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The relationships among consumers' ethical ideology, risk aversion and ethically-based distrust of online retailers and the moderating role of consumers' need for personal interaction

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Abstract Consumer distrust is only recently beginning to be perceived as an important e-commerce issue and, unlike online trust, the nature and role of distrust is much less established. This study examines the influence of two important consumer characteristics (*ethical ideology* and *risk aversion*) on consumer's ethically-based distrust of online retailers. Also, the moderating role of consumer's need for personal contact with sales staff is tested. Results from 409 online consumers confirm that both relativist-based ethical ideology and risk aversion are strongly and positively related to consumers' distrust. Interestingly, our findings show that positive effects of relativism and risk aversion on consumer's distrust are moderated by consumers' need for personal interaction, which is more pronounced for those consumers with a high need for personal interaction with retail salespeople.

Keywords Ethically-based distrust · Online retailing · Ethical ideology · Risk aversion · Need for personal interaction with sales staff · Moderating effects

Introduction

Commercial use of the Internet continues to increase and online shopping is becoming more and more a part of our daily lives (Van Noort et al. 2008). Yet the full potential of business-to-consumer e-commerce can only be realized if consumers feel comfortable making online transactions with unfamiliar retailers (Benamati et al. 2006). Unlike bricks-and-mortar transactions, online transactions mean depending on unseen and often unknown retailers and doing business on the Web, which exposes buyers to the additional risk of unethical/opportunistic seller behavior (McKnight et al. 2003; Pavlou and Gefen 2004). Since neither product characteristics nor retailer identity can be fully assessed during the transaction, cheating is easier (Román 2010; Long-Chuan et al. 2013). The many problems publicized involving scams and personal information misuse (Grazioli and Jarvenpaa 2000) have further increased consumers' awareness of the risks of online shopping (Pavlou and Gefen 2004; Yang et al. 2009). Consequently, many consumers have become more skeptical of online retailers' trustworthiness (McKnight et al. 2004; McKnight and Choudhury 2006). Some researchers have proposed that suspicion and skepticism reflect not a lack of trust, but rather reveal a distinct "distrust" in consumers' minds (Lewicki et al. 1998; Benamati and Serva 2007).

Ultimately, these growing concerns about unethical actions in online retailing can harm and restrain Internet retail growth (Mukherjee and Nath 2007; Román 2010). Therefore, today's most effective online vendors not only must encourage trust, but also embrace and manage suspicion, concern, and wariness on the part of their customer. The presence of distrust in online settings has attracted, in fact, interest among some researchers on account of its strong negative impact on business transactions (McKnight et al. 2003; Benamati et al. 2006). Importantly, research reveals that distrust has a stronger effect than trust when consumers consider engaging in high-risk Internet behaviors like online shopping (Cho 2006; McKnight et al. 2003,

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2004; McKnight and Choudhury 2006; Ou and Sia 2010; Chang 2012; Chang and Fang 2013). Nevertheless, consumer distrust is only recently beginning to be perceived as an important e-commerce issue and, unlike online trust, the nature and role of distrust is much less established (Cho 2006; McKnight and Choudhury 2006; Benamati and Serva 2007).

There is also strong evidence that consumers may differ drastically in their attitudes and beliefs regarding online retailers' ethical behavior (Antin et al. 2011). Research suggests that, apart from consumers' ethical ideology, risk perceptions are strongly related to ethical judgments, intentions, and perceptions of an ethical issue (Jones 1991; Leonidou et al. 2012). Yet the effects of these consumer's characteristics on online distrust remain unknown. Therefore, the first objective of this study is to investigate the influence of two important personality traits: consumers' ethical ideology (idealism and relativism) and risk aversion in ethically-based distrust of online retailers. As we will show in the next section, there are other important antecedents of online distrust, such as website characteristics. Yet, these variables are not included in our framework because they have received a lot of empirical attention, and there is consistent evidence about their effects in online distrust. In a similar vein, the research has long argued that one of the reasons for the persistence of online distrust is, in fact, the lack of personal interaction with retail salespeople while shopping (Anckar 2003; San Martín and Camarero 2008). Many consumers like to have contact with sales personnel (Keeling et al. 2007) and they miss this when searching for information or shopping on the Internet (Anckar 2003; Jepsen 2007). Our second objective is, therefore, to examine to what extent consumers' need for personal interaction with retail salespeople moderates the influence of ethical ideologies and risk aversion on ethically-based distrust of online retailers.

In what follows, we provide a review of the literature and outline our conceptual framework. Our hypotheses are then presented and tested. Finally, the implications of the study are discussed.

Literature review

The views on trust and distrust are very varied since researchers conceptualize them according to their own disciplinary perspective. There seems to be a general consensus in the business literature, however, that trust and distrust concern the expectancy aspect of an exchange partner's behavior. In particular, while trust is viewed as "confident positive expectations regarding another's conduct", distrust refers to "confident negative expectations regarding another's conduct" (Lewicki et al. 1998, p. 439). Specifically, distrust means a belief that a partner will be

incompetent, exhibit irresponsible behavior, violate obligations and will not care about one's welfare or may even intend to act harmfully (Lewicki et al. 1998; Kramer 1999; Darke et al. 2010). While distrust is defined with the reciprocal terms of trust, these authors argued that distrust should be thought of as qualitatively distinct phenomena from trust. More specifically, distrust is not just the absence of trust, but the active expectation that the other party will behave in a way that violates one's welfare and security (Kramer 1999). In fact, trust and distrust are sustained by quite distinct cognitions: whereas hope, faith or assurance comprises high trust, high distrust is characterized by fear, suspicion or cynicism about negative outcomes and a watchful wariness or even vigilant monitoring for negative behavior from others (McKnight and Chervany 2001). In addition, while both serve as risk-coping mechanisms, distrust may exert a more critical role than trust in consumer decisions (Singh and Sirdeshmukh 2000), especially in the high-risk environment of online shopping (McKnight et al. 2004; Chang and Fang 2013). Furthermore, distrust is not only important because it allows one to avoid negative consequences, but also because general distrust of other people and institutions is becoming more widespread (Mitchell 1996), which means that it may, to some extent, be displacing trust as a social mechanism for dealing with risk (McKnight and Chervany 2001).

Negative feelings, such as fear or being wary or nervous, are often used to describe people's feelings about transacting on the Web in general (McKnight et al. 2004). Several scholars have argued that online distrust would be more important than online trust of risk-laden Web relationships because distrust embodies these negative feelings (McKnight et al. 2004; Ou and Sia 2010; Chang 2012). Yet few have examined distrust explicitly in the e-commerce context, compared to the attention devoted to online trust. Some e-commerce researchers discuss aspects of both trust and distrust in their studies but do not always delineate these concepts clearly. For example, Grazioli and Jarvenpaa (2000) and Grazioli and Wang (2001) use trust as a construct in their models, but also include "perceived deception", a construct with distrust implications that they describe as "suspicion"—a synonym for distrust (McKnight et al. 2004). Gefen (2002) refers to consumers who doubt or question the integrity, benevolence or competence of an online retailer. Yet this author relates doubt and questioning to the trust concept rather than to the distrust concept. Hoffman et al. (1999) use the term "mistrust" once and the term "lack of trust" three times to highlight Web problems, but do not refer to distrust as a separate concept from trust.

However, as it can be observed in Table 1, some researchers have recently identified online distrust as a distinct construct that is related to, yet different from,

Table 1 A summary of prior empirical studies examining the antecedents and consequences of consumers' online distrust

Authors	Conceptualization of the main variable	Context of the study	Relevant findings
Hsiao (2003)	Two sub-constructs based on Sitkin and Roth (1993): 1. Reliability-related distrust (relating to technical competence) 2. Value-oriented distrust (relating to cultural assumptions)	56 merchants: 15 intermediaries (managers and consultants directly involved in building an electronic marketplace), and 41 prospective adopters (all senior executives in their companies)	Perceived risk associated with e-marketplace adoption (relating to technical competence and intentional trust) increases the level of reliability-related distrust among adopters towards both the intermediary and the e-marketplace, whereas perceived incongruence among cultural beliefs embedded in e-marketplace and prospective adopters' cultural assumption about commerce engenders value-oriented distrust
			Both reliability-related and value-oriented distrust engender fears that lead to resistance to e-marketplace adoption. Technical remedies (e.g., institution-, reputation- and technology-based trust building mechanisms) reduce reliability-related distrust by removing adoption barriers and restoring online trust, but they are ineffective and even counterproductive when it comes to addressing the value-oriented basis of distrust/fear
			The resistance to e-marketplace adoption is concerned with technological features as well as the transfer of incongruent trust-production mechanisms
McKnight et al. (2003) and (2004)	Distrust as the belief that protective structures that areconducive to situational success are not in place (institutional-based distrust)	1,048 students from three large U. S. universities referring to an online legal advice provider	Disposition to trust and distrust: (a) factor separately, (b) co-exist, and (c) have differential consequences
	Disposition to distrust: a tendency to not be willing to depend on or become vulnerable to general others, accompanied by feelings of worry, fear, or concern		Faith inhumanity (disposition to trust) tended to predict structural assurance (institutional-based trust) but not no-structural-assurance, while suspicion of humanity (disposition to distrust) was the major predictor of no-structural-assurance (institutional-based distrust)
			Disposition to trust and trust-related concepts affects low-risk Web perceptions (perceived site quality and willingness to explore) more than do distrust-related concepts; while disposition to distrust and distrust-related concepts affects high-riskperceptions (willingness to depend on the Web site) more than dotrust-related concepts
Pavlou and Gefen (2004)	Distrust as a perceived risk: consumers' fears that stem from online sellers' potential for opportunistic behavior.	274 consumers in Amazon's online auction marketplace referring to its community of online sellers and Amazon as the intermediary.	The perceived effectiveness of feedback mechanisms and escrow services combined with consumers' trust in the intermediary increased consumers' trust of the community of sellers in an online marketplace, even when controlling for trust propensity. Consumers' trust, in turn, reduced perceived risk (distrust) and increased their intentions to transact, even when past experience and sellers' performance were included in the model
			Contrary to their expectations, the proposed institutional structures did not have a direct impact on perceived risk (distrust), influencing it only indirectly, through trust

