


**TECHNOLOGY READINESS MOTIVATORS AND ONLINE BEHAVIOURAL
ADVERTISING: A PERCEIVED BENEFITS-RISK ASSESSMENT USING PRIVACY
CALCULUS THEORY**

Neethu Mohan^A, Zakkariya K. A.^B, Remy Ros Bobby^C



ARTICLE INFO	ABSTRACT
<p>Article history:</p> <p>Received 10 March 2023</p> <p>Accepted 08 June 2023</p>	<p>Purpose: The present research intended to find whether the technology readiness motivators, Optimism, and innovativeness, impact the user's intention to accept Online Behavioural Advertising (OBA), an area that requires additional research.</p> <p>Theoretical framework: Even though these personalized advertisements provide an enhanced user experience, they provide users with advertisements based on their online surfing behavior, and unfortunately, at the same time, it also creates privacy concerns. At the same time, Privacy Calculus Theory (PCT) is considered an appropriate theory when it comes to a rational benefits-costs assessment of the privacy-centred decision-making by internet users.</p> <p>Design/Methodology: Based on an extensive literature review, a conceptual model is being proposed, and a scenario-based questionnaire was developed and pursued on internet users' experience of the subject matter. Six hundred ten valid responses were received, and PLS-SEM was used to analyze the results.</p> <p>Findings: The results show that Optimism and innovativeness have a direct and indirect effect on the intention to accept Online Behavioural Advertising (OBA). Technology readiness Motivators have a detrimental impact on the intention to accept OBA.</p> <p>Research, Practical and Social implications: Based on our findings, we may be able to gain a deeper understanding of the theory behind targeted, data-driven digital advertising and the way in which it pertains to online shopping. Presented here is evidence to support the theory that the predisposition of users toward new technology could be the reason for users ranking perceived benefits higher than risk.</p> <p>Originality/Value: This study attributes original work in the sense that it is the first time that an individual's predisposition towards technology has been taken into consideration while analysing the acceptance of OBA grounded on the Privacy Calculus framework.</p> <p>Doi: https://doi.org/10.26668/businessreview/2023.v8i6.2297</p>
<p>Keywords:</p> <p>Online Behavioural Advertising; Technology Readiness; Personalization; Feeling of Intrusiveness; Behavioural Intention.</p> <div data-bbox="172 1025 480 1267" data-label="Image">  </div>	

^A Masters in Philosophy. Research Scholar. School of Management Studies, Cochin University of Science and Technology. Kochi, India. E-mail: nmohan2906@gmail.com Orcid: <https://orcid.org/0000-0002-0541-3475>

^B Professor. School of Management Studies, Cochin University of Science and Technology. Kochi, India. E-mail id: zakkariya@gmail.com Orcid: <https://orcid.org/0000-0002-6603-3839>

^C Masters in Business Administration. Research Scholar. School of Management Studies, Cochin University of Science and Technology. Kochi, India. E-mail: remyanto2014@gmail.com Orcid: <https://orcid.org/0000-0002-6159-6843>

MOTIVADORES DE PRONTIDÃO TECNOLÓGICA E PUBLICIDADE COMPORTAMENTAL ON-LINE: UMA AVALIAÇÃO DE RISCO E BENEFÍCIOS PERCEBIDOS USANDO A TEORIA DO CÁLCULO DA PRIVACIDADE

RESUMO

Objetivo: A presente pesquisa pretendia descobrir se os motivadores de prontidão para a tecnologia, otimismo e inovação, afetam a intenção do usuário de aceitar a publicidade comportamental on-line (OBA), uma área que requer pesquisas adicionais.

Estrutura teórica: Embora esses anúncios personalizados proporcionem uma experiência de usuário aprimorada, eles oferecem aos usuários anúncios com base em seu comportamento de navegação on-line e, infelizmente, ao mesmo tempo, também criam preocupações com a privacidade. Ao mesmo tempo, a Teoria do Cálculo da Privacidade (TCP) é considerada uma teoria apropriada quando se trata de uma avaliação racional de custos e benefícios da tomada de decisão centrada na privacidade pelos usuários da Internet.

Projeto/Metodologia: Com base em uma extensa revisão da literatura, um modelo conceitual está sendo proposto, e um questionário baseado em cenários foi desenvolvido e aplicado à experiência dos usuários da Internet sobre o assunto. Foram recebidas seiscentas e dez respostas válidas, e o PLS-SEM foi usado para analisar os resultados.

Conclusões: Os resultados mostram que o otimismo e a capacidade de inovação têm um efeito direto e indireto sobre a intenção de aceitar a publicidade comportamental on-line (OBA). Os Motivadores de prontidão tecnológica têm um impacto negativo sobre a intenção de aceitar a OBA.

Implicações sociais, práticas e de pesquisa: Com base em nossas descobertas, podemos ter uma compreensão mais profunda da teoria por trás da publicidade digital direcionada e orientada por dados e da maneira como ela se relaciona com as compras on-line. Apresentamos aqui evidências para apoiar a teoria de que a predisposição dos usuários em relação a novas tecnologias pode ser o motivo pelo qual os usuários classificam os benefícios percebidos como superiores aos riscos.

Originalidade/valor: Este estudo atribui um trabalho original no sentido de que é a primeira vez que a predisposição de um indivíduo em relação à tecnologia foi levada em consideração ao analisar a aceitação da OBA com base na estrutura do Privacy Calculus.

Palavras-chave: Publicidade Comportamental On-line, Prontidão Tecnológica, Personalização, Sentimento de Intrusividade, Intenção Comportamental.

MOTIVADORES DE LA DISPOSICIÓN TECNOLÓGICA Y PUBLICIDAD CONDUCTUAL EN LÍNEA: UNA EVALUACIÓN DEL RIESGO Y LOS BENEFICIOS PERCIBIDOS MEDIANTE LA TEORÍA DEL CÁLCULO DE LA PRIVACIDAD

RESUMEN

Objetivo: La presente investigación pretende averiguar si los motivadores de la disposición tecnológica, el optimismo y la innovación, afectan a la intención de los usuarios de aceptar la publicidad comportamental en línea (OBA), un área que requiere más investigación.

Marco teórico: Aunque estos anuncios personalizados proporcionan una experiencia de usuario mejorada, ofrecen a los usuarios anuncios basados en su comportamiento de navegación en línea y, lamentablemente, al mismo tiempo también crean problemas de privacidad. Al mismo tiempo, la Teoría del Cálculo de la Privacidad (PCT) se considera una teoría apropiada cuando se trata de una evaluación racional de los costes y beneficios de la toma de decisiones centradas en la privacidad por parte de los usuarios de Internet.

Diseño/metodología: A partir de una amplia revisión bibliográfica, se propone un modelo conceptual y se elabora un cuestionario basado en escenarios que se aplica a la experiencia de los usuarios de Internet sobre el tema. Se recibieron 610 respuestas válidas y se utilizó PLS-SEM para analizar los resultados.

Conclusiones: Los resultados muestran que el optimismo y la capacidad de innovación tienen un efecto directo e indirecto en la intención de aceptar la publicidad comportamental en línea (OBA). Los motivadores de la disposición tecnológica tienen un efecto negativo sobre la intención de aceptar la OBA.

Implicaciones sociales, prácticas y de investigación: A partir de nuestros resultados, podemos comprender mejor la teoría que subyace a la publicidad digital dirigida y basada en datos y su relación con las compras en línea. Presentamos aquí pruebas que apoyan la teoría de que la predisposición de los usuarios hacia las nuevas tecnologías puede ser la razón por la que los usuarios valoran más los beneficios percibidos que los riesgos.

