for the visual OBA, participants preferred the reciprocal nature of the generic message since it was less intrusive than the personalized message. But for the non-reciprocal condition, they preferred the personalized message over the generic message since there was no exchange (i.e., 20% instant discount) present, they focused more on the product image and liked being personalized by the brand. This finding is unique for the practice of OBA because it shows how a combination of different attributes (e.g., personalization, exchange,

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content) of an ad can influence consumers in different ways. However, more research is needed to identify consumers' psychological motivations for such differences in attitudes to ads.

Mediating Effects

Hypotheses 7a-7d predicted that perceived intrusiveness would mediate the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' i) attitude toward the OBA, ii) attitude toward the brand, iii) intention to click the ad, and iv) intention to purchase the product. Perceived intrusiveness was found as a significant mediator only for personalization. OBA personalization caused perceived intrusiveness among the participants, and in turn, perceived intrusiveness negatively affected their attitude toward the OBA, attitude toward the brand, intention to click the ad, and intention to purchase.

As found in Study 1, message personalization in OBA creates perceived intrusiveness among participants' despite the type of brand. Again, it is likely that using participants' "name" was an issue. Therefore, further research is needed to confirm if participants feel perceived intrusiveness for other personal attributes, the same way they do for "name."

Hypotheses 8a-8d predicted that perceived privacy concern would mediate the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' i) attitude toward the OBA, ii) attitude toward the brand, iii) intention to click the ad, and iv) intention to purchase the product. None of the hypotheses was supported.

In line with Study 1, Study 2 also found that despite perceiving intrusiveness, participants reported no privacy concerns. Therefore, similar reasoning is presented. It

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is possible that the level of personalization was not strong enough for the participants to feel privacy concerns. Moreover, it can be argued that since the brand was well-known, participants felt a sense of trust and thus, there was no privacy concern.

Hypotheses 9a-9d predicted that reactance would mediate the influence of i) reciprocity, ii) personalization, and iii) ad content type on participants' i) attitude toward the OBA, ii) attitude toward the brand, iii) intention to click the ad, and iv) intention to purchase the product. Unlike Study 1, these hypotheses were not supported.

The reason for such findings is the familiarity of the brand. Brand familiarity is significant covariate in Study 2. Since iPhone X is a well-known and reputed brand, participants did not feel that the OBA would threaten their individual freedom. Thus, despite experiencing intrusiveness, they did not report any reactance from the ad.

In conclusion, the results of Study 2 shows that the findings generally supported the assumptions of the Social Exchange Theory (SET) and the Privacy Calculus Model. Participants showed some favorable attitude and intention regarding the reciprocal OBA. As the case with Study 1, this study reconfirms the role of the Privacy Calculus Model. However, in this study, only perceived intrusiveness mediated the predicted relationships, making it distinctive to Study 1.

Such findings can be explained by the fact that the product (iPhone X) was known to participants and many of them already owns an iPhone. Therefore, they could calculate a valuable transaction from this OBA. Thus, unlike Study 1, they showed a more favorable attitude and intention to the ad. Moreover, since they were aware of this brand, they did not feel reactance like participants in Study 1. In light of the SET and the Privacy Calculus Model, this study reaffirms the connection between these two

theoretical frameworks. Furthermore, the current study contributes to the existing theory

by adding the fact that consumers may process OBA decision making differently based

on how much they know the product or the brand. Study 1 and 2 revealed some

distinctive results despite the fact that the OBAs were similar except for the brand.

Therefore, further research is needed to investigate such factors.

Comparison between Study 1 and 2

Although this research did not pose any specific hypotheses regarding the

possible differences between Study 1 and 2, it is valuable to discuss the results when the

two studies are compared side by side. Despite the fact that the studies had completely

different samples, the comparison gives a general perspective.

Independent sample t-tests were conducted to see whether there was any

difference in the factors in the two studies (see Table 31). No significant differences

were found in terms of the independent and mediating factors between the two studies.

However, there were differences in terms to outcome variables: attitude toward the

brand, and intention to purchase. In both cases, participants in Study 2 (Real Brand)

indicated significantly greater attitude and intention than participants in Study 1

(Fictitious Brand). The output revealed that participants in the Study 2 reported higher

attitude toward the brand ($M = 4.765$, $SD = 1.631$) than those in Study 1 ($M = 3.812$, $SD
= 1.525$), $t(802) = -8.557$, $p < .001$. Likewise, participants in Study 2 showed higher

intention to purchase the product ($M = 3.718$, $SD = 1.923$) than those in Study 1 ($M =
3.344$, $SD = 1.841$), $t(803) = -2.818$, $p < .005$.

This finding demonstrates that although participants largely agreed on their

attitudes and intentions between the studies, the real brand (iPhone X) still had higher

influence on participants attitude toward the brand, and intention to purchase. It can be asserted from this output that familiarity and favorability of the existing brand created such an influence on participants.

Table 31. *Comparison between Study 1 and 2*

	Study 1- Fictitious Brand (n = 403)		Study 2- Real Brand (n = 402)		t	df	p
	M	SD	M	SD			
Attitude toward Ad	3.765	1.660	3.907	1.677	-1.200	803	.230
Attitude toward Brand	3.812	1.525	4.765	1.631	-8.557	802	.000
Intention to Click the Ad	3.309	2.081	3.277	1.989	0.224	798	.823
Intention to Purchase	3.344	1.841	3.718	1.923	-2.818	803	.005
Perceived Intrusiveness	4.434	1.808	4.482	1.713	-0.383	803	.702
Perceived Privacy Concern	5.522	1.453	5.565	1.392	-0.424	803	.672
Reactance	3.977	1.049	4.040	0.925	-0.912	803	.362

Chapter 7: General Discussion

The aim of this dissertation was to explore the role of reciprocity, personalization, and ad content type of OBA on participants' attitudes toward the OBA, attitudes toward the brand, intention to click the ad, and intention to purchase the advertised product. Guided by recent research on OBA, the current study intended to address some key areas of the phenomenon that need more clarification and advancement. It is also important to mention that the current study chose Social Exchange Theory (SET) and the Privacy Calculus Model as the theoretical pillars, which were not explored in OBA research in the past.

Two 2 (reciprocity: reciprocal vs. non-reciprocal) X 2 (personalization: personalized vs. generic) X 2 (ad content type: verbal vs. visual) experiments were conducted to investigate the predicted hypotheses and research question. Both studies utilized scenario-based online experiments, since these are common and appropriate in this area of research (e.g., Aguirre et al., 2015; Bleier & Eisenbeiss, 2015; Shoenberger, & Thorson, 2014; White et al., 2008). Study 1 used a fictitious brand "ArtCell" whereas, Study 2 used a real brand "iPhone X" to design the stimulus materials.

