Examining the factors of influence on avoiding personalized ads on Facebook[*]

Damir Dobrinić[1], Iva Gregurec[2], Dunja Dobrinić[3]

Abstract

Ad personalization is becoming the dominant promotional tactic, further enhanced by new technologies applications. Greater efficiency is the main goal of such an advertising approach, but it can cause the appearance of the so-called "privacy paradox" that can induce negative consumer reactions in terms of avoiding such ads. This paper investigates the factors influencing the avoidance of personalized ads communicated through the social network Facebook. Part of the research model deals with the impact of perceived personalization, perceived irritation, and perceived privacy concerns on skepticism towards advertising and advertising avoidance. Furthermore, the empirical research was conducted on data collected through the Facebook and WhatsApp mobile applications. Following the obtained results, there is no negative effect of perceived personalization to skepticism towards advertising while it exists toward advertising avoidance. Furthermore, a positive effect of perceived irritation to skepticism towards advertising does not exist, but positive effects to ad avoidance do. The direct positive effect of perceived privacy concerns to skepticism and ad avoidance was not found. Also, skepticism about personalized ads was found not to be positively associated with avoiding personalized ads. In addition to new insights, the results can help design and implement promotional campaigns through social media technologies.

Key words: *Facebook personalized ads, skepticism toward advertising, advertising avoidance, new technologies*

JEL classification: *M31, M37*

1. Introduction

Everyday private and business activities are virtually unthinkable without an internet connection. New technologies that build on the Internet connection completely change the current ways of performing various processes and activities, including marketing activities. The current mass communication in which the so-called mass media (primarily TV) are used is increasingly being supplemented and combined with direct communication to each customer. The possibility of tracking digital traces, which people generate through using mobile devices or PC, and collecting and processing them, opens the door to precise targeting and high personalization of offers to individual customers. By monitoring customer behaviour, companies have the opportunity to create profiles that enable a very precise prediction of customer behaviour in the future. Chaffey and Smith (2017: 476) talk about profiling as a continuous activity on data collection, processing, and use in precision targeting. Within Internet communication, social networks occupy a dominant place.

The general definition of social networks conveyed by (Kingsnorth, 2019: 175) says that it is any "website or application that enables users to create and share content, or to participate in social networking." The most popular social network globally is still Facebook, with 2.7 billion users (Statista, 2020). With the appearance of the first ads on Facebook in 2005, the advantage of high targeting of the offer (ad) was noticed (Hanlon, 2019). The possibility of collecting high-quality data, which modern technologies additionally enable, opens the possibility of precise profiling and personalization of promotional communication. Chaffey and Chadwick (2019: 261) state how "recommendations based on profile information, behaviour or predictive analytics are known as personalization." The fact is that Facebook is one of the most popular social networks and that personalization is increasingly used as an advertising strategy; for this reason, Tran (2017) believes that the effect of personalized advertising on Facebook is worth exploring. The benefits of personalization for both advertisers and customers are clear; companies increase promotional productivity, and customers receive relevant advertising. Personalization is becoming a very effective tool to prevent ad avoidance and to make promotional campaigns more effective. In addition to the benefits that personalization provides, ads can be considered irritating and, as such, cause their avoidance at both the cognition and behaviour levels. New technologies (Big data, Artificial Intelligence, and the Internet of Things) enables the collection and analysis of large amounts of diverse data, which directly enters the area of privacy. It becomes very difficult for customers to control information that companies collect about them and how they use it. These perceived privacy concerns lead to ad avoidance. The effect of this concern on avoiding Facebook ads will be explored in this paper.

This research aims to determine the factors influencing the avoidance of personalized ads obtained through the social network Facebook. In pursuit of this aim, the authors propose the following research hypotheses:

H1: Privacy concern has a positive effect on scepticism about Facebook personalized ads.

H2: Privacy concern has a positive effect on personalized Facebook ads avoidance.

H3: The perception of personalized Facebook ads has a negative effect on scepticism about those ads.

H4: The perception of personalized Facebook ads has a negative effect on avoiding those ads.

H5: Ad irritability is positively related to scepticism towards personalized Facebook ads.

H6: Ad irritability is positively related to avoiding personalized Facebook ads.

H7: Scepticism towards personalized Facebook ads is positively related to avoiding those ads.

Survey data were collected through a questionnaire available on the Facebook and WhatsApp mobile applications, 377 valid answers were collected. Furthermore, a multivariate statistical analysis technique (SEM) using IBM Statistic tools (SAS and AMOS) was used to test structural relationships.

The theoretical contribution of this paper is new knowledge about the attitudes and behaviour of customers regarding the acceptance of personalized ads on social networks. A literature review found only a few studies on the subject, which further motivated the authors of this research. In addition to new insights, the research results can help companies to plan marketing and sales campaigns through the social network Facebook. The paper consists of 4 units. Theory and research model development follows the introductory part. The third part presents the research methodology and research results. The fourth final section contains the discussion, contribution, and limitations of the research.

2. Literature review

Today's trends of connecting, communicating, and entertaining people are related to the usage of social networks. Such a role and importance of social networks utterly change the current marketing patterns of action towards individual customers. Marketing strategies are changing and directed towards establishing

and nurturing quality customer relationships based on their engagement with the company or brand. Unlike other communication channels that companies use, social networks are not under their control because users themselves decide when and how to communicate through social networks (Lacy et al., 2013). Realizing the importance of social networks for establishing high-quality long-term relationships, companies seek to establish control over this channel, and through honest and fair communication, turn customers into promoters of the company (Florea et al., 2018). New technologies facilitate this task by enabling the collection and analysis of large amounts of data used to shape marketing strategies. In this context, personalization based on established behaviors, desires, and expectations of customers also occurs. Personalization or mass customization as a marketing concept is not a novelty of today, so at the end of the twentieth century Pine (1993) defined it as "the production and distribution of customized goods and services on a mass basis." What is new is the full ability to implement this concept thanks to the applications of new technologies in business. As Goldsmith and Freiden (2004) state, personalization comes in a variety of forms. This paper will investigate customer behavior regarding the acceptance or non-acceptance of personalized ads they receive through the social network Facebook. Personalized ads have the task of focusing on what customers are interested in and what will provoke a certain reaction in them (Bleier and Eisenbeiss, 2015). Meeting this goal depends on the ability to collect and analyse large amounts of customer data and information (Bang and Wojdynski, 2016). The benefits of personalized ads are clear; however, customers may experience some discomfort related to their constant monitoring resulting in avoiding this type of ad. In addition to directly avoiding ads, it can also lead to less engagement in communicating with a brand or company (Tucker, 2014).

Figure 1: Conceptual model and research hypothesis
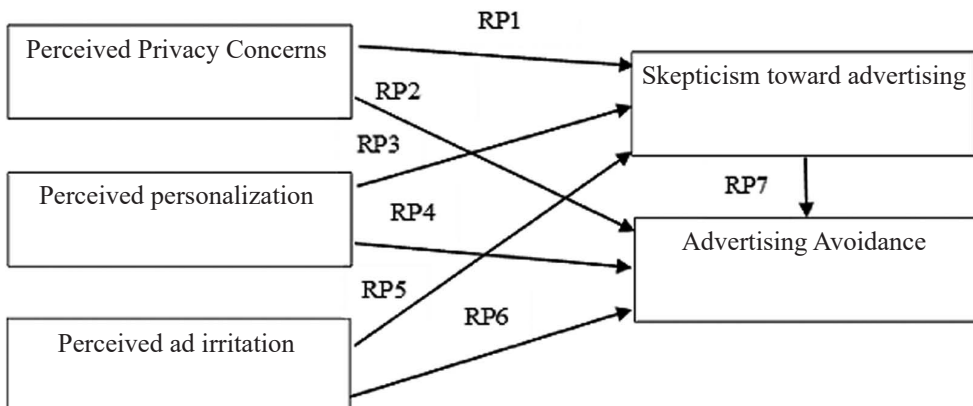
Source: Author's research

This paper investigates the factors that influence the avoidance of personalized ads on Facebook. Hadija et al. (2012) point out that even though the theoretical framework of ad avoidance is available in several research papers, social media advertising has not received enough research attention. The same was found by Tran (2017), who states that little attention has been paid to examining the effects of personalized ads on Facebook. In this regard, this research is being conducted in which the selected model is being tested on Facebook users in Croatia.