Originalidad/valor: Este estudio atribuye originalidad al trabajo en el sentido de que es la primera vez que se tiene en cuenta la predisposición de un individuo hacia la tecnología al analizar la aceptación de la OBA basándose en el marco del Cálculo de la Privacidad.

Palabras clave: Publicidad Comportamental Online, Predisposición Tecnológica, Personalización, Sentimiento de Intrusividad, Intención Comportamental.

INTRODUCTION

Over the past few years, we have witnessed a revolutionary change in the internet industry. The digital India initiative (2015) has changed the country's mind set. Online platforms have conquered India's content consumption; corroborating this, advertisers are also utilizing the current shift and have moved to the digital world. The latest statistics show that in the total digital ad expenditure in the year 2021, the FMCG sector has a 34 percent share in the total digital ad expenditure, followed by the e-commerce sector having a 14 percent share of total digital ad spends (Statista, 2022). In 2021, FMCG spent 36 percent of their digital budget on the online advertisements (Statista, 2022). Majority of the consumers are preferring to buy products online since it is more convenient for them to just purchase things conveniently sitting at home (Sreenath et al., 2022). Since the advent of e-commerce infrastructure, vendors and retailers have enhanced their online accessibility, ease of use, and accessibility, inducing individuals to shop online rather than in-store. This shift has revolutionized the way people shop, leading to greater convenience, faster delivery, and more competitive prices (Mastana, 2023; Sreenath et al., 2022). The rampant technological advancements and the increase in digital spending are considered to be the factors for the increase in the market size of online advertising. A significant change that has taken place in online advertising is personalization, where the users are presented with personally tailored messages based on their online surfing behavior, which consequently has changed the way of communicating with their customers in real-time while browsing the internet (Sinclair, 2016; Boerman et al., 2017; Varnali, 2021). The technology facilitating this type of advertising tracks the users' online search behavior and enables the marketers to target the users based on their interests and preferences (Goldfarb & Tucker, 2010). Researchers and marketers identify this phenomenon as Online Behavioural Advertising (OBA). From the literature, the two major insights related to the definition of OBA are first tracking the online shopper's behavior and collecting it, and second making effective use of collected information to provide personalized ads (Boerman et al., 2017; Varnali, 2021). OBA is a modern type of advertising where the marketers, with the help of technology, chases users' online surfing behavior, understand the users' preferences and needs, and deliver relevant, personalized advertisements. Past literature has focussed on the outcomes of this type of advertising which is the OBA acceptance and avoidance (McDonald & Cranor, 2010; Ur et al.,

2012; Smit et al., 2014; Boerman et al., 2017; Aiolfi et al., 2021). Previous studies show a benefits-risks trade-off when dealing with OBA, as this type of advertising has both advantages and disadvantages (Smit et al., 2014; Boerman et al., 2017; Varnali, 2021; Segijn & van Ooijen, 2022). The benefit of OBA is that it provides users with the most relevant ad at the right time and location, which eases their decision-making process (Boerman et al., 2017; Ur et al., 2012). On the contrary, the risks concerned with OBA are the collection of personal information of the users and explicitly using it to provide a personally tailored message to them, which could be considered intrusive (Ur et al., 2012; Smit et al., 2014; Phelan et al., 2016; Summers et al., 2016; Varnali, 2021).

Advertisers can target individuals with highly relevant ad messages by using OBA (Ham & Nelson, 2016; McDonald & Cranor, 2010; van Noort et al., 2013). Since OBA's persuasion mechanism is covert, it does not require consumer consent, acknowledgement, or agreement. This results in a conflict between consumer privacy and OBA's tracking of online activities (Ham & Nelson, 2016). The covert nature of OBA distinguishes it from other personalized advertising, which consumers know, consent, and permit in advance (Ham & Nelson, 2016). The covert nature of OBA's tracking mechanism poses a potentially harmful risk to consumers, who may not be aware of, or are not fully aware of, the potential risks (Ham & Nelson, 2016; van Noort et al., 2013). This implies that OBA is considered to be a persuasive tactic to attract the users. Persuasion profiles are being created for efficiently carrying out the OBA mechanism. Meta-judgemental and operant measures of persuasive susceptibility can be used to determine persuasive profiles (Kaptein et al., 2015). As a result of the ease of obtaining vast amounts of data about individuals' behavior when persuaded, relying solely on behavioral data has recently become a realistic option for interactive technologies (Kaptein et al., 2015).

The fuel and fodder of OBA is the personal data which is retrieved from the websites (tracking via third party cookies), mobile applications, CRM systems and marketing automation systems. The personal data could include websites visited, web pages (or products) viewed, IP address and geolocation, purchase history and search history. Critiques of OBA believes that this type of advertising functions on the exploitation of the personal data of the users' retrieved from different sources, which is considered to be a critical matter of concern (Chen, 2018). Likewise, a privacy paradox exists in the online advertising scenario, where the users' are well aware that their personal data is being exploited but they are not changing their online behavior to claim it back, rather, feeding the data collecting machines with their personal data,

consequently, undermining their own privacy. This privacy paradox could imperil the future acceptance and development of OBA (Boerman et al., 2017).

The existence of privacy paradox is very much present in the Online Behavioral Advertising context (Chen, 2018; Gerber et al., 2018; Kokolakis, 2017). It is critical to understand the privacy paradox situation as it may control the users' behavior when it is confronted with this type of advertising. Past literature have found out some of the factors contributing to privacy paradox such as herd effect (Gerber et al., 2018; Zhu et al., 2021), emotions (Zhu et al., 2021) but whether a user's predisposition towards technology acceptance exerts an influence on the explained situation has rarely been studied. Thus, the present study posits the following research questions:

RQ1: What is the relationship between technology readiness motivators and OBA acceptance?

RQ2: Does the perceived risk-benefits assessment of the OBA influence the relationship between the technology readiness motivators and acceptance of OBA?

The posed research questions are answered with the theoretical support of Privacy Calculus theory (PCT). Privacy Calculus best defines the method of making a rational assessment of benefits and risks involved during the disclosure of personal information to an online advertiser (Culnan & Armstrong, 1999; Gutierrez et al., 2019; Plangger & Montecchi, 2020). Past research has found that an internet user assess a privacy based decision considering four points, first is the perceived value of the benefits attained from the personal information disclosure, deducting any economic costs which includes the search costs and the perceived loss of forfeiting privacy (Plangger & Montecchi, 2020).

The present study investigates how users' positive attitude toward technology impacts their intention to accept OBA. Notably, the present study endeavors to present a research model which intends to examine the effect of technology readiness motivators through the perceived benefits-risk assessment on the users' intention to accept OBA which, in turn, could help the researchers and marketing practitioners to understand the online buying behavior concerning the likely benefits and risks of the technology induced advertising. The paper has been presented in the following order. First, a theoretical perspective to better understand the underlying mechanisms of OBA with the help of Privacy Calculus Theory. Secondly, the research hypotheses, the research model, and the methodology used. Next, the findings have been discussed. At last, implications, conclusions, limitations, and future scope of research are deliberated.