Table 1 continued

Authors	Conceptualization of the main variable	Context of the study	Relevant findings
Pavlou and Gefen (2005)	Distrust as a Psychological Contract Violation (PCV): consumer's overall perception that the seller community has generally failed to fulfill their contractual obligations.	404 consumers in eBay's (270) and Amazon's (134) auction marketplaces referring to their community of online sellers and eBay and Amazon as the intermediaries.	Consumers' perception of PCV with the entire community of sellers in a marketplace directly influences trust, perceived risk, price premiums, transaction intentions, and consumer's beliefs about institutional structures. PCV with the community of sellers causing consumers to change their decision-making mode from a trust-based one toward a suspicious or risk-basedone. Their results support the moderating role of PCV with the community of sellers on the relative impact of institutional structures on trust and perceived risk, and also on the role of trust and of perceived risk on transaction intentions. The study also identifies two key antecedents of PCV with the community of sellers: (1) the consumer's past experience (quality of the consumer's own encounters with particular sellers in a marketplace), and (2) the sellers' past performance (overall reputation of sellers in the specific marketplace)
Benamati et al. (2006)	Distrust as an intention: the unwillingness to becomevulnerable to a trustee having consideredcharacteristics of that trustee.	500 college students located across two different universities referring to an online bank.	Trust and distrust are distinct constructs. Trustworthiness of the online bank is negatively related to distrust, and distrust has a negative effect on intention to use
Cho (2006)	Distrust as a positive expectation of injurious action.	881 consumers referring to an online retailer (books vs. clothing)	Benevolence (i.e., motivational dimension) fosters trust, while competence (i.e., instrumental dimension) reduces distrust. The impact of distrust on reducing self-disclosure (risk-taking behavior) is greater than that of trust on enhancing it
McKnight and Choudhury (2006)	Two sub-constructs based on McKnight and Chervany(2001): 1. Distrusting beliefs (the extent to which one believes that the other party does not have beneficial characteristics) 2. Distrusting intention (not willing to depend on the other party).	571 undergraduate students referring to an online legal advice provider	Distrusting beliefs, distrusting intention, and institutional-based distrust are consistently distinct from their trust construct counterparts because: a) they are empirically discriminant, and b) they predict differently from their respective trustconcepts.
Pavlou et al. (2007)	Distrust as a perceived uncertainty in online transactions: the degree to which theoutcome of a transaction cannot be accurately predicted bythe consumer due to online retailer and product quality uncertaintyfactors.	521 consumers: 198 referring to an online retailer (books), and 173 referring to a specific group of online retailers in general (online prescription filling).	Perceived uncertainty (distrust)has a significant negative impact on purchase intentions over time (longitudinal analysis), that is moderated by purchase involvement. Perceived information asymmetry, fears of online retailer opportunism, information privacy concerns, and information security concerns increases consumer's perceived uncertainly of online exchange relationships. Four influential factors built through signals—trust, website informativeness, product diagnosticity, and social presence—act as uncertainty mitigators reducing the uncertainty's destructive impact

Table 1 continued

Authors	Conceptualization of the main variable	Context of the study	Relevant findings
Dimoka (2010)	Distrust as a set of beliefs. Two dimensions based on McKnight and Chervany (2001): 1. Discredibility (concerns about the trustee's competence, honesty, and reliability) 2. Malevolence (concerns about the trustee's commitment to the trustor's welfare).	192 university students in the context of eBay's auction marketplace	Whereas trust is associated with brain areas linked to anticipating rewards, predicting the behavior of others, and calculating uncertainty, distrust is associated with brain areas linked to intense negative emotions and fear of loss
			There is a clear distinction in the brain areas associated with the dimensions of trust and distrust with credibility and discredibility being mostly associated with the brain's more cognitive areas, while benevolence and malevolence are mostly associated with the brain's more emotional areas
Ou and Sia (2010)	Distrust as a negative expectations regarding an online retailer's conduct, characterized as suspicion, wariness, and fear of transactions	324 university students in the B2C online purchasing context	Trust and distrust toward the online retailer are two separate concepts and can coexist in some individuals
			Trust and distrust have different determinants: distrust is determined by consumers' functional perception (overall evaluation of a website's basic functionality and essential features to carry out the transactional exchanges as an online store/retailer), while trust is largely predicted by motivating perception (overall evaluation of the degree that a website motivates visitors to browse and buy from it).
			Distrust, as a negative-valent sentiment, overwhelms the effect of trust as a positive-valent sentiment in shaping a consumer's buying intention
Zhang et al. (2011)	Distrust as the belief that the online retailer does not make good faith agreements, does not tell the truth, and does not fulfill promises	360 university students in the B2C online purchasing context	Online relationship quality (customer's trust on and satisfaction with an online retailer) was positively influenced by online retailer characteristics (website usability, expertise in order fulfillment and reputation) and negatively influenced by perceived malevolent online retailer behavior (distrust in online retailer behavior)
Chang (2012)	Distrust as a positive expectation of an online retailer's injurious action	260 consumers referring to an online retailer	Propensity to distrust and brand strength significantly influence online distrust. Brand strength is likely to be a distrust-avoiding factor. Navigation/presentation and privacy/security do not have a significant influence on online distrust
			Online trust is distinct from online distrust. Online trust affects low-risk Internet behaviors more than online distrust does, while online distrust affects high-risk Internet behaviors more than does online trust
Chang and Fang (2013)	Distrust as a positive expectation of an online retailer's injurious action	1.153 online consumers	Different consumer and website characteristics are proposed to influence online trust and distrust, and online trust engenders different behavioral outcomes to online distrust
			Propensity to distrust and brand strength significantly influence online distrust. The remaining antecedents do not have a significant influence on distrust.

Source Own elaboration

online trust, showing that these two concepts predict and are predicted by different constructs and have distinct effects on behavior (McKnight and Chervany 2001; McKnight et al. 2003, 2004; Pavlou and Gefen 2004, 2005; Cho 2006; McKnight and Choudhury 2006; Chang 2012; Chang and Fang 2013). For example, in predicting consumer's intentional outcomes, there is strong and consistent evidence in previous studies that trust and distrust generate asymmetric effects on behaviors with different risk levels. In particular, studies have generally found that whereas trust has a stronger effect than distrust in predicting consumer's low risk or relational decisions, such as the willingness to explore an online retailer's website (McKnight et al. 2003, 2004), distrust was overwhelmingly more important when predicting high risk-related consumer behaviors, such as willingness to follow website advice (McKnight et al. 2003, 2004; McKnight and Choudhury 2006), willingness to provide personal information to the online retailer (Cho 2006; Chang and Fang 2013), or purchasing intentions from a retailer's website (Ou and Sia 2010; Chang 2012; Chang and Fang 2013). These findings highlight the critical role that online distrust can play in the high risk context of online shopping-related activities and show that distrust can displace trust as a basis of consumer's e-commerce decisions.