In order to clarify the influence of certain predictors on the behavior of recipients of personalized ads via Facebook, a research model applied and tested by Baek and Morimoto (2012) was basically used. Within the proposed research model, it will analyse the impact of perceived privacy concerns, perceived personalization, and perceived ad irritation on ad avoidance. Furthermore, in order to get a clearer view of this relationship, skepticism towards personalized Facebook ads is also analysed.

Figure 1 shows the conceptual model and research hypothesis.

2.1. Perceived privacy concerns (PPC)

In the Big data environment, privacy concern is taking on a whole new dimension. Any user interaction with the company through any channel can be recorded and analysed. Privacy concerns stem from the fact that users of the Internet and social networks are often not aware of their exposure and do not have enough knowledge about how they can and must protect themselves (Grmuša et al., 2019). Truyens and Eecke (2010) point out that social media users are not even aware of what information they expose through social media. According to Sheehan and Hoy (1999), concerns may elicit negative reactions to the ads received. Various studies have found that privacy concerns and compromised security (transmission of viruses and malware) are, in addition to irritation, the main reasons for avoiding ads. (Piorunkiewicz et al., 2019; PageFair, 2017; Li and Huang, 2016). Based on these findings, research hypotheses H1 and H2 were proposed.

> *H1: Privacy concern has a positive effect on skepticism about Facebook personalized ads.*

> *H2: Privacy concern has a positive effect on personalized Facebook ads avoidance.*

2.2. Perceived personalization (PPE)

According to Li (2016), personalization is defined as delivering individualized information to message recipients based on previously collected data about their preferences. Personalization is considered effective because it makes the message

personal (Maslowska et al., 2016), and a higher level of attention can be achieved by greater ad tailoring (Malheiros et al., 2012). Baek and Morimoto (2012) point out that well-personalized ads contain useful and relevant information, making advertising itself more valuable. In that context, it is important to emphasize that when users perceive ads as valuable and useful, they will avoid them to a lesser extent (Pasadeos, 1990). Various previous research confirms that personalization raises advertising effectiveness (Keyzer et al., 2015). According to Habeahan (2016), personalized ads reduce the level of user skepticism, that is, mistrust and ad avoidance. The subject of various studies on the effectiveness of advertising is also ad skepticism, which is considered through various aspects, from the truth of the advertisement to the motive of the advertiser (Obermiller and Spangenberg, 1998; Baek and Morimoto, 2012). Baek and Morimoto (2012) find that ad personalization strongly influences skepticism toward advertising and ad avoidance in the context of personalized advertising media (unsolicited commercial e-mail, postal direct mail, telemarketing, text messaging). In the context of Facebook ads, Tran (2017) also determine the impact of personalization on ad avoidance.

Based on the above findings, research hypotheses H3 and H4 were proposed.

> H3: *The perception of personalized Facebook ads has a negative effect on skepticism about those ads.*

> H4: *The perception of personalized Facebook ads has a negative effect on avoiding those ads.*

2.3. Perceived ad irritation (PAI)

Transferring research results by several authors Arora and Agarwal (2019) indicate that the effectiveness of ads decreases if ads are treated as irritating. According to HubSpot, (2020), too many ads, annoying or irrelevant ads, and intrusive ads are the top three ad-blocking motivations. Aaker and Bruzzone (1985) emphasize that irritation is an emotional response associated with dissatisfaction and impatience, while Li et al. (2002) state that irritation by advertising is seen as a feeling of discomfort that is less intense than feelings of insult and more intense than disagreement (Aaker and Bruzzone, 1985). Accordingly, Smith (2007) states that intrusive ads create a sense of irritation for the user and lead them to avoid them, while valuable ads, on the other hand, have a "calming" effect. On that track are the claims that the perception of ad irritation directly influences the formation of negative consumer attitudes about advertising itself (Rau et al., 2013; Aktan et al., 2016). Also, it is especially important to emphasize that according to Amyx and Lumpkin (2016), irritation directly affects consumer distrust, and they become less accessible and open to promotional communication, i.e., they try to avoid it.

Related to personalized advertising media, Baek and Morimoto (2012) establish a direct positive connection between PAI and personalized advertising skepticism and ad avoidance. Based on the analysis of previous research, research **hypotheses** H5 and H6 were proposed.

> *H5: Ad irritability is positively related to skepticism towards personalized Facebook ads.*

> *H6: Ad irritability is positively related to avoiding personalized Facebook ads.*

2.4. Skepticism toward advertising (STA)

Transferring research results by several authors Arora and Agarwal (2019) indicate that the effectiveness of ads decreases if ads are treated as irritating. According to HubSpot, (2020), too many ads, annoying or irrelevant ads, and intrusive ads are the top three ad-blocking motivations. Aaker and Bruzzone (1985) emphasize that irritation is an emotional response associated with dissatisfaction and impatience, while Li et al. (2002) state that irritation by advertising is seen as a feeling of discomfort that is less intense than feelings of insult and more intense than disagreement (Aaker and Bruzzone, 1985). Accordingly, Smith (2007) states that intrusive ads create a sense of irritation for the user and lead them to avoid them, while valuable ads, on the other hand, have a "calming" effect. On that track are the claims that the perception of ad irritation directly influences the formation of negative consumer attitudes about advertising itself (Rau et al., 2013; Aktan et al., 2016). Also, it is especially important to emphasize that according to Amyx and Lumpkin (2016), irritation directly affects consumer distrust, and they become less accessible and open to promotional communication, i.e., they try to avoid it. Related to personalized advertising media, Baek and Morimoto (2012) establish a direct positive connection between PAI and personalized advertising skepticism and ad avoidance. Based on the analysis of previous research, research **hypothesis** H5 and H6 were proposed.

> *H5: Ad irritability is positively related to skepticism towards personalized Facebook ads.*

> *H6: Ad irritability is positively related to avoiding personalized Facebook ads.*

2.5. Advertising avoidance (AAV)

The goal of each ad is to convey the message successfully. Avoiding this message signals a problem whose causes are various. Cho and Cheon (2004), investigating the causes of avoiding online ads, find that this problem cause: perceived goal

impediment, perceived ad clutter, and prior negative experiences. The importance of these factors as predictors of ad avoidance is also confirmed by Seyedghorban et al. (2016). In the context of social networks, Kelly et al. (2010), in addition to the predictors, determine some other as the relevance of the product, lack of credibility of the medium, and lack of trust of advertisers. Speck and Elliot (1997) define ad avoidance as: "all actions by media users that differentially reduce the exposure to ad content." According to them, this avoidance takes place on a cognitive, behavioral, and mechanical level. Accordingly, Cho and Cheon (2004) define three components of ad avoidance: cognition, affect, and behavior.

Cognitive refers to beliefs about an object, affection to the emotional experience of an ad, and behavior to a way of avoiding an ad. It is assumed that users who are skeptical of personalized ads on Facebook will also have a greater tendency to avoid them.

3. Methodology

The section includes a presentation of the measuring instrument and statistical methods used in the analysis of the results.

3.1. Research instrument

In the implementation of the empirical part of the research, a measuring instrument used by Baek and Morimoto (2012) and Tran (2017) was used. Following the research model, the impact of predictor variables on STA and AAV is measured; accordingly, the measuring instrument is divided into five parts with the corresponding number of questions. Respondents expressed their agreement with the proposed statements in the questionnaire on the Likert scale ranging from 1 to 5 (1 = complete disagreement, 5 = complete agreement). The original measurement instrument is attached to this paper appendix.

3.2. Statistical methods

This research implemented different statistical techniques. The correctness of the measuring instrument is determined by checking its validity and reliability. The validity of a measuring instrument represents "the degree to which a test measures what it claims, or purports, to be measuring" (Brown, 1996: 231). Validity was determined by measuring construct, content, convergent, and discriminant validity. Construct validity is ensured by using a verified construct in the literature. The proposed conceptual model consists of five constructs, three of which become predictor variables and two dependent variables.