THEORETICAL SUPPORT, RESEARCH HYPOTHESES, AND CONCEPTUAL FRAMEWORK

Privacy Calculus Theory

Literature suggests that in order to understand how consumers make a rational choice when they are persuaded to disclose personal information to marketers, one of the appropriate theories to justify this rational decision is the PCT (Keith et al., 2013; Sun et al., 2015; Xu et al., 2011). Online consumers usually make privacy decisions by comparing the perceived benefits and risks associated with disclosing their personal information (Pentina et al., 2016). Privacy Calculus Theory has evolved from the Equity or justice theory which asserts that the ratio between the benefits and risks derives from the justice perceptions of an individual (Adams, 1963; Sun et al., 2015). In other words, justice arises when the level of privacy risks is less, thus resulting in a perception of a higher benefit. On the contrary, when consumers identify that the information disclosure has higher risks and high benefits, this situation becomes unjust (Sun et al., 2015). The crucial influence on the disclosure of personal information is how individuals perceive privacy (Lowry et al., 2012; Shah et al., 2014). Literature states that the privacy can be defined in the online ecosystem as how much the individuals are aware about the collection and subsequent usage of their personal data and how much control they can exert over it (hann et al., 2007).

There are contradictions in the literature highlighting the reality that it is not always a user who makes a rational decision in accepting personalized advertisements (Wottrich et al., 2018). There are times when this decision is affected by external factors such as the arrival of biases, time constraints, and immediate gratification; as a consequence, the users tend to accept the benefits, hence, overlooking the risks associated with it (Barth & de Jong, 2017; Wottrich et al., 2018). Internet experience also plays a detrimental role in information disclosure since, with the increase in internet experience, there is a higher chance that the users will close their eyes to the risk and concentrate more on its benefits. In the case of OBA, users may be unaware of the benefits-risks trade-off regarding personal information disclosure. It is when the users search for a product or service online and receive a personalized advertisement similar to the search, and then they comprehend how their data is being used (Barth & de Jong, 2017; Gutierrez et al., 2019).

Since OBA is a type of advertising which targets its users' online surfing behavior to provide them with personalized messages, there is a paradoxical situation arises where the user might perform a rational assessment of the risk-benefit involved in accepting this type of

advertising which could be strongly substantiated by the Privacy Calculus Theory (PCT). Literature defines behavioral intent as "the strength of one's intention to perform a specified behavior" (Ajzen & Fishbein, 1975, p. 288, Sultan et al., 2009). In this study, the behavioral intent is measured by examining the intention of a user to accept OBA despite being aware of its advantages and disadvantages. Past research has applied the PCT in mobile advertising, location-based advertising as well as in the E-Commerce context (Dinev et al., 2013; Li et al., 2011; Pentina et al., 2016; Cruz-Cárdenas et al., 2021) , this research evaluates the critical risk which is the feeling of intrusiveness and benefit components which is personalization for OBA. The presupposition is that perceived risks and benefits influence the user's acceptance of OBA.

Proposed Model and Hypothesis Development

Direct effects of technology readiness motivators

Technology Readiness Index (TRI) is a specifically developed construct to understand consumer attitudes toward technology. In consumer behavior, attitude plays a detrimental role since it highlights the psychosomatic aspect of an individual and how they would behave when confronted with an entity (Cruz-Cárdenas et al., 2019). This study's object of interest is Online Behavioural Advertising. According to Parasuraman, (2000), Technology Readiness has defined as the predisposition of the consumer towards the use of existing or new technologies.

Optimism, innovativeness, discomfort, and insecurity are the Technology Readiness Index's four dimensions (TRI). By the name itself, it is clear that the first two dimensions, Optimism, and innovativeness, are motivators, and the other two are known as the inhibitors of behavior. Optimism in this context is similar to its literal meaning, which is having a positive attitude towards technology and giving more importance to the benefits it advances. In contrast, consumer innovativeness is a pioneer in accepting and using new technologies (Parasuraman, 2000).

The positive drivers of Technology Readiness show light to the online consumers to utilize the benefits of the technology; that is why these are known as the drivers or motivators. Previous empirical pieces of evidence have discovered that there exists an affirmative impact of Optimism and innovativeness on the consumers' inclination towards the utilization of the benefits attained from the technology-based services (Cruz-Cárdenas et al., 2019; Lam et al., 2008) which in our study is OBA. Hence, we propose that:

H1: User Optimism has a positive effect on User's intention accept OBA

H2: User Innovativeness has a positive effect on User's intention to accept OBA

Direct effect of perceived benefits and perceived risk on OBA

Perceived personalization benefits

One of the functional benefits attained from the disclosure of personal information is personalization (Sun et al., 2015). When personalized advertisements or messages, when received, they enhance user experience and enable effective interaction with the marketer (Junglas & Watson, 2003). In other words, personalization eases our search activity as it provides us with more precise alternatives from which the users can compare the required characteristics and make a fruitful purchase decision (Zhu et al., 2017). So the question arises in the readers' mind: Do we get these personalized advertisements? The answer is that the systems are programmed in such a manner that it automatically tracks our search behavior, collect the information, and, with the help of the algorithms, provide us with personalized advertising messages (Sundar & Marathe, 2010; D. J. Xu et al., 2008). Personalization contributes to more enormous business opportunities for marketers as it provides the benefits of contextualization in delivering messages tailored to their interests, identity, location, and time.

The content of the personalized message has to be relevant to the user, which is a vital aspect of personalization (H. Xu et al., 2009). The higher the relevance of the message, the higher the reception of the message by the user, as it is easier for the user to process the message and hence, deliver the necessary action to accept the personalized advertisement (Brinson et al., 2018).

Personalized messages related to the users' needs and interests will ease their decision-making process (Gazley et al., 2015).). In order to increase the effectiveness of personalized advertising, the literature indicates that marketers who aim at the consumption pattern of the users while delivering tailored messages have a higher response rate (H. Xu et al., 2009). Therefore, we propose that personalized advertising could produce a positive response from the target consumer. Thus, we propose:

H3: Personalization has a positive effect on Users intention to accept OBA

Feeling of Intrusiveness

Feeling of intrusiveness is basically a negative emotion associated with personalized advertising (Okazaki et al., 2012).). It is a psychological construct that ideates that a state of imbalance is created between the freedom of the two parties and the self-sufficiency to protect the personal identity (Wottrich et al., 2018). Unlike privacy, a feeling of intrusiveness makes

the users react negatively towards the personalized advertisements since they experience a loss of control over their personal information being explicitly used by the marketers.

The standard definition of intrusiveness in the context of OBA is a psychological response to the unsought personalized advertisements confronted through electronic devices that interferes with the user's ongoing cognitive processing (Truong & Simmons, 2010). Whenever we surf online sites, we find a dialog box containing acceptance permission or the accept cookies page, which disables us from controlling how much personal data the particular site is collecting. As a consequence, the users lose freedom of control over their personal information (Wottrich et al., 2018). Hence, there arises a situation of irritation or annoyance and other behavioral effects such as advertisement avoidance of personalized advertisements or rebuttal of permission requests (Li et al., 2002; Wehmeyer, 2007). While on the other hand, even if they accept the permission request to share personal information, it is a loss of autonomy (Varnali et al., 2012; Wottrich et al., 2018). Thus, we propose

H4: Feeling of Intrusiveness has a negative effect on users' intention to accept OBA

Indirect Effects of Technology Readiness Motivators Through Perceptions Towards OBA