This research unveiled some important insights that would contribute to the theory and practice of OBA, and overall online advertising. Both Study 1 and 2 found similar results for most of the predicted relationships. Yet, there are some distinctions. Thus, Study 2 validated the findings of Study 1 which was one of the reasons behind conducting two studies. Additionally, since the study wanted to see the role of brand familiarity on consumers' attitude and intention, two separate studies were necessary.

Study 1 found no strong support for the influence of OBA message reciprocity on participants' attitudes and intentions. None of the main effect hypotheses was supported. The interactions between reciprocity and OBA content type were approached to significance. Combined, these results suggest that participants could not establish a reciprocal relationship with the fictitious brand. Therefore, the reciprocal nature of the SET did not work in this case. In other words, it is evident that it is hard for a new or unknown brand to establish a reciprocal relationship with customers despite offering a generous discount (i.e., instant discount) in the OBA context.

However, in Study 2, message reciprocity significantly influenced participants' attitude toward the OBA (H1a), and intention to click the ad (H1c). Moreover, there was a significant interaction effect between OBA reciprocity, and ad content type on attitude toward the brand. Participants who watched the reciprocal and visual ad, reported positive attitude toward the brand. These findings confirm that participants could establish a reciprocal relationship with iPhone X, which is a well-known brand in the U.S. Such relationships are assumed because of participants' trust and expectation toward the brand.

It is further important to mention that iPhone (and Apple) is a powerful brand. It has a long history of market dominance in the technological products sector. Such dominance creates a profound influence on the consumers' urge to own such a phone. Owning an iPhone has become a symbol of social status, prestige, and wealth (Zumbrun & Mickle, 2017). Therefore, when consumers find some benefits from the ad, they tend to show greater positive intention and attitude. On the flip side, the fictitious brand did not influence the consumers in that fashion, and thus, message reciprocity failed to gain

any positive attitude and intention from the participants. Therefore, building a bonds and trust with customers is vital in generating a positive attitude and intention. Otherwise, promotional incentives such as discounts may not attract customers.

The current study found very limited support for the influence of message personalization on participants' attitudes and intentions. Participants' attitude toward the OBA for the fictitious brand (Study 1) was significantly influenced by personalization. However, the data show that participants preferred the generic OBA over the personalized OBA. This finding is crucial for the scholarship and practice of OBA. Personalization is one of the core elements of OBA. Scholars conducted many studies to see how people react to the personalized message in the OBA. While some researchers reported that message personalization can increase commercial messages' persuasion (e.g., Beam & Kosicki, 2014; Ha & Janda, 2014), consumers' trust, likelihood of accepting product recommendation (Komiak, & Benbasat, 2006), and purchase intention (Van Doorn & Hoekstra, 2013), others concluded that personalization reduces the message's persuasion effect which creates ad avoidance, negative attitude toward the ad and the brand, and decreases in purchase intention (Aguirre et al., 2015; Smit et al., 2014). This dissertation found support for the latter.

Advertisers and marketers put in a lot of effort into personalizing their ads and make them more appealing and persuasive to consumers. However, the current research found that message personalization can, in fact, backfire and make the ad less attractive than the generic ad. Nevertheless, it is important to mention that there are many ways of personalizing ads. This research used only one element (i.e., participants' names) to induce personalization. As discussed earlier, it is possible that "name" may not be a

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perfect element for personalization. Individuals are very connected to their names and do not like to see them in online ads. Thus, names in the personalized OBAs might not be a good choice for the advertisers. However, more research is needed to investigate such possibilities. Moreover, it is also necessary to investigate which personalization elements have a more positive influence on consumers' attitudes and intentions, if the name is not a practical choice. Nonetheless, the current research found that consumers dislike personalized OBA.

Next, this study found strong support for the assumption that consumers favor visual content above verbal content in advertising. For the fictitious brand (Study 1), it was found that participants preferred visual OBA over verbal OBA when showing their attitude toward the brand. However, for the real brand (Study 2), OBA content type significantly influenced participants' attitudes toward the OBA, attitudes toward the brand, and intentions to click the ad. In all those cases, participants showed a greater attitude and intention toward visual OBA than verbal OBA. In Study 2 (real brand) visual OBA had a superior impact for both the reciprocal and non-reciprocal message on participants' attitudes toward the brand. Therefore, this finding confirms the findings of earlier research that visual contents are superior in persuasive communication (e.g., Childers et al., 1986; Mitchell & Olson, 1981; Mitchell, 1986).

Moreover, there was a significant interaction between reciprocity and ad content type on participants' attitudes toward the brand in Study 2. While in Study 1, the interaction effects between reciprocity and ad content type were approached to significance. However, the patterns suggest some interesting insight. Although participants preferred visual contents more than verbal content for reciprocal message in

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case of attitude toward the ad and brand, for non-reciprocal scenario, the influence of both visual and verbal ads were almost similar. However, in case of intention to click the ad, and intention to purchase, participants showed more intention for visual and reciprocal, and verbal and non-reciprocal condition.

The current research, therefore, adds to the existing findings that individuals process a persuasive message differently when it comes to showing attitude and intention. When they show one pattern of attitude toward an ad, their intention can show an opposite pattern, based on the ad offerings (i.e., elements presented). Therefore, it is the key to identify which elements have greater persuasive influence. It is also important to note that for a new or unknown brand, it can be highly beneficial to use visual content to attract consumer attention. However, for a known brand, it may not help a lot since consumers may have a prior attitude toward the brand. Despite such possibilities, the current study suggests that visual contents are better than verbal contents when crafting persuasive messages.

It is also important to note the there was a three-way interaction among reciprocity, personalization, and content type on participants' attitude toward the brand. The data revealed that for the verbal OBA, participants in the reciprocal and personalized condition had a favorable attitude toward the brand than the reciprocal and generic condition. On the other hand, participants in the non-reciprocal and generic condition had a higher attitude toward the brand than the non-reciprocal and personalized condition. For the visual OBA, the finding was the opposite.

The interaction indicates that participants prefer personalized ads over generic ones when the message is reciprocal, in the case of verbal OBA. However, when the

message is non-reciprocal, the finding was reversed. It can be said that the reciprocal nature of the verbal OBA offsets the possible negative impact of personalization. Thus, they showed a more favorable attitude toward the brand. But when there was no incentive, participants preferred the generic ad.

However, for the visual OBA, participants preferred the reciprocal and generic message above the reciprocal and personalized one. But for the non-reciprocal condition, they preferred the personalized message over the generic message. It can be assumed from this finding that when individuals are exposed to a familiar brand and the message has an incentive, they tend to prefer the generic wording. In other words, message personalization does not add any value since individuals already have a favorable attitude toward the brand from the incentive and the product's visual elements, and from their prior interaction with the brand (iPhone X).