Table 1 shows how the literature has defined and operationalized the distrust construct in various ways, such as a general disposition (McKnight et al. 2004), as a belief or expectancy (McKnight et al. 2003; Cho 2006; Ou and Sia 2010; Zhang et al. 2011; Chang 2012; Chang and Fang 2013), as a perceived risk or uncertainty (Pavlou and Gefen 2004; Pavlou et al. 2007), and as an intention (Benamati et al. 2006; McKnight and Choudhury 2006). A common point in all of these definitions, however, is the idea that individuals distrust others (a particular website, institution, or people generally) because they find them untrustworthy. In defining qualities involved in judging such untrustworthiness, researchers also use a range of terms, such as ability, reliability, benevolence, integrity, credibility, honesty, fairness, along with many others. On close inspection, however, these descriptions essentially deal with two main aspects: reliability/competence and integrity/benevolence. Scholars have frequently identified these two dimensions of online distrust and have shown that they are conceptually and empirically distinct (McKnight and Chervany 2001; Cho 2006; Dimoka 2010). Reliability or competence-based distrust is based on negative judgments of the other's ability or capability to do for one what one needs done (McKnight and Chervany 2001), and has been associated with technical incompetence (Hsiao 2003). Integrity or benevolence-oriented distrust, on the other hand, refers to negative beliefs about the other's values or motives, that is, it reflects a highly emotional assessment that deals with

concerns that the other party is not motivated to act in one's interest and implies that the individual assumes that others usually act opportunistically or manipulatively (McKnight et al. 2003; Cho 2006; Dimoka 2010). While the former kind of distrust can be regarded as a rationally-based expectation that technically competent performance will not be forthcoming (Hsiao 2003), the latter implies an ethical-based judgment or belief that overlaps conceptually with morality and honesty beliefs (McKnight et al. 2003).

Research on the antecedents of online distrust has mainly examined the influence of several risk-reducer mechanisms on the formation of distrust such as online retailers' safety cues—privacy policies, security disclosures, warranties, site design, brand strength or retailer reputation (Cho 2006; Ou and Sia 2010; Chang 2012; Chang and Fang 2013)—or online infrastructure/structural assurances—accreditation, feedback mechanisms, monitoring, regulations and legal bonds (McKnight et al. 2003; Pavlou and Gefen 2004, 2005; McKnight and Choudhury 2006). Although these findings provide useful insights into how online distrust can be reduced in terms of technology, reputation or legalistic mechanisms, they are limited in several aspects. First, the above studies focus on variables which are external to the individual, neglecting the importance of studying how consumers' characteristics may influence their distrust of online retailers. Also, even though these technology, reputation or legalistic-based mechanisms may provide certain guaranties about the security, reliability and technical competence of both specific online retailers and the broader Internet environment, these mechanisms do not necessarily guarantee that online retailers will not act unethically or manipulatively. In other words, while the proposed mechanisms can be effective in overcoming the reliability dimension of online distrust (distrusting beliefs about competence or reliability), they may be insufficient or even counterproductive when it comes to addressing the ethical dimension of such distrust (benevolence or integrity distrusting beliefs) (Sitkin and Roth 1993; Hsiao 2003; Clarke 2008). For example, Sitkin and Roth (1993) argue that the increased use of technical or legalistic remedies can generate ethically-based roots of distrust through the inference that high technical protections and security measures exist because of past unethical online behaviors. Therefore, compared with reliability or competence online issues, consumers' negative beliefs about the integrity of online retailers' ethical behavior have been considered a more persistent and difficult to invalidate source of online distrust (Hsiao 2003; Clarke 2008).

Hence, like the distinction between trust and distrust made earlier, a main assumption of this research is that ethically-based distrust of online retailers is a related but distinct construct of reliability-oriented distrust, which is not only based on different beliefs (retailers' values or

motives vs. ability or capability), but also has different antecedents and consequences (Hsiao 2003; Cho 2006; Dimoka 2010). This assumption allows us to explore how this ethical dimension of online distrust can be explained by different factors that go beyond these retailers' actions and which are rooted in the individual differences of consumers. Following this last ethical approach, consumers' ethically-based distrust of online retailers (CEDOR) is defined in this study as the "subjective belief or expectation that online retailers are only motivated by their own interests (rather than the consumer's best interests), and they will act to take advantage of the situation (virtual environment) or the consumer by using deceptive tactics in order to cause consumers to have false beliefs about the nature of the products and services that they actually offer".

There are three attributes of this conceptualization of online distrust that are important to note. First, the subjective belief embraces the fact that distrust does not objectively capture the true degree of actual opportunistic behavior of online retailers, but rather reflects individual consumer perceptions or expectations of such risks that stem from online sellers' potential for opportunistic behavior (Pavlou and Gefen 2004, 2005). Second, the belief that online retailers are only motivated by their own interests and will act to take advantage of the situation (virtual environment) or the consumer by intentionally using ambiguous or even deceptive tactics implies an ethical judgment based on consumer's perceptions of the integrity and benevolence of online vendors (McKnight et al. 2003; Cho 2006). This subjective belief and ethical judgment underlying the construct of online distrust suggests that different consumers may have different perceptions about these ethical issues and risks of

online transactions. Finally, the focus on the community of online retailers explains online distrust as a generalized belief, in which the entire population of online retailers, rather than a particular one, is the target of a consumer's distrust (Pavlou and Gefen 2004, 2005).

Theoretical framework and hypotheses development

Figure 1 represents our research model. Consumer's ethically-based distrust of online retailers (CEDOR) represents our key construct as the dependent variable in Fig. 1. Because of the need to study how CEDOR is built from the start, we focus on two promising types of factors: individual ethical ideology (idealism and relativism) and consumers' level of risk aversion (i.e., attitude toward risk). This set of beliefs, values and attitudes may provide individuals with a framework to make judgments about ethical issues (Forsyth 1992) as proposed in H1, H2 and H3. Arguably, then, one's ethical ideology is pivotal to one's ethical compass and influences how the individual chooses to respond to issues regarding right and wrong. One's perceptual and behavioral ethical reactions, then, are predicated at least partly in their moral credo (Vitell et al. 1991; Forsyth 1992). For some, ideals and personal values may be compatible with the current online selling practices (Wolfinbarger and Gilly 2001); others may experience feelings of concern, suspicion, skepticism, and wariness towards the integrity and responsibility of online retailers (Benamati and Serva 2007). Importantly, Hunt and Vitell's (1986) ethical decision-making model postulates that at the "heart" of the ethical decision-making process, an ethical judgment is formed based on deontological and teleological evaluations, which may be contained in the two dimensions of the ethical

Fig. 1 The research model
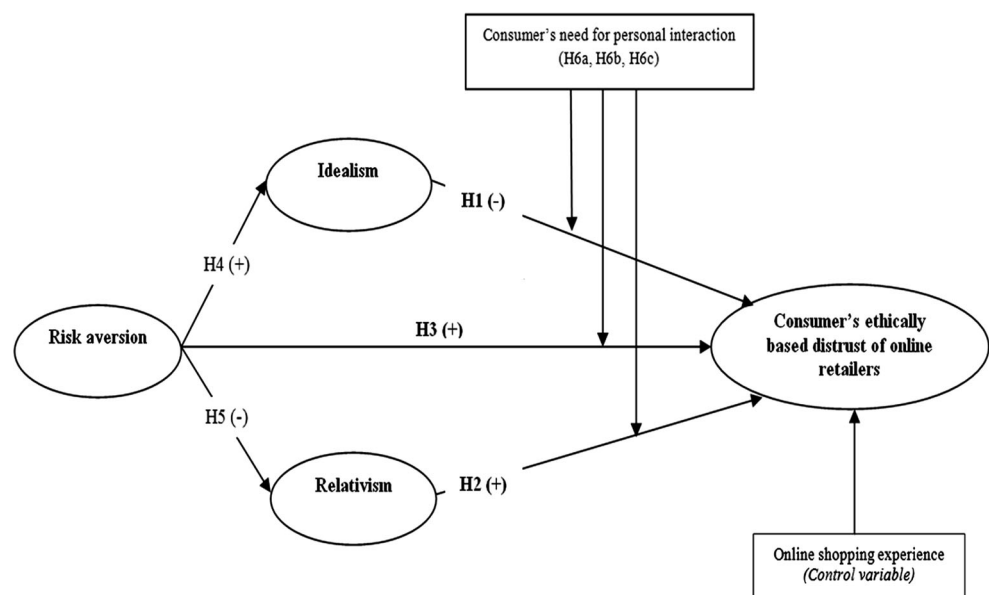
ideology (i.e., idealism and relativism) considered in our study. Jones (1991) has further proposed that situational characteristics of an ethical dilemma, including magnitude, probability, and temporal immediacy of consequences, produce a condition of "moral intensity". Jones' theory strongly suggests that risk perceptions are related to ethical judgments, intentions, and perceptions of an ethical issue. According to these ethical decision-making models, ethical judgments like consumer's perceptions about the ethical behavior of online retailers are based, thus, in their own moral reasoning or ethical ideology and risk attitudes. Hypotheses H4 and H5 propose that, given the uncertainties and risks of online transactions, risk-taking attitudes of consumers will influence their ethical ideology.

Figure 1 also includes the effect of consumers' experience with online shopping on CEDOR as a control variable. We also propose that the direct effects of idealism, relativism and risk aversion on CEDOR will be moderated by consumers' need for personal interaction with retail salespeople (H6a–c).