Consumer Optimism: The primary dimension of Technology Readiness is Optimism which is a positive attitude of a user toward the technology and their ability to control it. From the literature, it is apparent that users with an optimistic mind will tend to give importance to the benefits of using the technology and will be aware of how to use the technology for their benefit instead weighing on the negative side of the technology, which in this paper is the intrusiveness factor. Lee & Rha (2016) has found that technology optimism negatively influences the internal conflict that occurs when confronted with personal information disclosure and positively influences the user's use intention. Hence, it is intrinsic to contemplate that optimistic people could have a penchant for identifying the benefits of using technology and thus, negatively impact the intrusiveness factor (Elliott et al., 2012; Kuo et al., 2013, Wottrich et al., 2018). It is also essential to highlight the literature that has found the positive effect of Optimism on technology-based services (Elliott et al., 2012; Kuo et al., 2013; Cruz-Cárdenas et al., 2021). Thus, we propose:

H5: User optimism has a positive impact on personalization towards the user's intention to accept OBA

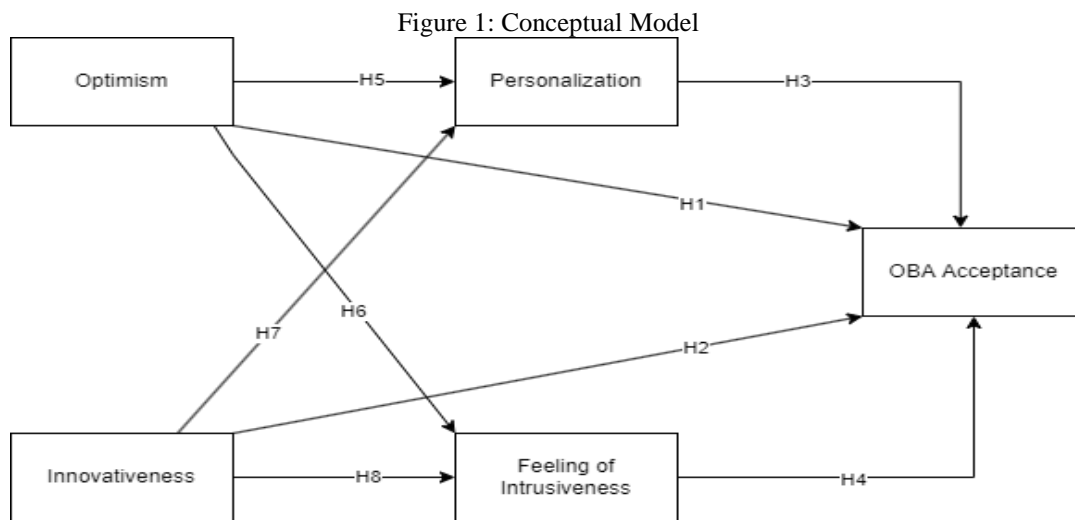
H6: User optimism has a negative impact on feeling of intrusiveness towards the user's intention to accept OBA

Consumer Innovativeness: The second positive dimension of Technology Readiness is Consumer innovativeness, which is an attitude that shows the consumers to always be among the first to try the latest technologies or advancements in the field of technology. Logically, it is right to think that a technology pioneer would give more importance to the benefits attained from technology-based advertising, consequently tend to overlook the perceived risk from this type of advertising (Lee & Rha, 2016) . Apart from the logic, even the literature supports the above statement since the findings of previous studies have detected a positive influence of consumer innovativeness on technology-based services (Elliott et al., 2012; Hong et al., 2017; Cruz-Cárdenas et al., 2021). Thus, we propose:

H7: User innovativeness has a positive impact on personalization towards the user's intention to accept OBA

H8: User innovativeness has a negative impact on feeling of intrusiveness towards the user's intention to accept OBA

The following is the conceptual model of the study depicting the hypothetical relationship between the constructs explained above (see Figure 1: Conceptual Model)



Source: prepared by the authors (2023)

METHODOLOGY

Inclusion Criteria and Data Collection Process

The respondents of the present study are Indian adult Internet users. The inclusion criteria for the sample selection were (1) Internet users 18 or above 18 years of age and (2) internet users who have experienced OBA in the past six months. The respondents who had no past experience with OBA were omitted at the very beginning of the survey with the help of a

screening question. Seven hundred fifty-three respondents showed a willingness to fill up the questionnaire; out of that, 610 (81 percent of the total samples) indicated having seen OBA in the past six months and completed the questionnaire. A self-administered online questionnaire was the instrument used for the data collection; where at first, a clear and precise definition of OBA was presented with a hypothetical scenario: "Online Behavioural Advertising is a form of online advertising strategy, which tracks user's online activities over time—including the searches the consumer has conducted, the web pages visited, and the content viewed" (Kim & Huh, 2017,p.98). Then, a screening question was presented to exclude participants who have not experienced OBA in the past six months with the help of a scenario and an image of the scenario to provide clarity to the respondents regarding OBA. Purposive sampling has been used since it considers only the sample who are adult internet users' and have experienced OBA in the past six months.

Measures

The measurement scales used for the constructs are presented in Appendix A. Five-point likert scales were used to measure the constructs. Technology Readiness Index (TRI) 2.0 Parasuraman & Colby (2015) was used to measure Optimism and innovativeness (four items each). A six-items scale proposed by H. Xu et al. (2011) was adopted to measure Personalization,. A four-items scale proposed by Li et al. (2002) was adopted to measure the feeling of intrusiveness. To measure the dependent variable which is the intention to accept OBA, a two items-scale was adopted from the scale proposed by Ham & Nelson (2016).

Sample Characteristics

The age of the respondents ranges from 18-60 years, and the average age of the respondents was 31.8 years (SD=11.08). The gender distribution was reasonably balanced, with 51.5 percent female. Regarding educational qualifications, 51.3% of the participants were post-graduates and some college graduates (32.6%). About 45.7 percent of the sample reported earning a yearly income of more than five lakhs. It was observed that for non-work purposes, a user spent approximately an average of 2.55 hours on a typical day. In the usual week, users search about 10.02 times for different products or services. 35.9 % of the respondents reported having installed ad-blockers on their electronic devices.

RESULTS AND DISCUSSIONS

Partial least square equation modeling (PLS-SEM) was employed in the current study to analyze the data using Smart PLS (3.2.8), a statistical tool. Since it examines unobservable latent components, SEM is regarded as one of the most acceptable methods to quantify the direct and indirect pathways. The inner and outer model analyses that makeup SEM look at the connections between latent constructs and their observable points and the connections between independent and dependent variables.

Measurement Model

The measurement model technique was used in the current study in order to evaluate the constructs' reliability, composite reliability (CR), and average variance extracted (AVE). Cronbach's alpha score and composite reliability values were used to check the reliability of the constructs constituting the study. Table 1 indicates that the CR and CA values are above 0.70, which is considered to be within the threshold limit (Hair et al., 2011). In order to measure the discriminant validity of the constructs, Fornell Larcker criterion was evaluated (Fornell & Larcker, 1981). Table 2 shows that Fornell and Larcker's tests show values greater than the correlations among the variables (Fornell & Larcker, 1981). In addition, the Variance Inflation Factor (VIF) values were checked to see any multicollinearity issue in the data (Aiken & West, 1991). It was observed that VIF values were within the permissible range, that is, to be less than ten (Aiken & West, 1991), thus, ruling out the problem of multi collinearity in the data (see Table 1).

