Development and validation of an instrument to measure online retailing ethics
Consumers’ perspective

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Abstract
Purpose – The purpose of this paper is to identify the dimensions of e-retailing ethics from the consumers’ perspective and to develop a reliable and valid measurement instrument.
Design/methodology/approach – The paper is based on a quantitative survey conducted among Egyptian consumers aged 18 and above. These were measured on a five-point Likert scale. The reliability and validity of this six-factor scale are verified using empirical data collected randomly from Egyptians’ online consumers. Structure equation modelling used to test the suggested model.
Findings – The results showed that buyer perceptions about seller ethics (BPSE) is a second order construct composed of six factors (e.g. privacy, security, reliability, non-deception, service recover, and shared value). The results also showed that the BPSE has strong predictive capability in relation to online customer satisfaction and repurchase intention.
Originality/value – This project is one of the first empirical studies that develop a reliable and valid measurement instrument of BPSE. The findings provide several important theoretical and practical implications for online retailing and academic researchers as well as making a significant contribution to the body of knowledge in the online retailing context.
Keywords Developing countries, Surveys, E-commerce
Paper type Research paper

1. Introduction
Purchasing via the internet is one of the most rapidly growing forms of shopping, with over three billion users worldwide in 2014, up from 420 million in 2000 and one billion in 2005 (Internet World Stats, 2014). The internet has created tremendous opportunities for both businesses and customers. Distribution channel members can extend their reach and visibility to partners beyond geographical boundaries. In this regard, the internet is a widely used medium that acquires and delivers information and services to customers and business. It is incessantly transforming the way people and businesses...
interact with each other. With such transformation, impressions of expressed ethical conduct by both parties are now at the forefront.

The internet is often seen as a new environment for unethical behaviour (Freestone and Mitchell, 2004; Elbeltagi and Agag, 2016; Agag and Elbeltagi, 2013). For instance, Citera et al. (2005) cited that ethical transgressions are more likely to happen in e-transactions as compared to face-to-face transactions because of the very nature of the medium. Issues such as privacy, unsolicited e-mail, transaction security, deception continue to be hotly debated in the academic and practitioner literature (e.g. Meinert et al., 2006; Roman and Cuestas, 2008). For example, a survey of 1,009 USA consumers indicated that one in four consumers said they would not shop online because of internet security concerns (Vijayan, 2005).

A number of studies have addressed consumers’ ethical beliefs and practices (Fullerton et al., 1996; Strutton et al., 1997; Vitell and Muncy, 2005), as well as consumers’ perceptions of retailers ethics (Roman, 2003; Roman and Cuestas, 2008; Kaynak and Sert, 2012; Lu et al., 2013; Wang, 2014). In addition, the vast majority of earlier research is conceptual in nature, and has primarily focused on privacy issues (Palmer, 2005; Pollach, 2005) neglecting other important ethical marketing issues surrounding the internet such as deception and dishonesty (Murphy et al., 2005). Yet, little research has been conducted on the potential ethical issues regarding online retailing from the consumers’ perspective (Roman and Cuestas, 2008). Therefore, both practitioners and scholars need research that: clearly identifies and measures online retailing ethics from the consumers’ perspective; fully validates a comprehensive online retailing ethics construct; and explores the dimensionality of online retailing ethics. The primary motivation for this study is thus the development and validation of a scale to measure online retailing ethics from the consumers’ perspective.

This study makes several contributions. First and most paramount, the scale will be useful not only in academic research but also in practice. As online retailers need to understand how consumers’ ethical perceptions are formed. The present study compiled a list of 22 items (grouped into six factors) that online retailers can use to assess such perceptions. The second key contribution of the present study stems from the analysis of the effects of e-retailing ethics on customer satisfaction and repurchases intention. Overall, this is particularly relevant if we take into account the psychological distance theory. Several theories of interpersonal communication suggest physical proximity in communication fosters stronger bonds between the parties than communication that occurs remotely (Latane, 1981). The current study shows that e-retailing ethics factors become a key means of fostering consumers’ satisfaction and repurchase intention in a context where communications occur remotely. Third, this study is the first study to empirically test service recovery and shared value as elements to be assessed when measuring online retailing ethics from the customer’s perspective.

We first review the extant literature on marketing ethics (with particular focus on buyer perceptions about seller ethics (BPSE)), where certain gaps will be identified. We then specify the domain of e-retailing ethics. This research then reports a series of studies that develop a measure of e-retailing ethics and assess the new measure’s reliability and validity.

2. Background
To create a valid measurement instrument, one must consider the dimensionality of the relevant constructs. One of several steps in this process is a literature review
We summarize the results of the empirical studies that specifically address ethical issues related to e-commerce ethics. Then we focus on specifying the domain of e-retailing ethics.

### 2.1 Marketing ethics

Business ethics defined in most simple terms as the application of ethical principles to business. Gaski (1999) stated that the moral philosophy of Aristotle refers to the meaning of “ethics” as: “human behaviours according to the viewpoint of their rightness and wrongness” (Pires and Stanton, 2002). Ethics referred to the goodness of acts “ethics is considered as all possible moral principles or values which might guide behaviour” (Sherwin, 1983).

