



## Privacy concerns and online purchasing behaviour: Towards an integrated model<sup>☆</sup>



Nuno Fortes<sup>a,\*</sup>, Paulo Rita<sup>b</sup>

<sup>a</sup> Instituto Politécnico de Coimbra, ESTGOH, Rua General Santos Costa, 3400-124 Oliveira do Hospital, Portugal

<sup>b</sup> Business Research Unit, Instituto Universitário de Lisboa (BRU-IUL), Avenida das Forças Armadas, 1649-026 Lisboa, Portugal

### ARTICLE INFO

#### Article history:

Received 26 March 2014

Accepted 12 April 2016

Available online 31 May 2016

#### JEL classification:

M31

L81

#### Keywords:

Privacy concerns

E-commerce

Online purchasing behaviour

### ABSTRACT

This study aims to analyze how privacy concerns about the Internet have an impact on the consumer's intention to make online purchases. A research model was developed establishing that this impact takes place via the connection of privacy concerns with the theories of trust and risk, the theory of planned behaviour and the technology acceptance model. The empirical study was based on an online survey that collected data from 900 individuals. The results confirmed the acceptance of all proposed hypotheses and the overall validation of the research model. Implications and further research suggestions are presented.

© 2016 AEDEM. Published by Elsevier España, S.L.U. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

### 1. Introduction

In recent years, the number of electronic commerce (EC) users increased significantly. According to Eurostat (2014), between 2004 and 2013, the penetration rate of EC increased by 150% in just the European Union (27 countries). However, despite this increase, the proportion of consumers that purchase online is still reduced in most European countries. In 2013, only 38% of European Union consumers made online purchases in the last 3 months and only 14% of firms' turnover is generated from EC. Searching the reasons for this phenomenon, we note that privacy concerns about personal information are the second most important motivation for non-adoption of EC by European Union consumers, just after security concerns.

The privacy of personal information is recognized as a fundamental theme in marketing literature in both offline (Jones, 1991) and online contexts (Miyazaki & Fernandez, 2000). However, the literature has underestimated the role of privacy concerns in EC context, since this variable has been introduced in online shopping models that are, in essence, focused on trust (Chen & Barnes, 2007)

or on perceived risk (Van Slyke, Shim, Johnson, & Jiang, 2006). Moreover, the published studies have focused mainly on the direct impact of privacy concerns in online purchase intention (Eastlick, Lotz, & Warrington, 2006) or in online actual purchase (Brown & Muchira, 2004). Thus, these studies do not provide a theoretical framework that is robust enough to explain how privacy concerns exerts their influence on relevant variables of consumer behaviour that precede the pre-purchase or purchase decision. We consider this fact a gap in the literature that should be overcome.

As such, the research question that guides this study is the following: how privacy concerns in the Internet influence online purchasing intention? This paper aims to develop and validate an online consumer behaviour model that pursues the following specific objectives: (1) The identification of variables that mediate the relationship between privacy concerns and online purchasing intention; (2) The recognition of dependency relationships that are established between privacy concerns and the mediating variables; (3) The recognition of dependency relationships that are established between the mediating variables; (4) The recognition of dependency relationships that are established between the mediating variables and the online purchasing intention.

The paper is organized as follows. First a literature review on privacy, trust, perceived risk and consumer behaviour models is presented. Then, the research hypothesis and the resulting research model are presented, highlighting the role of mediating variables of the relationship between privacy concerns and online purchasing intention. The next chapter is dedicated to the

<sup>☆</sup> An earlier version of this study was presented at AEDEM International Conference 2013 and won the IEDEE Best Paper Award.

\* Corresponding author.

E-mail addresses: [nuno.fortes@estgoh.ipc.pt](mailto:nuno.fortes@estgoh.ipc.pt) (N. Fortes), [paulo.rita@iscte.pt](mailto:paulo.rita@iscte.pt) (P. Rita).

discussion of the methodology used, which is followed by the description of results. Finally, discussion of results, theoretical and managerial implications, limitations and future research suggestions are presented.

## 2. Literature review

### 2.1. Privacy concerns

The information privacy was initially defined as the individual's ability to control the conditions under which his/her personal information is collected and used (Westin, 1967).

The first reference in the literature to an instrument for measuring privacy concern about personal information is the scale called "Concern for Information Privacy" developed by Smith, Milberg, and Burke (1996). In this work, the authors developed a theoretical framework that conceptualizes privacy concerns about personal information in the following five key dimensions: collection, which refers to the concern that large amounts of personal data are collected and stored; unauthorized secondary internal use, with regard to the concern that the information collected for a particular purpose is used by the organization for other purposes without the consent of the individual; unauthorized secondary external use, which refers to the concern that the information collected for a particular purpose is used for another purpose after its disclosure to an external organization; improper access, which refers to the concern that personal data be made available to persons who are not properly authorized to do so; errors, pointing to concerns that the protection against accidental or deliberate errors in personal data would not be appropriate.

