

# Predictors of Mobile Advertising Avoidance: What Makes People Avoid Mobile Advertising?

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## ABSTRACT

*This study is designed to examine antecedents and consequences of mobile advertising avoidance. However, to date, research on mobile advertising avoidance has been scarce. Thus, this study makes significant contributions by addressing understudied areas in mobile advertising. Study results show that the perceived mobile advertising risk is positively related to mobile advertising avoidance. This study found that the perceived trust in mobile advertising is negatively linked to mobile advertising avoidance. The study results show that the perceived Internet users' data privacy concerns is positively linked to mobile advertising avoidance. Finally, study results suggest that mobile advertising avoidance is positively linked to intention to delete the ad.*

**Key words:** *Perceived Risk, Perceived Trust, Information Privacy Concerns, Cannes Lions, Mobile Advertising Avoidance.*

## 1. INTRODUCTION

Mobile became the primary Internet advertising medium in worldwide because of its specific characteristics that facilitate highly customized marketing communication in terms of person, time, location, and context [1]. The mobile advertising varies from short message service (SMS) text to interactive advertisements. The global mobile advertising market was valued \$105.4 billion in 2016 and is expected to reach around \$244.6 billion by 2022 [2]. The rise in a number of mobile Internet users and increased awareness are major factors driving the growth of the mobile advertising market. However, the growth in mobile ad blocking apps and software is becoming one of the major threats to the growth of mobile advertising.

Mobile advertising spending in South Korea increased by 36 percent in 2016, far outpacing the 1.5 percent growth in the country's total ad market. According to *Cheil Worldwide*, the country's leading advertising agency, the combined ad spending in Korea increased 1.5 percent to \$9.4 billion in 2016. Mobile ad spending reached \$1.6 billion by growing at whopping 36.3 percent. The ad on mobile video platforms especially thrived with 37.1 percent on-year growth and surpassed ad spending on search engines that expanded by 35.6 percent. In particular, high-quality mobile videos amid fast and easy-to-use mobile Internet environment on top of improved video services presented by local and overseas media companies largely contributed to the fast growth of the mobile ad market.

As mobile advertising market grows, so does the number of mobile ads on users' smartphone. Mobile ads become ubiquitous. In other words, mobile ads are literally everywhere when users read news article, search for information, update their status in SNSs, and enjoy shopping via their mobile phones. Mobile users have been swarmed with a great deal of mobile advertising in their everyday life. Mobile behavioral targeting enables marketers to create customized messages for specific mobile users. However, from the mobile users' perspective, the customized message or individualized messages created based on users' mobile behavioral data make mobile users feel uneasy and concerned about their privacy. Consequently, mobile user are likely to avoid mobile advertising messages.

Advertising avoidance is a well-researched topic in traditional advertising as well as in online advertising settings. However, to date, research on mobile advertising avoidance has been scarce. Furthermore, mobile advertising avoidance is somewhat different from the Internet advertising avoidance since mobile advertising only refers to all actions by mobile users that reduce their exposure to ad content on their mobile device. On the other hand, the Internet advertising avoidance can be defined as all actions by the Internet users that reduce exposure to all types of ads available in the Internet. This study, therefore, makes efforts to investigate which factors attribute to users' mobile advertising avoidance. In addition, the study also examines consequence of mobile advertising avoidance. This study makes significant contributions by addressing understudied areas in mobile advertising. Most important, research on mobile advertising avoidance has been scarce in Korea. Thus, the study results will provide scholars and marketers with a baseline understanding on antecedents and consequences of mobile advertising avoidance. Theoretical and

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practical implications have been discussed in the discussion section.

## 2. LITERATURE REVIEW

### 2.1 Perceived Risk

In the marketing literature perceived risk refers to the nature and amount of risk perceived by a consumer in contemplating a particular purchase decision [3]. Perceived risk is primarily related to searching and choosing information of products or services before purchasing decision [4]. Perceived risk is related to what is acquired as well as how or where it is acquired [5]. In an online shopping setting, a consumer's perceived risk has been found to influence his or her online decisions. Perceived risk plays a significant role as antecedent in consumer decision making [6], [7].