Research on ethical marketing first made its appearance in the late 1960s, with the pioneering work of Bartels (1967), who provided the first conceptualization of factors influencing marketing ethics decision-making. Since then, there has been a steady growth of contributions on the subject, reflecting increasing public concern about unethical marketing practices, such as dangerous products, misleading prices, and deceptive advertising. However, it was not until the early 1980s that the important role of ethics in marketing became widely recognized by business practitioners, when, for the first time, many companies and professional associations began to adopt certain codes of ethics in conducting their operations. Reflecting this, academic interest has grown exponentially, with dozens of studies conducted on the subject (see, e.g. reviews by Nill and Schibrowsky, 2007; O’Fallon and Butterfield, 2005; Schlegelmilch and Öberseder, 2010). These can be categorized into five major streams, which are elaborated in the following.

#### 2.1.1 Studies focus on ethical issues pertaining to the key functional areas of marketing strategy

The first stream of research focuses on ethical issues pertaining to the key functional areas of marketing strategy, namely:

- the product, such as dangerous and malfunctioning products, package downsizing, brand imitations, and product information negligence (D’Astous and Gargouri, 2001);
- the price, such as overcharging, inaccurate billing, price fixing, price discrimination, and price skimming (Tsalikis and Seaton, 2008);
- the distribution, such as charging full price for a sales item in retail stores, selling only products with high-profit margins, and giving incorrect change to customers (Sarma, 2007); and
- the promotion, such as deception and unfairness in sales promotions, offensive advertising and stereotypes, and advertising of harmful products (Bakir and Vitell, 2010).

Of the four functional areas examined, ethical aspects of promotion attracted most attention, which is in line with trends in the general field of marketing (Nill and Schibrowsky, 2007).

#### 2.1.2 Studies deals with specialized dimensions of marketing ethics

The second group of studies deals with specialized dimensions of marketing ethics, with particular focus on: ethics in marketing education, specifically dealing with its impact on ethical orientations, attitudes, and behaviours of future business leaders (Gioia, 2002); the impact of stakeholder social concerns on social responsibility issues and their effect on
business performance (Modesto, 2006); the development of ethical codes and standards guiding marketing and advertising practice (Chonko and Hunt, 2000); ethical aspects of international business transactions (Kolk and Van Tulder, 2004); and ethical issues arising from the use of internet marketing by business organizations (Bush et al., 2000).

2.1.3 Studies focus on the way decision-making on ethical matters is conducted. The third research stream examines the way decision-making on ethical matters is conducted, with various models proposed on the subject, such as those by Ferrell et al. (2007), Hunt and Vitell (2006), Jones (1991), and Trevino et al. (1998). Such models explain how individuals make ethical decisions, thus enabling stakeholders to adjust their decision-making processes accordingly (e.g. Burnaz et al., 2009; Singhapakdi et al., 2010). These models mainly draw on ethical traditions in moral philosophy, and specifically build upon the framework originally developed by Rest (1986), which points to four basic components of ethical decision-making: identifying the moral nature of an issue; making a moral judgment; establishing a moral intent; and engaging in moral action (O'Fallon and Butterfield, 2005). However, scholars in this line of research point to the difficulties in providing a generalized model of ethical decision-making due to the existence of various situational factors (Bush et al., 2000).

2.1.4 Studies investigate consumers' perceptions of corporate marketing unethicality. The fourth stream includes studies that investigate consumers' perceptions and responses with regard to corporate marketing unethicality. Research here has taken various directions, such as: the application of consumer ethical concepts in green retailing (Chan et al., 2008); the effects of perceived ethical sales behaviour on customer satisfaction, trust, and commitment (Román and Ruiz, 2005; Leonidou et al., 2013); consumer perceptions of ethical issues surrounding online shopping (Román, 2007); consumers’ punishments or rewards resulting from what they perceive as either a firm’s ethical or unethical behaviour (Babin et al., 2004); the impact of consumers’ commitment on their ethical judgment of the firm’s marketing behaviour and the outcomes of this judgment (Ingram et al., 2005); the formation of perceptions by consumers on company or brand ethicality (Brunk and Blümelhuber, 2011); and customer’s perception of ethical behaviour and its impact on value received and loyalty (Valenzuela et al., 2010).

2.1.5 Consumers’ perceptions of ethical/unethical consumption. The final (and largest) group of studies focuses specifically on consumers’ perceptions of ethical/unethical consumption, and is divided into three sub-areas:

1) The first sub-area sheds light on the unethical behaviour of consumers, with some of the issues addressed here referring to: highlighting specific unethical consumer actions, such as shoplifting (Kallis et al., 1986), buying counterfeit or pirated goods (Ang et al., 2001), and purchasing contraband items (Albers-Miller, 1999).

2) The second sub-area placed particular emphasis on the role of Hofstede’s (1980) cultural dimensions in influencing consumer’s ethicality. Specifically, Vitell et al. (1993) established a link between these cultural factors and ethical elements of decision-making faced in business situations. Rawwas et al. (1998) compared ethical attitudes of consumers in countries sharing a similarity of ongoing war and terrorism, but differing significantly in terms of uncertainty avoidance and masculinity, and concluded that contrasting cultures result in different ethical standards. Yoo and Donthu (2002) also revealed that collectivism and uncertainty avoidance are positively related to perceived marketing ethicality, while masculinity and power distance are negatively associated with it.
The third sub-area focused on how the formation of consumer ethical perceptions is affected by demographic factors, such as gender, age, educational level, marital status, and income group. For instance, Dawson (1995) and Rawwas (1996) found that women tend to consider certain consumer practices as more unethical than do men. Studies conducted by Vitell et al. (1991) and Ramsey et al. (2007) also provided strong evidence that younger people hold lower ethical standards than their older counterparts. Swaidan et al.’s (2003) study indicated that older, more educated, and married consumers are less tolerant of questionable business activities than younger, less educated and single ones, while gender did not play any role in consumers’ ethical orientation. The research of Ang et al. (2001) revealed that males and those from low-income groups exhibit a more favourable attitude toward counterfeit goods, although age and educational level do not influence consumer ethical decision-making. Finally, Erffmeyer et al. (1999) reported that males, younger, married, and more educated consumers are more likely to accept ethically questionable practices.