Regarding content validity, variables are being measured by questions (items) that have been tested in the literature through several studies. Additional construct verification was performed through exploratory factor analysis (in terms of determining the dimensionality of the scale) using the IBM SPSS 23 software package. As part of construct validity, convergent and discriminant validity was also checked. Convergent validity tests the relationships within the variables and is measured by determining the external loadings factor (running a CFA), calculating average variance extracted (AVE), and composite (construct) reliability (CR). For checking discriminant validity (uniqueness of the construct) confirmatory factor analysis (IBM AMOS 26) was performed.

Cronbach's alpha coefficient analysed the measuring instrument's internal reliability, and it can take values between 0 and 1; the closer the coefficient is to the value 1, the more reliable the measurement scale. Since Cronbach's alpha tends to underestimate internal consistency reliability, composite reliability is often used to measure internal reliability (Hair et al., 2014).

Confirmatory factor analysis (CFA) under the structural equation modeling (SEM) was used for testing the match between the empirical and theoretical models. For the purpose of matching, fit indices were used: Chi-square index, the Goodness of Fit (GIF), Adjusted Goodness of fit (AGFI), Incremental fit index (IFI), Normed fit index (NFI), Comparative fit index (CFI), Root mean square error (RMSEA) and Standardized root mean square (SRMR) as an absolute measure of fit. The CFA was also used to check the research **hypothesis** by testing the relationships between variables in the structural model.

4. Empirical data and analysis

In this sector, the results of the empirical analysis are presented, which includes the presentation of data collection methods and sample structure, validity, and reliability of the measuring instrument, testing of the conceptual model, and testing of the proposed hypotheses.

4.1. Data collection and sample used

For the purposes of empirical research, a survey via Facebook and the WhatsApp mobile application was conducted. A survey was taking place in the period from May to July 2020, and 377 duly completed questionnaires were collected. According to gender, 124 (32.81%) respondents are male, and 253 (67.11%) are female. Between 18 and 23 years of age, there are 193 respondents (51.19%), between 24 and 40 years, 150 (39.79%) respondents and above 40 years, 34 (9.02%) respondents.

4.2. Validity analysis

Construct validity (the dimensionality of the scale) was performed through exploratory factor analysis (under the principal components model with varimax rotation) using the IBM SPSS 23 software package. To determine the suitability of the data for conducting the factor analysis, the Kaiser-Meyer-Olkin measure for all variables and the Bartlett-off test were performed. Both tests show satisfactory values (KMO = 0.931, p = 0.000 <0.05). Values less than 0.6 indicate that the data are not suitable for performing factor analysis (Yong and Pearce, 2013). Also, Bartlett's test of sphericity is greater than the chi-square's critical value, which indicates a significant difference in the variances.

Exploratory factor analysis was performed on 33 items in the measuring instrument. During the analysis, two items variable skepticism toward advertising, and one item variable perceived privacy concerns due to low factor loading was omitted from further analysis. The repeated analysis identified five factors with eigenvalues above 1 and factor loads above 0.5. The selected five factors explain 68.489% of the total variance.

Convergent validity tests the relationships within the variables and is measured by determining the external loadings factor (running a CFA), calculating average variance extracted (AVE), and composite (construct) reliability (CR). Outer loadings factors are greater than the cut-off value of 0.5, which indicates their reliability (Hulland, 1999), average variance extracted (AVE) is higher than 0.5 and composite reliability is higher than 0.6 (Bagozzi and Yi, 1988). To determine the internal consistency of variables, Cronbach's alpha coefficient was determined whose value should be higher than 0.7. Thus, all values obtained are above the limit (Table 1).

Table 1: Reliability and validity of the measuring instrument

Variables	Items	Cronbach's alpha	Outer factor loading	CR	AVE	Mean	SD
Perceived Privacy Concerns	PPC1	0.900	0.685	0.892	0.624	3.714	1.168
	PPC2		0.788			3.727	1.130
	PPC4		0.878			3.814	1.100
	PPC5		0.831			3.610	1.083
	PPC6		0.757			3.615	1.166
Perceived personalization	PPE1	0.901	0.708	0.899	0.641	2.639	0.990
	PPE2		0.812			2.637	0.966
	PPE3		0.853			2.515	1.039
	PPE4		0.811			2.196	1.061
	PPE5		0.813			2.516	1.087
Perceived ad irritation	PAI1	0.927	0.730	0.926	0.611	3.247	1.059
	PAI2		0.754			3.753	1.028
	PAI3		0.789			3.440	1.082
	PAI4		0.861			3.387	1.007
	PAI5		0.790			3.406	0.982
	PAI6		0.866			3.430	1.029
	PAI7		0.706			3.000	1.118
	PAI8		0.742			2.822	1.212
Skepticism toward advertising	STA1	0.9020	0.670	0.902	0.571	2.451	0.980
	STA4		0.742			3.032	1.048
	STA5		0.816			2.690	0.968
	STA6		0.682			2.448	0.993
	STA7		0.842			2.684	0.966
	STA8		0.801			2.538	0.991
	STA9		0.719			2.443	0.979
						2.769	1.014
Advertising Avoidance	AAV1	0.853	0.852	0.880	0.608	3,509	1.077
	AAV2		0.867			3,464	1.122
	AAV3		0.856			3,255	1.245
	AAV4		0.810			3,504	1.246
	AAV5		0.417			3,244	1.421

Source: Author's research

Running a confirmatory factor analysis (CFA) discriminate validity was also checked, and the uniqueness of each variable and their mutual difference was determined. (Table 2) The results show good discriminant validity; the second root of the mean-variance (AVE) for each variable is the highest value in the vertical and horizontal directions, while the correlation between the variables is less than 0.85, which is considered a good result (Altintas and Tuzunkan, 2017).

Table 2: Discriminant Validity

	PPC	PPE	PAI	STA	AAV
PPC	**0.790**				
PPE	-0.160	**0.800**			
PAI	0.496	-0.416	**0.782**		
STA	-0.248	0.668	-0.432	**0.755**	
AAV	0.378	-0.385	0.710	-0.344	**0.779**

PPC – Perceived Privacy Concerns; PPE – Perceived personalization; PAI – Perceived ad irritation; STA – Skepticism toward advertising; AAV – Advertising Avoidance; Bold numbers are Square Root of AVE.

Source: Author's research

4.3. Estimation of model fit

With the help of the statistical software package SPSS AMOS 26, confirmatory factor analysis was performed. The analysis sought to determine the matching of the research model with current data. Fit indices whose values are given in Table 3 were used to show the degree of matching.

Table 3: Fit indices

(Fit indices)	Research model	Recommended value	Source
Chi-square	688.360; 382, p < .0.001		
χ^2/df	1.802	< 5	Park & Kim (2014)
GFI	0.890	> 0.8	Halmi (2016, p. 175)
AGFI	0.866	> 0.8	Halmi (2016, p. 175)
IFI	0.960	> 0.9	Park & Kim (2014)
TLI	0.954	> 0.9	Kim & Han (2014)
NFI	0.915	> 0.9	Park & Kim (2014)
CFI	0.960	> 0.9	Hu & Bentler (1999)
RMSEA	0.046	0.03 – 0.08	Hair et al. (2014, p. 579)
SRMR	0.045	< 0.08	Hair et al. (2014, p. 579)

Source: Author's research

By comparing the actual values with the recommended values, it can be seen that all values are within the reference, which means that the tested model is good, i.e., that it has a good "fit model" (Table 3 and Figure 2). The correction of the measuring scale omits the statements PPC3, STA2, and STA3.

