

THE INFLUENCE OF CONSUMERS' COGNITIVE AND PSYCHOGRAPHIC CHARACTERISTICS ON PERCEIVED DECEPTION IN ONLINE AND OFFLINE SHOPPING¹

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ABSTRACT

In this paper, we examine the role of consumers' characteristics in their perceptions of retailer's deceptive practices (perceived deception) and their differential effects on perceived deception associated with online vis-à-vis in-store shopping. Building on several theories, we hypothesize that the antecedents of perceived deception in traditional settings are the same to those on the Internet, while the intensity of the impact of these antecedents differs between the online and offline environment. Results from two samples of real consumers in online versus offline shopping channels show that both cognitive and psychographic consumers' variables play an important role in perceived deception, leading to a different perceptions about deceptive practices related to online versus offline retailers.

Keywords:

Perceived deception, online shopping, retail channel, consumer characteristics, cognitive factors, psychographics

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1. Introduction

Deception is a general phenomenon that can occur in virtually any form of communication under conflict of interest (Johnson et al., 2001). Tactics involving deception and other variants of untruthfulness (e.g., misleading advertisements, misrepresentations of product information) are common within business disciplines, and raising several ethical questions and issues for companies, consumers, and policy makers (Mujtaba and Jue, 2005; Fulmer et al., 2008). In the marketing field, deception has received special attention in the areas of advertising and personal selling/traditional retailing. Prior research on deceptive advertising has focused largely on identifying the specific types of claims that lead consumers to make erroneous judgments and its consequences on consumers' beliefs, affect and behavioral intentions (e.g., Burke et al., 1988; Ingram et al., 2005; Darke and Ritchie, 2007; Darke et al., 2009).

Only recently researchers have paid attention to the topic of deception in online retailing. These studies have examined the specific types of deception tactics that may arise over the Internet (Grazioli and Jarvenpaa, 2001; Mavlanova et al., 2008), or the type of signals (online safety cues, trust mechanisms) that can lead consumers to make erroneous judgments (Grazioli and Jarvenpaa, 2000; Grazioli, 2004; Mitra et al., 2008). Other studies have analyzed deception consequences on consumers' relational variables (Román, 2007; Román and Cuestas, 2008; Goles et al., 2009; Román, 2010). Although deception and fraud are certainly not new phenomena (e.g., DePaulo et al., 1989; Hyman, 1989), it is argued that the specific characteristics of Internet technology have changed some of the conditions under which these deceptive practices are carried out, and as a result have introduced new elements, worthy of scientific study (Grazioli and Jarvenpaa, 2001). Specifically, the Internet: (1) makes the identity of the parties involved in communications and transaction difficult to verify; (2) increases the deceivers' reach; (3) makes deceptive practices less costly, and (4) makes legal prosecution of perpetrators generally more difficult.

The present research hopes to be an important step in that direction. In this paper, we examine the role of consumers' characteristics in their perceptions of retailer's deceptive practices (perceived deception) and their differential effects on perceived deception associated with online vis-à-vis in-store shopping. As the shopping experiences are different, consumers may vary in the criteria and the weights they attribute to them to form their ethical expectations and perceptions. Building on several theories (Prominence-Interpretation Theory, Theory of Deception, Persuasion Knowledge Model, Elaboration Likelihood Model), we hypothesize that the antecedents of perceived deception in traditional settings are the same to those on the Internet, while the intensity of the impact of these antecedents differs between the online and offline environment. That is to say, the relative importance of the antecedents of online and offline perceived deception is investigated to see if certain antecedents have a more pronounced effect in either channel.