Our study makes several contributions to research and practice. First, we will provide meaningful insights into the influence of consumers' personality traits on consumers' distrust of online retailers. As argued earlier, the majority of studies on online distrust have focused on variables which are external to the consumer (e.g., online retailer and/or third parties assurance seals). Despite the large body of marketing ethics literature that notes the importance of considering consumers' characteristics (e.g., personality factors) when investigating consumers' ethical perceptions in traditional settings (Forsyth 1980; McIntyre et al. 1999; Ingram et al. 2005; Ramsey et al. 2007), to date only a limited number of studies have investigated the role of personality factors in understanding consumers' perception of online retailer's ethical practices (McKnight et al. 2003; Chang 2012; Chang and Fang 2013). Though findings from these studies are relevant, they are restricted to the analysis of one single personality trait, namely, disposition/propensity to distrust. In contrast, we include a broader spectrum of variables, capturing consumers' ethical ideologies and risk aversion. Importantly, the study of the variation in consumer differences arising from personality traits is critical because this variation is at the heart of consumers' underlying motivations and behavioral intentions in online retailing (Landers and Lounsbury 2006; Bosnjak et al. 2007; Huang and Yang 2010).

Second, none of the previous studies on the antecedents of online distrust incorporate the analysis of moderating variables. Yet, researchers have repeatedly pointed out that it is important to investigate moderating effects in consumer studies (e.g., Dabholkar and Bagozzi 2002, San Martín and Jiménez 2011). Our research proposes a more general, encompassing theoretical model: the direct effects

are moderated by consumers' need for personal interaction with retail salespeople. The analysis of the moderating effects will provide online retailers insights regarding how to effectively deal with consumers' ethically-based distrust.

Antecedents of consumer's ethically-based distrust of online retailers

Ethical ideology: idealism and relativism

A person's ethical ideology represents the individual's personal moral philosophy, as manifested in the way he/she makes judgment on another's morality (Forsyth 1980). This ethical ideology can be explained as a set of beliefs, values and attitudes, which may influence an individual's judgment and decision-making when faced with difficult situations and ethical dilemmas (Forsyth 1980, 1992). These moral judgments and decisions are based on a person's own individual system of ethics, and disagreements concerning morality must necessarily surface when personal ethical systems differ. Thus, differences in moral philosophy or ethical ideology are argued to explain differences in ethical judgments (Schlenker and Forsyth 1977; Forsyth 1980, 1992). Empirical findings suggest that individuals who differ in terms of their ethical ideology reason differently about ethical issues and often reach different conclusions about the morality of particular actions (Forsyth 1992).

Schlenker and Forsyth (1977) suggest that individual variations in personal moral philosophies can be described most parsimoniously by taking into account the degree to which an individual is relativistic and/or idealistic. Relativism describes the extent to which individuals reject universal moral rules or principles. Relativists tend to discount personal gains derived from a strict adherence to any standardized ethical code, and reject any universal moral rules of standards that attempt to define an act as moral or immoral based on the belief that exceptions always exist to moral principles. They practice a moral philosophy based on skepticism and "generally feel that moral actions depend upon the nature of the situation and the individuals involved […] more than the ethical principle that was violated" (Forsyth 1992; p. 462). Individuals who are non-relativistic have strong beliefs about absolute moral principles as guides by which the morality of a particular action can be determined. Forsyth et al. (1988; p. 244) provide the following example. Rules such as "You should not lie" are assumed by non-relativists to provide useful guidelines for action. In contrast, relativists would tend to believe that no rule concerning lying can be formulated, and whether a lie is permissible or not depends entirely on the situation.

The second factor underlying individual variations in moral judgment focuses on an individual's idealism in moral attitudes. Idealism is a personal ethic approach that

simultaneously stresses the inherent goodness of certain natural laws and a commitment not to harm others despite any situational urgency (Forsyth 1980). Unlike relativism, idealism focuses on the outcome of decisions, and a key component is the desire to avoid endangering others by any prospective decision outcome. To describe extremes, high idealistic individuals assume that desirable consequences can always be obtained with the 'right' action and those with less idealistic orientation admit that undesirable consequences will often be mixed in with desirable ones (Forsyth 1980). That is, less idealistic individuals assume a more pragmatic ethical approach and believe that ethical acts will sometimes produce negative outcomes for some and benefits for others. Importantly, idealism is not based on an embracing of moral absolutes; rather, it involves values related to altruism and a sense of optimism in considering responses to moral issues. Thus, idealism and relativism are conceptually independent, and individuals may be high or low on either or both characteristics.

According to Forsyth (1980), an individual's ethical ideology provides a unique perspective on moral questions that determines how he or she reasons about such issues. That is, the stance an individual takes with respect to these two factors—idealism and relativism—will influence the ethical judgments reached (Forsyth 1992). Moreover, current theoretical views maintain that individuals' ethical ideology influences their ethical judgments of business practices (Hunt and Vitell 1986; Forsyth 1992; Vitell et al. 1993; Davis et al. 2001), and several empirical studies suggest that individuals who differ on the above ethical ideologies do indeed differ in the extent to which they view "questionable" acts as objectionable, both in traditional (Ramsey et al. 2007; Leonidou et al. 2012) and online settings (Winter et al. 2004; Dorantes et al. 2006).

In this vein, although Forsyth's (1992) model is meant to describe individual differences "and does not argue that any one philosophy is more morally advanced than another" (p. 468), empirical findings suggest that idealism is associated with greater ethical sensitivity than is relativism. For instance, Vitell et al. (1993) reported that more idealistic and less relativistic individuals tended to exhibit higher honesty and integrity than less idealistic and more relativistic ones. Idealism has also been found to be positively related to other personal and cultural values, like religiosity (Vitell and Paolillo 2003), prosocial or altruistic values (Davis et al. 2001), and collectivism orientation (Forsyth et al. 2008). In contrast, researchers have found that relativism lowers the perceptions of moral intensity, hinders the recognition of ethical issues and negatively influences the perceived importance of ethics and social responsibility (Forsyth 1980; Winter et al. 2004).

Since ethical judgments and decisions are fundamentally based on personal values (Davis et al. 2001), these personal differences between idealism and relativism should materialize particularly in individuals' ethical judgments about the ethics of retailers' practices. It is known that personal values contribute to the generalized experience of trust/distrust and can even create a propensity to trust/distrust that surpasses specific situations and relationships. Clearly, existing theory and research suggest that distrust can be based on enduring and relatively stable characteristics of individuals enshrouded in a person's value system (Chen and Dhillon 2003). Therefore, highly idealistic individuals, who endorse personal values related to altruism, honesty and integrity, are more likely to show a general tendency to trust others across a broad spectrum of situations and people, so they are also more likely to trust the ethical behavior of certain retail vendors. Findings from McKnight et al. (2004) provide support for this assumption, since they report that individuals who generally trust others are more likely to trust an unknown Internet provider. By contrast, highly relativistic individuals, whose value system emphasizes ethical skepticism or egoism, are more likely to have formed an ethically-based predisposition to distrust other people in general, and therefore to be more prone to doubt or question the integrity or trustworthiness of retailers' practices in particular. Accordingly, we propose the following hypotheses:

Hypothesis 1 Idealism will have a negative influence on CEDOR.

Hypothesis 2 Relativism will have a positive influence on CEDOR.

Risk aversion

Risk aversion has been defined as a decision maker's "preference for a guaranteed outcome over a probabilistic one that has an equal expected value" (Qualls and Puto 1989; p. 180). Risk-averse individuals do not feel comfortable about taking risks, and become uneasy and nervous in uncertain and ambiguous situations (Cho 2007). Thus, as an attitude toward taking risks that is relatively invariant across situations, risk aversion has been conceived as an individual difference or predisposition (Mandrick and Bao 2005). Reflected in consumption, risk aversion strongly affects consumers' decision making. A risk-averse decision maker is "more likely to attend to and weigh negative outcomes, thus overestimating the probability of loss relative to the probability of gain. As a consequence, a risk-averse decision maker tends to overestimate the level of risk inherent in a decision situation" (Sitkin and Pablo 1992; p. 19). It is thus foreseeable that risk-averse individuals are more likely to weigh distrust (negative signal) than trust (positive signal) when assessing the risk associated with online shopping.

Both theory and findings from the literature offer support for this contention.

First, as argued earlier, findings from the literature suggest that distrust is associated with the level of perceived risk in a given situation (Lewicki et al. 1998; McKnight and Chervany 2001, 2006; McKnight et al. 2003, 2004; Cho 2007; Chang 2012). This is because in high-risk situations, the individual relies more on the wary, suspicious side to assess the situation and its consequences, thus reducing the importance of basic trust and optimism (McKnight and Chervany 2001). In fact, these pieces of research suggest that one issue that differentiates low and high distrust is the associated level of perceived risk (Lewicki et al. 1998; McKnight et al. 2004). For example, Lewicki et al. (1998; p. 446) describes low distrust contexts as situations in which the parties have "no reason to be wary and watchful" and do not interact in a way that involves complex interdependencies or risk assessments. Because low interdependence implies low risk, this situation reflects low perceived risk. On the contrary, risk is higher under complex or intensive interdependencies because "more things can go wrong", and the descriptions of the high distrust situations show that parties use caution, controls, and have "multifaceted reciprocal interdependence" (Lewicki et al. 1998; p. 447), all of which indicates that perceived risk is high.