2.2 Ethical issues in e-commerce

Research on ethical marketing first made its appearance in the late 1960s, with the pioneering work of Bartels (1967), who provided the first conceptualization of factors influencing marketing ethics decision-making. Since then, there has been a steady growth of contributions on the subject, reflecting increasing public concern about unethical marketing practices, such as dangerous products, misleading prices, and deceptive advertising. However, it was not until the early 1980s that the important role of ethics in marketing became widely recognized by business practitioners, when, for the first time, many companies and professional associations began to adopt certain codes of ethics in conducting their operations. Reflecting this, academic interest has grown exponentially, with dozens of studies conducted on the subject (Kim et al., 2010; Schlegelmilch and Öberseder, 2010).

Bush et al. (2000) assessed the perceptions of the ethical issues concerning marketing on the internet among a sample of 292 marketing executives. The authors used an open-ended question “due to the lack of published research from which scaled items could be developed” (Bush et al., 2000). The ethical concerns most often mentioned regarding marketing on the internet was the security of transactions. The next three most often mentioned ethical concerns were illegal activities (e.g. fraud, hacking, privacy, and honesty/truthfulness of the information on the internet). Singh and Hill (2003) study focused on consumers’ concerns regarding online privacy in Germany. Their results suggest that consumers’ perceptions about internet use and online behaviours are affected, among other things, by their perceptions regarding privacy in general, and how they view the role of the government and the role of companies in protecting consumer privacy. Miyazaki and Fernandez (2001) evaluated consumers’ concerns regarding online shopping. Four major concerns emerged from a sample of 189 consumers; three of these concerns were related to ethical issues. The first category, privacy, contained a variety of concerns, such as sharing of personal information, unsolicited contacts from the online retailers, and undisclosed tracking of shopping behaviour. The second category, system security, included concerns about potentially malicious individuals who breach technological data protection devices to acquire customers’ personal and financial information. The third category, online retailer fraud, focused on concerns regarding fraudulent behaviour by the online
retailers, such as purposeful misrepresentation or non-delivery of goods. Similarly, Forsythe et al. (2006) developed a three-factor scale to measure the perceived risks of online shopping. One of them (financial risk) was related to ethical issues. Financial risk was defined as potential net loss of money, and included consumers’ sense of insecurity regarding online credit card usage.

After reviewing marketing ethics literature, Schlegelmilch and Öberseder (2010) argued that internet ethical issues are privacy, identity theft, and phishing. In exploring a special e-commerce ethics, Kracher and Corritore (2004) identified the key issues of access, intellectual property, privacy and informed consent, protection of children, information security, and trust. To provide a scale that measures the perceived ethics of online retailers, Roman (2007) developed the CPEOR from a consumer perspective. This scale is composed of security, privacy, non-deception, and fulfilment parameters. However, it must be reviewed and analyzed from a different perspective due to the increasing capabilities of computers and the internet (Ellis and Griffith, 2001; Jackson et al., 1997). Therefore this study develops a comprehensive scale from the consumer perspective composed of six dimensions, namely, security, privacy, non-deception, fulfilment, service recovery, and shared value.

2.3 Specification of the domain of the BPSE

The first step in the procedure for developing new measures involves specifying the domain of the construct (Churchill, 1979). Typical definitions of business ethics refer to the rightness or wrongness of a business action (Beauchamp and Bowie, 1979). In a general sense, the term business ethics refers to a set of moral norms and principles that guide people’s behaviour (Sherwin, 1983). The terms unethical or ethical describe an individual’s subjective moral judgment of right/wrong or good/bad. Philosophy offers two fundamental types of moral principles that guide evaluations: deontological and teleological (Barnett et al., 2005). When deontological principles are applied, the judgment is rules based: an individual evaluates an action as right or wrong by referring to higher moral duty, norms, or the law. Teleological evaluation, on the other hand, considers the possible outcomes of following a particular rule or action or of taking an alternative route, and tries to predict how much good or bad will come in either event. The teleological perspective entails taking into account perceived consequences, their probability, desirability, and the severity of positive or negative impact. Scholarly support exists for the notion that an individual’s ethical judgment can be a function of both deontological norms and teleological considerations (Shanahan and Hyman, 2003).

Drawing on the above studies, in this research, BPSE is defined as positive consumer perceptions about the behaviour of e-retailers that handle consumers in a confidential, fair, honest, and sincere manner that ultimately protects consumers’ interests. At this stage of the scale development, the lack of prior empirical research in this area prevented us from hypothesizing the dimensions of e-retailing ethics. However, based on conceptual contributions on internet ethics (Roman and Cuestas, 2008) as well as research on online retailing ethics (Cheng et al., 2013) it was expected that e-retailing ethics would have at least six dimensions, namely, privacy; security; reliability/fulfilment; non-deception; service recovery; and shared value.

