

# ADDRESSING THE PERSONALIZATION—PRIVACY PARADOX: AN EMPIRICAL ASSESSMENT FROM A FIELD EXPERIMENT ON SMARTPHONE USERS

#### **Juliana Sutanto**

Department of Management, Technology, and Economics, ETH Zürich, Weinbergstrasse 56/58, Zürich, SWITZERLAND {jsutanto@ethz.ch}

#### Elia Palme

Newscron Ltd., Via Maderno 24, Lugano, SWITZERLAND {elia.palme@newscron.com}

#### Chuan-Hoo Tan

Department of Information Systems, City University of Hong Kong, Tat Chee Avenue, Kowloon, HONG KONG {ch.tan@cityu.edu.hk}

### **Chee Wei Phang**

Department of Information Management and Information Systems, Fudan University, 670 Guoshun Road, Shanghai, CHINA {phangcw@fudan.edu.cn}

## **Appendix**

Table A1. Post-Experiment Short Survey						
	Mean (Std Dev.) Responses from Users of the Respective Mobile Advertising Applications					
Question	Non-Personalized (34 responses)	Personalized, Non- Privacy-Safe (26 responses)	Personalized, Privacy-Safe <i>responses)</i>			
Q1. Do you find the advertisements excessive? [Likert scale of 5 with 1 (Not at all) and 5 (Always)]	3.29 (1.088)	3.04 (1.241)	2.77 (1.032)			
Q2. Do you find the advertisements annoying? [Likert scale of 4 with 1 (Not at all) and 4 (Very)]	1.53 (.662)	1.44 (.507)	-			
Q3. Are you concerned about your personal data when using the application? [Likert scale of 4 with 1 (Not at all) and 4 (Very)]	-	2.64 (1.075)	2.38 (1.329)			
Q4. Are you concerned with answering the questions? [Likert scale of 4 with 1 (Not at all) and 4 (Very)]	-	2.32 (1.406)	1.80 (1.118)			

Table A2. Construct	t Measurements				
Construct	Measurement items	Source			
*For the questions below, "application" refers to the mobile advertising application; and "company" refers to the entity providing the "application"					
Privacy concern [Scale: From "Not at					
all" to "Very much"]	2. I am concerned with how information about me may be exploited by the company when using the application for [the focal activity]				
* This construct was measured with respect to each of the	I am concerned with how the information captured during my use of the application to perform [the focal activity] can be employed by the company to identify me as an individual				
followings:  1) Browsing advertisements	It bothers me when my personal information is gathered when I use the application for [the focal activity]				
Viewing     advertisements     Saving	I am concerned that my personal information gathered during my use of the application for [the focal activity] may be accessed by unauthorized people				
advertisements	I am concerned that my personal information that is captured when I use the application for [the focal activity] may be kept in a non-accurate manner				
	7. To what extent are you concerned that your privacy will be compromised when using the application for the specific activity?				
Sensitivity of information released [Scale: From "Not at	When the application obtains the following information from me, I am concerned that my privacy will be compromised:  • Gender	Self-developed			
all" to "Very much"]	Age     Dietary preference				
	Daily products used     Preference of soft drink				
	<ul> <li>Preference of snack</li> <li>Whether consume alcoholic beverages</li> <li>Advertisements saved into the application</li> </ul>				
Trust [Scale: From "Strongly	The company providing the application would be trustworthy in handling my information	Malhorta et al. (2004)			
disagree" to "Strongly agree"]	The company providing the application would tell the truth and fulfill promises related to the information provided by me				
	I trust that the company providing the application would keep my best interests in mind when dealing with my information				
	The company providing the application is in general predictable and consistent regarding the usage of my information				
Reputation	The company providing the app is well-known	Gefen (2000)			
[Scale: From "Strongly disagree" to "Strongly	2. I am familiar with the company providing the app	]			
agree"]	The company providing the app has a good reputation in the market				
Psychological comfort [Scale: From	I am comfortable providing information to this application in return for personalized advertising messages	Chellappa and Sin (2005)			
"Strongly disagree" to "Strongly agree"]	I feel at ease in using the application to obtain personalized advertising messages				

Table A2. Construct	Measurements (Continued)	
Construct	Measurement items	Source
Intrusion of personal information	I feel that if I save advertisements into the application, the company may know about me more than I feel at ease with	Xu et al. (2008)
boundary [Scale: From "Strongly disagree" to "Strongly	<ol> <li>I believe that if I save advertisements into the application, the information about me which I consider should only be kept to myself will be more readily available to others than I would want to</li> </ol>	
agree"]	<ol> <li>I believe that if I save advertisements into the application, the information about me is out there that, if used, will invade my boundary of revealing about myself</li> </ol>	
	I feel that if I save advertisements into the application, my limit of disclosing information about me would be invaded by the company that provides the application	
Personalization benefits	The application provides personalization services that are based on my information	Chellappa and Sin (2005)
[Scale: From "Strongly disagree" to "Strongly	The application personalizes my advertisement viewing experience	
agree"]	<ol> <li>The application personalizes the advertising messages for my viewing by acquiring my personal preferences</li> </ol>	
	4. The application personalizes and delivers advertising messages to me according to my information	
	5. The application delivers personalized advertising messages to me based on the previous information I indicated	
Perceived effectiveness of privacy-safe feature	I believe I can preserve my personal information space with the privacy-safe feature.	Adapted from the Privacy control measures (Xu et al. 2008)
[Scale: From "Strongly disagree" to "Strongly agree"]	I think the privacy-safe feature restricts the release of my information from my mobile phone.	,
*Privacy-safe feature	3. I believe my information is kept in the mobile phone only to myself with the privacy-safe feature.	
was explained to be the feature that stores user information locally	I believe I have control over my information with the privacy-safe feature	
Intention to save advertisements into	application as soon as I saw it	Adapted from Taylor and Todd (1995)
the application [Scale: From "Strongly	If possible, I would like to save the advertisement I am interested in to the application at the moment I saw it	
disagree" to "Strongly agree"]	<ol> <li>In near future, I would like to save the advertisement of interest to me into the application as much as possible</li> </ol>	