The protection of information privacy in EC began attracting the attention of the official authorities including the Federal Trade Commission (FTC) in the United States of America. This entity has developed a set of guidelines called Fair Information Practices (Gillin, 2000) consistent with previous research, namely the study of Smith et al. (1996). In line with this study, the FTC guidelines incorporated rules about the collection of information by sellers, the correction of errors in the information collected, the communication to the consumers about the use of their information for other purposes than the initial and the prevention of unauthorized access to information. Similarly, the FTC guidelines were consistent with the studies of Culnan and Armstrong (1999) and Hoffman, Novak, and Peralta (1999), establishing that the sellers must provide consumers with control over all aspects related to the collection and use of information.

Based on the guiding principles of the FTC, Sheehan and Hoy (2000) identified three underlying dimensions of online privacy concern: control, short-term relationship and long-term relationship. The control dimension refers to the user's degree of control over the collection and use of his/her personal information. The short-run relationship dimension is related to the individual's concern with the type of information that provides online, as well as the counterpart received in exchange of that information. The long-term relationship dimension suggests that the consumer and the organization already have an established relationship, pointing to the level of individual's concern arising from the online communication and interaction from both.

In order to maximize the potential of EC, it is especially important to realize in detail consumers' online information privacy concerns. Despite a few pioneering studies addressing the issue of online privacy in general, such as Miyazaki and Fernandez (2000) and Sheehan and Hoy (2000), no studies have provided a specific theoretical framework to privacy concerns in the context of the Internet.

The exception arises from the study of Malhotra, Kim, and Agarwal (2004), which presents a conceptual framework and develops a specific scale to online privacy concerns. The authors argue that Internet user's information privacy concerns focus on three major dimensions: collection, control and awareness. Collection is defined as the individual's level of concern about the amount of personal data possessed by others, in comparison with the benefits received. In turn, control reflects the ability of consumers to be heard on how personal data is used and on its access, modification and deletion. Finally, awareness is reflected in the individual's degree of information about the organization's privacy practices.

The literature has shown considerable interest in issues related to online privacy, having incorporated this construct in numerous studies of consumer behaviour, several of which are anchored in the theory of planned behaviour (TPB) and in the technology acceptance model (TAM). These studies show that privacy concern has a positive influence on perceived risk (e.g. Van Slyke, Shim, Johnson, & Jiang, 2006) and a negative influence on trust (e.g. Eastlick et al., 2006; Liu, Marchewka, Lu, & Yu, 2005; Van Dyke, Midha, & Nemati, 2007), on intention to buy online (e.g. Liao, Liu, & Chen, 2011; Midha, 2012; Taylor, Davis, & Jilapalli, 2009) and on online buying behaviour (e.g. Dinev et al., 2006a, 2006b).

### 2.2. Trust

Trust in the online environment poses a number of challenges and contains specificities that cannot be ignored. Due to the unique characteristics inherent to the EC environment, such as the inability to directly touch and see the product and the lack of face to face interaction, consumers feel a lot of uncertainty and a huge risk in their online purchasing decisions (Hoffman et al., 1999). The resulting lack of trust leads to the hesitation of many consumers in expressing the behaviours that are necessary to a wider dissemination of EC, such as sharing personal information and make online purchases (McKnight, Choudhury, & Kacmar, 2002). Thus, the lack of consumer trust is assumed as a strong barrier to the growth of EC.

In a study directed to the individual consumer's intention to buy online, Jarvenpaa, Tractinsky, and Vitale (2000) defined trust as the belief or expectation that the consumer can take the word or promises of the retailers and expect that they will not take advantage of its vulnerability.

Lee and Turban (2001) developed a theoretical model that establishes that online trust depends on four major determinants: trustworthiness of the Internet merchant, conceptualized in terms of its ability, integrity and benevolence; trustworthiness of the Internet shopping medium, defined in terms of technical competence, reliability and medium understanding, Internet shopping contextual factors, such as the effectiveness of third party certification and of security infrastructure, and other factors, such as size of Internet merchant, demographic variables, and prior related experience.

Pavlou (2003) defines trust in the context of business-to-consumer EC as the belief that allows consumers to willingly become vulnerable to online retailers, after taking into consideration their characteristics and the environment in which transactions are performed. The literature has shown considerable attention to online trust, having incorporated this construct in numerous studies of consumer behaviour, many of which are based on the TPB and on the TAM. These studies have shown the negative influence of trust on perceived risk (e.g. Kim, Ferrin, & Rao, 2009; Teo & Liu, 2007; Van Slyke et al., 2006) and the positive influence on attitude towards online buying (e.g. Ha & Stoel, 2009; McCole, Ramsey, & Williams, 2010; Palvia, 2009), on intention to buy online (e.g. Kim et al., 2009; Kim, Kim, & Park, 2010; Liao et al., 2011) and on online buying behaviour (e.g. Dinev et al., 2006b).

Download English Version:

<https://daneshyari.com/en/article/1009102>

Download Persian Version:

<https://daneshyari.com/article/1009102>

[Daneshyari.com](https://daneshyari.com)