3. Scale development

3.1 Study 1: item generation

This research generated an initial pool of more than 68 items from a review of previous literature (e.g. Wolfinbarger and Gilly, 2003; Massad and Beachboard, 2009;
Five in-depth interviews and three focus group interviews (with 10-18 members each) were conducted with convenience samples of online consumers; in order to: help in the process of defining the dimensions of the construct, generate new items, perform a thorough evaluation of the item wording, and eliminate any redundant, ambiguous, or poorly worded items. Focus groups lasted two hours approximately. Initial questions were related to participants’ typical online shopping experiences, what were their concerns (e.g. privacy, security, not having the product delivered, etc.) when buying from an online retailer, and if there were goods or services they will not purchase online. Next, they were requested to focus on the website where they made the last purchase. Overall, 68 scale items were finally generated from the literature and interviews. Seven marketing faculty and PhD students then evaluated these 68 items. After reading the definition of each dimension of online retailing ethics, and a related explanation, they assigned the items to one of the six dimensions or to a “not applicable” category. An item was retained if at least six of the judges chose the same category (Tian et al., 2001). Additional four judges rated how well each of the 68 items reflect the different dimensions of online retailing ethics, using the following scale: 1 = clearly representative, 2 = somewhat representative, and 3 = not at all representative. For the six dimensions, this study retained only items that three judges evaluated as clearly representative and that a fourth judge evaluated as somewhat representative (Bearden et al., 2001). This process eliminated 25 items, leaving 43 items.

### Study 2: item purification

In an effort to determine the factor structure of e-retailing ethics and purify the measurement tool, this research used a questionnaire survey. The e-mail message sent with the survey described the research purpose and invited each receiver to participate in the survey by filling in the attached e-questionnaire. Surveying by e-mail possesses numerous advantages over conventional interviewing methods. E-mail surveys offer a more efficient and convenient form of data collection (Best and Krueger, 2002). In addition, an online approach can be more effective for identifying and reaching online shoppers. Data were collected from students in major universities in Egypt, e.g. American University, Assiut University, and Suez Canal University. Students’ samples have often been used in online shopping research (Kim et al., 2007; Li et al., 2003). This is justifiable as students are computer-literate, having few troubles in using new technology. Students are potential consumers of electrical goods, having actual online experiences (Yoo and Donthu, 2001), being homogeneous in nature (Jahng et al., 2000). We obtained a usable sample of 280 students.

This study first examined corrected item-to-total correlations and item correlations for each set of items representing e-retailing ethics, and then deleted items that had corrected item-to-total correlations below 0.50 and item correlations below 0.20 (Bearden et al., 2001). This process resulted in the removal of fourteen items. Following this, this research then evaluated the remaining items using exploratory factor analysis (principal components factor analysis with varimax rotation). The process eliminated items that had a factor loading below 0.50, high-cross loadings above 0.40, and low commonalities below 0.30 (Hair et al., 2009). The final factor analysis resulted in six factors explained 75.97 per cent of the total variance.

The first factor, “reliability/fulfilment” explains 21.34 per cent of the variance and consists of four items. These items are related to the accurate display and description of
a product so that what the customer receives is what he thought he ordered, and the delivery of the right product within the timeframe promised (Wolfinbarger and Gilly, 2003). Earlier research has found fulfilment/reliability to be one of the key dimensions of online service quality as perceived by consumers (Parasuraman et al., 2005). Reliable response is an important factor of service quality because it can influence the customers’ satisfaction (Kalakota and Whinston, 1996). Roman (2007) found fulfilment to be one of the important dimensions of online retailing ethics. In another study, Ndubisi et al. (2011) showed that service reliability leads to customer satisfaction, and indirectly, to loyalty which is mediated by satisfaction.

The second factor, “security”, consists of three items accounting for 16.54 per cent of the variance. Security provided by an online retailer refers to the safety of the computer and credit card or financial information (Bart et al., 2005). Customers believe that the internet payment channels are not always secure and could potentially be intercepted (Jones and Vijayasarathy, 1998). This reduces the customer’s trust, discouraging them from providing personal information and making online purchases. On the other hand, Klang (2001) argues that the level of uncertainty and risk that customers perceive in electronic transactions is not dependent on whether the transactions are actually secure or not. Even if retailers adhere to a scientific assessment of security based on technological solutions and moral guidelines, customers’ perceived sense of security would still be necessary to create the required level of trust to enable online transactions (Pavlou and Chellappa, 2001).

The third factor “privacy”, explains 12.87 per cent of the total variance. The three items on this factor relate to the concept of information risk (Roman and Cuestas, 2008; Riquelme and Román, 2014). Privacy extends itself beyond the uncertainty of providing personal information on a website, but includes the degree to which information is shared or sold to third parties that have marketing-related interests (Miyazaki and Fernandez, 2001). Privacy policies of online retailers involve the adoption and implementation of a privacy policy, disclosure, and choice/consent of customers (Anon, 2005). Benassi (1999) states that mechanisms such as trust-providing intermediaries and institutional infrastructures that establish and enforce rules and regulations can build trust by addressing privacy concerns.

The fourth factor, “service recovery”, consists of five items accounting for 9.89 per cent of the variance. The five items of this factor measured consumers’ perceptions of the fairness of the e-commerce companies’ recovery effort during the transaction processes. Social exchange theorists have identified three dimensions of perceived justice that influence how people evaluate exchanges: distributive justice, interactional justice, and procedural justice (Wu, 2013). The results of a prior study also provided strong support for the effects of service recovery on consumers’ perceptions of justice (Smith et al., 1999). In addition to the support in the literature, during the studies in-depth interviews and focus group meetings with online consumers, many of the participants expressed concern about service recovery in the context of e-commerce companies’ ethics. For instance, the following quotes from focus group meetings evidence the relevance of this dimension: “this website was not ethical. I was dissatisfied with the site’s response to my complaint about after service”; “I was compensated for the delayed delivery of products purchased on this website”.