It is certain that consumers making an online transaction are likely to be reluctant to purchase on the Web because their perceived risk may be overwhelming when compared to the traditional mode of shopping.

In the mobile advertising context mobile advertising risk can be defined as the extent to which consumers are unsure about the consequences of accepting and responding to mobile advertising. Consumers' perceived risk can have a strong impact on their behavior [8]. When it comes to receiving mobile advertising messages, consumers perceive various risks. Therefore, consumers' perceived risk of mobile advertising would be associated with mobile advertising avoidance.

**H1:** Perceived risk of mobile advertising will be positively related to mobile advertising avoidance.

### 2.2 Perceived Trust

Trust refers to "the willingness of a party to be vulnerable to the actions of another party, based on the expectation that the other will perform a particular action important to the truster, irrespective of the ability to monitor or control that other party" [9]. In the mobile advertising context trust can be defined as consumer beliefs that advertisers are honest, responsible, and professional and understand and care for consumers [9]. Trust can be considered as an important factor determining mobile advertising acceptance [6], [10].

According to prior research, consumers are likely to accept push-based mobile advertising when they trust advertisers, mobile service providers, and regulators to protect personal data and privacy [10]-[13]. Okazaki et al. found that consumers' trust reduces mobile advertising avoidance [15]. Thus, perceived trust of mobile advertising may negatively influence mobile advertising avoidance.

**H2:** Perceived trust of mobile advertising will be negatively related to mobile advertising avoidance.

### 2.3 Internet Users' Information Privacy Concerns

Privacy has been an important issue in relation to use of Information and Communication Technologies [16]. Information privacy is defined as "the claim of individuals, groups, or institutions to determine for themselves when, how,

and to what extent information about them is communicated to others" [17]. On the other hand, information privacy concerns could be defined as "an individual's subjective views of fairness within the context of information privacy" [18].

Information privacy, in the context of mobile advertising, is generally protected by a mandatory opt-in or opt-out policy [19]. Prior research found that unknown message sent to consumers in the form of SMS or location-based services are likely annoy recipients and are perceived as a spam [16], [19], [20]. In addition, privacy concerns exert a significant influence on consumers' perception of brand ethical value [21]-[23]. Thus, Internet users' information privacy concerns may lead to mobile advertising avoidance. .

**H3:** Perceived Internet users' information privacy concerns will be positively related to mobile advertising avoidance.

### 2.4 Advertising Avoidance

Advertising avoidance refers to "all actions by media users that differentially reduce their exposure to ad content" [24]. In the mobile advertising context, mobile advertising avoidance can be defined as "all actions by mobile users that intend to reduce any marketing communications through mobile devices". Advertising avoidance, according to prior research [25]-[27] consists of cognitive, affective, and behavioral components. For instance, cognitive advertising avoidance can be viewed as the psychological defense mechanism, resulting in users intentionally ignoring an ad they are exposed to [24]-[26]. Affective advertising avoidance means users' negative feelings and the expression of emotional reactions toward an advertisement [28], [29]. Lastly, behavioral advertising avoidance refers to "consumer avoidance actions other than lack of attendance [30].

Previous studies found that perceived goal impediment, perceived ad clutter, and prior negative experience are positively associated with advertising avoidance on the Internet [31]. In the traditional media setting such as TV, according to Rojas-Mendez et al. [32], consumers' demographics such as gender, age, education, and family size affect advertising avoidance, and consequently influencing consumers' overall attitude towards advertising. In the similar vein, Speck and Elliot [25] also found in their study on advertising avoidance in print and broadcast media that demographic variables (i.e., age, income, and education), media-related variables (i.e., amount of media use, breadth of media use, attitude to the medium), perceptions of advertising in each medium, and communication problems related to advertising affect advertising avoidance. In a mobile advertising context, mobile advertising avoidance will lead to intention to delete the ad. Thus, the following hypothesis was proposed as below:

**H4:** Mobile advertising avoidance will be positively related to intention to delete the ad.

## 3. METHOD

### 3.1 Sample and Data Collection

Online survey was created to collect data from college students. First, online survey invitation e-mails were sent out to students taking introductory advertising or PR courses. Second, only students who agreed to participate and provide consents are selected as participants for this study. Third, before taking the online survey, they were briefed about the purpose of the study, duration time, and potential risk of this study. Then, they were asked to click on "Proceed" button to complete online survey.