Table 1: Measurement Model

Measure	Factor Loadings	CA	CR	AVE	VIF
Optimism					
OPT1	0.789	0.844	0.847	0.582	2.545
OPT2	0.866				2.070
OPT3	0.667				1.545
OPT4	0.717				1.985
Innovativeness					
INNV1	0.717	0.839	0.837	0.582	2.285
INNV2	0.787				1.717
INNV3	0.77				1.705
INNV4	0.726				2.078
Personalization					
PERS1	0.767	0.898	0.898	0.596	2.744
PERS2	0.799				2.291
PERS3	0.753				1.997
PERS4	0.73				2.035
PERS5	0.804				2.691

PERS6	0.777				2.494
Feeling of Intrusiveness					
FOI1	0.77	0.834	0.834	0.563	2.347
FOI2	0.784				1.755
FOI3	0.746				1.589
FOI4	0.682				2.038
OBA Acceptance					
OBA1	0.811	0.786	0.786	0.648	1.724
OBA2	0.799				1.724

Note: Average variance extracted (AVE); Cronbach's alpha (CA); Composite reliability (CR), Variable Inflation Factor (VIF)

Source: prepared by the authors (2023)

Table 2: Fornell – Larcker criterion

	OBA Acceptance	feeling of intrusiveness	innovativeness	optimism	personalization
OBA Acceptance	0.805				
Feeling Of Intrusiveness	-0.731	0.746			
Innovativeness	0.753	-0.67	0.751		
Optimism	0.779	-0.633	0.719	0.763	
Personalization	0.773	-0.713	0.645	0.679	0.772

Source: prepared by the authors (2023)

Structural Equation Modelling

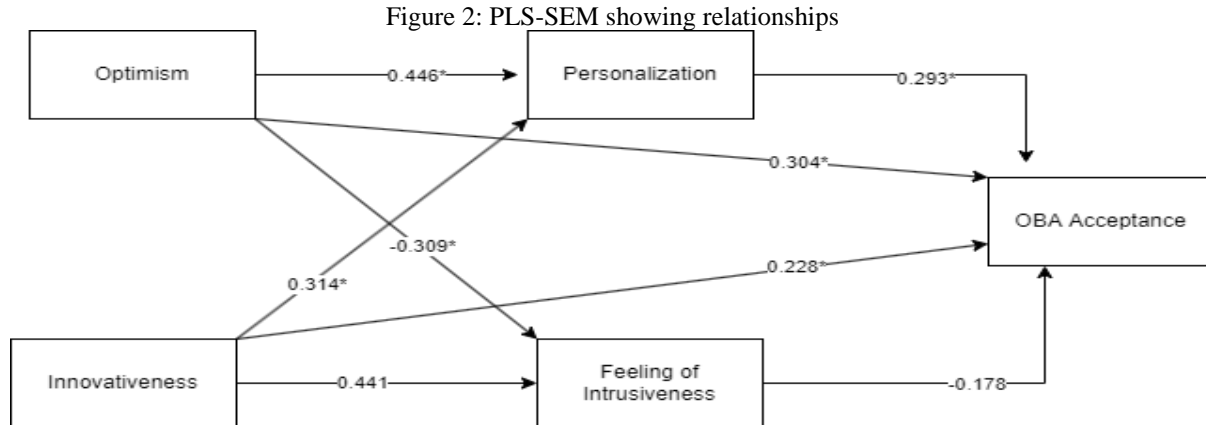
The PLS-SEM findings shows that (H1) optimism has a positive impact on intention to accept OBA ($\beta = 0.304$, $t = 5.179$, $p < 0.05$). Consumer innovativeness also indicates a positive and significant effect on the intention to accept OBA (H2) holding values $\beta = 0.228$, $t = 4.379$, $p < 0.05$. This shows that the direct effects of positive drivers of Technology Readiness have a positive and significant effect on OBA Acceptance. Perceived personalization has a positive significant impact on OBA Acceptance (H3) holding values $\beta = 0.293$, $t = 11.203$, $p < 0.05$. Feeling of Intrusiveness has a negative impact on the intention to accept OBA (H4), thus finding a significant relationship ($\beta = -0.178$, $t = 3.489$, $p < 0.05$). Thus, the direct effects of perceptions regarding OBA significantly impact OBA Acceptance. The indirect effects of Optimism on OBA acceptance through personalization and intrusiveness were found to be significant (H5 and H6), thus indicating partial mediation. It shows the same in users' innovativeness, which has a significant impact on OBA Acceptance through the perceptions towards OBA (H7 and H8) (see Table 3); thus, there exists a partial mediation. Figure 2 (PLS-SEM showing relationships) shows the path coefficients of the different paths existing between the explained variables.

Table 3. Hypothesis Testing

Effects	Relationships	Beta	Mean	(STDEV)	t-value	Decision
H1	OPT→ OBA	0.304	0.31	0.05	5.179*	Supported
H2	INNV→ OBA	0.228	0.228	0.048	4.379*	Supported
H3	PERS →OBA	0.293	0.292	0.043	11.208*	Supported
H4	FOI →OBA	-0.178	-0.178	0.044	3.849*	Supported
Indirect or Mediating						
H5	OPT→ PERS→OBA	0.112	0.112	0.025	4.453*	Supported
H6	OPT→ FOI→ OBA	0.052	0.051	0.016	3.287*	Supported
H7	INNV→PERS→OBA	0.087	0.086	0.021	4.122*	Supported
H8	INNV→FOI→OBA	0.062	0.062	0.02	3.09*	Supported

Note: *p < 0.05, Optimism (OPT), Innovativeness (INNV), Personalization (PERS), Feeling of Intrusiveness (FOI) and OBA Acceptance (OBA).

Source: prepared by the authors (2023)



Source: prepared by the authors (2023)

The hypothesis testing has led to the study's significant finding that user optimism and innovativeness influence users' propensity to accept OBA. Both Optimism and Innovativeness act directly as well as indirectly toward OBA Acceptance. The current study's findings are similar to those of some earlier studies that discovered several of the reported relationships (Hong et al., 2017; Elliott et al., 2012). The findings show that the Technology Readiness motivators (Optimism and innovativeness) have a detrimental effect on the intention to accept OBA. The indirect effect of Optimism and innovativeness on OBA acceptance through the

intrusiveness factor indicates how a positive attitude towards the technology can drive away the inhibitions towards behavioral-based advertising and consequently leads to the acceptance of personalized advertising.

The findings show that feeling of intrusiveness does have a negative direct impact on the intention to accept OBA, which is a matter of concern because it indicates that there are underlying inhibitions among the users while encountering personally tailored advertisements since these advertisements are based on the online surfing behavior, which sometimes can be seen as crossing the boundaries of the users by the marketers (Gutierrez et al., 2019). Nevertheless, the study shows that if the users are optimistic about new technology advancements and depict innovative and accepting minds towards it, there is a greater chance that they can overlook its perceived risks. It could be considered a positive piece of news for online marketers since providing personalized advertisements is a cumbersome task involving a tremendous amount of time and investment (Boerman et al., 2017; Varnali, 2021).

In the findings, it has been observed that perceived personalization positively affects OBA Acceptance. It highlights the importance that if the personalized advertisements are relevant to the users (H. Xu et al., 2009), they will tend to give more importance to the usefulness of those ads rather than worry about the perceived intrusive risk associated with it. The key is to provide personally tailored messages at the right place and at the right time to the users, which will increase the intention of the users to click on the ad and satisfy their buying needs (McDonald & Cranor, 2010; Ur et al., 2012).

CONCLUSION

In this study, positive drivers of Technology Readiness, that is, Optimism and innovativeness were considered and integrated with the perceived benefits-risk trade-off grounded on privacy calculus theory to observe its impact on users' intention to accept OBA. The findings indicates that it answers the first research question that the technology readiness motivators holds a significant and positive impact on the intention to accept OBA.