The fifth factor, “non-deception” consists of 4 items accounting for 8.44 per cent of the variance. These items refer to the extent to which the consumer believes that the online retailer does not use deceptive or manipulative practices with the intent to persuade consumers to purchase the website’s offerings. This dimension focuses on
consumer’s perceptions of online retailer’s deceiving/misleading practices, rather than on the act of deception itself. 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 behavioural intentions (Burke et al., 1988; Darke and Ritchie, 2007). For instance, findings from Darke and Ritchie (2007) showed that deceptive advertising engenders consumers’ distrust. Few studies (Ingram et al., 2005; Ramsey et al., 2007) found that deceptive selling actions decrease customer satisfaction and trust.

The last factor, “shared value”, consists of three items and explained 6.89 per cent of the total variance. Shared value is the extent to which partners have beliefs in common about what behaviours and goals are important or unimportant and right or wrong (Morgan and Hunt, 1994; Agag and El-Masry, 2016a, b, c). Ethics is a key aspect of shared value. Morgan and Hunt (1994) have conceptualized shared values through the extent to which ethics is compromised and the consequences of unethical behaviours. High standards of retailers’ ethics such as e-governance, taking permission from user for mailing lists or preventing children from accessing adult content are especially important for online retailing.

Based on the results of the factor analysis, seven more items were removed as they had relatively substantial cross-loadings with the other e-retailing ethics dimensions. These analyses resulted in 22 items remaining across the six dimensions of e-retailing ethics (four items measuring fulfilment/reliability, three items measuring security, three items measuring privacy, five items measuring service recovery, four items measuring non-deception, and three items measuring shared value) that were subjected to further testing in Studies 2 and 3. Cronbach’s α values for the six dimensions ranged from 0.76 to 0.92, all exceeding the 0.70 cut-off value recommended by Nunnally (1994). The Kaiser-Meyer-Olkin value of 0.948 and a significant χ² value for the Bartlett’s test of sphericity (χ² = 7,403.15, p < 0.001) indicated that factor analysis was appropriate for the data. Following list shows the final list of items retained for confirmatory factor analysis.

**BPSE scale:**

1. **Privacy** (composite reliability (CR) = 0.751, average variance extracted (AVE) = 0.503):
   - the site clearly explains how user information is used;
   - information regarding the privacy policy is clearly presented; and
   - the site shows that it complies with the rules and regulations governing online data protection.

2. **Security** (CR = 0.823, AVE = 0.609):
   - the site appears to offer secure payment methods;
   - the security policy is easy to understand; and
   - this site has adequate security features.

3. **Reliability** (CR = 0.853, AVE = 0.593):
   - the price shown on the site is the actual amount billed;
   - you get what you ordered from this site;
   - promises to do something by a certain time, they do it; and
   - the products I looked at were available.
(4) Non-deception (CR = 0.822, AVE = 0.537):
- the site exaggerates the benefits and characteristics of its offerings;
- this site takes advantage of less experienced consumers to make them purchase;
- this site attempts to persuade you to buy things that you do not need; and
- this site is not entirely truthful about its offerings.

(5) Service recovery (CR = 0.890, AVE = 0.619):
- this online store has a return policy;
- there is a compensated policy for any delay in delivery of products/services;
- this online store responds to customer complaints promptly;
- this online store has a tracking mechanism for service recovery to identify customer satisfaction; and
- this online store tells you what to do when online transaction cannot be completed.

(6) Shared value (CR = 0.816, AVE = 0.528):
- the online service provider respects our business values;
- the online service provider and our company have a mutual understanding of each other’s business values; and
- the online service provider sticks to highest level of business ethics in all its transactions.

3.3 Study 3: reliability assessment and construct validation

To evaluate the reliability and validity of the scale, this study recruited researchers to serve as data collectors for Study 3. Respondents have been contacted face-to-face and gave the self-administered questionnaire. This data collection procedure yielded 310 responses. Of the respondents, 58 per cent were male. About 73.2 per cent of the respondents belonged to the age group of 21-30, and most of the respondents were currently students (82.9 per cent).

3.3.1 Dimensionality and reliability. To assess the dimensionality of the constructs, confirmatory factor analysis has been conducted using Amos 21.0.0 (Arbuckle, 1999). Figure 1 shows the results for the confirmatory factor analysis. The results confirmed the dimensionality of the 22-item, six-dimension scale ($\chi^2_{(215)} = 758.317, p < 0.001, \text{CFI} = 0.915, \text{GFI} = 0.962, \text{NNFI} = 0.963, \text{RMR} = 0.058, \text{RMSEA} = 0.064$). This study also assessed the reliability of each scale by calculating CR and AVE. The results indicated that the scale possesses good reliability, as the CR for each scale is greater than 0.70, and the AVE for each dimension is greater than 0.50 (Bagozzi and Yi, 1988) (see Table I). These results suggest that no further deletion of items is necessary.