2. Conceptual model and hypotheses

We expect and propose that the extent to which the Internet-specific features may help consumers to detect deception depends on individuals' differences in their cognitive and psychographic characteristics. Cognitive characteristics refer to a person's knowledge structure and information seeking and processing style, which are mainly associated with the person's learning process and prior experience, whereas psychographic characteristics capture the person's innate beliefs, disposition or inclination (Wang et al., 2006). For instance, online product information can be both abundant and available. However, such information can come with significant search costs, particularly for novice Internet users (Burbules, 2001). For this kind of consumers, online information search may lead to time and energy costs, and possible excessive cognitive efforts. Because the amount of successful information gathering is heavily dependent upon users' skills and motivation, novice online buyers may feel uncomfortable when they have to locate, select and interpret online information and, thus, may prefer salespeople who can customize answers to their information needs, which facilitates purchase choice (Rieh and Danielson, 2007). On the contrary, experienced online buyers appreciate the direct access to information without having to go through a salesperson (Wolfenbarger and Gilly 2001; Anckar, 2003; Lokken et al., 2003).

All the above suggests that consumers will eventually make different assessments of the trustworthiness of the seller's information because of such assessments are made in relation to an individual's existing knowledge (i.e., cognitive factors) and beliefs (psychographic factors), and that this background often drives information-seeking strategies (Rieh and Danielson, 2007). Interestingly, although the same product information (amount and sufficiency of information, degree of truthfulness, clarity, relevance, and intent) can be presented to consumers, they can make different evaluations of its trustworthiness or deceptiveness due to several reasons. First, since individuals differ in how they process information and also in what information they process, a piece of information can be relevant for one consumer but irrelevant to another (Sternthal and Craig, 1982; Rowley, 2000). Also, interpretation biases can be present in how individuals integrate information in their minds. Past research has frequently found that subjects use incorrect cues or attributes. Sometimes they use only a few cues, and have difficulty in weighting each of these cues and applying a consistent decision rule (Dawes et al., 1989). Second, different perceptions about deception can also be due to the underlying assumptions on the user's part. Consumers may already have an incorrect view of some information, and therefore the presentation of information may not be deceptive because the false beliefs are based on consumers' prior misconceptions (Russo et al., 1981). Furthermore, since consumers, when presented with a particular product claim or information, may derive different meanings from it, such claim or information may be deemed informative or deceptive depending on the meaning the particular consumer attaches to it (Compeau et al., 2004). Finally, consumers possessing different levels of knowledge and prior experience are expected to evaluate and draw conclusions about deceptive issues differently. For instance, as consumers come to a retailer web site with different skills and knowledge of Internet navigation, it is possible some consumers misinterpret information presented to them; however, online retailer may not be acting in a manner that is in any way deceitful (Riquelme and Kegeng, 2004).

2.1. The antecedents of online and offline deception

This study particularly focuses on consumer's perceptions of *product-related* deceptive information practices, one deceptive tactic that can be performed both in online and offline environments. We are drawing from early studies on deception in traditional retailing and advertising (Carson et al., 1985; Gardner, 1975; Hyman, 1990; Aditya, 2001), as well as recent work on Internet deception (Grazioli and Jarvenpaa, 2003; Mavlanova et al., 2008; Román, 2010) to conceptualize our main variable.

Little attention has been given to the fact that, in the same way that not all manipulation tactics have the same potential to deceive, not all consumers are equally susceptible to deception (e.g., Ekman, 1992). As argued earlier, a requirement for deception actually occurs, is that consumer must believe in which the seller affirms (Compeau et al., 2004). Even if it is assumed that deception attempts offer enough information to alert consumers of such attempts, they can failed to recognize the deception cues or not carefully evaluate the deceptive offer and proceed without ever noticing or considering the possibility that they will be deceived (Langenderfer and Shimp, 2001). We have followed existing theoretical frameworks of both deception and credibility assessment (e.g., Johnson et al., 1992, 1993, 2001; Fogg, 2003), and persuasions models (Chaiken, 1980; Petty and Cacioppo 1986; Fiske and Neuberg, 1990; Friestad and Wright, 1994), to select the following variables – *Internet-based information search*, *product knowledge*, *Internet perceived usefulness*, *shopping enjoyment*, *materialism* and *risk aversion*– as antecedents of online and offline deception, as well as to propose the following hypotheses²:

H1: The positive effect of Internet-based information search in decreasing consumer's perceived deception will be higher in the online context than in the offline context.

H2_a: The positive effect of product knowledge in decreasing consumer's perceived deception will be higher in the online context than in the offline context.

