

Privacy or Personalization? Drivers, Deterrents and Moderators of Consumers' Willingness to Disclose Personal Data



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Abstract With the advent of the digital age and the increasing use of Big Data, potential customers can be easily reached by companies seeking to collect their personal data in exchange of personalized targeted offers. However, these individualized marketing activities are often considered intrusive by consumers, who feel they are losing control over their personal data and their right to privacy. This study contributes to bridge a gap in the literature, identified as a Marketing Science Institute research priority, by developing and testing a comprehensive model of theory-based drivers and deterrents of consumers' willingness to disclose personal information. Furthermore, the model considers the moderating role of service type, customers' age, gender, experience. Data was gathered using a self-administered online survey, resulting in a sample of 956 consumers who had recently disclosed personal information during online interactions with self-selected companies. The study concludes that consumers face a trade-off between the costs of privacy loss and the benefits of personalization when they decide to disclose personal information, and partially or fully supports the moderating effects proposed. The study provides valuable insights for companies interested in obtaining consumers' consent to use their personal data during online interactions, across target segments and industries.

Keywords Privacy · Personalization · Personal data · Disclosure · Drivers · Deterrents · Moderators

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Introduction

Nowadays, with the advent of the digital age and the increasing use of Big Data in marketing (McAfee and Brynjolfsson 2012; Salas-Olmedo et al. 2018), potential customers can be easily reached by companies seeking to store and collect their personal data in exchange of highly relevant and personalized targeted offers (Wedel and Kannan 2016). However, these individualized marketing activities are often considered intrusive by most consumers, who feel they are losing control over their personal data and their right to privacy (Alkire et al. 2019; Krafft et al. 2017). The current debate on data sharing and misuse brought up new regulations such as the recent European data protection law (the General Data Protection Regulation), which establishes the universal need of consent for any use of personal data.

Considering that having access to personal data represents a huge competitive advantage (Aker and Wamba 2016; Wedel and Kannan 2016) but that, increasingly, this is not allowed unless individual permission is granted, obtaining consumers' consent becomes a major challenge for most firms. Following these concerns, the Marketing Science Institute has elected the trade-off between privacy loss and the benefits of personalization as a 2018–2020 research priority (MSI 2018). However, studies dedicated to the drivers and deterrents of customers willingness to disclose personal data are still scarce and well needed (Jacobson et al. 2019; Roeber et al. 2015; Zhu et al. 2017). Moreover, though it is reasonable to expect that this willingness may vary according to customers' traits (Chakraborty et al. 2016; Jai and King 2016) and firms' features (Chen and Teng 2013; Derikx et al. 2016; Krafft et al. 2017), its moderating effects are yet to be properly investigated.

In order to gain further insights about what influences consumers' willingness to disclose personal information, a research model was developed to assess its drivers, deterrents and moderators. We assume that consumers face a trade-off between the costs of privacy loss and the benefits of personalization when they decide to disclose personal information (Smith et al. 2011; Xie et al. 2006; Zhao et al. 2012). The study builds on existing literature on technology adoption, including the Technology Acceptance Model or TAM (Davis et al. 1989) and the Unified Theory of Technology Acceptance and Use of Technology or UTAUT (Venkatesh and Davis 2000), as well as on models used to study Privacy and Consumer Behaviour, such as the Privacy Calculus Theory (Dinev and Hart 2004, 2006). Drivers of consumers' willingness to disclose personal information included Perceived Usefulness, Social Influence, Hedonic Motivation, Previous Habits and Perceived Financial Reward, while Perceived Internet Privacy Risk and Effort Expectancy were considered as deterrents. Furthermore, factors such as age, gender, experience and type of industry were taken into consideration as potential moderators.

Research Methodology

Data was gathered using a self-administered online survey, resulting in a convenience sample of 956 consumers’ who had recently disclosed personal information during online interactions with self-selected companies. The questionnaire had 25 mandatory questions and all constructs were measured based on multi-item scales previously established (e.g. Bart et al. 2005; de Kerviler et al., 2016; Dinev and Hart 2004; Krafft et al. 2017; Venkatesh et al. 2003, 2012) and assessed in a 5-point Likert scale.

To test the research model (Fig. 1), attention will be given to the following hypotheses:

- H1: Perceived Usefulness, Social Influence, Hedonic Motivation, Previous Habits and Perceived Financial Reward/Price Value drive consumers to disclose personal information.
- H2: Perceived Internet Privacy Risk and Effort Expectancy deter consumers to disclose personal information.
- H3: Customers’ (i) gender; (ii) age, (iii) past experience, and (iv) service type moderate the impact of drivers and deterrents on consumers’ willingness to disclose personal information.