The second research question is “Does the perceived risk-benefits assessment of the OBA influence the relationship between the technology readiness motivators and acceptance of OBA?” The current study findings implies that benefits-risk assessment of OBA holds a significant mediational effect between technology readiness motivators and the intention to accept OBA. When it comes to benefits-risk trade-off in the disclosure of personal information, perceived benefit is found to be a more detrimental factor that the perceived risks. Moreover,

this study provides the justification that what could be the reason behind the users weighing perceived benefits more than the risk is the users' predisposition toward new technology. Even though the study indicates that the feeling of intrusiveness does negatively impact the acceptance of OBA, it is over countered when positive drivers of Technology Readiness come into existence. This study has sketched out the role of personalization as a critical factor that positively impacts the users' intention to accept OBA (Hyun Baek & Morimoto, 2012; H. Xu et al., 2011). As a result, it is the OBA providers' responsibility to ensure that their efforts provide users the benefits of personalization with the most relevant content at the right time and location. The marketers could try to understand the users' outlook while implementing personalization to increase the effectiveness of OBA. A productive means to enhance OBA effectiveness is establishing a solid relationship between marketers and their consumers through electronic devices (Gutierrez et al., 2019).

Past literature has indicated that if the disclosure of personal information ensures specific benefits, then the users' are willing to endure the cost of loss of personal privacy (Pentina et al., 2016). So this means that the concept of benefit-risk trade-off holds since the users' concerns related to privacy may be traded off against the benefits obtained from the disclosure of personal information. If OBA is managed with strict vigilance and ethics, it is proved to be a fruitful advertising technique for marketers. Past evidence indicates that the users' tendency to give more importance to the benefits even in the presence of risk could lead to an increase in the development of privacy-intrusive websites and applications (H. Xu et al., 2011 and Gutierrez et al., 2019).

Currently, in India, there is no adequate regulatory body to protect the users' data. In 2019, a data protection bill was proposed, but it has still not been passed. India can learn from the United States' policy to protect its' users' information since they have a self-regulatory body Federal Trade Commission (FTC), to safeguard the users' data. The self-regulatory system could better balance two interests between the network advisers and the users and thus allocate society's resources efficiently which will consequently be a win-win situation for both the companies and the users.

Thus, the current study has made an attempt to expand the understanding of OBA by not only focussing on the benefits-risks assessment of this type of advertising but also expanding the focus towards the predisposition of users' attitude towards technology which could also be considered for effective execution of behavioral-based advertising. The proposed conceptual model was based on the Privacy Calculus Theory, and it was used to identify the

rational benefit-risk assessment of the users while confronting personalized advertising. When it comes to a decision related to personal information disclosure, privacy calculus theory is one such theory that has been considerably used as it assesses the perceived benefits and risks associated with it. It is therefore being proposed that the network advisers themselves would have the basic idea that they should take reasonable care to keep and use the personal information they collected safely. They would have a strong motivation to establish internal policies to achieve their goal; if not followed this way, there is a higher chance that the Online Behavioural Advertising model would be at risk.

The present study has some limitations. This study focuses on the intention to accept OBA, additional research could also be carried out to measure the actual behavior of the users in order to get a more authentic and comprehensive understanding of OBA through experimental research design. This study has only considered the OBA technique, future studies could replicate the conceptual model in other advertising technique such as “synced advertising” and could also make a comparative study between the two advertising techniques. This study has only considered the Technology Readiness Motivators as the independent construct, further study could be done to examine the effect of Technology Readiness inhibitors which are insecurity and discomfort, on the users' intention to accept OBA.

FUNDING

The author(s) stated that there is no funding associated with the work featured in this article.

DISCLOSURE STATEMENT

The authors whose names are listed immediately below certify that they have no affiliations with or involvement in any organization or entity with any financial interest (such as honoraria; educational grants; participation in speakers' bureaus; membership, employment, consultancies, stock ownership, or other equity interest; and expert testimony or patent-licensing arrangements), or non-financial interest (such as personal or professional relationships, affiliations, knowledge or beliefs) in the subject matter or materials discussed in the manuscript. No potential conflict of interest was reported by the author(s).

REFERENCES

- Adams, J. S. (1963). Towards an understanding of inequity. *The Journal of Abnormal and Social Psychology*, 67(5), 422–436. <https://doi.org/10.1037/h0040968>
- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions* (pp. xi, 212). Sage Publications, Inc.
- Aiolfi, S., Bellini, S., & Pellegrini, D. (2021). Data-driven digital advertising: Benefits and risks of online behavioral advertising. *International Journal of Retail & Distribution Management*, 49(7), 1089–1110. <https://doi.org/10.1108/IJRDM-10-2020-0410>
- Ajzen, I., & Fishbein, M. (1975). A Bayesian analysis of attribution processes. *Psychological Bulletin*, 82(2), 261–277. <https://doi.org/10.1037/h0076477>
- Barth, S., & de Jong, M. D. T. (2017). The privacy paradox – Investigating discrepancies between expressed privacy concerns and actual online behavior – A systematic literature review. *Telematics and Informatics*, 34(7), 1038–1058. <https://doi.org/10.1016/j.tele.2017.04.013>
- Boerman, S. C., Kruikemeier, S., & Zuiderveen Borgesius, F. J. (2017). Online Behavioral Advertising: A Literature Review and Research Agenda. *Journal of Advertising*, 46(3), 363–376. <https://doi.org/10.1080/00913367.2017.1339368>
- Brinson, N. H., Eastin, M. S., & Cicchirillo, V. J. (2018). Reactance to Personalization: Understanding the Drivers Behind the Growth of Ad Blocking. *Journal of Interactive Advertising*, 18(2), 136–147. <https://doi.org/10.1080/15252019.2018.1491350>
- Chen, H.-T. (2018). Revisiting the Privacy Paradox on Social Media With an Extended Privacy Calculus Model: The Effect of Privacy Concerns, Privacy Self-Efficacy, and Social Capital on Privacy Management. *American Behavioral Scientist*, 62(10), 1392–1412. <https://doi.org/10.1177/0002764218792691>
- Cruz-Cárdenas, J., Guadalupe-Lanas, J., Ramos-Galarza, C., & Palacio-Fierro, A. (2021). Drivers of technology readiness and motivations for consumption in explaining the tendency of consumers to use technology-based services. *Journal of Business Research*, 122, 217–225. <https://doi.org/10.1016/j.jbusres.2020.08.054>
- Cruz-Cárdenas, J., Zabelina, E., Deyneka, O., Guadalupe-Lanas, J., & Velín-Fárez, M. (2019). Role of demographic factors, attitudes toward technology, and cultural values in the prediction of technology-based consumer behaviors: A study in developing and emerging countries. *Technological Forecasting and Social Change*, 149, 119768. <https://doi.org/10.1016/j.techfore.2019.119768>
- Culnan, M. J., & Armstrong, P. K. (1999). Information Privacy Concerns, Procedural Fairness, and Impersonal Trust: An Empirical Investigation. *Organization Science*, 10(1), 104–115. <https://doi.org/10.1287/orsc.10.1.104>
- Dinev, T., Xu, H., Smith, J. H., & Hart, P. (2013). Information privacy and correlates: An empirical attempt to bridge and distinguish privacy-related concepts. *European Journal of Information Systems*, 22(3), 295–316. <https://doi.org/10.1057/ejis.2012.23>