Whereas, when there is no reciprocity, individuals preferred the personalized messages for the visual OBA. It can be assumed that since there was no exchange involved, participants focused more on the product's visual presentation and liked iPhone (i.e., Apple) treating them in a more personal manner. This is an interesting finding since it indicates that message personalization by a known brand can be useful in generating a favorable attitude toward the brand under certain conditions. The findings further demonstrate that individuals have different psychological motivations for showing a favorable attitude toward the brand in the presence of personalized OBA.

The current research also found some crucial mediating effects. For both Study 1 and 2, it was found that perceived intrusiveness significantly mediated the influence of personalization on participants' attitudes toward the OBA, attitudes toward the brand,

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intentions to click the ad, and intentions to purchase the product. The data show that OBA personalization caused perceived intrusiveness, and in turn perceived intrusiveness negatively affected participants' attitudes and intentions. It also clarifies why participants preferred the generic messages above the personalized messages.

As reported by scholars, personalized ads can negatively impact consumers' attitudes and intentions (e.g., Aguirre et al., 2015; Smit et al., 2014; Van Doorn & Hoekstra, 2013). A similar pattern is found in this dissertation. Therefore, OBA designers should always be conscious of this matter. However, it is interesting that perceived intrusiveness did not mediate reciprocity and ad content type. The reason for such a finding is justified by the fact that message reciprocity and ad content type did not have any "personal" elements as was the case with personalization (i.e., name). Therefore, participants did not feel any intrusiveness from those two factors.

The predicted relationships regarding the mediating effects of perceived privacy concern were not supported, but these suggest some crucial patterns for consumers' online information privacy. Although perceived intrusiveness reduced OBA attitude and intention, perceived privacy concern did not impact those factors. This finding added insight to the privacy theory by reconfirming that intrusiveness and privacy concern are different concepts although they seem similar.

This is intriguing and at the same time, it asks for more empirical research on online information privacy. In general, it can be assumed that both perceived intrusiveness and perceived privacy concern would have similar impacts on consumers' attitude and intention. However, this result makes it clear that consumers' online information privacy is a complex matter and often hard to explain using the existing

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literature. Since online advertising and privacy scenarios are changing very fast, more

investigation should be done to uncover why consumers show differing views regarding

perceived intrusiveness and perceived privacy concern and what psychological process

are used when making online privacy related decisions.

This research also predicted that reactance would mediate the predicted

relationships. For Study 1, reactance significantly mediated the influence of

personalization on participants' attitudes toward the OBA, attitudes toward the brand,

intentions to click the ad, and intentions to purchase the product, but there was no

mediating role of reactance in Study 2. This finding can be discussed from the

assumption that the fictitious brand triggered reactance in the form of "unsolicited

product recommendation" (Fitzsimons & Lehmann, 2004). As the participants did not

have any exposure to the brand previously, they did not like seeing a personalized ad

from that brand. Ultimately, it reduced their attitudes and intentions.

However, for the real brand (Study 2), it can be argued that since the brand

(iPhone X) was a well-known among the U.S. residents, they were already exposed to

various ads from the brand. Thus, they did not feel that the personalized OBA from

iPhone X would cause any restriction to their freedom. It suggests that brand familiarity

may play a positive role in eliminating reactance among OBA audience.

It is further necessary to mention that in some cases, participants showed less

intention to click the ad, and purchase the product. It is assumed that since these factors

are more "action" oriented than attitude, participants were reluctant to show any

positive sign. In other words, it can be argued that individuals need more information

and cognitive processes to make an action-oriented judgment such as, clicking an ad, and purchasing a product.

In summary, the current research brings some new and interesting findings for the scholarship of OBA. Building on the SET framework, this dissertation was able to answer some vital questions regarding what factors affect OBA persuasiveness, how to combine multiple elements in an OBA offering, and what roles consumers' information privacy anxieties play. It is expected that the current research would add value to the growing body of OBA research and contribute in organizing the accumulated knowledge of the field.

Practical Implications

This research found some important findings for the OBA and online advertising mechanism in general. Therefore, it is necessary to discuss what those insights mean for the practice of OBA and what can be done to overcome the obstacles in creating successful OBA campaigns.

The first thing to note here is the impact of message personalization in OBA. A big stream of research claims that personalization is the key for behavioral advertising, and consumers "like" to see personalized offers by advertisers. The current growth of the OBA also supports that notion and thus, marketers are investing heavily in behavioral data gathering. Because of its steady growth and overall position in the advertising market, OBA is considered the future of advertising (Schultz, 2016).

However, the current study found very limited support in favor of OBA personalization. It suggests that personalization does not positively impact consumers' attitude and intention in all cases. In fact, it can backfire and create a negative impact, if

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not done wisely. Therefore, advertisers and marketers should know when and where to use personalization. It is also necessary to know which element (e.g., name, address, personal preference) to use for a certain product or service. It is further advised that advertisers should not invest a large amount of money on message personalization at the early stage of an ad campaign. Rather, they should conduct multiple pretests in the market to choose the best personalization option.

Specifically, for a new or an unfamiliar brand, it is highly suggested that they use OBA personalization with caution. The current research found that message personalization works better for a familiar brand than an unfamiliar brand, despite showing a general lack of favorability toward the personalized messages. Thus, advertisers and marketers of unknown brands should conduct more research before launching an OBA campaign.

Further, it is recommended that marketers should combine personalization with other elements that might offset the possible negative influence of personalization to make the ad effective. For example, personalized ads with discounts, visual elements can be useful.

It was also found that reciprocal inducement such as "instant discount" can positively influence consumers' attitude and intention. Moreover, when coupled with other elements (e.g., visual content), it can have better influence. Therefore, marketers should provide valid incentives to consumers to engage them with the ad. It is important to keep in mind that marketers craft the OBA with the help of consumers' behavioral data. In other words, they collect that data without prior consumer consent. Therefore, consumers need good reasons to believe that such data collection would give them some

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"benefits," such as discounts, in exchange. Otherwise, it would be hard for marketers to see any positive outcome from OBA campaigns.

Furthermore, it was found that participants preferred visual content more than the verbal content. This finding in line with the longstanding research finding that visual ad content is superior to verbal content. However, considering information overload created by commercial messages in the online media, it seems even more important to use visual contents to grab consumers' attention. Consumers are exposed to numerous online advertising messages every day, and in most cases, those are ignored. Thus, it is crucial for advertisers to design OBAs that would attract consumers and make them want to interact with those.

Nevertheless, the route to success with reciprocal and visual content might be difficult for a new brand. These elements may not work properly since consumers might think that the unknown brand is breaching their privacy by collecting their personal data, and consequently, there is no reason to interact with the ad. Therefore, new brands should be careful about such possibilities and design the OBAs carefully. One possible suggestion could be to make the OBA "unique." As reported by Stiglbauer and Kovacs (2018), consumers' need for uniqueness should be considered seriously. Consumers' want to see something unique in the web-based personalized ads to determine the value. Therefore, consumers might deem unique OBAs as "valuable" and thus, something that positively influences their attitude and intention.