Of the 312 participant, 37.2% (n = 116) were male and 62.8% (n = 196) were female. Their mean age was 22.7 years old. Juniors made up the majority (34%, n = 106); the rest were seniors (28.2%, n = 88), sophomores (20.5%, n=64), and freshmen (17.3%, n = 54). Their daily mobile phone usage time was 3.5 hour on average. In terms of college students' main mobile usage types, mobile messenger was the most usage, followed by online video, search, apps, mobile games, and news, shopping.

### 3.2 Measures

First, to measure perceived risk participants were asked to express their agreement with four statements on a 7-point, Likert-type scale anchored by very strongly disagree/very strongly agree. This measure was adopted from a previous study and modified for this particular purpose of the study [33]. Second, perceived trust was measured with twelve items, using a 7-point, Likert-type scale ranging from very strongly disagree to very strongly agree. This measure was adopted from a study by Schoenbachler and Gordon [34] and modified for the current study.

Third, mobile users' information privacy concerns (MUIPC) was measured with nine items on a 7-point, Likert-type scale ranging from very strongly disagree to very strongly agree. This measure was adopted from study by Malhotra et al, [33] and modified in accordance with the current study. Fourth, mobile advertising avoidance was measured with eight items, using a 7-point, Likert-type scale ranging from very strongly disagree to very strongly agree. This measure was adopted and modified for the current study [35]. Lastly, intention to delete the mobile ad was measured with three items using seven point Likert-type scales with scale anchors of "strongly disagree" and "strongly agree". This measure was adopted from the study by Okazaki, Molina, and Hirose [15].

## 4. RESULT

The relationships among perceived risk, perceived trust, mobile users' information privacy concerns, mobile advertising avoidance, and intention to delete the mobile ad are shown in Table 1. The correlation results indicate significant relationships among measured variables. To test the structural model concerning the relationships among the variables, the path analysis was performed via SPSS AMOS 21.0. As shown in Table 2, the overall fit indices for the model were not acceptable, revealing a weak fit of the model to the data ( $\chi^2 = 12.9$ ,  $df = 6$ ,  $p < .001$ ; GFI = .91; AGFI = .78; CFI = .71; IFI = .72; RFI = .84; RMSEA = .195).

Table 1. Correlation Matrix

(n=312)	Perceived Risk	Perceived Trust	MUIPC	Mobile Ad Avoidance	Intention to Delete Ad
Perceived Risk	1.00				
Perceived Trust	-.200**	1.00			
MUIPC	.401**	-.121**	1.00		
Mobile Ad Avoidance	.300**	-.229**	-.229	1.00	
Intention to Delete Ad	.295**	-.159	-.159**	.530**	1.00
No. of Items	4	12	9	8	3
Cronbach's Alpha	.87	.85	.79	.93	.92
Mean	5.25	2.58	5.74	5.49	4.87
SD	.97	1.19	.68	.88	1.22

(\*\* indicates  $P < .001$ )

Table 2. Parameter estimates for causal paths: Original Model

Hypotheses	Causal Paths	Standardized Parameter Estimates	Standard Error	t-value
H1	Perceived Risk -> Mobile Ad Avoidance	.116	.045	2.54 *
H2	Perceived Trust -> Mobile Ad Avoidance	-.118	.037	-3.22 **
H3	Information privacy Concerns -> Mobile Ad Avoidance	.46	.065	7.00 ***
H4	Mobile Ad Avoidance -> Intention to delete the ad	.73	.069	10.70 ***

Goodness-of-fit statistics  $\chi^2 = 12.9$ ,  $df = 6$ ,  $p < .001$ ; GFI = .91; AGFI = .78; CFI = .71; IFI = .72; RFI = .84; RMSEA = .195