Figure 2: Path diagram*
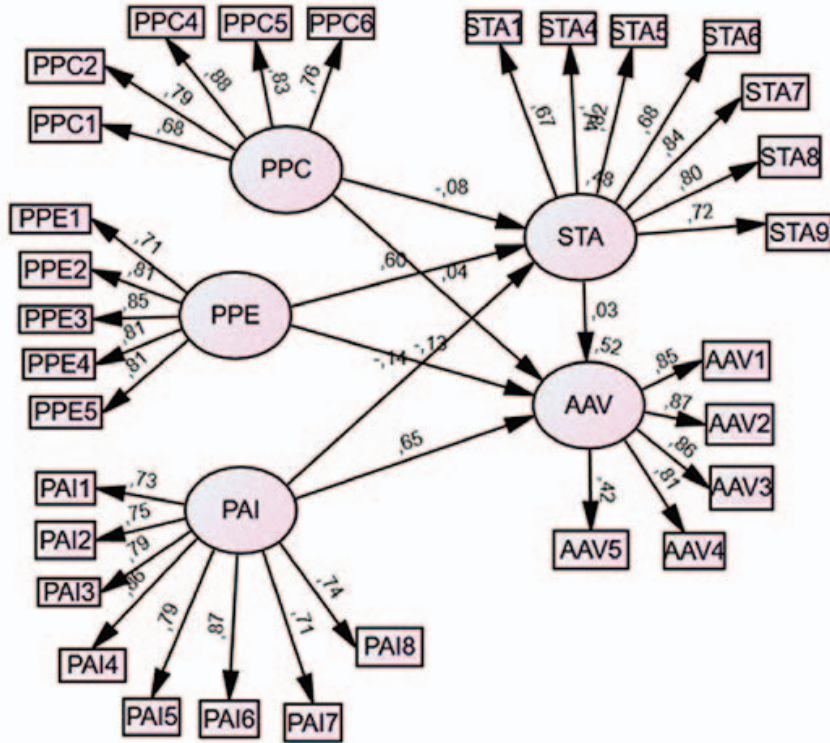
*Maximum Likelihood Estimates

4.4. Research hypothesis testing

Structural equation modelling (SEM) has also been used to test research hypotheses or "tests hypothesized patterns of directional and nondirectional relationships among a set of observed (measured) and unobserved (latent) variables" (MacCallum and Austin, 2000). According to the test results, research hypothesis H1 was not accepted ($\beta = -0.08$, C.R. $= -1.527$, $p > 0.05$). Privacy concerns have not been found to affect skepticism about ads. Research hypothesis H2 was also not accepted ($\beta = 0.04$, C.R. $= 0.862$, $p > 0.05$); it was found that privacy concern had no effect on ad avoidance. Research hypothesis H3 was not accepted ($\beta = 0.60$, C.R. $= 8.769$, $p < 0.001$). The negative correlation between the perception of ad personalization and skepticism towards ads does not exist. Research hypothesis H4 was accepted ($\beta = -0.13$, C.R. $= -2.101$, $p < 0.05$), a negative impact of personalization perception on ad avoidance was found. Furthermore, a positive effect of perceived ad irritability on ad skepticism was not found, which does not support research hypothesis H5 ($\beta = -0.14$, C.R. $= -2.496$, $p < 0.05$). Research hypothesis H6 ($\beta = 0.65$, C.R. $= 9.731$,

p < 0.001) was accepted, with a positive effect of ad irritation on ad avoidance. Research hypothesis H7 was not accepted (β =0.03, C.R. = 0.563, p > 0.05), which found that skepticism towards advertisements was not positively correlated with ad avoidance.

Table 4: Regression weights structural equation model

Hypothesis	Independent variable	Dependent variable	Standard estimate	CR	P-value	Supported
H1 (+)	PPC	STA	-0.08	-1.527	0.127	N/A
H2 (+)	PPC	AAV	0.04	0.862	0.388	N/A
H3 (-)	PPE	STA	0.60	8.769	***	N/A
H4 (-)	PPE	AAV	-0.13	-2.101	0.036	Accepted
H5 (+)	PAI	STA	-0.14	-2.496	0.013	N/A
H6 (+)	PAI	AAV	0.65	9.731	***	Accepted
H7 (+)	STA	AAV	0.03	0.563	0.574	N/A

PPC – Perceived privacy concerns; PPE – Perceived personalization; PAI – Perceived ad irritation; STA – Skepticism toward advertising; AAV – Advertising avoidance. N/A – Not accepted, *** p < 0,001.

Source: Author's research

The representativeness of the model was measured using the squared multiple correlation coefficient. Coefficient (R^2) indicates "the percentage of the variance in the dependent variable that the independent variables explain collectively" (Hair et al., 2014). The value of the coefficient ranges from 0 to 1. The measured values show that 48% of the variance of the dependent variable skepticism towards advertisements is explained by the influence of independent variables of perceived privacy concerns, perceived ad personalization, and perceived ad irritability. On the other hand, 51.6% of the dependent ad avoidance variable variance was explained by the independent variables of perceived privacy concerns, perceived ad personalization, perceived ad irritability, and skepticism toward advertising. The summary of the research hypothesis testing results is shown in Table 4.

5. Results and discussion

The research aims to determine the factors influencing the avoidance of personalized ads sent via Facebook. This goal examines the correlations between perceived privacy concerns, perceived ad personalization, and the perceived irritability of ads with skepticism about ads and ad avoidance. Previous research in the field of ad avoidance through determining the values and attitudes of

advertising is largely based on the theory of media Uses and Gratifications (Murillo et al., 2016), according to which users expose themselves to the media as needed to meet their needs. However, technological development, primarily in the field of data collection and analysis (Big Data, AI), enables a high level of personalization and prediction, which requires that the personalization of ads be included in models of researching attitudes about advertising and their acceptance or rejection. Therefore, the results of this research allow us to look at the psychological process of accepting or avoiding personalized ads through the aforementioned influencing factors (motivators).

New technologies enable the very efficient collection, storage, analysis, copying, and distribution of data and information related to a particular person, and, as such, it represents the basis for personalization. Personalization enters the area of privacy and increases the possibility of privacy violations, which increases the concern of individuals for their privacy. The research hypothesis H1 and H2 test results did not confirm a positive correlation between privacy concerns and ad skepticism and ad avoidance. The arithmetic mean of the answers to the privacy questions indicates the respondents' relative neutrality regarding their privacy concerns. As over 51% of respondents are up to 23 years of age and over 39% up to 40 years of age, it can be concluded that the younger generation does not attach much importance to the issue of privacy in the online environment. The result is on the trail of more research showing that Millennials and Generation Z generally do not show too much attention to their data privacy in online communication. According to Gallup's research (2016), Millennials are aware of the dangers of sharing information but trust the institutions they share that information with. It is a generation that grows with the development of social networks and realizes that something negative can happen, but it is not the end of the world for them. Similar results come from the Center for Digital Future survey (2013), where the 18-34 generation shows awareness of the problem of privacy and the sharing of personal data. Still, more than 50% of them will share information if they get something in return. Aima research (2011) finds that 50% of Millennials will share their data to access reward programs, while 36% register on a website. These are in the wake of the confirmation of the existence of the so-called "privacy paradox" where the irrational behavior of users who, despite concerns about the security of their data, still share them with some benefit (Norberg et al. 2007; Brown, 2001; Oetzel and Gonja, 2011).

The obtained result is not in accordance with the results of the research Beak and Morimoto (2012), which shows the privacy concern as predictors of ad skepticism and ad avoidance in the context of personalized advertising media (unsolicited commercial e-mail, postal direct mail, telemarketing, text messaging) and Tran, (2017) in the context of personalized ads on Facebook. On the other hand, Youn and Shin (2019) find that younger Facebook users' privacy concern

has no impact on ad avoidance. In their study, Li and Huang (2016) also found that privacy concern has no impact on the negative experience (pandan of ad skepticism) but has on ad avoidance in the context of online behavioural advertising. That privacy concern has no effect on ad avoidance in the generation of Millennials is also established by the research of Nyheim et al. (2015) in the application of smartphones in advertising. Kusyanti et al. (2017) find that younger Facebook users, although believing that a privacy risk exists, it does not affect their intention to share private data. The reason for such behaviour is the benefits that Facebook as a social network provides. The find that Facebook users put benefits ahead of potential privacy risk is also found by Debatin et al. (2009) in his research. The tendency of reduced influence of privacy concerns on the behaviour of social network users is also indicated by the research of Kim and Wang (2020), who find that privacy concern has no influence on behaviour in terms of using social media privacy settings. Fear of misuse of their data is not a sufficient motive to take action to prevent it. In general, several reasons can be given for the absence of privacy concern on ad skepticism and ad avoidance 1) the ability to control one's privacy and control over ads received that Facebook provides through privacy settings (Wiese et al., 2020; Kim and Wang, 2020), and users have knowledge for it (Debatin et al. 2009), 2) the existence of trust in communication through social networks (Wiese et al. 2020; Håkansson and Witmer, 2015) and the GDPR regulation (Presthus and Vatne, 2019), 3) the benefits that Facebook communication provides, which in the younger population goes in the direction of maintaining social contact and self-expression (Youn and Shin 2019; Debatin et al., 2009).