Another important finding of this study is that in some cases, there was a discrepancy between participants' attitude and intention. Although they showed a positive attitude toward the OBA or the brand, they did not show an intention to engage

in the behavioral action. It is predicted that since the intention to click the ad and purchase the product requires more decision-making and rationalization, participants were hesitant to show such intentions. Marketers should be aware of this possibility and determine what factors are affecting their decision-making process (e.g., price, durability, value etc.). Although behavioral intention does not necessary influences actual behavior, it is necessary for marketers to know about these facts and craft messages based on consumers' needs.

This research also offers some significant recommendations regarding consumers' information privacy concern. It was found that participants felt intrusiveness from the message personalization regardless of the familiarity of the brand (i.e., ArtCell and iPhone X). It was also found that personalization created a sense of reactance among participants for the fictitious brand.

As found in this study, perceived intrusiveness negatively impacted participants' attitudes and intentions. Therefore, marketers and advertisers should always be cautious about this issue. They should take necessary preventive measures to remove the elements that make the OBA intrusive to consumers. The ads should not create privacy concern or a threat to freedom for the consumers. Once consumers deem the OBA an issue to their privacy, they would not only withdraw their attention from the ad but also have a negative attitude toward it. Therefore, marketers should have all the necessary disclosure information available for consumers and make it clear that they can easily find the information when needed.

Considering the recent massive personal information breach by Facebook, it is very important for marketers to be upfront about how they collect potential consumers'

data, and how they use that data. Also, they must make sure that data is only used for message personalization purposes. Supporting information and documents in that regard should be written clearly and concisely without using verbose legal jargons so that everybody can understand the meaning. In simple words, advertisers and marketers must show their intent to safeguard consumers' private data.

<h2 style="text-align:center">Limitations and Future Research</h2>

As with all research, there are some limitations in this research. First, this research focused on only one element, participants' names to manipulate "personalization" in the OBA. As pointed out by Li and Liu (2017), ads can be personalized in many ways. Not every element has similar effects. Although names are widely used in advertising research to create personalization, it is possible that other personalization elements might have different effects on consumers' attitudes and intentions. Therefore, future research should consider using other personalization elements, and see how namse and other elements might differ in terms of attitude and intention. Research should also see if other personalization elements create similar or different intrusiveness, privacy concern, and reactance in consumers.

Second, this research used smartphone as the product category. It can be assumed that individuals' attitudes and intentions can show different patterns based on the product or service category. Such differentiation can also occur based on the functionality of the product (i.e., utilitarian vs. hedonic). People may judge the value of the ads based on such differentiations. Thus, future research should explore such possibilities.

Third, the mediating variables (i.e., perceived intrusiveness, perceived privacy concern, reactance) in this research were correlated among each other. When variables are highly correlated, the true impact of each variable cannot be observed. Such correlations also impacted the overall outcome. Therefore, further research is needed to uncover such influence.

Fourth, this research relied on self-reported data only. It can be assumed that self-reported data along with psychophysiological measures might help better understanding the so called "black box" inside the consumer's mind. For example, individuals' attention toward media stimuli can be detected using "hear rate" since it is a physiological indicator of cognitive resource allocation (Leshner, Bolls, & Thomas, 2009). Similarly, eye-tracking technologies can be utilized to observe which type of contents of an advertising (e.g., text, visual, logo) are preferred by individuals, and thus, more effective in consumer persuasion (Boerman, van Reijmersdal, & Neijens, 2015). Hence, future research can incorporate such multi-method approaches.

Finally, this research recruited more than 400 participants for each experiment from a U.S. national survey pool. Despite sampling from a national population, the these were not the true representation of the actual U.S. population. Therefore, caution should be made when generalizing the findings of this research to a bigger population.

Conclusion

This research explored the role reciprocity, personalization, and ad content type of OBA on participants attitudes toward the OBA, attitudes toward the brand, intention to click the ad, and intention to purchase the advertised product. Furthermore, it tested

the mediating roles of perceived intrusiveness, perceived privacy concern, and reactance.

Based on the theoretical framework of the Social Exchange Theory and the Privacy Calculus Model, the current study found some intriguing insights about OBA scholarship and practice. Even with some limitations, this research advanced the existing knowledge of OBA and online advertising. It is also the first attempt to explore the research problem from a social exchange perspective. It is expected that the findings from this research will contribute to the study of advertising and enlighten further avenues for research.

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Appendix A: Experimental Scenarios for Study 1

1) Reciprocal-Personalized-Verbal

"Imagine that you needed a new cell phone device and so, after coming back from work at night you decided to search online for a cell phone that would satisfy your need. You browsed several phones including the "ArtCell." The next morning, you opened *The Daily Rising Star's* website to get some latest news. Right after opening the homepage, you saw the following banner ad:"

2) Reciprocal-generic-verbal

"Imagine that you needed a new cell phone device and so, after coming back from work at night you decided to search online for a cell phone that would satisfy your need. You browsed several phones including the "ArtCell." The next morning, you opened *The Daily Rising Star's* website to get some latest news. Right after opening the homepage, you saw the following banner ad:"

3) Non-reciprocal-personalized-verbal

"Imagine that you needed a new cell phone device and so, after coming back from work at night you decided to search online for a cell phone that would satisfy your need. You browsed several phones including the "ArtCell." The next morning, you opened *The Daily Rising Star's* website to get some latest news. Right after opening the homepage, you saw the following banner ad:"
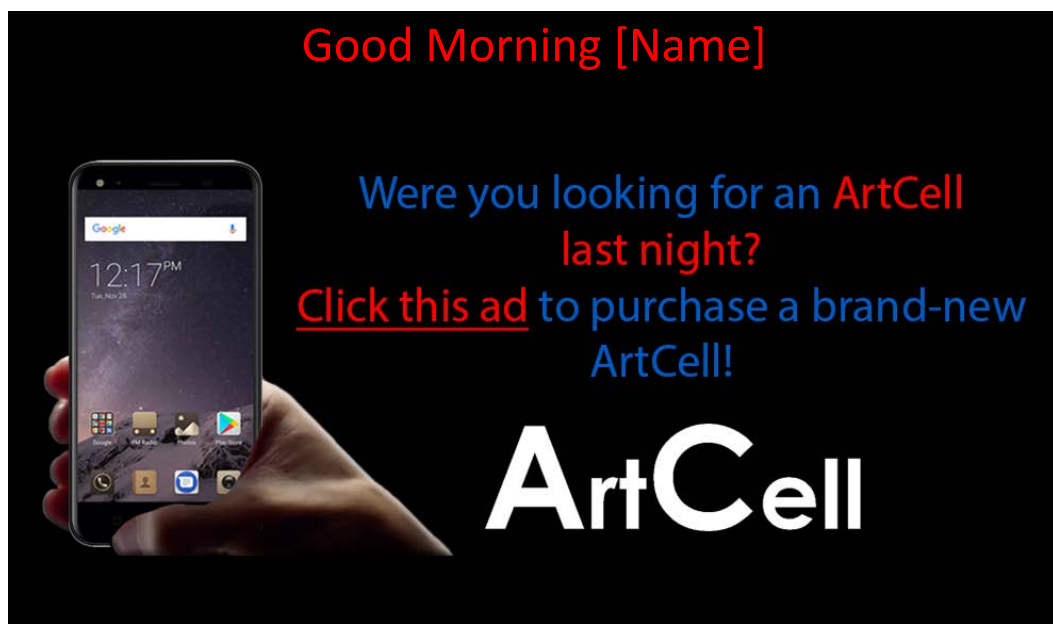
4) Non-reciprocal-generic-verbal