3.3.2 Construct validity. All factor loadings were statistically significant and were greater than 0.7, indicating convergent validity. Discriminant validity has been tested by comparing the AVE by each construct to the shared variance between the construct and all other variables (Gefen et al., 2000) (see Table I). This indicates that each construct shared more variance with its items than it shared with other constructs, thereby demonstrating discriminant validity.
Following the method utilized by Doll et al. (1994) and Dabholkar et al. (1996), we performed CFA analyses using Amos 21 comparing several possible factor structures (see Table II). We compared the fit of the six factors model to that of a series of alternative models with fewer factors: five-factor model (privacy+security, non-deception, reliability, service recovery, and shared value) and four-factor model (privacy+security+reliability, non-deception, service recovery, and shared value) and three-factor model (privacy +security+reliability, non-deception+service recovery, and shared value) and a two-factor model (privacy+security+reliability+non-deception+service recovery, and shared value), and finally, one-factor model (privacy+security+reliability+non-deception+service recovery, and shared value).

Notes: $\chi^2 = 792.496 (p = 0.000); GFI = 0.910; AGFI = 0.88, CFI = 0.965; NFI = 0.839; NNFI = 0.923; RMR = 0.064; RMSEA = 0.072$

**Figure 1.** The first-order measurement model

**Table I.** Results of composite reliability and convergent/ discriminant validity testing

<table>
<thead>
<tr>
<th></th>
<th>CR</th>
<th>AVE</th>
<th>Privacy</th>
<th>Security</th>
<th>Reliability</th>
<th>Non-deception</th>
<th>Service recovery</th>
<th>Shared value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Privacy (PV)</td>
<td>0.751</td>
<td>0.503</td>
<td>0.710</td>
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<tr>
<td>Security (SC)</td>
<td>0.823</td>
<td>0.609</td>
<td>0.605</td>
<td>0.832</td>
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<tr>
<td>Reliability (RL)</td>
<td>0.853</td>
<td>0.593</td>
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<td>0.781</td>
<td>0.854</td>
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<tr>
<td>Non-deception (DC)</td>
<td>0.822</td>
<td>0.537</td>
<td>0.571</td>
<td>0.806</td>
<td>0.770</td>
<td>0.751</td>
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<td>Service recovery (SR)</td>
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<td>0.672</td>
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<tr>
<td>Shared value (SV)</td>
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<td>0.528</td>
<td>0.490</td>
<td>0.759</td>
<td>0.689</td>
<td>0.733</td>
<td>0.743</td>
<td>0.757</td>
</tr>
</tbody>
</table>
recovery + shared value). As shown in Table II, the six factors model, one second-order factor fits the data much better than the other factor models.

The overall fit measures suggest that the model is a plausible representation of the structures underlying the empirical data. The CFI = 0.971, GFI = 0.915, NNFI = 0.930, RMR = 0.058, RMSEA = 0.064, clearly exceed the threshold values recommended in the extant literature (Bagozzi and Yi, 1988). This provides strong support for the six dimensions as aspects of e-retailing ethics. The six-factor models, one with a higher order factor and one without, perform similarly on all fitness measures, and better than the other models. Consequently, either of the six-factor models is suitable to model e-retailing ethics (Figure 2).

3.4 Study 4: nomological validity
We examined the instrument in terms of its nomological validity. This determines whether an instrument behaved as expected with respect to other constructs to which it is theoretically related. For the nomological validity of the scale, the present study obtained data from 260 undergraduate students. This study replicated the data

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$ (df)</th>
<th>CFI</th>
<th>GFI</th>
<th>NNFI</th>
<th>RMR</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Six factors, one second-order factor</td>
<td>758.317 (215)</td>
<td>0.971</td>
<td>0.915</td>
<td>0.930</td>
<td>0.058</td>
<td>0.064</td>
</tr>
<tr>
<td>Six factors</td>
<td>792.496 (224)</td>
<td>0.965</td>
<td>0.910</td>
<td>0.923</td>
<td>0.064</td>
<td>0.072</td>
</tr>
<tr>
<td>Five factors</td>
<td>762.495 (218)</td>
<td>0.871</td>
<td>0.814</td>
<td>0.829</td>
<td>0.075</td>
<td>0.090</td>
</tr>
<tr>
<td>Four factors</td>
<td>775.771 (221)</td>
<td>0.868</td>
<td>0.812</td>
<td>0.826</td>
<td>0.10</td>
<td>0.14</td>
</tr>
<tr>
<td>Three factors</td>
<td>789.322 (226)</td>
<td>0.612</td>
<td>0.594</td>
<td>0.602</td>
<td>0.13</td>
<td>0.17</td>
</tr>
<tr>
<td>Two factors</td>
<td>811.732 (232)</td>
<td>0.532</td>
<td>0.502</td>
<td>0.550</td>
<td>0.15</td>
<td>0.21</td>
</tr>
<tr>
<td>One factor</td>
<td>831.211 (239)</td>
<td>0.511</td>
<td>0.50</td>
<td>0.523</td>
<td>0.19</td>
<td>0.28</td>
</tr>
</tbody>
</table>

Table II. Comparisons of various models of e-retailing ethics factors

![Diagram](image)

**Figure 2.**
Modelling BPSE as a reflective second-order

**Notes:** $\chi^2 = 758.317$ ($p = 0.000$); GFI = 0.915; AGFI = 0.89; CFI = 0.971; NFI = 0.874; NNFI = 0.930; RMR = 0.058; RMSEA = 0.064
collection procedure employed in Study 2. The average age of the respondents was 22.5 years, and 39 per cent were male.

Previous studies have suggested that a salesperson with good ethics could establish a favourable relationship with the customer, thereby acquiring the customer’s satisfaction (Roman, 2007; Kurt and Hacioglu, 2010). In this research, customer’s satisfaction refers to the customers’ post-purchase comparison between pre-purchase expectation and performance received (Oliver, 1980). Therefore, we tested a structural model that related e-retailing ethics to user overall satisfaction (see Figure 3).