Results and Discussion

Most respondents (Table 1) were women (64%), predominantly (42%) spending 3–5 h online per day and who have rarely (44%) or occasionally (42%) shared personal information with companies. A diversity of age cohorts was included in the sample, with 34% of respondents with 18–26 years old, 16% with 27–36 years old, 21% with 37–46 years old, 17% with 47–56 years old and 12% over 57 years old.

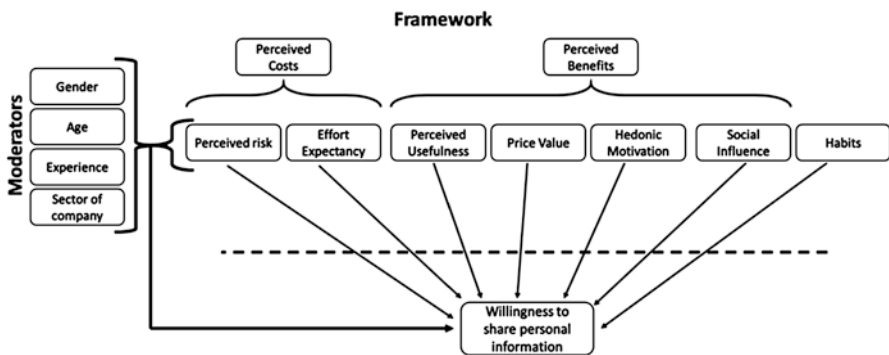


Fig. 1 Research framework

Table 1 Sample description

Characteristics	Sample	
	Respondents	%
<u>Age</u>		
17–26	326	34.1
27–36	155	16.2
37–46	202	21.1
47–56	161	16.8
>57	112	11.7
<u>Gender</u>		
Male	336	35.1
Female	620	64.9
<u>Daily hours spent online</u>		
0–2 h	201	21.0
3–5 h	400	41.8
6–8 h	233	24.4
>8 h	122	12.8
Total	956	100

Table 2 Companies self-selected by respondents by sector and sharing frequency

Characteristics	Sample	
	Respondents	%
<u>Service</u>		
Retail – fashion	247	25.8
Entertainment	126	13.2
Healthcare	100	10.5
Tourism	167	17.5
Banking/financial	147	15.4
Retail – grocery	47	4.9
Others	122	12.8
<u>Sharing frequency</u>		
Rarely	423	44.2
Occasionally	408	42.7
Frequently	125	13.1
Total	956	100

Companies self-selected by respondents (Table 2) mainly belonged to the retail industry (41%), with fashion appearing as the most significant sector, with 247 answers (25.8%) and grocery representing just 47 answers (4.9%). Tourism/hospitality (17.5%) and banking/financial services (15.4%) were also among the top categories mentioned. The “Others” category included services that ranged from telecommunication companies to utilities. Finally, regarding the frequency with which the respondents share personal information online with companies, there was a clear

concentration in two categories, “Rarely” (44.2%) and “Occasionally” (42.7%), with respondents who shared “Frequently” representing only 13.1% of the sample.

In order to test the research hypotheses, an exploratory factor analysis was conducted. Composite measures of identified factors demonstrated good scale reliability according to accepted standards (Hair et al. 2014; Nunnally 1978).

Multiple regression analysis was used to test Perceived Usefulness, Social Influence, Hedonic Motivation, Previous Habits, Perceived Financial Reward/Price Value, Perceived Internet Privacy Risk and Effort Expectancy as drivers and deterrents of consumers’ willingness to share personal data online. Overall, the model explained 40% of the variance in consumers’ willingness to disclose personal data. Findings show that Perceived Usefulness, Social Influence, Hedonic Motivation and Previous Habits have a positive and significant impact in explaining consumers’ willingness to share. Previous Habits was the most significant of the drivers, while Perceived Internet Privacy Risk and Effort Expectancy were confirmed to have a negative and significant impact.

Yet, the research model found Perceived Financial Reward not to be a significant predictor, which proved surprising, since rewards and economic benefits were found to be correlated with consumers’ willingness to disclose personal information in previous studies (Faqih 2016; Mani and Chouk 2017; Venkatesh et al. 2012). However, this wasn’t totally unexpected, since some studies (e.g. Krafft et al. 2017) indicate that monetary incentives to promote the interaction of consumers with the companies might prove to be pointless, as those incentives might be perceived as unappealing or uninteresting. Hypotheses 1 and 2 were therefore partially and totally supported, respectively.