In the online setting, several scholars have found that whereas trust may be more important than distrust when consumer actions bear low to medium perceived risk, distrust outweighs trust when consumers perceive a high degree of risk about an electronic commerce action (McKnight et al. 2003, 2004; McKnight and Choudhury 2006; Cho 2006; Chang 2012). For these researchers, trust and distrust are based on different underlying psychological states which are determined by the level of risk a person perceives in a situation. While trust is based on feelings of calm and assurance, distrust is based on fears and worries. Feelings of fear and worry are more likely to prevail when an individual is in a situation that he/she perceives to be high risk (McKnight et al. 2004). Arguably, Internet transactions are riskier than other forms of consumer exchange due to a lack of opportunity for physical inspection and human interaction, as well as privacy/security issues (Cho 2006), and it is known that risk aversion increases these perceived risks of online shopping (Brashear et al. 2009; Lee et al. 2012). Therefore, it is reasonable to expect that risk-averse individuals will show a higher propensity to online distrust than online trust. As argued before, previous research offers strong support for this contention. For instance, findings from McKnight and Kacmar (2006) suggest that risk aversion and perceived online information credibility are negatively correlated, and Cho (2007) found that the effects of distrust on online information privacy concerns was higher for risk-averse

individuals than for risk-seeking individuals. Accordingly, we expect that risk aversion will also be related to consumer's ethically-based distrust of online retailers, since belief in the integrity or reliability of the information provided by online retailers introduces specific risks because the Internet-specific characteristics (such as the impossibility of seeing or handling the products in person or the time lapse between payment and product delivery) make it harder for customers to verify the truthfulness of the website or its claims (McKnight and Kacmar 2006). Thus, we put forward the following hypothesis:

Hypothesis 3 Risk aversion will have a positive influence on CEDOR.

We also test relationships between the three antecedents proposed. It has been argued that, because risk-averse individuals feel uncomfortable with uncertainty and ambiguity situations, they show a greater need for consensus and written rules, and also tend to adopt such rules and norms so as to avoid uncertainty in their actions and to clear any ambiguities (Vitell et al. 2003). Accordingly, in their attempt to confront uncertainty surrounding ethical issues, high risk-averse individuals are expected to be more prone to adopt a more idealistic and less relativistic stance. The rationale behind this contention is that following a generalized rule or a more strict moral code may be one way of reducing unpredictability in ethical dilemmas (House and Javidan 2004). As argued earlier, in determining what is ethical and what is not, highly idealistic individuals believe that ethical actions will always result in positive consequences for each person affected, and assume that desirable outcomes can only be obtained if the right algorithm of actions is followed (Forsyth 1980). This golden rule to judge ethical issues (actions are only ethical if they do not harm others) can help risk-averse individuals to reduce the unpredictability or ambiguity surrounding ethical dilemmas, so it is reasonable to expect that these individuals show a more idealistic ethical approach. In fact, empirical findings in the literature have shown a positive relationship between a construct closely related to risk aversion, i.e.., uncertainly avoidance, and idealism (Vitell et al. 2003). Accordingly, based on this evidence and the arguments described earlier, we expect that:

Hypothesis 4 Risk aversion will have a positive influence on idealism.

Likewise, we also expect risk aversion to be negatively related to relativism, since individuals who are non-relativistic, as opposed to high relativistic ones, believe strongly in absolute moral principles as guides by which the morality of a particular action can be determined (Forsyth 1980). As argued earlier, following this more strict moral code may be one way of reducing unpredictability in ethical dilemmas for risk-averse consumers.

In fact, Hofstede (1983) found that individuals with high uncertainty avoidance also believe that established rules have to be followed at all times and cannot be broken, which undoubtedly matches the non-relativistic ethical beliefs described previously. Other researchers have also proposed this negative relationship between risk aversion and relativism, but empirical findings are not consistent. For instance, whereas both Vitell et al. (2003) and Forsyth et al. (2008) found a negative influence of uncertainty avoidance on relativism, in their review of cultural studies Rawwas (2001) showed several cases in which relativism and risk aversion was positively related to each other. Moreover, findings from a recent study also showed a positive correlation between risk aversion and ethical egoism (Leonidou et al. 2012), which is closely related to relativism (Forsyth 1980). Despite this inconsistent evidence, based on the above arguments we expect that:

Hypothesis 5 Risk aversion will have a negative influence on relativism.

The moderating effect of consumer's need for personal interaction

A personality characteristic that is of relevance in the context of online shopping is the need for personal interaction with retail salespeople (Dabholkar and Bagozzi 2002). This need for interaction is defined as the importance of personal interaction for the consumer in retail encounters (Dabholkar 1996). Several researchers have found that the need for personal contact with retail salespeople goes hand in hand with a need to avoid technology-based self-services (Dabholkar and Bagozzi 2002; Susskind 2004; Susskind and Stefanone 2010). For such consumers with a high need for personal interaction, online shopping can be a difficult and frustrating experience without a salesperson's assistance (Keeling et al. 2007), since the lack of interpersonal and situational cues in the online environment negatively impact the ability of these consumers to appropriately assess the purchase decision consistent with their expectations for a shopping experience (Swaminathan et al. 1999). This in turn leads consumers with a high need for interpersonal contact to show a preference for a richer transactional medium (i.e., traditional stores), making the preference for online transactions less desirable (Susskind and Stefanone 2010). In addition, although the Internet offers abundant sources of product information, scoring highly in objectivity, accessibility, and browsing possibilities, electronic information also creates new pressures on credibility evaluation because of its relative lack of quality control mechanisms. Findings from Susskind et al. (2004, 2010) suggest that consumers

with a high need for interpersonal interaction are less inclined to focus on the relative conveniences of online shopping and are uncomfortable using the Internet and, therefore, are likely to have feelings of uncertainty or unease about using the Internet for shopping-related activities.

On the other hand, for consumers with a low need for personal interaction, the impersonal, efficient, and structured nature of the typical website "interaction" may be an attraction, since it removes the need for time-consuming pleasantries or avoiding persistent shop assistants (Keeling et al. 2007). These consumers tend rather to look favorably on technology and the use of Internet for shopping-related activities, they have stronger intrinsic motivation to shopping online, and a more positive attitude toward online shopping in general (Dabholkar and Bagozzi 2002; Monsuwe et al. 2004). Therefore, consumers with a low need for personal interaction with retail salespeople are less likely to distrust online retailers, since a more positive attitude toward the online medium leads them to hold more positive beliefs about the trustworthiness of online retailers (Román 2010).

In contrast, consumers with a high need for personal interaction would lack this positive attitude and intrinsic motivation to use the Internet for online shopping. Therefore, such consumers can be expected to be more prone to distrust online retailers, and the expected effect of idealism in reducing online distrust would be attenuated for these consumers. Furthermore, the expected positive effect of relativism and risk aversion on online distrust would be higher among consumers with a high need for personal contact, since a high level of uncertainty or unease about the use of Internet for commerce-related activities increases the perceived risk associated with online shopping (Susskind 2004) and, as argued earlier, distrust embodies the negative feelings of fears and uneasiness that these consumers have about Internet for commerce-related activities (McKnight et al. 2004; Ou and Sia 2010; Chang 2012). Accordingly, we propose that:

Hypothesis 6a The negative influence of idealism on CEDOR will be weaker for consumers with a high need for personal interaction than for those with a low need for personal interaction.

Hypothesis 6b The positive influence of relativism on CEDOR will be stronger for consumers with a high need for personal interaction than for those with a low need for personal interaction.

Hypothesis 6c The positive influence of risk aversion on CEDOR will be stronger for consumers with a high need for personal interaction than for those with a low need for personal interaction.

Control variable: online shopping experience

Finally, we have also incorporated consumer's online shopping experience as a control variable in our research model. Research has found that consumers' experience with the Internet reduces psychological contract violation, a construct closely related to online distrust that describes a buyer's perception of having being treated wrongly regarding the terms of an exchange agreement with an online seller (Pavlou and Gefen 2005). Including this construct as an additional predictor of consumer's ethically-based distrust of online retailers allows us to determine whether the hypothesized antecedents have a significant impact on online distrust after accounting for the variance explained by this control variable.