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

Table 3. Parameter estimates for causal paths: Modified Model

Hypotheses	Causal Paths	Standardized Parameter Estimates	Standard Error	t-value
H1	Perceived Risk -> Mobile Ad Avoidance	.116	.045	2.54 *
H2	Perceived Trust -> Mobile Ad Avoidance	-.118	.037	-3.22 **
H3	Information privacy Concerns -> Mobile Ad Avoidance	.46	.065	7.00 ***
H4	Mobile Ad Avoidance -> Intention to delete the ad	.73	.069	10.70 ***
	Perceive Risk <-> Perceived Trust	-.231	0.67	-3.45***
	Perceived Trust <-> Information Privacy Concerns	-.10	.046	-2.12*
	Perceived Risk <-> Information Privacy Concerns	.263	.040	6.57***

Goodness-of-fit statistics  $\chi^2 = 3.06$ ,  $df = 3$ ,  $p < .05$ ; GFI = .99; AGFI = .94; CFI = .98; IFI = .98; RFI = .88; RMSEA = .076

A model is regarded acceptable if normed fit index (NFI) and goodness of fit index (GFI) exceed .90 and comparative fit index (CFI) exceed .93, and when RMS is less than .08 [36] [37]. Thus, the original model was rejected and the modification indices were examined as a way of improving the model fit [38]. The modification indices showed that the model fit could be improved by adding covariance paths between the following: perceived social presence and perceived interactivity, perceived social presence and perceived enjoyment, perceived social presence and perceived trust, perceived interactivity and perceived enjoyment, and perceived enjoyment and perceived trust.

Prior research found that information privacy concerns have a negative effect on trust but positive effect on perceived risk [15]. Trust and risk, as much research suggests, are the two most salient beliefs in information privacy contexts [33], [39].

Therefore, these covariance paths are justifiable. After the model modification, the goodness of fit statistics demonstrated that the modified model provided a better fit ( $\chi^2 = 3.06$ ,  $df = 3$ ,  $p < .05$ ; GFI = .99; AGFI = .94; CFI = .98; IFI = .98; RFI = .88; RMSEA = .076). Figure 2 shows the modified model and Table 3 indicates the parameter estimates for paths.

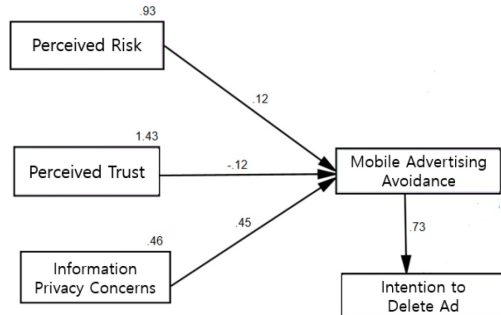


Fig. 1. Path Model of Antecedents and Consequences of Mobile Advertising Avoidance: Hypothesized Model

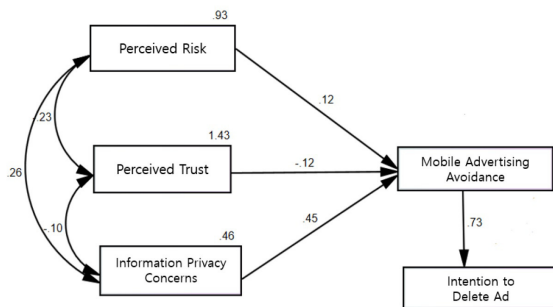


Fig. 2. Path Model of Antecedents and Consequences of Mobile Advertising Avoidance: Modified Model

In the current study, H1 posits perceived mobile advertising risk will be positively related to mobile advertising avoidance. According to Anderson and Gerbing [34], a  $t$ -value of greater than 2 for each coefficient indicates a statistical significance. Study results show that perceived mobile advertising risk is positively related to mobile advertising avoidance ( $t = 2.28$ ,  $p < .05$ ). H2 proposes that perceived trust of mobile advertising will be negatively related to mobile advertising avoidance. As expected, study results show that perceived trust of mobile advertising is negatively related to mobile advertising avoidance. ( $t = -3.15$ ,  $p < .05$ ). H3 states that perceived Internet users' information privacy concerns will be positively related to mobile advertising avoidance. As shown in Table 3, the study results show that perceived Internet users' information privacy concerns is positively related to mobile advertising avoidance ( $t = 6.41$ ,  $p < .001$ ). H4 posits that mobile advertising avoidance will be positively related to intention to delete the ad. As shown in Table 3, mobile advertising avoidance is positively related to intention to delete the ad. ( $t = 11.03$ ,  $p < .001$ ). In sum, H1, H2, H3 and H4 were supported in the study.