H2_b: The higher a consumer's knowledge about the product, the lower the amount of Internet-based search, both in the online and the offline context.

² Please, be aware that space constraints do not allow us to justify individually each hypothesis.

H3_a: The influence of Internet perceived usefulness on consumer's perceived deception will be positive in the online context but negative in the offline context.

H3_b: The higher consumer's Internet perceived usefulness, the higher the amount of Internet-based search, both in the online and the offline context.

H4_a: The positive effect of shopping enjoyment in decreasing consumer's perceived deception will be higher in the offline context than in the online context.

H4_b: The higher consumers shopping enjoyment, the lower the amount of Internet-based search, both in the online and the offline context.

H5_a: The negative effect of materialism in increasing consumer's perceived deception will be higher in the offline context than in the online context.

H6_a: The negative effect of risk aversion in increasing consumer's perceived deception will be higher in the online context than in the offline context.

H6_b: The higher consumer's risk aversion, the lower Internet perceived usefulness, both in the online and the offline context.

H6_c: The higher consumer's risk aversion, the lower Internet-based information search, both in the online and the offline context.

3. Method

3.1. Data collection and measures

To test our hypotheses, we collected data on online and offline real consumers in the retail context of technology products. A marketing research firm was hired to assist with the data collection. Final sample consisted in data from 409 consumers, 208 for online context and 201 for store context. Existing multi-item scales, adapted to suit the context of the study, were used for the measurement of the constructs (see items in Appendix A). Except product knowledge, all scales consisted of 7-point Likert questions, ranging from "1=strongly disagree" to "7=strongly agree". Online perceived deception was measured with six items from Román (2010), whereas offline perceived deception involved six items adapted from Lagace et al. (2001). Product knowledge included two items adapted from Jepsen (2007), which measured consumer's objective knowledge about the product. Internet perceived usefulness was assessed using a three-item scale proposed by Porter and Donthu (2006). Three items from Donthu and Garcia (1999) were used to measure shopping enjoyment. Materialism was measured using three items adapted of the sub-scale "success" used by Richins and Dawson (1992) and Keng et al. (2000). Consumer's risk general aversion involved three items from Mandrick and Bao (2005). Finally, Internet-based information search captured the percentage of information gathered online versus offline (Levin et al., 2003; Jepsen, 2007).

3.2. Preliminary results

A confirmatory factor analysis (CFA) by means of LISREL 8.72 was conducted separately for the two samples to assess measurement reliability, convergent and discriminant validity. Both online ($\chi^2(169) = 325.15$ $p < .01$; GFI=.87; AGFI=.82; CFI=.96; RMSEA=.06; RMSR=.06) and offline ($\chi^2(169) = 314.56$ $p < .01$; GFI=.87; AGFI=.82; CFI=.96; RMSEA=.06; RMSR=.05) measurement model had a reasonable good fit. Convergent and discriminant validity of the scales were successfully tested using standard procedures (Fornell and Larcker 1981; Bagozzi and Yi, 1988). The results of the structural model (SEM) indicated a good fit between the model and the observed data, both in online ($\chi^2(174) = 336.35$ $p < .01$; GFI=.87; AGFI=.85 CFI=.96; RMSEA=.06; RMSR=.06) and offline context ($\chi^2(174) = 317.64$ $p < .01$; GFI=.87; AGFI=.85 CFI=.96; RMSEA=.06; RMSR=.06). Figure I shows the standardized coefficients for our research model in both online and offline context. Further, and after determine that the measurement model was invariant across the two samples, a comparison was performed to establish whether the hypothesized differences between the paths linking between online and offline context were statistically different (Table I). All six of the paths related to the direct effects on perceived deception (H1, H2a, H3a, H4a, H5a, H6a) proved different between online and offline

context, supporting our main hypotheses. Specific results of hypothesized relationships are reported in Figure 1.