"Imagine that you needed a new cell phone device and so, after coming back from work at night you decided to search online for a cell phone that would satisfy your need. You browsed several phones including the "ArtCell." The next morning, you opened *The Daily Rising Star's* website to get some latest news. Right after opening the homepage, you saw the following banner ad:"

5) Reciprocal-personalized-visual

"Imagine that you needed a new cell phone device and so, after coming back from work at night you decided to search online for a cell phone that would satisfy your need. You browsed several phones including the "ArtCell." The next morning, you opened *The Daily Rising Star's* website to get some latest news. Right after opening the homepage, you saw the following banner ad:"

6) Reciprocal-generic-visual

"Imagine that you needed a new cell phone device and so, after coming back from work at night you decided to search online for a cell phone that would satisfy your need. You browsed several phones including the "ArtCell." The next morning, you opened *The Daily Rising Star's* website to get some latest news. Right after opening the homepage, you saw the following banner ad:"

7) Non-reciprocal-personalized-visual

"Imagine that you needed a new cell phone device and so, after coming back
from work at night you decided to search online for a cell phone that would
satisfy your need. You browsed several phones including the "ArtCell." The
next morning, you opened *The Daily Rising Star's* website to get some latest
news. Right after opening the homepage, you saw the following banner ad:"

8) Non-reciprocal-generic-visual

"Imagine that you needed a new cell phone device and so, after coming back
from work at night you decided to search online for a cell phone that would
satisfy your need. You browsed several phones including the "ArtCell." The
next morning, you opened *The Daily Rising Star's* website to get some latest
news. Right after opening the homepage, you saw the following banner ad:"

Appendix B: Experimental Scenarios for Study 2

1) Reciprocal-Personalized-Verbal

"Imagine that you needed a new cell phone device and so, after coming back from work at night you decided to search online for a cell phone that would satisfy your need. You browsed several phones including the "iPhone X." The next morning, you opened *The Daily Rising Star's* website to get some latest news. Right after opening the homepage, you saw the following banner ad:"

2) Reciprocal-generic-verbal

"Imagine that you needed a new cell phone device and so, after coming back from work at night you decided to search online for a cell phone that would satisfy your need. You browsed several phones including the "iPhone X." The next morning, you opened *The Daily Rising Star's* website to get some latest news. Right after opening the homepage, you saw the following banner ad:"

3) Non-reciprocal-personalized-verbal

"Imagine that you needed a new cell phone device and so, after coming back
from work at night you decided to search online for a cell phone that would
satisfy your need. You browsed several phones including the "iPhone X." The
next morning, you opened *The Daily Rising Star's* website to get some latest
news. Right after opening the homepage, you saw the following banner ad:"

4) Non-reciprocal-generic-verbal

"Imagine that you needed a new cell phone device and so, after coming back
from work at night you decided to search online for a cell phone that would
satisfy your need. You browsed several phones including the "iPhone X." The
next morning, you opened *The Daily Rising Star's* website to get some latest
news. Right after opening the homepage, you saw the following banner ad:"

5) Reciprocal-personalized-visual

"Imagine that you needed a new cell phone device and so, after coming back
from work at night you decided to search online for a cell phone that would
satisfy your need. You browsed several phones including the "iPhone X." The
next morning, you opened *The Daily Rising Star's* website to get some latest
news. Right after opening the homepage, you saw the following banner ad:"

6) Reciprocal-generic-visual

"Imagine that you needed a new cell phone device and so, after coming back from work at night you decided to search online for a cell phone that would satisfy your need. You browsed several phones including the "iPhone X." The next morning, you opened *The Daily Rising Star's* website to get some latest news. Right after opening the homepage, you saw the following banner ad:"

7) Non-reciprocal-personalized-visual

"Imagine that you needed a new cell phone device and so, after coming back from work at night you decided to search online for a cell phone that would satisfy your need. You browsed several phones including the "iPhone X." The next morning, you opened *The Daily Rising Star's* website to get some latest news. Right after opening the homepage, you saw the following banner ad:"

8) Non-reciprocal-generic-visual

"Imagine that you needed a new cell phone device and so, after coming back from work at night you decided to search online for a cell phone that would satisfy your need. You browsed several phones including the "iPhone X." The next morning, you opened *The Daily Rising Star's* website to get some latest news. Right after opening the homepage, you saw the following banner ad:"

Appendix C: Pre-test Questionnaire

We would like to ask you some questions regarding your opinion toward online advertising. Please read the following scenario carefully and answer the following questions.

[Scenario]

Based on your understanding of the above scenario, please indicate your opinion by selecting the appropriate option for each question.

1. This ad offers me some benefits in exchange of clicking it [Reciprocity]
   1- Strongly Disagree   2   3   4   5   6   7- Strongly Agree

2. This ad is directed to me personally [Personalization]
   1- Strongly Disagree   2   3   4   5   6   7- Strongly Agree

3. This ad has image
   Strongly Disagree   2   3   4   5   6   7- Strongly Agree

4. Regarding the brand, I am: [Brand Familiarity]
   1- Unfamiliar   2   3   4   5   6   7- Familiar
   1- Inexperienced   2   3   4   5   6   7- Experienced
   1- Not knowledgeable 2   3   4   5   6   7- Knowledgeable

Appendix D: Main Study Questionnaire

In this section, we would like to ask you some general online usage questions.

Please read the questions carefully and answer by selecting the appropriate option:

1. In general, my feeling toward advertising is:
    | 1- Bad | 2 | 3 | 4 | 5 | 6 | 7- Good |
    | 1- Unpleasant | 2 | 3 | 4 | 5 | 6 | 7- Pleasant |
    | 1- Unfavorable | 2 | 3 | 4 | 5 | 6 | 7- Favorable |

2. If you use a smartphone, which brand do you currently own??
    a. Apple.
    b. Samsung.
    c. Motorola.
    d. LG.
    e. HTC.
    f. Nokia.
    g. OnePlus.
    h. Huawei.
    i. ZTE
    j. Sony
    k. Google
    l. Asus
    m. Other (please specify) ----------------
    n. I do not own a smartphone.