Three additional paths were added in the modified model. As shown in Table 3, study results suggest that the perceived

risk of mobile advertising-perceived trust of mobile advertising path coefficient is  $-.23$  with a  $t$ -value of  $-3.45$  ( $p < .001$ ). It is plausible to assume that people with high perceived risk of mobile advertising are likely to have low perceived trust of mobile advertising, and vice versa. The perceived trust of mobile advertising-information privacy concerns path coefficient was  $.10$  with a  $t$ -value of  $-2.12$  ( $p < .05$ ). This indicates people with high trust of mobile advertising are more likely to low information privacy concerns, and vice versa. Lastly, the perceived risk of mobile advertising-information privacy concerns path coefficient was  $.26$  a  $t$ -value of  $6.57$  ( $p < .001$ ), which suggests that people with high perceived risk of mobile advertising are more likely to low information privacy concerns, and vice versa.

## 5. DISCUSSION

As Li and Huang [4] suggest, perceived risk is related to searching and choosing information of products or services before making purchase decisions. This study found that consumers' perceived risk of mobile advertising has a significant effect on mobile advertising avoidance. In sum, people with high perceived risk of mobile advertising will have a high level of mobile advertising avoidance. Thus, mobile advertising avoidance is likely to cause intention to delete mobile ads. As for marketing practitioners, it is important that they should find a way to lessen consumers' perceived risk when consumers view mobile ads.

The study results suggest that consumers' perceived trust of mobile advertising is negatively related to mobile advertising avoidance. In other words, people with high perceived trust of mobile advertising are not likely to avoid mobile ads when using their smartphones. This study supports the prior research which suggests consumers' trust reduces mobile advertising avoidance [11], [12], [15]. To prosper in their business marketing practitioners should build trust with their consumers. When consumers finally trust advertisers, the effect of mobile advertising will also increase.

Internet users' information privacy concerns have been a very important issue in our society since mobile ads are ubiquitous and are likely to annoy mobile users. Prior research found that unknown messages sent to mobile users are likely to be viewed as annoying [20]. In a similar vein, this study found that perceived Internet users' information privacy concerns are positively related to mobile advertising avoidance. To wrap up, mobile advertising would not be effective among people with high information privacy concerns. In mobile business industry such as online shopping industry information privacy concerns should be dealt seriously. How to protect consumers' privacy in the Internet should be given a priority when doing online businesses. Like many other study this research also has a limitation. It limited its responses to students from a university. University students may have different perceptions of mobile advertising than the general population. For future research, it could be useful to broaden the samples demographically by including various age groups. Finally, it would be interesting to investigate what factors would have an impact on mobile advertising acceptance. Not only three variables employed in

the current study, other variables such as perceived usefulness and perceived ease may add a new dimension to the mobile advertising research.