Furthermore, the result shows no negative correlation between perceived personalized Facebook ads and skepticism towards ads (hypothesis H3). The result is not in line with previous research (Beak and Morimoto, 2012; Li and Huang, 2016; Tran, 2017). Ads tailored to specific individuals have been found not to affect their attitude toward advertising. Beak and Morimoto (2012) believe that personalized ads, i.e., ads tailored to specific individuals, reduce his resistance to ads. In that sense, their skepticism about advertising should be lower. The results of this research show the opposite, personalization of ads does not reduce skepticism about advertising. The benefits of personalization still do not improve the attitude about advertising.

Research hypothesis H4 was accepted, and a negative impact of perceived personalized ads on Facebook on ad avoidance was found. The result is consistent with Beak and Morimoto's research (2012) and Nyheim et al. (2015), who find that the values delivered by personalized ads reduce the intention to avoid them. In addition, Van den Broeck et al. (2020) find that personalized ads also contribute to greater engagement of recipients of such ads. On the other hand, Tran (2017) emphasizes the role of personalized Facebook ads in increasing their credibility and

positive attitude about Facebook advertising. His research does not find a significant impact of perceived personalized ads on ad avoidance. However, this indicates that this impact exists through the mediation of a credibility variable.

Research hypothesis H5 was not accepted. Facebook ad irritability has not had a positive effect on ad skepticism, which is not consistent with previous research by Smith (2007), Beak and Morimoto (2012), Nyheim et al. (2015), and (Youn and Shin, 2019). The result is not expected. However, some previous research conducted on a younger population related to determining the impact of ad irritability on ad value perception (in the context of different media) also finds that irritability perception does not negatively affect ad value (Dar et al. 2014; Murillo and Merino 2016; Dobrinić, 2020). Respondents' opinion regarding the irritability of ads is mostly neutral (mean range 2.82 to 3.75, on a 5-point scale), which indicates their resistance to irritability of personalized ads. The reason for this resistance can be found in their technological skills that allow them to easily navigate the social networks and neutralize the negative impact of unwanted content without many cognitive efforts.

Research hypothesis H6 was accepted, a positive correlation was found between Facebook ad irritability and ad avoidance. Path analysis shows the most significant impact (0.65) of ad irritation on ad avoidance. (Table 4). Results are consistent with previous research by Smith (2007), Beak and Morimoto (2012), Nyheim et al. (2015), and Youn and Shin (2019) where it was confirmed that intrusive ads create a sense of irritation for the user and lead him to avoid them.

Research hypothesis H7 has not been accepted. The significant impact of skepticism on ad avoidance has not been established, so skepticism is not a driver of ad intent avoidance. A review of previous research hypotheses found that these were perceived personalization and perceived ad irritation. The obtained result is contrary to Beak and Morimoto (2012) research in contexts of personalized advertising media and Li and Huang (2016) in the context of online advertising negative experience to ad avoidance, but in line with Tran (2017) research in the context of personalized ads on Facebook. Tran (2017) explains this result by the role and significance of personalized ads for Facebook users who, despite some skepticism, maintain a positive attitude about those ads as well as the type of products and brands that are advertised. This study also confirms the high impact of perceived personalization on personalized ad skepticism. Participants show some neutrality regarding skepticism towards Facebook advertising (mean responses range from 2.44 to 3.03 on a scale of 1 to 5). They are neutral in terms of the veracity of the ads, their informativeness, and their reliability. At the same time, they show neutrality towards avoiding these ads (mean responses range from 3.25 to 3.50). They do not hate personalized ads, they do not ignore them, and they do not reject them a priori upon receipt.

Damir Dobrinić, Iva Gregurec, Dunja Dobrinić • Examining the factors of influence...
418
Zb. rad. Ekon. fak. Rij. • 2021 • vol. 39 • no. 2 • 401-428

6. Conclusion

Social networks are becoming the most important communication medium with a great impact on society as a whole. Social media marketing today is more than ever focused on developing customer engagement in which personalized ads are of great importance. In this section, the scientific, as well as a practical contribution to the development of marketing strategies through social networks, will be presented.

6.1. Contribution to the theory

Currently, different ways and techniques of personalization are used (according to location, interests, searches, preoccupation, etc.) in order to try to meet the needs of a particular individual. Personalization inevitably contributes to increased sales (BCG, 2020), but it can also cause the opposite effect, which in theory is known as the "personalization paradox" Thus, personalization based on the collected (obtained) data and information provide the potential buyer with a more relevant offer; however, it can induce concerns regarding customers' vulnerability and compromised privacy. To keep the negative sides of personalization under control, it is necessary to pay attention to the perception of personalization by Facebook users. Therefore, it is necessary to determine which elements affect the acceptance of personalized ads and their less avoidance.

Previous research in the context of different media has established the relationship between the perception of personalized ads and ad avoiding. There are very few papers that explore this in the context of Facebook ads, which is understandable given those technologies of more recent date support this form of advertising. The research included mainly the younger population, which shows that they are aware of the dangers of sharing personal data and information via Facebook, but this does not affect their behavior in terms of avoiding personalized ads. What bothers them and what is the main reason for avoiding ads is their irritability. Path analysis confirms that fact and shows that the influence of perceived irritability on avoiding personalized ads is the greatest (0,65). Perceived personalization, privacy concern, and perceived ad irritation explain 48% of ad skepticism variance and 51.6% of the variance in avoidance. Although the independent variables from the model satisfactorily predict changes in the dependent variables, the introduction of new variables of influence that the further development of this form of advertising will bring is necessary in order to better predictions.

6.2. Managerial implications

This research shows that a younger group of users does not show much concern about privacy, and it does not affect their attitude about Facebook advertising and avoiding Facebook personalized ads. The result is a trace in the literature of present

knowledge about the behaviour and characteristics of Generation Z and Millennials who are aware that the danger of data misuse exists but trust the institutions. It signifies that advertisers must continue to focus on protecting privacy and not compromise this trust. This ensures the exchange of information that will enable more precise targeting. According to the research results, the younger population of Facebook users is looking for certain benefits that can be considered as the reason for reduced privacy concerns. Those benefits have to be clearly communicated, recognized, and to be on the trail of the credibility of the advertising itself. Precise targeting of users with the offer requires additional effort to create content that users recognize, leading to reducing skepticism and avoidance of ads. The research results show a strong influence of the perception of ad irritation on their avoidance. Irritability can be caused by untrue, confusing, and intrusive content and too many ads or too often to send ads. These are the elements to pay attention to when creating and implementing advertising campaigns. In order to ensure the credibility (as well as greater efficiency) of advertising, these elements must be aligned with the requirements and wishes of the recipient.

6.3. Limitations and future research

The structure of the sample can be highlighted as a limiting factor of this research. The sample consists of a younger population (members of Generation Z and Millennials). Given that the structure of Facebook users is increasingly changing in favour of the older population, future research should include them. It would also be interesting in future research to investigate the impact of ad personalization and ad irritability on advertising skepticism about advertising. Personalization, supported by the development of new technologies, primarily AI and Big Data, is changing the current patterns of marketing activities, which requires constant research of customers' attitudes about it. In adopting these marketing approaches, it is important to consider the generations according to which they are implemented. Younger generations are more receptive to change than older ones, who still have some market power. So, there will be a very turbulent period in which generations will cope differently, and different circumstances (variables) will affect their satisfaction and certain behavior. Exploring these impacts will be a *condition sine qua non* of new customized marketing approaches.