3. To me, my smartphone is:
    | 1- Unimportant | 2 | 3 | 4 | 5 | 6 | 7- Important |
    | 1- Boring | 2 | 3 | 4 | 5 | 6 | 7- Interesting |
    | 1- Irrelevant | 2 | 3 | 4 | 5 | 6 | 7- Relevant |
    | 1- Uninvolving | 2 | 3 | 4 | 5 | 6 | 7- Involving |

4. How much time do you usually spend using your smartphone per day?
    a. Less than 30 minutes.
    b. 30 minutes to 1 hour.
    c. 1 to 2 hours.
    d. 2 to 3 hours.
    e. 3 to 4 hours.
    f. 4 to 5 hours.
    g. 5 to 6 hours.
    h. More than 6 hours.

The next two questions are based on the following information:

Online Behavioral Advertising (OBA) is "the practice of monitoring people's online behavior and using the collected information to show people individually targeted advertisements."

Example: You needed to buy a smart speaker. You went to Amazon.com and did some research on Amazon Echo speaker. Afterwards, you went to an online news site and saw an ad for Amazon Echo speaker.

5. Do you remember seeing this type of ad in the last six months?
    a. Yes.
    b. No.

6. Approximately, how many Online Behavioral Advertising (OBA) do you see every day?
    a. None.
    b. One.
    c. Two.
    d. Three.
    e. Four.
    f. Five.
    g. More than five.

[At this point, participants will be asked to write their names for generating personalized ad. Names will added using "piped text" function]

Now, please read the following scenario carefully, and answer the following questions based on the scenario:

[At this point, participants will be shown the relevant experimental scenario]

Based on your understanding of the above scenario, please indicate your opinion by selecting the appropriate option for each question.

7.   This ad offers me some benefits in exchange of clicking it [Reciprocity]
     1- Strongly Disagree   2   3   4   5   6   7- Strongly
                                                                      Agree
8.   This ad is directed to me personally [Personalization]

| | 1- Strongly Disagree | 2 | 3 | 4 | 5 | 6 | 7- Strongly Agree |

9. This ad has image

| | 2- Strongly Disagree | 2 | 3 | 4 | 5 | 6 | 7- Strongly Agree |

10 Regarding the Ad, I think that it used….. [Ad content type]

| | -3 -Verbal Content | -2 | -1 | 0 | 1 | 2 | 3 Visual Content |

11. Regarding the brand, I am: [Brand Familiarity]

	1- Unfamiliar	2	3	4	5	6	7- Familiar
1- Inexperienced	2	3	4	5	6	7- Experienced
1- Not knowledgeable	2	3	4	5	6	7- Knowledgeable

12. Thinking about the ad, I feel: [Attitude toward the OBA]

	1- Bad	2	3	4	5	6	7- Good
1- Unpleasant	2	3	4	5	6	7- Pleasant
1- Unfavorable	2	3	4	5	6	7- Favorable

13. Thinking about the brand, I feel: [Attitude toward the brand]

	1- Bad	2	3	4	5	6	7- Good
1- Unpleasant	2	3	4	5	6	7- Pleasant
1- Dislike very much	2	3	4	5	6	7- Like very much
1- Poor Quality	2	3	4	5	6	7- High quality

14 My intention to click the ad is: [Intention to click the ad]

	1- Unlikely	2	3	4	5	6	7- Likely
1- Improbable	2	3	4	5	6	7- Probable
1- Impossible	2	3	4	5	6	7- Possible

15. My intention to purchase the product is: [Intention to purchase the product]

	1- Unlikely	2	3	4	5	6	7- Likely
1- Improbable	2	3	4	5	6	7- Probable
1- Impossible	2	3	4	5	6	7- Possible

For the following questions, please indicate your level of agreement for each statement by selecting the appropriate box.

16. I think the ad was distracting: [Perceived intrusiveness]

| | 1- Strongly Disagree | 2 | 3 | 4 | 5 | 6 | 7- Strongly Agree |

17. I think the ad was disturbing: [Perceived intrusiveness]

| | 1- Strongly Disagree | 2 | 3 | 4 | 5 | 6 | 7- Strongly Agree |

18   I think the ad was forced: [Perceived intrusiveness]

| | 1- Strongly Disagree | 2 | 3 | 4 | 5 | 6 | 7- Strongly Agree |

19.   I think the ad was interfering: [Perceived intrusiveness]

| | 1- Strongly Disagree | 2 | 3 | 4 | 5 | 6 | 7- Strongly Agree |

20.   I think the ad was intrusive: [Perceived intrusiveness]

| | 1- Strongly Disagree | 2 | 3 | 4 | 5 | 6 | 7- Strongly Agree |

21.   I think the ad was invasive: [Perceived intrusiveness]

| | 1- Strongly Disagree | 2 | 3 | 4 | 5 | 6 | 7- Strongly Agree |

22.   I think the ad was obtrusive: [Perceived intrusiveness]

| | 1- Strongly Disagree | 2 | 3 | 4 | 5 | 6 | 7- Strongly Agree |

23.   I feel uncomfortable when information is shared without permission [Perceived privacy concern]

| | 1- Strongly Disagree | 2 | 3 | 4 | 5 | 6 | 7- Strongly Agree |

24.   I am concerned about misuse of personal information [Perceived privacy concern]

| | 1- Strongly Disagree | 2 | 3 | 4 | 5 | 6 | 7- Strongly Agree |

25.   It bothers me to receive too much advertising material of no interest [Perceived privacy concern]

| | 1- Strongly Disagree | 2 | 3 | 4 | 5 | 6 | 7- Strongly Agree |

26.   I feel fear that information may not be safe while stored [Perceived privacy concern]

| | 1- Strongly Disagree | 2 | 3 | 4 | 5 | 6 | 7- Strongly Agree |

27.   I believe that personal information is often misused [Perceived privacy concern]

| | 1- Strongly Disagree | 2 | 3 | 4 | 5 | 6 | 7- Strongly Agree |

28.   I think companies share information without permission [Perceived privacy concern]

1- Strongly Disagree   2   3   4   5   6   7- Strongly Agree

29. The message threatened my freedom to choose [Perceived threat to choice, *Reactance*]
1- Strongly Disagree   2   3   4   5   6   7- Strongly Agree

30. The message tried to make a decision for me [Perceived threat to choice, *Reactance*]
1- Strongly Disagree   2   3   4   5   6   7- Strongly Agree

31. The message tried to manipulate me [Perceived threat to choice, *Reactance*]
1- Strongly Disagree   2   3   4   5   6   7- Strongly Agree

32. The message tried to persuade me [Perceived threat to choice, *Reactance*]
1- Strongly Disagree   2   3   4   5   6   7- Strongly Agree

33. Did you criticize the message you just saw while you were reading it? [Counterarguing, *Reactance*]
1- Not at All   2   3   4   5   6   7- Very Much