## REFERENCES

- [1] A. Scharl, A. Dickinger, and J. Murphy, "Diffusion and success factors of mobile marketing," *Electronic Commerce Research and Applications*, vol. 4, no. 2, 2005, pp. 159-173. doi: <https://doi.org/10.1016/j.elerap>
- [2] Zion Market Research, "Global Mobile Advertising Market Will Reach USD 244.57 Billion by 2022," Retrieved in May 15, 2019 from <https://www.globenewswire.com/news-release/2017/12/11/1250755/0/en/Global-Mobile-Advertising-Market-Will-Reach-USD-244-57-Billion-by-2022-Zion-Market-Research.html>
- [3] D. Cox and S. Rich, "Perceived risk and consumer decision-making: The case of telephone shopping," *Journal of Marketing Research*, vol. 1, no. 4, 1964, pp. 32-39. doi: <https://doi.org/10.1177/002224376400100405>
- [4] Y. H. Li and J. W. Huang, "Applying theory of perceived risk and technology acceptance model in the online shopping channel," *World Academy of Science, Engineering and Technology*, vol. 53, no. 1, 2009, pp. 919-925.
- [5] R. Hisrich, R. Domoff, and J. Kernan, "Perceived risk in store selection," *Journal of Marketing Research*, vol. 9, no. 4, 1972, pp. 435-439. doi: <https://doi.org/10.1177/002224377200900414>
- [6] J. Hansen, G. Saridakis, and V. Benson, "Risk, trust, and the interaction of perceived ease of use and behavioral control in predicting consumers' use of social media for transactions," *Computers in Human Behavior*, vol. 80, 2018, pp. 197-206. doi: <https://doi.org/10.1016/j.chb.2017.11.010>
- [7] V. Benson, J. Ezingard, and C. Hand, "An empirical study of purchase behaviour on social platforms," *Information Technology & People*, vol. 32, no. 4, 2019, pp. 876-896. doi: <https://doi.org/10.1108/ITP-08-2017-0267>
- [8] V. Mitchell, "Re-conceptualizing consumer store image processing using perceived risk," *Journal of Business Research*, vol. 54, no. 2, 2001, pp. 167-172. doi: [https://doi.org/10.1016/S0148-2963\(99\)00086-7](https://doi.org/10.1016/S0148-2963(99)00086-7)
- [9] R. Mayer, J. Davis, and F. Schoorman, "An integrative model of organizational trust," *Academy of Management Review*, vol. 20, no. 3, 1995, pp. 709-734. doi: <https://doi.org/10.5465/amr.1995.9508080335>
- [10] W. H. Hsiao and T. S. Chang, "Change Understanding consumers' continuance intention towards mobile advertising: a theoretical framework and empirical study," *Behaviour & Information Technology*, vol. 33, no. 7, 2014, pp. 730-742. doi: <https://doi.org/10.1080/0144929X.2013.789081>
- [11] S. Okazaki, A. Katsukura, and M. Nishiyama, "How mobile advertising works: The role of trust in improving attitudes and recall," *Journal of Advertising Research*, vol. 47, no. 2, 2007, pp. 165-178. doi: <https://doi.org/10.2501/S0021849907070195>
- [12] M. Merisavo, S. Kajalo, H. Karjaluoto, V. Virtanen, S. Salmenkivi, M. Raulas, and M. Leppäniemi, "An empirical study of the drivers of consumer acceptance of mobile advertising," *Journal of Interactive Advertising*, vol. 7, no. 2, 2007, pp. 41-50. doi: <https://doi.org/10.1080/15252019.2007.10722130>
- [13] H. Yang, L. Zhou, and H. Liu, "A comparative study of American and Chinese young consumers' acceptance of mobile advertising: A structural equation modeling approach," *International Journal of Mobile Marketing*, vol. 5, no. 1, 2010, pp. 60-76.
- [14] T. T. Lin, F. Paragas, and J. Bautista, "Determinants of mobile consumers' perceived value of location-based advertising and user responses," *International Journal of Mobile Communications*, vol. 14, no. 2, 2016, pp. 99-117. doi: <http://dx.doi.org/10.1504/IJMC.2016.075019>
- [15] S. Okazaki, F. Molina, and M. Hirose, "Mobile advertising avoidance: exploring the role of ubiquity," *Electronic Markets*, vol. 22, no. 3, 2012, pp. 169-183. doi: <https://doi.org/10.1007/s12525-012-0087-1>
- [16] C. Gurău and A. Ranchhod, "Consumer privacy issues in mobile commerce: a comparative study of British, French and Romanian consumers," *Journal of Consumer Marketing*, vol. 26, no. 7, 2009, pp. 496-507. doi: <https://doi.org/10.1108/07363760911001556>
- [17] A. F. Westin, *Privacy and Freedom*, Atheneum, New York, 1967.
- [18] A. J. Campbell, "Relationship marketing in consumer markets: A comparison of managerial and consumer attitudes about information privacy," *Journal of Interactive Marketing*, vol. 11, no. 3, 1997, pp. 44-57. doi: [https://doi.org/10.1002/\(SICI\)1522-7138\(199722\)11:3<44::AID-DIR7>3.0.CO;2-X](https://doi.org/10.1002/(SICI)1522-7138(199722)11:3<44::AID-DIR7>3.0.CO;2-X)
- [19] H. Galanxhi and F. Nah, "Privacy issues in the era of ubiquitous commerce," *Electronic Markets*, vol. 16, no. 3, 2006, pp. 222-232. doi: <https://doi.org/10.1080/10196780600841894>
- [20] R. Unni and R. Harmon, "Perceived effectiveness of push vs. pull mobile location based advertising," *Journal of Interactive Advertising*, vol. 7, no. 2, 2007, pp. 28-40. doi: <https://doi.org/10.1080/15252019.2007.10722129>
- [21] M. Mpiganjira and D. Maduku, "Ethics of mobile behavioral advertising: Antecedents and outcomes of perceived ethical value of advertised brands," *Journal of Business Research*, vol. 95, 2019, pp. 464-478. doi: <https://doi.org/10.1016/j.jbusres.2018.07.037>
- [22] M. Walrave, K. Poels, M. Antheunis, E. Van den Broeck, and G. van Noort, "Like or dislike? Adolescents' responses to personalized social network site advertising," *Journal of Marketing Communications*, vol. 24, no. 6, 2018, pp. 599-616. doi: <https://doi.org/10.1080/13527266.2016.1182938>
- [23] H. Xu, H. H. Teo, B. C. Tan, and R. Agarwal, "The role of push-pull technology in privacy calculus: the case of location-based services," *Journal of Management Information Systems*, vol. 26, no. 3, 2009, pp. 135-174. doi: <https://doi.org/10.2753/MIS0742-1222260305>
- [24] P. S. Speck and M. T. Elliott, "Predictors of advertising avoidance in print and broadcast media," *Journal of Advertising*, vol. 26, no. 3, 1997, pp. 61-76. doi: <https://doi.org/10.1080/00913367.1997.10673529>
- [25] H. Li, S. M. Edwards, and J. H. Lee, "Measuring the intrusiveness of advertisements: Scale development and