References

Aaker, D.A., Bruzzone, D.E. (1985) "Causes of Irritation in Advertising" *Journal of Marketing,* Vol. 49, No. 2, pp. 47–57.

Aimia (2011) Born This Way: Millennials Loyalty Survey, (https://www.slideshare.net/recsportsmarketing/aimia-gen-yus) [accessed December 20, 2020].

Aktan, M., Aydogan, S., Aysuna, C. (2016) "Web Advertising Value and Student's Attitude Towards Web Advertising" *European Journal of Business and Management,* Vol. 8, No. 9, pp. 86–97. https://core.ac.uk/download/pdf/234627171.pdf.

Altintas, V., Tuzunkan, D. (2017) "Poverty as an obstacle for travel: Domestic tourism activities in Spain" *International Journal of Economics and Financial Issues,* Vol. 7, No. 2, pp. 448–452. https://dergipark.org.tr/en/download/article-file/365847.

Amyx, D. A., Lumpkin, J. R. (2016) "Interaction Effect of Ad Puffery and Ad Scepticism on Consumer Persuasion" *Journal of Promotion Management,* Vol. 22, No. 3, pp. 403–424. https://doi.org/10.1080/10496491.2016.1154920.

Arora, T., Agarwal, B. (2019) "Empirical Study on Perceived Value and Attitude of Millennials Towards Social Media Advertising: A Structural Equation Modelling Approach" *The Journal of Business Perspective,* Vol. 23, No. 1, pp. 56–69. https://doi.org/10.1177%2F0972262918821248.

Baek, T.H., Morimoto, M. (2012) "Stay away from me: Examining the Determinants of Consumer Avoidance of Personalized Advertising" *Journal of Advertising*, Vol. 41, No. 1, pp. 59–76. https://www.jstor.org/stable/23208321.

Bagozzi, R. P., Yi, Y. (1988) "On the evaluation of structural equation models" *Journal of the Academy of Marketing Science,* Vol. 16, No. 1, pp. 74–94. https://link.springer.com/article/10.1007/BF02723327.

Bang, H., Wojdynski, B. W. (2016) "Tracking users' visual attention and responses to personalized advertising based on task cognitive demand" *Computers in Human Behavior*, Vol. 55, pp. 867–876. https://www.sciencedirect.com/science/article/abs/pii/S074756321530203X.

BCG (2020) Boston Consulting Group. (https://www.bcg.com/press/8may2017-profiting-from-personalization) [accessed December 27, 2020].

Bleier, A., Eisenbeiss, M. (2015) "The Importance of Trust for Personalized Online Advertising" *Journal of Retailing*, Vol. 91, No. 3, pp. 390–409. https://www.sciencedirect.com/science/article/abs/pii/S0022435915000263.

Brown, B. (2001) Studying the internet experience. HP Laboratories Technical Report (HPL2001-49) (http://www.hpl.hp.com/techreports/2001/HPL-2001-49.pdf) [accesses November 26, 2020].

Brown, J. D. (1996) *Testing in language programs*. Upper Saddle River, NJ: Prentice Hall Regents, p. 231.

Center for the Digital Future (2013) *The Digital Future Project-2013*, Surveying The Digital Future – Year Eleven. University of Southern California 2013.

Chaffey, D., Chadwick-Ellis, F. (2019) *Digital marketing, Strategy, Implementation and Practice,* Seventh Edition, Pearson, Harlow, p. 261.

Chaffey, D., P.R Smith (2017) *Digital marketing excellence, planning, optimizing and integrating online marketing,* fifth edition, Routledge, New York, p. 476.

Cho, C-H., Cheon, H.J. (2004) "Why Do People Avoid Advertising on the Internet?" *Journal of Advertising,* Vol. 33, No. 4, pp. 89–97. https://www.jstor.org/stable/4189279.

Dar, A.N. et al. (2014) „Facebook verses Television: Advertising value perception among Students" *International Journal of Business and Management Invention,* Vol. 3, No. 9, pp. 61–70. https://www.coursehero.com/file/60707911/Facebook-versus-televisionpdf/.

Debatin, B. et al. (2009) "Facebook and Online Privacy: Attitudes, Behaviors, and Unintended Consequences" *Journal of Computer-Mediated Communication*, Vol. 15, No. 1, pp. 83–108. https://academic.oup.com/jcmc/article/15/1/83/4064812.

Dobrinić, D. (2020) "Advertising value and attitude to cataloges and store flyer ads among Croatian consumers – SEM approach" *Market-Tržište*, Vol. 32, No. 2, pp. 129–146. https://hrcak.srce.hr/file/364116.

Ducoffe, R.H. (1995) "How Consumers Assess the Value of Advertising" *Journal of Current Issues & Research in Advertising,* Vol. 17, No. 1, pp. 1–18. https://www.tandfonline.com/doi/abs/10.1080/10641734.1995.10505022.

Florea, N.V., Tanasescu, D.A., Duica, A. (2018) "Enabling Customer-Centricity and Relationship Management using Net Promoter Score" *Valahian Journal of Economic Studies*, Vol. 9, No. 23, pp. 115–126. 10.2478/vjes-2018-0023.

Ford, G. T., Smith, D. B., Swasy, J. L. (1990) "Consumer skepticism of advertising claims: Testing hypotheses from economics of information" *Journal of Consumer Research*, Vol. 16, No. 4, pp. 433–441. https://doi.org/10.1086/209228.

Gallup research, (2016) *How Millennials Want to Work and Live*, Gallup Inc. NY 2016, p. 129.

Goldsmith, R.E., Freiden, B. J. (2004) "Have it your way: consumer attitudes toward personalized marketing" *Marketing Intelligence & Planning*, Vol. 22, No. 2, pp. 228–239. https://doi.org/10.1108/02634500410525887.

Grmuša, T., Tomulić, A.M., Anđelić, V. (2019) "Zaštita privatnosti djece i maloljetnika na društvenoj mreži Facebook: navike i iskustva roditelja" *Communication Management Review,* Vol. 4, No. 1, pp. 78–97. https://doi.org/10.22522/cmr20190141.

Habeahan, M. (2016) "Text message advertising avoidance: A comparison between location-based text message advertising and unsolicited text message advertising" *Asia Pacific Journal of Advanced Business and Social Studies,* Vol. 2, No. 2, pp. 13–21. https://apiar.org.au/wp-content/uploads/2016/08/2_APJABSS_ICABSS_BRR713_BIZ-13-21.pdf.

Hadija, Z., Barnes, S. B., Hair, N. (2012) "Why we ignore social networking advertising" *Qualitative Market Research: An International Journal,* Vol. 15, No. 1, pp. 19–32. https://www.emerald.com/insight/content/doi/10.1108/13522751211191973/full/html.

Hair, J.F. et al. (2014) "Partial least squares structural equation modeling (PLS-SEM)" *European business review.,* Vol. 2, pp. 106–121. https://www.emerald.com/insight/content/doi/10.1108/EBR-10-2013-0128/full/html.

Håkansson, P., Witmer, H. (2015) "Social Media and Trust — A Systematic Literature Review" *Journal of Business and Economics,* Vol. 6, No. 3, pp. 517–524. 10.15341/jbe(2155-7950)/03.06.2015/010.

Halmi, A. (2016) *Multivarijantna analiza*, Zagreb, 2016, p. 175.

Hanlon, A. (2019) *Digital marketing, Strategic, Planning & Integration*, Sage, p. 91.

HubSpot (2020) *The Ultimate List of Marketing Statistics for 2020* (https://www.hubspot.com/marketing-statistics) [accessed November 20, 2020].

Huh, J., Delorme, D.E., Reid, L. N. (2015) "Do Consumers Avoid Watching Over-the-Counter Drug Advertisements? An Analysis of Cognitive and Affective Factors That Prompt Advertising Avoidance" *Journal of Advertising Research,* Vol. 55, No. 4, pp. 401–415. 10.2501/JAR-2015-022.