- Elliott, K., Meng, G., & Hall, M. (2012, September 27). *The Influence of Technology Readiness on the Evaluation of Self-Service Technology Attributes and Resulting Attitude Toward Technology Usage: Services Marketing Quarterly: Vol 33, No 4*. <https://www.tandfonline.com/doi/abs/10.1080/15332969.2012.715049>
- Fornell, C., & Larcker, D. F. (1981). Structural Equation Models with Unobservable Variables and Measurement Error: Algebra and Statistics. *Journal of Marketing Research*, 18(3), 382–388. <https://doi.org/10.1177/002224378101800313>
- Gazley, A., Hunt, A., & McLaren, L. (2015). The effects of location-based-services on consumer purchase intention at point of purchase. *European Journal of Marketing*, 49(9/10), 1686–1708. <https://doi.org/10.1108/EJM-01-2014-0012>
- Gerber, N., Gerber, P., & Volkamer, M. (2018). Explaining the privacy paradox: A systematic review of literature investigating privacy attitude and behavior. *Computers & Security*, 77, 226–261. <https://doi.org/10.1016/j.cose.2018.04.002>
- Goldfarb, A., & Tucker, C. E. (2010). *Privacy Regulation and Online Advertising*. 45.
- Gutierrez, A., O’Leary, S., Rana, N. P., Dwivedi, Y. K., & Calle, T. (2019). Using privacy calculus theory to explore entrepreneurial directions in mobile location-based advertising: Identifying intrusiveness as the critical risk factor. *Computers in Human Behavior*, 95, 295–306. <https://doi.org/10.1016/j.chb.2018.09.015>
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a Silver Bullet. *Journal of Marketing Theory and Practice*, 19(2), 139–152. <https://doi.org/10.2753/MTP1069-6679190202>
- Ham, C.-D., & Nelson, M. R. (2016). The role of persuasion knowledge, assessment of benefit and harm, and third-person perception in coping with online behavioral advertising. *Computers in Human Behavior*, 62, 689–702. <https://doi.org/10.1016/j.chb.2016.03.076>
- hann, horn, kai, lung-hui, sang, yong tom lee, & P.L. Png, I. (2007). *Overcoming Online Information Privacy Concerns: An Information-Processing Theory Approach: Journal of Management Information Systems: Vol 24, No 2*. <https://www.tandfonline.com/doi/abs/10.2753/MIS0742-1222240202>
- Hong, J.-C., Lin, P.-H., & Hsieh, P.-C. (2017). The effect of consumer innovativeness on perceived value and continuance intention to use smartwatch. *Computers in Human Behavior*, 67, 264–272. <https://doi.org/10.1016/j.chb.2016.11.001>
- Hyun Baek, T., & Morimoto, M. (2012, Spring). *Stay Away From Me: Journal of Advertising: Vol 41, No 1*. *Journal of Advertising*, Vol. 41, No. 1. <https://www.tandfonline.com/doi/abs/10.2753/JOA0091-3367410105>
- Junglas, I., & Watson, R. (2003). U-Commerce: An Experimental Investigation of Ubiquity and Uniqueness. *ICIS 2003 Proceedings*. <https://aisel.aisnet.org/icis2003/35>
- Kaptein, M., Markopoulos, P., de Ruyter, B., & Aarts, E. (2015). Personalizing persuasive technologies: Explicit and implicit personalization using persuasion profiles. *International Journal of Human-Computer Studies*, 77, 38–51. <https://doi.org/10.1016/j.ijhcs.2015.01.004>

- Keith, M. J., Thompson, S. C., Hale, J., Lowry, P. B., & Greer, C. (2013). Information disclosure on mobile devices: Re-examining privacy calculus with actual user behavior. *International Journal of Human-Computer Studies*, 71(12), 1163–1173. <https://doi.org/10.1016/j.ijhcs.2013.08.016>
- Kim, H., & Huh, J. (2017). Perceived Relevance and Privacy Concern Regarding Online Behavioral Advertising (OBA) and Their Role in Consumer Responses. *Journal of Current Issues & Research in Advertising*, 38(1), 92–105. <https://doi.org/10.1080/10641734.2016.1233157>
- Kokolakis, S. (2017). Privacy attitudes and privacy behaviour: A review of current research on the privacy paradox phenomenon. *Computers & Security*, 64, 122–134. <https://doi.org/10.1016/j.cose.2015.07.002>
- Kuo, K.-M., Liu, C.-F., & Ma, C.-C. (2013). An investigation of the effect of nurses' technology readiness on the acceptance of mobile electronic medical record systems. *BMC Medical Informatics and Decision Making*, 13(1), 88. <https://doi.org/10.1186/1472-6947-13-88>
- Lam, S. Y., Chiang, J., & Parasuraman, A. (2008). The effects of the dimensions of technology readiness on technology acceptance: An empirical analysis. *Journal of Interactive Marketing*, 22(4), 19–39. <https://doi.org/10.1002/dir.20119>
- Lee, J.-M., & Rha, J.-Y. (2016). Personalization–privacy paradox and consumer conflict with the use of location-based mobile commerce. *Computers in Human Behavior*, 63, 453–462. <https://doi.org/10.1016/j.chb.2016.05.056>
- Li, H., Edwards, S. M., & Lee, J.-H. (2002). Measuring the Intrusiveness of Advertisements: Scale Development and Validation. *Journal of Advertising*, 31(2), 37–47. <https://doi.org/10.1080/00913367.2002.10673665>
- Li, H., Sarathy, R., & Xu, H. (2011). The role of affect and cognition on online consumers' decision to disclose personal information to unfamiliar online vendors. *Decision Support Systems*, 51(3), 434–445. <https://doi.org/10.1016/j.dss.2011.01.017>
- Lowry, P. B., Moody, G., Vance, A., Jensen, M., Jenkins, J., & Wells, T. (2012). Using an elaboration likelihood approach to better understand the persuasiveness of website privacy assurance cues for online consumers. *Journal of the American Society for Information Science and Technology*, 63(4), 755–776. <https://doi.org/10.1002/asi.21705>
- Mastana, A. S. (2023). Factors Influencing Consumer Intentions to Purchase Groceries Over the Internet: An Exploratory Study During the Pandemic. *International Journal of Professional Business Review*, 8(2), e0859. <https://doi.org/10.26668/businessreview/2023.v8i2.859>
- McDonald, A. M., & Cranor, L. F. (2010). Americans' attitudes about internet behavioral advertising practices. *Proceedings of the 9th Annual ACM Workshop on Privacy in the Electronic Society - WPES '10*, 63. <https://doi.org/10.1145/1866919.1866929>
- Okazaki, S., Li, H., & Hirose, M. (2012). Benchmarking the Use of QR Code in Mobile Promotion: Three Studies in Japan. *Journal of Advertising Research*, 52(1), 102–117. <https://doi.org/10.2501/JAR-52-1-102-117>