Repurchase intention is defined here as the intention to repurchase a particular brand of product again. A review of the literature identified a number of studies on social programs that found positive effects of social and ethical business practices on customer attitudes toward the brand (Lafferty and Goldsmith, 2005) with stronger identification with the company, greater brand purchase and greater intention to seek employment with the company (Sen et al., 2006). In this sense, consumers are willing to actively support companies committed to cause-related marketing, environmentally friendly practices, and ethics (McDonald and Rundle-Thiele, 2008). Limbu et al. (2011) pointed out that perceived ethics of an internet retailer’s website significantly affect consumers’ trust and attitudes to the retailer’s website that eventually have positive impacts on purchase and revisit intentions. The e-retailing ethics is proposed to positively influence the customer’s repurchase intentions.

In Table III, we present the analyses, through structural equation modelling, of the relationship between the six dimensions of e-retailing ethics and the dependent variables (satisfaction and repurchase intention). The results indicate that all e-retailing ethics dimensions have significant effects on customer satisfaction and repurchase intention. The fitness indices suggest that the models fit are acceptable. E-retailing ethics dimensions; accounts for 72 per cent of the variance in customer satisfaction and

---

**Figure 3.** Model for nomological validity assessment

**Note:** All paths were significant at $p < 0.00$
56 per cent of the variance in customer repurchase intention, suggesting desirable external validity. With respect to customer satisfaction, reliability appears to be the most important determinant ($\beta = 0.46$), consistent with Wolfinbarger and Gilly (2003) results; that is, service reliability/fulfilment provides a strong predictor of overall customer satisfaction. The other e-retailing ethics dimensions seem to contribute to customer satisfaction as follow, 0.35 for privacy, 0.31 for service recovery, 0.28 for security, 0.27 for shared value, and 0.21 for non-deception.

For repurchase intention, security emerges as the most important determinant ($\beta = 0.37$), followed by privacy ($\beta = 0.32$), service recovery ($\beta = 0.25$), reliability ($\beta = 0.24$), shared value ($\beta = 0.13$), and non-deception ($\beta = 0.13$). These findings reinforce the criticality of service reliability/fulfilment and security for affecting customer satisfaction and repurchase intention, two essential service outcomes in e-retailing.

4. Discussion
The internet is fundamentally transforming the nature of the relationship that businesses have with consumers and the public. While e-commerce has witnessed extensive growth in recent years, consumers concerns regarding ethical issues surrounding online shopping also continue to increase. The vast majority of earlier research on this area is conceptual in nature and limited in scope by focusing on consumers’ privacy issues. One objective in this study was to begin to fill this gap in the literature. To this end, based on accepted methods of scale development in marketing research, this study has developed a scale to measure e-retailing ethics from the consumer’s perspective. The psychometric properties, assessed on two samples of real consumers referring to their last purchase online, indicate that the e-retailing ethics scale can be useful for academic research and managerial activities.

The findings of this study suggest that e-retailing Ethics is a multidimensional construct composed of six dimensions: privacy, security, fulfilment, non-deception, service recovery, and shared value. This multidimensional construct is consistent with previous conceptualizations and measurements of the ethical perceptions of consumers in online retailing contexts (Roman, 2007; Roman and Cuestas, 2008). A key aspect of this multidimensional conceptualization is that privacy is important, as it represent a great concern in modern globalized networked society (Ellis and Griffith, 2001). The American Marketing Association code of ethics for marketing states that information collected from customers should be confidential and used only for the expressed purposes, this highlight that e-commerce companies ought to comply with ethical principles and protect a consumer’s privacy. The result of the current study goes in line with this in confirming that e-retailing ethics should include privacy.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Customer satisfaction</th>
<th>Repurchase intention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Privacy</td>
<td>0.35</td>
<td>0.32</td>
</tr>
<tr>
<td>Security</td>
<td>0.28</td>
<td>0.37</td>
</tr>
<tr>
<td>Reliability</td>
<td>0.46</td>
<td>0.24</td>
</tr>
<tr>
<td>Non-deception</td>
<td>0.21*</td>
<td>0.11*</td>
</tr>
<tr>
<td>Service recovery</td>
<td>0.31</td>
<td>0.25</td>
</tr>
<tr>
<td>Shared value</td>
<td>0.27</td>
<td>0.13*</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.72</td>
<td>0.56</td>
</tr>
</tbody>
</table>

Notes: All paths were significant at $p < 0.001$ unless noted. *The path was significant at $p < 0.01$.
Security, the second dimension, is an important issue in contemporary online transactions (Peha and Khamitov, 2004). Prior literature argued that technological protection and security statements are significant factors that can improve consumer perceived security (Kim et al., 2010; Lim, 2008). Our study suggests that consumers desire e-commerce companies to have technological protection and security statements. Thus, e-retailing ethics includes security.

Fulfilment/reliability, suggests that e-retailing ethics is also related to the service quality delivered by websites on which consumers shop online. Consistent with previous research (Parasuraman et al., 2005; Wolfinbarger and Gilly, 2003), our results show that online consumers want to receive the right quality and right quantity of items that they ordered within the timeframe promised by the online retailers, and they expect to be billed accurately by them.

The existence of the fourth dimension, non-deception, indicates that consumers’ concerns arising in traditional markets due to deceptive or manipulative advertising and sales practices are somewhat exacerbated in internet commerce by the relatively unfamiliar and impersonal nature of the web, where the lack of opportunities for face-to-face interactions reduces people’s ability to detect deception (Ben-Ner and Putterman, 2003). For instance, in traditional retail settings, the detection of deception relies, amongst other things, on recognizing subtle changes in a person’s non-verbal behaviours, such as eye contact and body movements (DePaulo, 1992).