Table A3. Reliability, Convergent Validity, and Discriminant Validity Test Results of the Constructs										
	Cronbach's	Composite	Composite	Inter-construct Correlation*						
	Alpha	Reliability	AVE	1	2	3	4	5	6	7
Ad. saving intention	0.78	0.87	0.69	0.83						
Psychological comfort	0.84	0.92	0.86	0.39	0.93					
Boundary intrusion	0.94	0.95	0.83	-0.24	-0.30	0.91				
Personalization benefits	0.86	0.90	0.64	0.40	0.45	-0.17	0.80			
Privacy-safe feature	0.95	0.96	0.86	0.44	0.38	-0.21	0.45	0.93		
Trust	0.88	0.92	0.74	0.47	0.54	-0.29	0.45	0.58	0.86	
Reputation	0.88	0.92	0.80	0.38	0.35	-0.04	0.21	0.31	0.38	0.89

<sup>\*</sup>Diagonal cells represent the square-root of AVE of the respective construct

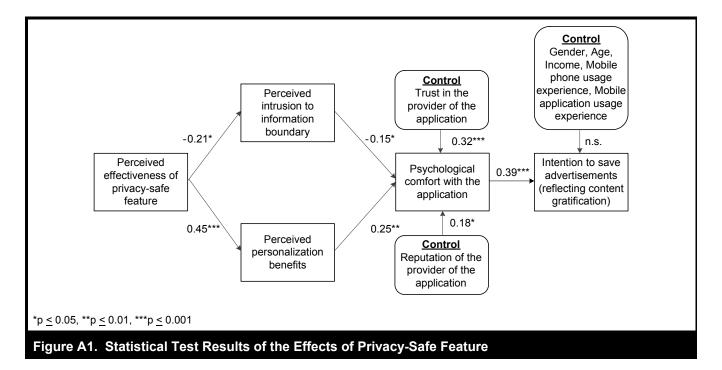
		Component					
	1	2	3	4	5	6	7
Personalization_benefit1	.213	.022	.766	050	005	.124	.271
Personalization_benefit2	.148	102	.704	076	082	.171	.277
Personalization_benefit3	.127	.094	.807	.335	.143	.044	001
Personalization_benefit4	.084	.055	.835	.249	.137	.109	081
Personalization_benefit5	.218	361	.640	.104	.034	.152	.164
Boundary_intrusion1	229	.835	059	124	.055	070	164
Boundary_intrusion2	007	.941	040	043	053	099	055
Boundary_intrusion3	.063	.911	005	084	006	016	.032
Boundary_intrusion4	056	.920	.004	110	.022	097	093
Privacy_safe1	.837	133	.253	.158	.059	.161	.102
Privacy_safe2	.875	089	.233	.179	.052	.150	.128
Privacy_safe3	.862	044	.150	.236	.161	.158	.050
Privacy_safe4	.873	.020	.072	.179	.204	.090	.067
Trust1	.292	054	.178	.575	.177	.394	.348
Trust2	.379	048	.190	.649	.131	.246	.343
Trust3	.237	139	.205	.814	.087	.003	.039
Trust4	.178	209	.030	.800	.123	.081	.150
Reputation1	.070	.002	050	.150	.896	.059	.072
Reputation2	.124	.054	.063	.114	.870	.185	.087
Reputation3	.199	048	.148	.046	.800	.159	.165
Psychological_comfort1	.125	039	.174	.276	.235	.088	.778
Psychological_comfort2	.130	271	.263	.171	.145	.124	.778
Ad_saving1	.071	019	.184	019	.330	.766	.123
Ad_saving2	.206	163	.222	.072	.113	.821	051
Ad saving3	.217	123	.062	.268	.039	.697	.182

Table A5. Sensitivity with Disclosing Different Information					
	Mean	Std. Deviation			
Gender	2.7   2.7	1.53   1.53			
Age	3.3   2.9	1.67   1.52			
Dietary preferences	2.6   2.7	1.46   1.44			
Daily product consumed	3.2   3.2	1.65   1.51			
Alcohol consumed	3.2   2.9	1.65   1.53			
Advertisements saved	4.2   3.9	1.88   1.72			

<sup>\*</sup>Privacy concerns attached by users (non-privacy-safe (N=80) | Privacy-safe (N=113))

Table A6. Information Privacy Concern with Performing Different Activities					
	Mean	Std. Deviation			
Browsing adverts.	5.2   5.2	1.25   0.99			
Viewing adverts.	5.4   5.3	1.09   0.92			
Saving adverts.	5.6   5.3	0.98   1.06			

<sup>\*</sup>Privacy concerns attached by users (non-privacy-safe (N=80) | Privacy-safe (N=113))



References

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