FIGURE I
Structural Model Estimated (Standardized coefficients for online/offline context)

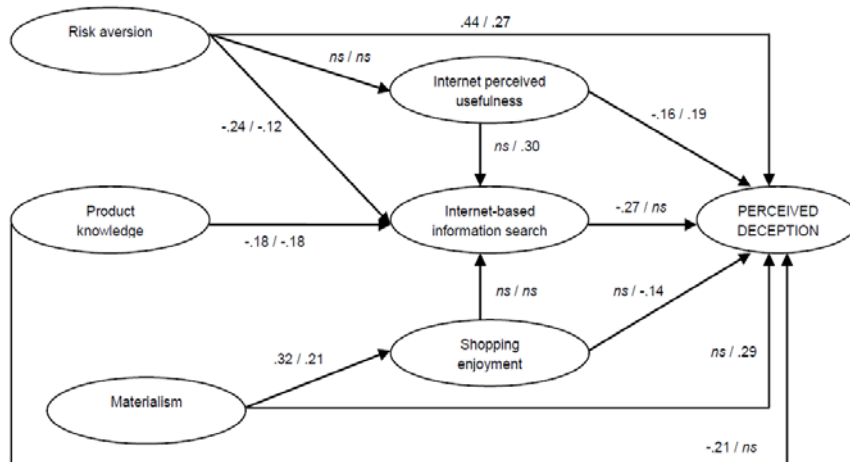


TABLE I
Model comparison and parameter estimates

Model	X ²	GL	P	GFI	NNFI	CFI	RMSEA	SRMR
A: Restricted	863,02	393	0,00	0,82	0,93	0,94	0,08	0,10
B: Unrestricted	814,16	383	0,00	0,88	0,94	0,94	0,07	0,08
X ² change	48,86	10	0,00					
ONE DEGREE-OF-FREEDOM TEST:				STANDARDIZED PATH LOADINGS				
Paths 1-12 compared with restricted model								
Free path:				X ² change	P	Online Context	t	Offline Context
<i>Dependent variable: Perceived deception</i>								
H1: Internet-based information search				3,77	0,05	-0,27	-4,10***	-0,05
H2 _a : Product knowledge				4,62	0,03	-0,21	-2,63***	-0,06
H3 _a : Internet perceived usefulness				13,15	0,00	-0,16	-2,45**	0,19
H4 _a : Shopping enjoyment				3,53	0,06	0,01	0,10	-0,14
H5 _a : Materialism				10,23	0,00	-0,02	-0,26	0,29
H6 _a : Risk aversion				4,47	0,03	0,44	6,04***	0,27
<i>Dependent variable: Internet-based information search</i>								
H2 _b : Product knowledge				0,01	0,92	-0,18	-2,22**	-0,18
H3 _b : Internet perceived usefulness				3,58	0,06	0,11	1,56	0,30
H4 _b : Shopping enjoyment				2,05	0,15	-0,03	-0,43	0,07
H6 _c : Risk aversion				0,99	0,32	-0,24	-3,29***	-0,12
<i>Dependent variable: Shopping enjoyment</i>								
H5 _b : Materialism				0,01	0,92	0,32	4,37***	0,21
<i>Dependent variable: Internet perceived usefulness</i>								
H6 _b : Risk aversion				1,28	0,26	0,09	1,15	0,11

* $p < .1$. ** $p < .05$. *** $p < .01$.

4. Discussion

General theoretical frameworks of how consumers respond to perceived retailers' deceptive practices have provided important insights, yet empirical research concerning the antecedents of such perceptions, especially from the consumer's perspective, is surprisingly limited. This investigation extends the literature of deception by exploring the possibility that individual differences in cognitive

and psychographic factors can lead consumers to make different assessments about deceptive practices in retailing settings. In addition, this study also makes a significant contribution to the literature by proposing and analyzing the role of the same antecedents (consumer's characteristics) on perceived deception, that is, their potential different effects associated with online versus in-store shopping. As such, it is possible to investigate whether certain factors play a more articulated role in either channel, and whether the strength of specific relationships differs between online and offline buyers. This comprehensive research approach increases our understanding of how consumers perceive deception in different shopping channels. Results from this study support our basic assumption about the different role that individual characteristics play on perceived deception in online versus offline shopping channels, which can offer important implication for both academic and retailers.

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