Research method

Data collection and sample

To test our hypotheses, information was sought from consumers who had recently purchased a high-involvement product online or through the traditional channel. Technological products (e.g., personal computers, electronic products, and smartphones) were chosen because they constitute pure search goods (Bart et al. 2005), that is, dominated by attributes for which full information on dominant aspects can be gathered (either online and/or in traditional stores) prior to purchase. Moreover, consumers in these product categories (technological products) are typically engaged in a problem-solving task of moderate to high complexity (Bart et al. 2005). Such tasks and buying processes along with the technical complexity of computers and electronic specific features enhance the importance of our moderating variable (consumers' need for personal interaction with sales employees), since consumers are likely to seek the assistance and advice of sales employees, even if they finally purchase the product online (Bei et al. 2004). In addition, research has also found that consumers buying complex, high-involvement products tend to search for product information online even though they end up purchasing from a traditional store (Bei et al. 2004; Mohr et al. 2009).

Data in our study were collected via personal intercept interviews (Nowell and Stanley 1991). A marketing research firm was hired to assist with the data collection. Trained interviewers randomly approached respondents among individuals who passed the data collection point located on the pedestrian walkway in three major metropolitan cities. In particular, every fifth individual who passed the data collection point was approached and determined if he/she was eligible for the study. A similar

Table 2 Sample profile

Variable	Percentage
Gender	
Male	59.4
Female	40.6
Age	
≤20	9.0
20–35	48.9
36–50	33.3
>50	8.8
Education	
Low (primary school)	12.0
Middle (high school)	41.8
High (University; polytechnic)	46.2
Occupation	
Employed people	47.7
Self-employed workers	11.0
Students	19.1
Others (retired, homemaker, and unemployed)	22.2
Internet experience (years)	
<4	13.4
4–6	40.6
7–10	40.3
>10	5.8
Online shopping experience (number of online purchases)[a]	
<2	46.0
2–4	35.5
>4	18.6

[a] Made in the last 12 months

procedure can be seen in previous research (Frambach et al. 2007; Román 2010). Screening questions were administered before the respondent was invited for an interview. An invitation only followed if the respondent proved to be eligible for the study (that is, over 18 years and had purchased at least one technological product, online or offline, in the last 6 months). The last condition was required in order to facilitate consumers' evaluations of the retailers. Then, subjects were taken to the company office (conveniently located in the metropolitan area), where specialist interviewers surveyed respondents about the questions included in the questionnaire instrument. Interviews typically lasted 15 min. Data collection took place during different times as recommended by Sudman (1980). The final sample consisted of data from 409 consumers (208 who shopped online and 201 who shopped at traditional stores).

A profile of the sample is shown in Table 2. Respondents were mostly employed people, middle-aged, generally well-educated and experienced with the Internet. They

Table 3 Construct measurement summary: confirmatory factor analysis of multi-item measures

Item description[a]	SD loading (t value)
Consumer's ethically-based distrust of online retailers (CEDOR)	
Online retailers exaggerate the benefits and characteristics of their offerings	0.78 (18.42)
Online retailers attempt to persuade you to buy things that you do not need	0.83 (20.27)
Online retailers use misleading tactics to convince consumers to buy their products	0.93 (24.33)
Online retailers take advantage of less experienced consumers to make them purchase	0.89 (22.50)
Idealism	
The existence of potential harm to others is always wrong, irrespective of the benefits to be gained	0.72 (15.40)
If an action may harm an innocent other, then it should not be done	0.88 (19.45)
One should not perform an action which might in any way threaten the dignity and welfare of another individual	0.76 (16.50)
Relativism	
What is ethical varies from one situation and society to another	0.89 (20.53)
Moral standards should be seen as being individualistic; what one person considers to be moral may be judged to be immoral by another person	0.92 (21.24)
Ethical considerations in interpersonal relations are so complex that individuals should be allowed to formulate their own individual codes	0.52 (10.75)
Risk aversion	
I do not feel comfortable about taking chances	0.73 (16.31)
I prefer situations that have foreseeable outcomes.	0.84 (19.48)
Before I make a decision, I like to be absolutely sure how things will turn out.	0.88 (20.81)
Need for personal interaction	
I like interacting with retail salespeople when I shop	0.84 (20.48)
Personal contact with retail salespeople is important to me	0.96 (25.32)
I like to talk with salespeople when I shop	0.87 (21.55)

$\chi^2(105) = 273.32$; $p < 0.01$; GFI = 0.93; AGFI = 0.90; CFI = 0.98; RMSEA = 0.06; RMSR = 0.05; TLI (NNFI) = 0.96

[a] All scales consisted of 7-point Likert questions, ranging from "1 = strongly disagree" to "7 = strongly agree"

bought, on average, about 3 products online in the last 12 months and, in their last purchase, they used both the traditional store (53 %) and Internet (47 %) as sources of product information. For those consumers who had made the last purchase online, the information searched for online represented 66 %, whereas information searched for in traditional stores was a 34 %. In contrast, for those who had made their last purchase at a traditional store, this information source supposed 73 % of total (so information searched for online represented 27 %).

Measurement

Existing multi-item scales adapted to suit the context of the study were used to measure the constructs. In order to get a better understanding of these research variables, we first interviewed 6 consumers who had recently purchased a technology product. Based on these interviews and the literature review, a questionnaire comprising 7-point Likert-scales was prepared and a formal pretest of the questionnaire with 60 consumers was conducted prior to the main survey to improve the measures. The respondents were asked to point out any scale items they found confusing, irrelevant, or repetitive. Following this pretest, several refinements needed to be made to adapt items from the distrust scale to the context of the study and to eliminate several items that were found redundant and/or irrelevant from the relativism, idealism and risk aversion scales. Final items are shown in Table 3.

Consumer's ethically-based distrust of online retailers was measured with four items adapted from Cho's (2006) and Román's (2010) scales. Based on the results of the pretest, idealism and relativism were measured with three-item scales from the Ethical Position Questionnaire (EPQ) by Forsyth (1980). Forsyth's 20-item measure has been extensively used in research, yet there is evidence that several items are repetitive and/or confusing (Steenhaut and Kenhove 2006; Cadogan et al. 2009; Leonidou et al. 2012). Accordingly, shortened versions of Forsyth's (1980) EPQ have been used successfully in other studies (Steenhaut and Kenhove 2006; Cadogan et al. 2009; Leonidou et al. 2012). Three items from the original six-item scale of Mandrick and Bao (2005) were used to measure risk aversion. Previous studies have also successfully used shortened versions of Mandrick and Bao's (2005) scale (Brashear et al. 2009). Consistent with prior research, consumers' need for personal interaction with sales staff was measured using Dabholkar's (1996) three-item scale. Finally, following existing research (Miyazaki and Fernandez 2001; Corbitt et al. 2003), online shopping experience was measured by the number of online purchases made in the last 12 months.

Confirmatory factor analyses: reliability, convergent and discriminant validity

Since data were collected cross-sectionally using self-report measures, the potential for common methods variance exists. Following Podsakoff et al. (2003; p. 889), we tested for this bias using Harman's one-factor approach. In

Table 4 Mean, SD, scale reliability, AVE, and correlations

Construct	Mean	SD	AVE	1	2	3	4	5	6
1. CEDOR[a]	4.40	1.15	0.74	*0.92*	0.02	0.14	0.16	0.04	
2. Idealism	5.41	1.11	0.62	−0.13	*0.83*	0.02	0.05	0.00	
3. Relativism	4.80	1.28	0.63	0.37	0.15	*0.83*	0.08	0.02	
4. Risk aversion	4.97	1.17	0.67	0.40	0.23	0.29	*0.86*	0.16	
5. Need for personal interaction	4.44	1.25	0.79	0.20	0.07	0.13	0.40	*0.92*	
6. Online shopping experience	2.89	4.07	na	−0.18	0.01	−0.09	−0.03	0.04	na

AVE average variance extracted, *na* not applicable

Scale composite reliability of multi-item measures is reported along the diagonal. Shared variances of multi-item measures are reported in the upper half of the matrix. Correlations are reported in the lower half of the matrix. Correlations higher than 0.09 significant at 95 %