Service recovery is the fifth dimension of e-retailing Ethics. Palmer et al. (2000) noted that consumer perceived equity throughout service recovery affects their repeated purchase intention.

Lee and Lee (2005) also demonstrated that complaint management processes by e-retailers lead to higher trust than when no complaint management process exists. That is, if e-commerce companies recognize the special needs of consumers and respond to these needs, consumer perceived ethics of e-commerce websites will increase. In other words, service recovery by an e-commerce company meets consumer perceived equity, which in turn results in consumer satisfaction and repurchases decisions. These research findings are in agreement with our assertion that service recovery is a component of e-retailing ethics.

Finally, shared value leads to increased commitment from the customer. The online customer looks for a better association with the online retailer. Shared value enhances the feeling of association and nurture an associative long-term relationship. This then leads to the trust. Thus, to develop a trust-based relationship, the online retailers must strive to foster a culture of ethics to inculcate positive shared values in the relationship. These research findings are in agreement with our assertion that shared value is a component of e-retailing ethics.

The current study’s findings from nomological validity analysis indicate that the six dimensions of e-retailing ethics have different effects on consumer satisfaction and repurchase intention. Fulfilment was the strongest predictor of satisfaction. This adds further empirical evidence to previous results (Wolfinbarger and Gilly, 2003; Roman, 2007). When shopping online, consumers are vulnerable. They worry that they will not receive the products or services exactly as they purchased. Consequently, consumer concerns about fulfilment are still a critical issue for online retailers (Collier and Bienstock, 2006). Furthermore, privacy, followed by service recovery and security, had a strong influence on satisfaction. The primary driver of repurchase intention is security. This adds further empirical evidence to previous results (Bart et al., 2005).
Non-deception becomes the weakest predictor of satisfaction and repurchases intention. A plausible explanation is that consumers, in the offline context, have long been exposed to deceptive/manipulative advertising and sales practices. Even though perceptions of non-deceptive tactics play an important role in explaining e-retailing ethics, as shown in this study, it seems reasonable that in the formation of consumers' satisfaction and trust, consumers are more concerned with aspects particularly relevant in the online environment such as security, privacy, and fulfilment.

4.1 Managerial implications
There are a number of managerial implications derived from our results. This study highlights the importance of e-retailing ethics dimensions in customer’s satisfaction and repurchases intention. More specifically, our results show that security was the most relevant predictor of consumer repurchases intention. This is particularly relevant for companies since in the near future repurchases intention will remain the decisive factor for success or failure of e-businesses. Therefore, online retailers should place special emphasis on security issues. Security perceptions may be improved by ensuring secure transactions with data encryption, providing clear information on security policy, as well as offering multi-payments systems such as by check, money order, or cash on delivery.

Furthermore, we recommend that e-commerce companies present their privacy policies clearly to increase consumer intention to shop online (Miyazaki and Krishnamurthy, 2002). Consumers’ willingness to give their personal information to e-commerce websites will increase when privacy policies are guaranteed (Meinert et al., 2006). Additionally, e-commerce companies should also pay attention to sites’ security. Miyazaki and Fernandez (2001) indicated that a positive relationship exists between the percentage of privacy and security statements on e-commerce websites and consumer intention to shop online. An e-commerce company should publish clear security policies that can be easily understood by consumers. By informing and reassuring consumers about the security of their payments, it will likely enhance consumer’s perceptions of security (Lim, 2008). Online retailers should honestly state the availability of particular products and the likely ship dates. In addition, notification to customers by e-mail of the acceptance of an order, the anticipated delivery date along with phone and e-mail contacts for assistance with setting up or installing the purchased product are actions that improve customer’s perceptions of the website’s fulfilment/reliability. The current study urges e-commerce companies in Egypt to publish a clear return policy and information about compensation when products or services are not delivered on time. E-commerce companies should handle consumer inquiries and complaints promptly during the transaction process. Service recovery is merely a part of the post-sale stage and not all consumers experience it. For initial consumers it is a post-sale issue, but for repeat consumers it is a meaningful issue because it will affect their satisfaction and repurchase intention. When repeat consumers are satisfied with the service recovery offered by an e-commerce company, their trust and commitment to that company can increase (Tax and Brown, 1998).

Finally, the online retailer must strive to foster a culture of ethics to inculcate positive shared values in the relationship. Shared value also leads to increased commitment from the customer (Mukherjee and Nath, 2007).

5. Future research and limitations
As any other research the current study has some limitations that need to be considered. First, this study employed a convenience sample, so generalization of the results need to be taken with some cautious. The ethics literature identifies some
factors which influence ethical judgments of consumers (e.g. sex, age, and education). Such research could identify how each variable, individually and cooperatively, impacts consumer ethical evaluations of online retailing. We did not collect data from non-internet shoppers because the focus of this study was online consumers referring to their latest purchase online. It may be an interesting extension, however, to test this conceptual model for other populations like non-online consumers. The development of the e-retailing ethics scale took place in Egypt. Further research is also encouraged in countries other than Egypt, since earlier research has shown that national culture has an impact on ethical judgments of consumers. Finally, we encourage future research to analyse differences in the effects of e-retailing ethics dimensions on the consumer outcomes depending on the characteristics of website and nature of the products.

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Further reading


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