validation,” *Journal of Advertising*, vol. 31, no. 2, 2002, pp. 37-47. doi: <https://doi.org/10.1080/00913367.2002.10673665>

[26] Y. Li, “User perception affects search engine advertising avoidance: Moderating role of user characteristics,” *Social Behavior and Personality: an international journal*, vol. 47, no. 4, 2019, pp. 1-12. doi: <https://doi.org/10.2224/sbp.7855>

[27] G. P. Prendergast, A. S. Tsang, and R. Cheng, “Predicting Handbill Avoidance in Hong Kong and the UK,” *European Journal of Marketing*, vol. 48, 2014, pp. 132-146. doi: <https://doi.org/10.1108/EJM-05-2011-0244>

[28] L. F. Alwitt and P. R. Prabhaker, “Identifying who dislikes television advertising: Not by demographics alone,” *Journal of Advertising Research*, vol. 34, no. 6, 1994, pp. 17-30.

[29] J. Phillips and S. M. Noble, “Simply captivating: Understanding consumers’ attitudes toward the cinema as an advertising medium,” *Journal of Advertising*, vol. 36, no. 1, 2007, pp. 81-94. doi: <https://doi.org/10.2753/JOA0091-3367360106>

[30] C. H. Cho and H. J. Cheon, “Why do People Avoid Advertising on the Internet?” *Journal of Advertising*, vol. 33, no. 4, 2004, pp. 89-97. doi: <https://doi.org/10.1080/00913367.2004.10639175>

[31] Z. Seyedghorban, H. Tahernejad, and M. J. Matanda, “Reinquiry into advertising avoidance on the internet: A conceptual replication and extension,” *Journal of Advertising*, vol. 45, no. 1, 2016, pp. 120-129. doi: <https://doi.org/10.1080/00913367.2015.1085819>

[32] J. I. Rojas-Mendez, G. Davies, and C. Madran, “Universal differences in advertising avoidance behavior: A cross-cultural study,” *Journal of Business Research*, vol. 62, no. 10, 2009, pp. 947-954. doi: <https://doi.org/10.1016/j.jbusres.2008.08.008>

[33] N. K. Malhotra, S. S. Kim, and J. Agarwal, “Internet users’ information privacy concerns (IUIPC): The construct, the scale, and a causal model,” *Information Systems Research*, vol. 15, no. 4, 2004, pp. 336-355. doi: <https://doi.org/10.1287/isre.1040.0032>