[a] Consumer's ethically-based distrust of online retailers

Fig. 2 The research model and results of direct effects (standardized coefficients). $\chi^2(69) = 187.23\ p < .01$; GFI = .94; AGFI = .91 CFI = .97; RMSEA = .06; RMSR = .05; TLI (NNFI) = .96. ** $p < 0.05$, *ns* not significant
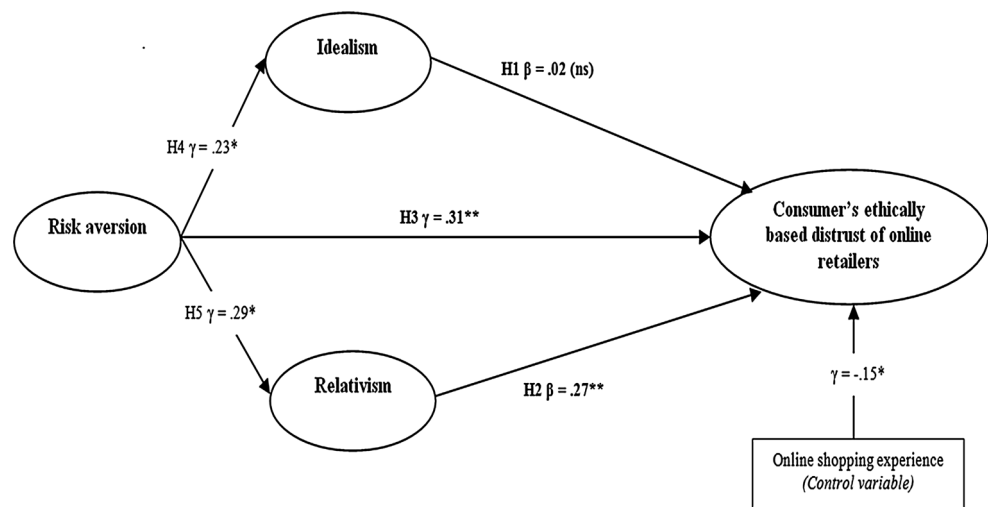
Table 5 Results of moderating test

Relationship	Moderator variable		Chi square difference ($\Delta df = 1$)
	More need for personal interaction ($n = 201$)	Less need for personal interaction ($n = 208$)	
Idealism → CEDOR[a]	$\gamma = 0.09\ (t = 1.24)$	$\gamma = -0.07\ (t = -1.02)$	$\Delta\chi^2 = 2.70\ (p = 0.10)$
Relativism → CEDOR	$\gamma = 0.37\ (t = 4.89)$	$\gamma = 0.18\ (t = 2.45)$	$\Delta\chi^2 = 4.28$**
Risk aversion → CEDOR	$\beta = 0.46\ (t = 5.77)$	$\beta = 0.03\ (t = 0.38)$	$\Delta\chi^2 = 16.90$***

[a] Consumer's ethically-based distrust of online retailers

** $p < 0.05$; *** $p < 0.01$

particular, we subjected all the measures to a confirmatory factor analysis, and found that the one-factor model demonstrated a poor fit to the data ($\chi^2(78) = 3{,}917.35$; $p < .01$; GFI = .42; CFI = .24; RMSEA = .34; RMSR = .11; TLI (NNFI) = .11). As a result, common methods bias was ruled out as a potential threat to the subsequent hypothesis testing.

A confirmatory factor analysis (CFA) by means of LISREL 8.80 was conducted to assess measurement reliability and convergent and discriminant validity. The measurement model had a good fit ($\chi^2(105) = 273.32$; $p < .01$; GFI = .93; AGFI = .90; CFI = .98; RMSEA = .06; RMSR = .05; TLI (NNFI) = .96. In addition, the observed normed χ^2 for this model was 2.60, which is smaller than the 3 recommended by

Fornell and Larcker ([1981]), indicating a good model fit for the sample size.

Reliability of the measures was confirmed with a composite reliability index higher than the recommended level of .60 (Bagozzi and Yi [1988]) and average variance extracted was higher than the recommended level of .50 (Hair et al. [1998]), as shown in Table 4. Following the procedures suggested by Fornell and Larcker ([1981]) and Bagozzi and Yi ([1988]), convergent validity was assessed by verifying the significance of the *t* values associated with the parameter estimates (Table 3). All *t* values were positive and significant ($p < .01$). Discriminant validity was tested by comparing the average variance extracted by each construct to the shared variance between the construct and all other variables. For each comparison, the explained variance exceeded all combinations of shared variance (see Table 4).

Results

Main effects

The hypothesized relationships were estimated via LISREL 8.80. The results indicated a good fit between the model and the observed data ($\chi^2(69) = 187.23$ $p < .01$; GFI = .94; AGFI = .91 CFI = .97; RMSEA = .06; RMSR = .05; TLI (NNFI) = .96). The model explained 25 % of the variance in consumer's ethically-based distrust of online retailers (CEDOR).

Results of hypothesized relationships are reported in Fig. 2. After accounting for the variance explained by the control variable ($\gamma = -.15$, t value = -3.19), the analyses provided strong support for the direct positive influence of both relativism ($\beta = .27$, t value = 5.07) and risk aversion ($\gamma = .31$, t value = 5.63) on CEDOR, but not for the expected negative influence of idealism ($\beta = .02$, t value = .05). Thus, Hypotheses 2 and 3 were confirmed, but not Hypothesis 1. Supporting Hypothesis 4, risk aversion was found to have a positive and significant influence on idealism ($\gamma = .23$, t value = 3.98). Finally, risk aversion also affected relativism significantly, but not negatively, as hypothesized in H5 ($\gamma = .29$, t value = 4.71). This is an unexpected result that we will explain later on.

Moderating effects

Hypotheses 6a–c examined the moderating effect of consumer's need for personal interaction with retail salespeople on the CEDOR-antecedents link. We tested moderating effects through multigroup LISREL analysis. This test was conducted using a median split in the moderator variable (consumers' need for personal interaction with sales staff)

and the overall sample was split into subsamples, according to whether consumers scored high or low on the moderating variable, to ensure within-group homogeneity and between-group heterogeneity (Stone and Hollenbeck [1989]).

The results of the multi-group LISREL analysis are shown in Table 5. As anticipated, the positive influence of relativism on consumer's ethically-based distrust of online retailers was stronger among individuals with a greater need for personal interaction ($\gamma = .37$, $p < .01$) versus those with a lower need ($\gamma = .18$, $p < .05$). Similarly, the positive effect of risk aversion on CEDOR was also stronger among individuals with more need for personal interaction ($\beta = .46$, $p < .01$) versus those with less ($\beta = .03$, ns). In these two cases the decrease in *Chi-square* when moving from the restricted (equal) model to the more general model was significant, providing support for Hypotheses 6b and 6c, respectively. However, in the case of idealism, no significant differences were found among the two groups of the moderating variable ($\Delta\chi^2 = 2.70$, $p > .05$). Therefore, Hypothesis 6a was not supported.

Conclusions

Gaining the trust of consumers has long been considered a key issue to ensure the success of online business. However, recent evidence has clearly shown that, in the perceived high risk context of online shopping-related activities, distrust can play a more important role than trust as a basis of consumer's decisions involving e-commerce (McKnight et al. [2003], [2004]; Cho [2006]; McKnight and Choudhury [2006]; Ou and Sia [2010]; Chang [2012]). Yet only recently researchers have begun to pay attention to the topic of distrust in online retailing and, unlike trust, the nature and role of distrust is much less established (Cho [2006]; Benamati and Serva [2007]).

Theoretical implications

Focusing on consumers' characteristics as antecedents of ethically-based distrust of online retailers, findings from this study provide several useful contributions to the literature. First, our results show that consumers' degree of idealism did not have a significant influence on ethically-based distrust of online retailers. Thus, whether or not an individual endorses trust-related personal values (altruism, honesty, and integrity) does not, seemingly, influence their levels of ethically-based distrust of online retailers. Apparently, then, although personal values of idealistic individuals can positively influence consumer trust in online retailers (McKnight et al. [2004]; Yang et al. [2009]), such personal values or ethical orientation do not have an analogous effect in reducing online distrust. This is consistent with previous contentions about the differences of

trust and distrust constructs (McKnight and Chervany 2001; Cho 2006), showing additional evidences about the idea that positive predictors of trust would not necessarily be negative predictors of distrust (Lewicki et al. 1998). For example, although research has found that privacy and security increases online trust (e.g., Román 2007), they do not seem to have a significant influence on online distrust, as recently shown by Chang (2012).

The extent of consumers' relativism, however, was found to be positively related to their levels of ethically-based distrust of online retailers. Again, this result parallels prior conceptual contentions about the different nature of online trust/distrust and the potential antecedents (Lewicki et al. 1998; McKnight and Chervany 2001). Whereas idealism, in which ethical orientation and its associated personal values are more oriented toward trust than distrust, does not have a significant influence on consumer's ethically-based distrust of online retailers, such online distrust is positively related to relativism, that is, with those ethical perspective and personal values that are most closely associated with skepticism and distrust of absolute moral principles (Forsyth 1980). This ethical approach of highly relativistic consumers lowers the importance of ethical standards as guiding principles in their value system and, hence, the importance of such ethical standards in guiding their own behavior and their general expectations about others' ethical behavior (Chen and Dhillon 2003). Accordingly, one plausible and logical explanation derived from our results for the distrust of consumers in online retailers' ethical behavior may be just their potential general lack of confidence in any standardized ethical code or universal moral rules of standards.