34. Did you think of points that went against what was being said while you were reading the message? [Counterarguing, *Reactance*]
1- Not at All   2   3   4   5   6   7- Very Much

35. While reading the message, were you skeptical of what was being said? [Counterarguing, *Reactance*]
1- Not at All   2   3   4   5   6   7- Very Much

36. The message was pleasant [Cognitive appraisal, *Reactance*]
1- Strongly Disagree   2   3   4   5   6   7- Strongly Agree

37. The message got in the way of what I wanted [Cognitive appraisal, *Reactance*] (reverse coded)
1- Strongly Disagree   2   3   4   5   6   7- Strongly Agree

38. The message was reasonable [Cognitive appraisal, *Reactance*]
1- Strongly Disagree   2   3   4   5   6   7- Strongly Agree

39. The message was fair [Cognitive appraisal, *Reactance*]
1- Strongly Disagree   2   3   4   5   6   7- Strongly Agree

40. To what extent did this message make you feel irritated? [State anger, *Reactance*]

| | 1- Not at All | 2 | 3 | 4 | 5 | 6 | 7- Very Much |

41. To what extent did this message make you feel angry? [State anger, *Reactance*]

    1- Not at All   2   3   4   5   6   7- Very Much

42. To what extent did this message make you feel annoyed? [State anger, *Reactance*]

    1- Not at All   2   3   4   5   6   7- Very Much

You are almost done! Please answer the following questions for classification purpose only:

43. What was your age in your last birthday?
[   ]

44. What is your gender?
    a) Male
    b) Female
    c) Other [please specify here]

45. What best describes your race or ethnicity?
    a) White or Caucasian
    b) Black or African American
    c) Asian
    d) American Indian or Alaska Native
    e) Native Hawaiian or Other Pacific Islander

46. What is your household income before tax?
    a) Under 10,000
    b) 10,000-19,999
    c) 20,000-29,999
    d) 30,000-39,999
    e) 40,000-49,999
    f) 50,000-59,999
    g) 60,000-69,999
    h) 70,000-79,999
    i) 80,000-89,000
    j) 90,000-99,000
    k) 100,000-149,000
    l) More than 150,000

47. What is your education level?
    a) Completed some high school
    b) High school graduate

c) Completed some college
d) Associate degree
e) Bachelor's degree
f) Completed some postgraduate
g) Master's degree
h) Ph.D. or equivalent
i) Post-doctoral or equivalent

48. What is your employment status?
a) Employed full-time (40 hours or more per week)
b) Employed part-time (less than 40 hours per week)
c) Not employed
d) Retired

Appendix E: IRB Documents

Online Consent to Participate in Research

Would you like to be involved in research at the University of Oklahoma?

I am Nazmul Rony from the Gaylord College of Journalism and Mass Communication and I invite you to participate in my research project entitled Online behavioral advertising (OBA): the influence of brand familiarity, reciprocity, and personalization in OBA on consumers' attitude and intention. This research is being conducted at Gaylord College, University of Oklahoma. You were selected as a possible participant because you reside in the United States of America and use the internet. You must be at least 18 years of age to participate in this study.

Please read this document and contact me to ask any questions that you may have BEFORE agreeing to take part in my research.

What is the purpose of this research? The purpose of this research is to understand consumers' view toward online behavioral advertising.

How many participants will be in this research? About 920 people will take part in this research.

What will I be asked to do? If you agree to be in this research, you will be asked to see an online advertising and answer some questions about your opinion. You will be also asked to answer some general usage and demographic questions.

How long will this take? Your participation will take about 15 minutes to complete.

What are the risks and/or benefits if I participate? There are no risks and no benefits from being in this research.

Will I be compensated for participating? You will be reimbursed $ 0.5 for your time and participation in this research.

Who will see my information? In research reports, there will be no information that will make it possible to identify you. Research records will be stored securely and only approved researchers and the OU Institutional Review Board will have access to the records.

Data are collected via an online survey system that has its own privacy and security policies for keeping your information confidential. Please note no assurance can be made as to the use of the data you provide for purposes other than this research.

Do I have to participate? No. If you do not participate, you will not be penalized or lose benefits or services unrelated to the research. If you decide to participate, you don't have to answer any question and can stop participating at any time.

Who do I contact with questions, concerns or complaints? If you have questions, concerns or complaints about the research or have experienced a research-related injury, contact me at **(347) 355-9958 (email: nazmul.rony@ou.edu). You can also contact Dr. Doyle Yoon at 405- 325- 5205 (email: dyoon@ou.edu)** You can also contact the University of

Oklahoma – Norman Campus Institutional Review Board (OU-NC IRB) at 405-325-8110 or irb@ou.edu if you have questions about your rights as a research participant, concerns, or complaints about the research and wish to talk to someone other than the researcher(s) or if you cannot reach the researcher(s).

Please print this document for your records. By providing information to the researcher(s), I am agreeing to participate in this research.

⦿   I agree to participate (click should connect to survey)

⦿   I do not want to participate (click should connect to a Thank You for considering page)

This research has been approved by the University of Oklahoma, Norman Campus IRB.

IRB Number: _____   Approval date: _____

(NOTE: The Principal Investigator is responsible for the input of the IRB number and approval date, BEFORE the document is implemented online.)

University of Oklahoma – Norman Campus

Institutional Review Board

Description of Study Protocol

1. **Provide a description of the purpose of your study and** your research design. (**Examples**: A pre-test – post test 2 x 2 experiment, with a control group and an experimental group that will receive one intervention. A grounded theory exploration of a topic. A pre-test post-test evaluation of a new classroom teaching method. An online cross-sectional survey of students related to curriculum topic. An 8-week walking study with a control and 2 comparison groups receiving either a diet or exercise message intervention). Guidance: This description should be short and written for a lay reader not for someone in your field. Also, your response should be understandable without the reader having to refer to another study document. Do not cut and paste your thesis/dissertation research abstract.

> Two 2 (brand familiarity: high vs. low) X 2 (reciprocity: reciprocal vs. non-reciprocal) X 2 (personalization: personalized vs. generic) between-subject factorial designs will be used in this study. Both studies will utilize scenario-based online experiment. The first study will include only text-based scenarios whereas, the second study will use both text and image-based scenarios.
>
> This study has three manipulations: brand familiarity (high vs. low), reciprocity (reciprocal vs. non-reciprocal), and personalization (personalized vs. generic). To check the manipulations, two pretests will be conducted.

2. If your study will be conducted internationally, involves the military, involves deception, or includes non-OU research personnel, you should address the following areas related to your proposed study:

   a. deception – the debriefing process that will be used

   b. international research – review and approval of the study by a local ethics council, in country research support, verification of the cultural appropriateness of all study intervention and testing procedures and study documents

   c. research involving the military – the unit that will be responsible for providing IRR or research approval and completion of the applicable DoD research approval form(s)

d. non-OU research collaborators – provide a contact information, institution of employment, and a description of the specific research responsibilities of each collaborator

> Not applicable.