Hypothesis 3 aimed to determine the potential moderating effect of age, gender, experience and type of industry. Results revealed that the proposed moderators were partially or fully supported by the data gathered. Regarding gender, men were found to be more prone to be influenced by Previous Habits of sharing personal data online with companies. Additionally, the results appear to support that women are more likely to be influenced by constructs such as Social Influence, Perceived Financial Reward and Perceived Internet Privacy Risk, which has found partial support in the existing literature (Faqih 2016; Robinson 2017; Sheehan and Hoy 1999; Venkatesh et al. 2012). However, the study also provided results that don’t support existing literature that portrays men as being more sensible to Perceived Usefulness than women (Jai and King 2016; Venkatesh and Morris 2000) or gender as having no effect at all (Lian and Yen 2014). Regarding age, significant differences were found for all the drivers considered in the model, since it was generally established that, the older the individual is, the less influenced it will be by the construct. Yet, no significant differences were found for deterrents. Regarding past experience, generally and as expected, if the respondents had less experience in sharing personal information online with companies, they were less likely to be influenced by the constructs (de Kerviler et al. 2016; Venkatesh et al. 2012).

Finally, regarding service type, several significant differences were identified, which matches similar results in the scarce existing literature (Krafft et al. 2017; Roeber et al. 2015). With the results obtained, it was possible to observe that respondents who had last shared online with companies associated with retail are more prone to be influenced by their previous habits, by the hedonic motivation and the perceived financial reward given; meanwhile, hedonic motivation and the perceived financial reward also proved to be more seriously taken into consideration by those who were in contact with companies who provided hedonic services (tourism/entertainment). However, in both cases, it was possible to ascertain that companies that provided functional services (healthcare, banking/financial) appear to have less of an impact regarding Hedonic Motivation and Perceived Financial Reward, indicating that these are not constructs consumers have in higher consideration when sharing with these companies, contrary to what happens when in contact with retail companies or companies with services of a more hedonic nature. Finally, the results partially reinforce literature indicating that consumers' willingness to disclose personal information is higher for apparel (Krafft et al. 2017) than for functional services, such as banks and telecommunication companies (Roeber et al. 2015). Therefore, Hypothesis 3 was partially supported.

Conclusions and Implications for Theory and Practice

In the wake of data privacy issues and the explosion of Big Data, this study contributes to bridge a gap in the existing literature, identified as a 2016–2018 research priority (MSI 2018). Until now, research on privacy versus personalization dwells on a handful of studies, mainly dedicated to the effect of individualized, targeted marketing activities. To the best of our knowledge, no study developed and tested a comprehensive model of theory-based drivers and deterrents of consumers' willingness to disclose personal information. In addition, this research cross-validated and compared results across consumer's age, gender, and experience, as well as type of industry, thus contributing to a more generalized application of the model. Though most predictors were confirmed, unexpectedly and unlike previous studies, we have concluded that Perceived Financial Reward is not a significant incentive for consumers when deciding whether or not to disclose personal information, although this may vary according to individual characteristics, and most of all according to the type of industry, with retail and hedonic services being more sensitive to this driver.

The study also provides potentially valuable insights for companies who have developed online means of interacting with consumers and that, at one point or the other during the interaction, ask for the consumers' personal information. More precisely, the study indicates that previous habits of online sharing will significantly impact the ultimate decision of sharing data with companies, as well the perceived usefulness and social influence, although hedonic motivation appears to also (but as not significantly) influence it. Surprisingly, the perceived financial reward does not

appear to significantly influence the consumers decision to share their data. The perceived internet privacy risk and the effort expectancy were shown to negatively influence consumers in their willingness to share data online with companies, showing that, despite proliferation of digital means, there might still be some suspicion and unease with online interaction with companies.

Furthermore, the study also indicates that age, gender, and experience will make the consumer act differently when it comes to disclosing information with companies in an online context. Moreover, different industries can have different lessons to take from the study. More precisely, and according to the results, it's possible to see that, although providing personalized financial rewards might have been proven to not be an overall significant construct, it still registered differences between different sectors, indicating that highlighting and providing financial rewards to the consumers of retail and hedonic services might prove valuable. Furthermore, it was possible to see that companies that provide functional services might not have as much to gain for trying to connect with the consumers' hedonic motivation or by providing financial rewards.

However, some limitations should be acknowledged. Though large and diverse, this study used a convenience sample, and therefore generalizations should be performed with care. Moreover, though the model used in the research explains a significant part of consumers' willingness to share personal information, given the complexity of the digital world, there are likely other constructs that could be incorporated as to further strengthen the study of what drives or deters consumers to grant consent to use their data. The situational context could also be further explored, e.g. if the consumer faces financial, time or location constraints, or if data sharing relates to loyalty programs. Concerning the moderators, the type of personal data being requested could also be included in the analysis. Finally, an in-depth qualitative study could also prove able to provide further insights to enrich the conceptual model and its general application.

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