- Parasuraman, A. (2000). Technology Readiness Index (Tri): A Multiple-Item Scale to Measure Readiness to Embrace New Technologies. *Journal of Service Research*, 2(4), 307–320. <https://doi.org/10.1177/109467050024001>
- Parasuraman, A., & Colby, C. L. (2015). An Updated and Streamlined Technology Readiness Index: TRI 2.0. *Journal of Service Research*, 18(1), 59–74. <https://doi.org/10.1177/1094670514539730>
- Pentina, I., Zhang, L., Bata, H., & Chen, Y. (2016). Exploring privacy paradox in information-sensitive mobile app adoption: A cross-cultural comparison. *Computers in Human Behavior*, 65, 409–419. <https://doi.org/10.1016/j.chb.2016.09.005>
- Phelan, C., Lampe, C., & Resnick, P. (2016). It's Creepy, But it Doesn't Bother Me. *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems*, 5240–5251. <https://doi.org/10.1145/2858036.2858381>
- Plangger, K., & Montecchi, M. (2020). Thinking beyond Privacy Calculus: Investigating Reactions to Customer Surveillance. *Journal of Interactive Marketing*, 50(1), 32–44. <https://doi.org/10.1016/j.intmar.2019.10.004>
- Segijn, C. M., & van Ooijen, I. (2022). Differences in consumer knowledge and perceptions of personalized advertising: Comparing online behavioural advertising and synced advertising. *Journal of Marketing Communications*, 28(2), 207–226. <https://doi.org/10.1080/13527266.2020.1857297>
- Shah, M. H., Peikari, H. R., & Yasin, N. M. (2014). The determinants of individuals' perceived e-security: Evidence from Malaysia. *International Journal of Information Management*, 34(1), 48–57. <https://doi.org/10.1016/j.ijinfomgt.2013.10.001>
- Sinclair, J. (2016). *Advertising and Media in the Age of the Algorithm*. 14.
- Smit, E. G., Van Noort, G., & Voorveld, H. A. M. (2014). Understanding online behavioural advertising: User knowledge, privacy concerns and online coping behaviour in Europe. *Computers in Human Behavior*, 32, 15–22. <https://doi.org/10.1016/j.chb.2013.11.008>
- Sreenath, S. G. P., Parashuram, A., & Devlanaik, H. (2022). Impact of Digitalization and Changing Consumer Preferences and Choices on Virtual Shopping of Retail Sector in Bangalore. *International Journal of Professional Business Review*, 7(4), e0563. <https://doi.org/10.26668/businessreview/2022.v7i4.e563>
- Statista, T. (2022, March 28). • *India: Digital ad spend share by industry 2021* | Statista. <https://www.statista.com/statistics/237962/online-advertising-spending-in-india/>
- Sultan, F., Rohm, A. J., & Gao, T. (Tony). (2009). Factors Influencing Consumer Acceptance of Mobile Marketing: A Two-Country Study of Youth Markets. *Journal of Interactive Marketing*, 23(4), 308–320. <https://doi.org/10.1016/j.intmar.2009.07.003>
- Summers, C. A., Smith, R. W., & Reczek, R. W. (2016). An Audience of One: Behaviorally Targeted Ads as Implied Social Labels. *Journal of Consumer Research*, 43(1), 156–178. <https://doi.org/10.1093/jcr/ucw012>

- Sun, W., Wang, P., Yin, D., Yang, J., & Chang, Y. (2015). Causal Inference via Sparse Additive Models with Application to Online Advertising. *Proceedings of the AAAI Conference on Artificial Intelligence*, 29(1). <https://doi.org/10.1609/aaai.v29i1.9156>
- Sundar, S. S., & Marathe, S. S. (2010). Personalization versus Customization: The Importance of Agency, Privacy, and Power Usage. *Human Communication Research*, 36(3), 298–322. <https://doi.org/10.1111/j.1468-2958.2010.01377.x>
- Truong, Y., & Simmons, G. (2010). Perceived intrusiveness in digital advertising: Strategic marketing implications. *Journal of Strategic Marketing*, 18(3), 239–256. <https://doi.org/10.1080/09652540903511308>
- Ur, B., Leon, P. G., Cranor, L. F., Shay, R., & Wang, Y. (2012). Smart, useful, scary, creepy: Perceptions of online behavioral advertising. *Proceedings of the Eighth Symposium on Usable Privacy and Security*, 1–15. <https://doi.org/10.1145/2335356.2335362>
- van Noort, G., Smit, E. G., & Voorveld, H. A. M. (2013). The Online Behavioural Advertising Icon: Two User Studies. In S. Rosengren, M. Dahlén, & S. Okazaki (Eds.), *Advances in Advertising Research (Vol. IV): The Changing Roles of Advertising* (pp. 365–378). Springer Fachmedien. https://doi.org/10.1007/978-3-658-02365-2_28
- Varnali, K. (2021). Online behavioral advertising: An integrative review. *Journal of Marketing Communications*, 27(1), 93–114. <https://doi.org/10.1080/13527266.2019.1630664>
- Varnali, K., Yilmaz, C., & Toker, A. (2012). Predictors of attitudinal and behavioral outcomes in mobile advertising: A field experiment. *Electronic Commerce Research and Applications*, 11(6), 570–581. <https://doi.org/10.1016/j.elerap.2012.08.002>
- Wehmeyer, K. (2007). *Mobile Ad Intrusiveness – The Effects of Message Type and Situation*. 19.
- Wottrich, V. M., van Reijmersdal, E. A., & Smit, E. G. (2018). The privacy trade-off for mobile app downloads: The roles of app value, intrusiveness, and privacy concerns. *Decision Support Systems*, 106, 44–52. <https://doi.org/10.1016/j.dss.2017.12.003>
- Xu, D. J., Liao, S. S., & Li, Q. (2008). Combining empirical experimentation and modeling techniques: A design research approach for personalized mobile advertising applications. *Decision Support Systems*, 44(3), 710–724. <https://doi.org/10.1016/j.dss.2007.10.002>
- Xu, H., Luo, X. (Robert), Carroll, J. M., & Rosson, M. B. (2011). The personalization privacy paradox: An exploratory study of decision making process for location-aware marketing. *Decision Support Systems*, 51(1), 42–52. <https://doi.org/10.1016/j.dss.2010.11.017>
- Xu, H., Oh, L. B., & Teo, H. H. (2009). Perceived effectiveness of text vs. Multimedia Location-Based Advertising messaging. *International Journal of Mobile Communications*, 7(2), 154. <https://doi.org/10.1504/IJMC.2009.022440>
- Zhu, M., Wu, C., Huang, S., Zheng, K., Young, S. D., Yan, X., & Yuan, Q. (2021). Privacy paradox in mHealth applications: An integrated elaboration likelihood model incorporating privacy calculus and privacy fatigue. *Telematics and Informatics*, 61, 101601. <https://doi.org/10.1016/j.tele.2021.101601>

APPENDIX

Construct Items

Construct	Items	References
Optimism	I find new technologies to be mentally stimulating.	Parasuraman and Colby (2014)
	Technology gives me more freedom of mobility	
	Technology gives people more control over their daily lives	
	Technology makes me more productive in my personal life	
Innovativeness	Other people come to me for advice on new technologies	Parasuraman and Colby (2014)
	In general, I am among the first in my circle of friends to acquire new technology when it appears	
	I can usually figure out new high-tech products and services without help from others	
	I keep up with the latest technological developments in my areas of interest	
Personalization	I can get personalized information tailored to my interests and needs.	Xu et. Al (2011)
	I can get personalized information tailored to my activity contexts.	
	I can get personalized information tailored to my shopping patterns.	
	I can reduce my time and effort in finding the shopping information I need.	
	I can get shopping information more easily and conveniently	
	I can experience more fun and lively shopping.	
Feeling of Intrusiveness	I think it is uncomfortable that personal information is used in Online Behavioural Advertising (OBA)	Edwards et. al. (2002)
	The advertisers knows a lot about me	
	This kind of advertising gives me an uneasy feeling	
	This kind of advertising gives me an unsafe feeling	
Intention to accept OBA	I prefer advertisements that target my interests	Ham and Nelson (2016)
	It's okay to see advertising that are based on my online surfing history	