Hulland, J. (1999) "Use of Partial Leasr Squares (PLS) in Strategic Management Research" *Strategic Management Journal,* Vol. 20, No. 2, pp. 195–204. https://onlinelibrary.wiley.com/doi/abs/10.1002/%28SICI%291097-0266%281999902%2920%3A2%3C195%3A%3AAID-SMJ13%3E3.0.CO%3B2-7.

Kelly, L., Drennan, J, Kerr, G. (2010) "Avoidance of Advertising in Social Networking Sites" *Journal of Interactive Advertising*, Vol. 10, No. 2, pp. 16–67. 10.1080/15252019.2010.10722167.

Keyzer, F. De, Dens, N., Pelsmacker, P. (2015) "Is this for me? How Consumers Respond to personalized Advertising on Social Network Sites" *Journal of Interactive Advertising,* Vol. 12, No. 2, pp. 1–11. https://doi.org/10.1080/15252019.2015.1082450.

Kim, J., Wang, J. (2020) "Examing Factors that Determine the Use of Social Media Privacy Settings: Focused on the Mediating Effect of Implementation Intention to Use Privacy Settings" *Asia Pacific Journal of Information System,* Vol. 30, No. 4, pp. 919–945.

Kingsnorth, S. (2019) *Digital Marketing Strategy, An integrated approach to online marketing* Second Edition, Kogan Page, p. 175.

Kusyanti, A., et al. (2017) Information privacy Concerns on Teens as Facebook Users in Indonesia, 4th Information Systems International Conference 2017, ISICO 2017, 6-8 November 2017, Bali, Indonesia.

Lacy, K., Diamond, S., Ferrara, J. (2013) *Social CRM for Dummies,* Wiley, Haboken, New Yersey, p. 27.

Lee, J., Kim, S., Ham, C.-D. (2016) "A double-edged sword? Predicting consumers' attitudes toward and sharing intention of native advertising on social media" *American Behavioral Scientist*, Vol. 60, pp. 1425–1441. https://journals.sagepub.com/doi/10.1177/0002764216660137.

Li, C. (2016) "When does web-based personalization really work? The distinction between actual personalization and perceived personalization" *Computers in Human Behavior,* Vol. 54, pp. 25–33. https://www.sciencedirect.com/science/article/abs/pii/S0747563215300613.

Li, H., Edwards, S.M., Lee, J. H. (2002) "Measuring the Intrusiveness of Advertisements: Scale Development and Validation" *Journal of Advertising,* Vol. 31, Vol. 2, pp. 37–47. 10.1080/00913367.2002.10673665.

Li, W., Huang, Z. (2016) "The Research of Influence Factors of Online Behavioral Advertising Avoidance" *American Journal of Industrial and Business Management* Vol. 6, No. 9, pp. 947–957. https://file.scirp.org/pdf/AJIBM_2016091416301591.pdf.

MacCallum, R. C. (1995) *Model specification: Procedures, strategies, and related issues. In Structural equation modeling: Concepts, issues, and applications*, R. H. Hoyle (editor). Thousand Oaks, CA: Sage Publications, Inc., pp. 16–29.

Malheiros, M. et al. (2012) "Too close for comfort: A study of the effectiveness and acceptability of rich-media personalized advertising" *CHI'12: Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, pp. 579–588.

Maslowska, E., Smith, E.G., van den Putte, B. (2016) "It is all in the name: A study of consumers' responses to personalized communication" *Journal of Interactive Advertising,* Vol. 16, No. 1, pp. 74–85. https://www.tandfonline.com/doi/abs/10.1080/15252019.2016.1161568.

Murillo, E., Merino, M., Nunez, A., (2016) "The advertising of Twitter ads: a study among Mexican millennials" *Review of Business Management,* Vol. 18, No. 61, pp. 436–456. 10.7819/rbgn.v18i61.2471

Norberg, P.A., Horne, D.R., Horne, D.A. (2007) "The privacy paradox: Personal information disclosure intentions versus behaviors" *Journal of Consumer Affairs,* Vol. 41, No. 1, pp. 100–126. https://doi.org/10.1111/j.1745-6606.2006.00070.x.

Nyheim, P. et al. (2015) "Predictors of avoidance toward personalization of restaurant smartphone advertising- A study from Millenials' perspective" *Journal of Hospitality and Tourism Technology, Vol.* 6, No. 2, pp. 145–159. 10.1108/JHTT-07-2014-0026.

Obermiller, C., Spangenberg, E. (1998) "Development of a Scale to Measure Consumer Scepticism Toward Advertising" *Journal of Consumer Psychology,* Vol. 7, No. 2, pp. 159–186. https://doi.org/10.1207/s15327663jcp0702_03.

Oetzel, M.C., Gonja, T. (2011) The online privacy paradox: a social representations perspective. In: Proceedings of CHI'11 Extended Abstracts on Human Factors in Computing Systems, May 7-12, Vancouver, Canada.

PageFair (2017) *The state of the blocked web 2017* Global Adblock Report

Park, E., Kim, K.J. (2014) "An Integrated Adoption Model of Mobile Cloud Services: Exploration of Key Determinants and Extension of Technology

Acceptance Model" *Telematics and Informatics,* Vol. 31, No. 3, pp. 376–385. https://www.sciencedirect.com/science/article/abs/pii/S0736585313000877.

Pasadeos, Y. (1990) "Perceived Informativeness of and Irritation with Local Advertising" *Journalism & Mass Communication Quarterly* Vol. 67, No. 1, pp. 35–39. https://doi.org/10.1177/107769909006700107.

Pine, J.B. (1993) Mass Customization, *Harvard Business School Press*, Boston, MA.

Piorunkiewicz-Soltysik, A., Strzeleckia, A., Abramek, E. (2020) Evaluation of Adblock Software Usage, *Complex Systems Informatics and Modeling Quarterly (CSIMQ) eISSN: 2255-9922,* Vol. 21, pp. 51–63.

Presthus, W., Vatne, D.M. (2019) "A survey on Facebook Users and Information Privacy" *Procedia Computer Science,* Vol. 164, pp. 39–47. https://doi.org/10.1016/j.procs.2019.12.152.

Rau, P.-L., Liao, Q., Chen, G. (2013) "Factors influencing mobile advertising avoidance" *International Journal of Mobile Communication,* Vol. 11, No. 2, pp. 123–139. https://doi.org/10.1504/IJMC.2013.052637.

Seyedghorban, Z., Tahernejad, H., Matanda, M. J. (2015) "Reinquiry into Advertising Avoidance on the Internet: A Conceptual Replication and Extension" *Journal of Advertising*, Vol. 45, No. 1, pp. 120–129. https://doi.org/10.1080/00913367.2015.1085819.

Sheehan, Kim B., Mariea G. Hoy, (1999) "Flaming, Complaining, Abstaining: How Online Users Respond to Privacy Concerns" *Journal of Advertising,* Vol. 28, No. 3, pp. 37–52. https://www.jstor.org/stable/4189116.

Shen, G. C.-C. et al. (2016) "Effective marketing communication via social networking site: The moderating role of the social tie" *Journal of Business Research,* Vol. 69, pp. 2265–2270.

Smit, E., Noort, G., Voorveld, H. (2014) "Understanding online behavioral advertising: User knowledge, privacy concerns, and online coping behavior in Europe" *Computers in Human Behaviour* Vol. 32, pp. 15–22. https://doi.org/10.1016/j.chb.2013.11.008.

Smith, A.D. (2007) "Exploring advergaming and its online advertising implications" *International Journal of Business Information Systems,* Vol. 2, No. 3, pp. 298-311. https://www.inderscienceonline.com/doi/abs/10.1504/IJBIS.2007.011981

Speck, P. S., Elliott, .M.T. (1997) "Predictors of Advertising Avoidance in Print and Broadcast Media," *Journal of Advertising*, Vol. 26, No. 3, pp. 61–76. https://doi.org/10.1080/00913367.1997.10673529.