3. **Describe** your participants (examples: 10 day care directors in Tulsa, 50 employees of ABC Company in Norman, 5 people between 18 and 45 who do weight resistance exercise at least two times a week). **Include** information for each type of participant. Guidance: Many studies gather data from different types of participants such as teachers and their students, employees and their supervisors, kids and their parents. Be sure to provide a description of all types of potential participants and the number of each.

> Two samples of 400 individuals (total of 800) will be recruited from the US population aged between 18 and 65 who use the internet. For the pre-tests, 60 participants will be recruited for each pre-test (total of 120 participants Therefore, a grand total of 920 participant will be recruited.). Participants will be recruited using Amazon Mechanical Turk (MTurk) online platform.

4. **Provide** the inclusion and exclusion criteria for selection for each type of participant. **Where** will you obtain the contact information for potential participants? Guidance: If the information is public, describe the source of the contact information. You may not ask an organization or other entity to provide contact information for potential participants without their (potential participants) consent to release this information. You may ask that institution to distribute recruiting material that includes the researcher's contact information so that potential participants can contact the researcher directly if interested in participating. If you involve an institution or other entity in recruitment activities, upload a signed, site- support letter, on the organization's letterhead, that confirms that the signor has reviewed your research design and is willing to assist you in participant recruitment. Please note that access to contact information as a component of your job function DOES NOT automatically mean that you have access to this information for research purposes. This permission must be provided by your employing organization.

> Participants must be US resident and the internet users. Their age must be at least 18 years and no more than 65 years. MTurk 's filtering process will be used to ensure the inclusion criteria.

5. **Recruitment: Who** will approach potential participants? What information are potential participants given about the study? What safeguards are in place to minimize coercion? **If** the researcher(s) is also the participants'

supervisor/instructor, how will you assure that the identity of the research participants remains unknown to the researchers until after (1) the data have been gathered and are de-identified or (2) the class grades have been assigned? <u>Guidance:</u> If the participants are under the direct supervision of the researcher(s) (such as employees or students of the researcher(s)), someone other than the researcher must conduct all recruitment and identifiable data collection activities. Upload recruitment materials, such as verbal or written scripts, email messages, postings to websites, flyers, and/or letters. If you recruit participants who are not at OU, include this language: ***"The University of Oklahoma is an Equal Opportunity Institution."*** For OU mass email – you must have the proper permission to use the email list and must include this language in your email message: ***"The OU IRB has approved the content of this advertisement but the investigator is responsible for securing authorization to distribute this message by mass email."***

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The study will be listed in the MTurk 's online recruitment platform by the PI. If an individual is interested to participate in the study, and if he or she meets the inclusion criteria, he or she will be able to participate by accessing the appropriate study link.
</div>

6. **What identifying information will you collect? How** long will you retain participant contact/identifying information? **How** will you store this information during the study? **How** will you dispose of contact information when the study is completed or when you no longer need this information? <u>Guidance:</u> If you do not have permission to report the names of your participants, then it is advisable to assign pseudonyms or study numbers to each participant as soon as the data are collected to reduce the risk to participants if research files are accidentally released. Participants can give you permission to release their identities or to store identifiable research records in the Waiver of Elements of Confidentiality section of the informed consent documents.

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No identifying information will be collected. Since individuals can sign up for MTurk survey platform anonymously, the PI will have no access to the personal and identifying information.
</div>

7. **Provide** a step-by-step description of each of the tasks that participants will be asked to perform during the study. <u>Guidance:</u> Tasks include the consent process, completion of data collection instruments and any intervention or de-briefing activities.

For each study task, list each task sequentially in the order participants will complete it; indicate the approximate time it will take to complete each task and the setting (such as, in a classroom, in the participants' workplace, in a public place, at home). <u>Guidance:</u> If you have multiple kinds of participants

(i.e., students and teachers, employees and executives, etc.), include separate entries for each kind of participant and each task.

For each data collection instrument, indicate the frequency of administration and the method of administration (i.e., face-to-face, telephone, mail, or via a website). <u>Guidance:</u> Upload a copy of each data collection instrument, including surveys, questionnaires, interview protocols, questions for focus groups, observation recording forms, etc.

For face-to-face interviews and focus groups/group interviews, describe other persons who are not participants who will be present and the activities of each of these persons. **What** steps will you take to ensure that the discussion is held confidential by all the participants after the focus group? <u>Guidance:</u> All non-participant attendees are considered key study personnel since they have access to identifiable data. If someone other than the researcher will transcribe interviews, a confidentiality agreement should be completed and submitted with your application. A copy of the OU-NC approved confidentiality agreement form should be modified for your study and uploaded with other study documents.

<u>Task</u>	<u>Time</u>	<u>Setting</u>	<u>Method of Administration</u>
<u>Pre-test:</u>			
Consent process survey	2 minute	Online	Online
Completion of questionnaire survey	8-10 minutes	Online	Online
<u>Main Study:</u>			
Consent process survey	2 minute	Online	Online
Completion of questionnaire survey	15-17 minutes	Online	Online

8. **What** steps will you take to protect the identity of your participants? If interviews or focus groups are audio recorded and will be transcribed, who will transcribe the audio, and how will participants' identities be protected in

the transcripts? <u>Guidance</u>: for audio-recorded data, you can mask the identity of the participants by using software programs such as Audacity (a free download). Also, participants should be addressed by a pseudonym or code during interviews to avoid inclusion of names that make interviewees identifiable or a procedure for de-identifying transcripts must be proposed. Photographs of classrooms should not include any identifiable images of the students under 18 who are in the classroom. If you intend to publicly release audio, video or photography, then you will need to have participants sign the OU Talent Release document.

<div style="border:1px solid black; color:red;">
No identifying information will be collected from the participants. Participation to this study is completely voluntary and no coercion will be applied to ensure participation to the study.
</div>

9. **How** will you store, secure, and dispose of each kind of data in your research records, including paper documents, electronic files, audio/video recorded data, photography and/or research records? **How** will you store and dispose of signed consent documents and master lists that link identifying information to ID code numbers? **For** what length of time will you retain your research records? <u>Guidance:</u> To retain research records that contain identifiable information about the participants (or that contain sufficient information for deductive re-identification) after the close of the study, you will need to provide a justification for this request. In addition, you will need to include the Waiver of Elements of Confidentiality section on the consent documents. For de-identified data sets <u>with no potential for deductive re-identification of participants</u>, research records can be kept indefinitely.

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Data type	Storage	Security	Disposal Method	Retention Time

Data will be downloaded anonymously from the online survey platform and data files will be created using spreadsheet software. Then, anonymous dataset will be prepared for further analysis using statistical software. The data files will be kept securely in PI's password protected personal laptop. Anonymously collected data files will be kept indefinitely with the PI for further research.

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