Our results also confirm that risk aversion strongly increases consumer's ethically-based distrust of online retailers. Several authors have highlighted the importance of risk perceptions in explaining the reasons for consumer distrust (Lewicki et al. 1998; McKnight et al. 2004; Cho 2007). Although some researchers have already shown the positive relationship between risk aversion and consumer distrust of online settings (Cho 2006; McKnight and Kacmar 2006), these studies are focused on consumers' concerns regarding information credibility or privacy issues (competence-based distrust). While expanding on the conceptual and empirical findings of prior literature, our results also provide strong support for the negative influence of risk aversion on consumer's ethically-based distrust of online retailers.

The relationships found among the three proposed antecedents of online distrust also yield interesting conclusions. First, our findings provide empirical support for the expected positive effect of risk aversion on idealism. According to that obtained in other previous studies (Rawwas 2001; Vitell et al. 2003), this result suggests that,

in their attempt to confront uncertainty surrounding ethical issues, risk-averse individuals are likely to adopt a more idealistic ethical stance, that is, to approach ethical dilemmas based on the general idealistic belief that desirable outcomes can always be obtained with the "right" action (Forsyth 1980). While this partially confirms our proposed argument that the general discomfort felt by risk-averse individuals toward uncertainly and ambiguity may provide a basis for an idealistic ethical ideology, results from the unexpected positive relationship found between risk aversion and relativism seem to suggest a contradictory finding. As we argued in the discussion of hypothesis H5, since following a more strict moral code may be one means of reducing unpredictability in ethical dilemmas (House and Javidan 2004), we expected that this can lead risk-averse consumers to adopt a less relativistic ethical approach, that is, to show a higher confidence in absolute moral principles as guides by which the morality of a particular action can be determined. Our results indicate, however, that the opposite relation occurs between these two variables. A plausible explanation for this finding can be derived from the idea that the non-relativistic philosophy of believing in universal moral standards and in that the established rules have to be followed at all times and should not be broken in any situation can be somewhat "naïve", and difficult to maintain, in the current socio-economic global situation (economic crisis, financial scandals, political corruption, social and labor instability). In this vein, as recent studies indicate, the global financial crisis has led not only to a general loss of credibility in the current economic, political and regulatory system of western societies, but also, through the steady erosion of traditional society's absolute and fundamental moral values, has long contributed to an emergence of relativism that is profoundly symbolized through the uncertainty of our modern financial and monetary system (Bogle 2009; Larsen 2012). This means that, although from a conceptual standpoint to be risk averse provides a basis for a non-relativistic ethical ideology, the actual socio-economic situation may have led risk adverse individuals to "lose their faith" in the existence of a solid and fundamental moral value system that could effectively help them to reduce unpredictability in ethical dilemmas, and thus to a shift from moral absolutism to moral relativism. Importantly, because idealism and relativism are conceptually independent, individuals may be high or low on either or both characteristics (Forsyth 1980). Therefore, the fact that risk-averse individuals were found to be both idealistic and relativistic does not necessarily represent a contradictory finding. On the contrary, it may suggest that these individuals are taking a more situationist ethical approach, under which the morality of an action is determined by the desirability of its consequences rather than by its

consistency with absolute moral principles (Forsyth 1980). Interestingly, our results suggest that risk-averse consumers in this study face uncertainly surrounding ethical dilemmas by holding the belief that individuals should act to secure the best possible consequences for all concerned, even if doing so violates traditional rules about ethics.

This study adds to the literature in another way. As shown earlier, most consumer studies on online ethics tend to explain consumers' expectations and perceptions of ethical issues on the Internet by proposing and analyzing direct effects. Our research shows that positive effects of relativism and risk aversion on consumer's ethically-based distrust of online retailers are moderated by consumers' need for personal interaction, which is more pronounced for those consumers with a high need for personal interaction with retail salespeople than for those with a low need for such personal interaction. In fact, the effects of risk aversion, which had the strongest positive influence on consumer's ethically-based distrust, become insignificant for consumers with a low need for such personal interaction. For the latter, only relativism has a significant influence on their ethically-based online distrust, although this influence is significantly lower than for consumers with a high need for personal interaction. Thus, the lack of opportunities for personal interaction with retail salespeople in online shopping context has been found to be an important factor in explaining consumer distrust of online settings.

Managerial implications

The distinct nature of ethical ideologies and risk attitudes of consumers, along with their differential effects on online distrust, has important implications for practitioners. E-vendors seeking to encourage consumers to shop online must develop a strategy for reducing distrust. Ethical relativism and risk aversion significantly influence consumer distrust toward online retailers, implying that these two characteristics of consumers are not amenable to online retailer actions, because they are determined by personality factors outside the control of the online retailer. Therefore, online retailers can obtain a competitive advantage by understanding individual consumers better, including their ethical ideology and risk attitude, and they must target different market segments based on these different personality factors. Furthermore, consumer online shopping experience reduces online distrust toward the online retailer, and thus may be exploited by the website by offering more useful information and advantageous connections (e.g., providing references from past and present consumers), to diminish online distrust.

Specifically, our results show that, whereas consumers' ethical idealism does not have a significant influence in reducing ethically-based distrust of online retailers, relativism does significantly increase it. This suggests that this online distrust is positively related to the lack of cognitive faith in moral principles, norms, or laws as guiding principles of ethical behavior that characterizes the ethical orientation of relativistic consumers. Therefore, several widely used trust-building strategies by online retailers, which are based on signaling their ethical behavior, may backfire with consumers with a high disposition toward ethical skepticism. For example, the use of third-party assurance seals such as TRUST-e or Safe Harbor self-certification, which reflects that the online retailers' security methods and e-commerce practices are compliant with the set of moral principles or legal standards established by the respective third-party organism, may be ineffective and even counterproductive in overcoming the ethically-based distrust of relativistic consumers, given their lack of confidence in moral principles or legal standards. We therefore encourage online retailers to provide an adequate set of warranty polices that not only offer clear and fair options for returns, but also convenient and compensatory responses to customers if the online retailer fails to meet its promises or stated commitments. Such policies may be a more effective strategy to persuade skeptical relativistic consumers that the integrity or benevolence of the online retailer can be trusted, compared to the use of certifications and references from outside-source third parties.

Our results also revealed that risk aversion had the strongest positive influence on consumers' distrust. Derived from the previous discussion about the ethical orientation found in this study for risk-averse consumers (high idealist and high relativist), an important way in which online retailers could cope with the ethically-based distrust of these consumers may be to focus their communication strategies on their commitment with a "right-doing" business model that ensures customer satisfaction and provides solid guaranties against the potential risks incurred in the online transaction. In addition, since prior research has already shown that the usability of a website in terms of speed and ease of use helps to reduce the perceived risks of such website (Vila and Küster 2012), enhancing navigation quality could help to reduce the initial distrust experienced by risk-averse consumers. It is also important for online retailers to provide clear and comprehensive information on security and privacy policies, and to avoid the use of excessively technical or legalistic terms.

Finally, our results regarding the moderating influence of consumers' need for personal interaction with sales staff have interesting managerial implications. In particular, an additional way in which online business can cope with ethically-based distrust of relativistic and/or risk-averse consumers is to help replace the customer-salesperson interaction with a believable, engaging, synthetic virtual salesperson or sales character on computer screens (Grodzinsky et al. 2011). Research has already shown that

the introduction of certain interactive mechanisms on a retail website, such as an interactive affect-support agent that reminds customers of face-to-face communication, help customers reduce negative emotions like confusion and anxiety (Klein et al. 2002), which are feelings closely related those experienced by risk averse individuals in online shopping (Cho 2006, 2007).

Limitations and future research

Substantively, building on the findings of this study, several suggestions can be offered to future researchers. Online distrust is a complex and highly elusive construct. This study focuses on ethically-based distrust of online retailers. However, as the discussion of our findings suggests, distinct entities of these online retailers, such as issuing firms of online assurance seals may also be the object of consumers' ethically-oriented online distrust. Therefore, further research can improve our findings by considering other objects (e.g., issuing firms, public organisms, e-marketplace intermediaries, etc.) of these consumers' ethically-oriented online distrust and the potential relationships among distrust of these different objects. It would be also interesting to examine if the relationships supported by this study can be extended to these different contexts as well. An additional limitation and a need for further research concerns the causality suggested in our findings. The research design is cross-sectional in nature, and purely causal inferences remain difficult to make. Hence, evidence of causality through longitudinal studies is recommended.

This study represents an initial step in the analysis of consumer characteristics as antecedents of ethically-based distrust of online retailers. Further research is needed to extend the conceptual model. For instance, in this study, no empirical support was found for both the expected direct effect of idealism on online distrust or for the moderation effect of consumer need for personal interaction in this relationship. This could be examined further. Moreover, researchers could also consider the effect of different personal variables such as cognitive style, and other consumer's personal values such as Machiavellism, which may affect the consumer's ethical perceptions (Winter et al. 2004; Dorantes et al. 2006; Yang et al. 2009). The inclusion of other potential moderator variables, such as consumer demographics, would also be an interesting direction for further research.

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