Statista (2020) (https://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/) [accessed Novembar 3, 2020].

Tran, T.P. (2017) "Personalized ads on Facebook: An effective marketing tool for online marketers" *Journal of Retailing and Consumer Services,* Vol. 39, pp. 230–242. https://doi.org/10.1016/j.jretconser.2017.06.010.

Truyens, M., Eecke V.P. (2010) "Privacy and social networks" *Computer Law & security Review*, Vol. 26, No. 5, pp. 535–546. 10.1016/J.CLSR.2010.07.006.

Tucker, C.E. (2014) "Social Networks, Personalized Advertising and Privacy Controls" *Journal of Marketing Research,* Vol. 51, No. 5, Electronic Journal avialable at: http://ssrn.com/abstract=1694319.

Van den Broeck, E., Poels, K., Walrave, M. (2020) "How do users evaluate personalized Facebook advertising: An analysisi of consumer-and adveriser controlled factors" *Qvalitative Market Research*, Vol. 23, No. 2, pp. 309–325. 10.1108/qmr-10-2018-0125.

Yong, A.G., Pearce, S. (2013) "A Beginner's Guide to Factor Analysis: Focusing on Exploratoring Factor Analysis" *Tutorials in Quantitative Methods for Psychology*, Vol. 9, No. 2, pp. 79–94. https://www.tqmp.org/RegularArticles/vol09-2/p079/p079.pdf.

Youn, S., Shin, W. (2019) "Teens' responses to Facebook newsfeed advertising: The effect of cognitive appraisal and social influence on privacy concerns and coping strategies" *Telematics and Informatics*, Vol. 38, pp. 30–45. https://doi.org/10.1016/j.tele.2019.02.001.

Damir Dobrinić, Iva Gregurec, Dunja Dobrinić • Examining the factors of influence...
Zb. rad. Ekon. fak. Rij. • 2021 • vol. 39 • no. 2 • 401-428

426

Istraživanje čimbenika utjecaja na izbjegavanje personaliziranih oglasa na Facebooku

Damir Dobrinić[1], *Iva Gregurec*[2], *Dunja Dobrinić*[3]

Sažetak

Personalizacija oglasa postaje dominantna promotivna taktika koja se dodatno poboljšava primjenom novih tehnologija. Veća učinkovitost glavni je cilj takvog pristupa oglašavanju koji može uzrokovati i pojavu takozvanog „paradoksa privatnosti" te time izazvati negativne reakcije potrošača u smislu izbjegavanja takvih oglasa. Ovaj rad istražuje čimbenike koji utječu na izbjegavanje personaliziranih oglasa komuniciranih putem društvene mreže Facebook. U okviru istraživačkog modela razmatra se utjecaj percipirane personalizacije, percipirane iritacije i percipirane zabrinutosti za privatnost na skepticizam prema oglasima i njihovom izbjegavanju. Provedeno je empirijsko istraživanje nad podacima prikupljenih putem mobilnih aplikacija Facebook i WhatsApp. U skladu s dobivenim rezultatima, utvrđeno je da ne postoji negativan utjecaj percipirane personalizacije na skepticizam prema oglasima dok postoji prema njihovom izbjegavanju. Izravni pozitivni utjecaj percipirane zabrinutosti za privatnost na skepticizam i izbjegavanje oglasa nije utvrđen. Utvrđeno je da pozitivan utjecaj percipirane iritacije oglasa na skepticizam ne postoji ali postoji vrlo jak utjecaj te varijable na izbjegavanje oglasa. Također, utvrđeno je da skepticizam prema personaliziranim oglasima nema pozitivan utjecaj na izbjegavanje personaliziranih oglasa. Osim novih spoznaja, rezultati ovog rada mogu biti korisni u osmišljavanju i provedbi promotivnih kampanja putem društvenih medija.

Ključne riječi: *Facebook personalizirani oglasi, skepticizam prema oglasima, izbjegavanje oglasa, nove tehnologije*

JEL klasifikacija: *M31, M37*

[1] *Redoviti profesor, Sveučilište u Zagrebu, Fakultet organizacije i informatike, Varaždin, Pavlinska 2, Hrvatska. Znanstveni interes: digitalni marketing, nove tehnologije u marketing, upravljenje odnosima s kupcima. Tel.: 0038542390871. E-mail: damir.dobrinic@foi.unizg.hr.*

[2] *Docent, Sveučilište u Zagrebu, Fakultet organizacije i informatike, Varaždin, Pavlinska 2, Hrvatska. Znanstveni interes: digitalni marketing, upravljenje odnosima s kupcima. Tel.: 0038542390871. E-mail: iva.gregurec@foi.unizg.hr.*

[3] *Student poslijediplomskog doktorskog studija, Sveučilište u Zagrebu, Fakultet organizacije i informatike, Varaždin, Pavlinska 2, Hrvatska. Znanstveni interes: prihvaćanje digitalnih tehnologija u mikro i malim tehnologijama. Tel.: 00385958295701. E-mail: du.dobrinic@foi. unizg.hr.*

Appendix

Table A1: Original measurement items

Variables		Measurement items
Advertising Avoidance	AAV1	I intentionally ignore any personalized advertising on Facebook.
	AAV2	I hate any personalized advertising on Facebook.
	AAV3	It would be better if there were no personalized advertising on Facebook.
	AAV4	I discard (throw away, hang up) personalized advertising on Facebook immediately without opening (reading, listening to) it.
	AAV5	I have asked marketers to take me off their e-mail (mailing, telephone) lists.
Scepticism toward advertising	STA1	We can depend on getting the truth in most personalized advertising on Facebook.
	STA2*	Personalized advertising's aim is to inform the consumer.
	STA3*	I believe personalized advertising on Facebook is informative.
	STA4	Personalized advertising on Facebook is generally truthful.
	STA5	Personalized advertising on Facebook is a reliable source of information about the quality and performance of products.
	STA6	Personalized advertising on Facebook is truth well told.
	STA7	In general, personalized advertising on Facebook presents a true picture of the product being advertised.
	STA8	I feel I have been accurately informed after viewing (reading, listening to) most personalized advertising on Facebook.
	STA9	Most personalized advertising on Facebook provides consumers with essential information.
Perceived Privacy Concerns	PPC1	When I receive personalized advertising on Facebook I feel uncomfortable when information is shared without permission.
	PPC2	When I receive personalized advertising on Facebook I am concerned about misuse of personal information.
	PPC3*	When I receive personalized advertising on Facebook It bothers me to receive too much advertising material of no interest.
	PPC4	When I receive personalized advertising on Facebook I feel fear that information may not be safe while stored.
	PPC5	When I receive personalized advertising on Facebook I believe that personal information is often misused.
	PPC6	When I receive personalized advertising on Facebook I think companies share information without permission.

Damir Dobrinić, Iva Gregurec, Dunja Dobrinić • Examining the factors of influence...
428
Zb. rad. Ekon. fak. Rij. • 2021 • vol. 39 • no. 2 • 401-428

Variables			Measurement items
Perceived ad irritation	PAI1		When I receive personalized advertising on Facebook, I think it is negative.
	PAI2		When I receive personalized advertising on Facebook, I think it is irritating.
	PAI3		When I receive personalized advertising on Facebook, I think it is pointless.
	PAI4		When I receive personalized advertising on Facebook, I think it is unappealing.
	PAI5		When I receive personalized advertising on Facebook, I think it is regressive.
	PAI6		When I receive personalized advertising on Facebook, I think it is unattractive.
	PAI7		When I receive personalized advertising on Facebook, I think it is vulgar.
	PAI8		When I receive personalized advertising on Facebook, I think it is awful.
Perceived Personalization	PPE1		This personalized advertising on Facebook makes purchase recommendations that match my needs.
	PPE2		I think that this personalized advertising on Facebook enables me to order products that are tailor-made for me.
	PPE3		Overall, this personalized advertising on Facebook is tailored to my situation.
	PPE4		This personalized advertising on Facebook makes me feel that I am a unique customer.
	PPE5		I believe that this personalized advertising on Facebook is customized to my needs.

Source: Author's research