[34] D. D. Schoenbachler and G. L. Gordon, “Multi-channel shopping: understanding what drives channel choice,” *Journal of Consumer Marketing*, vol. 19, no. 1, 2002, pp. 42-53. doi: <https://doi.org/10.1108/07363760210414943>

[35] C. H. Jin and J. Villegas, “Consumer responses to advertising on the internet: The effect of individual difference on ambivalence and avoidance,” *CyberPsychology & Behavior*, vol. 10, no. 2, 2006, pp. 258-266. doi: <https://doi.org/10.1089/cpb.2006.9960>

[36] B. M. Byrne, *Structural equation modeling with EQS and EQS/Windows: Basic concepts, applications, and programming*, Sage, 1994.

[37] M. W. Browne and R. Cudeck, “Alternative ways of assessing model fit,” *Sociological Methods & Research*, vol. 21, no. 2, 1992, pp. 230-258. doi: <https://doi.org/10.1177/0049124192021002005>

[38] J. C. Anderson and D. W. Gerbing, “Structural equation modeling in practice: A review and recommended two-step approach,” *Psychological Bulletin*, vol. 103, no. 3, 1988, pp. 411-423.

[39] A. D. Miyazaki and A. Fernandez, “Consumer perceptions of privacy and security risks for online shopping,” *Journal*

of Consumer Affairs, vol. 35, no. 1, 2001, pp. 27-44. doi: <https://doi.org/10.1111/j.1745-6606.2001.tb00101.x>



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Appendix A Survey Questionnaire

Items	Measures	Loading
Perceived Risk (α=.87)	In general, it would be risky to give (the information) to online companies	.91
	There would be high potential for loss associated with giving (the information) to online firms	.89
	There would be too much uncertainty associated with giving (the information) to online firms.	.88
	Providing online firms with (the information) would involve many unexpected problems	.87
Perceived Trust (α=.85)	Mobile advertisers seem very capable of performing mobile communications.	.86
	Mobile advertisers appear to be successful at the things they try to do.	.90
	Mobile advertisers seem to have much knowledge about what needs to be done to fulfill online communication.	.91
	I feel very confident about mobile advertisers’ online skills.	.89
	My needs and desires appear to be important to mobile advertisers.	.88
	It doesn’t seem that mobile advertisers would knowingly do anything annoying to hurt me.	.93
	Mobile advertisers seem to really look out for what is important to me.	.92
	Mobile advertisers appear to go out of their way to help me.	.88
	Mobile advertisers seem to have a strong sense of justice.	.89
	Mobile advertisers appear to try hard to be fair in dealing with others.	.90
Information Privacy Concerns (α=.79)	I like mobile advertisers’ values.	.92
	Sound principles seem to guide mobile advertisers’ behavior.	.88
	Online companies should devote more time and effort to preventing unauthorized access to personal information	.90
	Computer databases that contain personal information should be protected from unauthorized access—no matter how much it costs	.86
	Online companies should take more steps to make sure that unauthorized people cannot access personal information in their computers.	.87
	All things considered, the Internet would cause serious privacy problems	.88
	Compared to others, I am more sensitive about the way online companies handle my personal information	.86
Mobile Advertising Avoidance (α=.93)	To me, it is the most important thing to keep my privacy intact from online companies.	.90
	I believe other people are too much concerned with online privacy issues	.91
	Compared with other subjects on my mind, personal privacy is very important	.89
	I am concerned about threats to my personal privacy today	.90
	I intentionally ignore any ads on my mobile.	.93
	I intentionally don’t put my eyes on my mobile ads	.90
	I intentionally don’t put my eyes on pop-up ads on my mobile.	.89
I intentionally don’t put my eyes on any ads on my mobile.	.91	
I intentionally don’t pay attention to banner ads on my mobile.	.88	
I intentionally don’t pay attention to pop-up ads on my mobile	.87	
I intentionally don’t pay attention to any ads on my mobile.	.94	
I intentionally don’t click on any ads on my mobile, even if the ads draw my attention.	.92	
Intention to Delete Mobile Ads (α=.92)	unlikely—likely	.92
	not probable—probable	.90
	unwilling—willing	.93