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DECEPTION TACTICS AND COUNTERFEIT DECEPTION IN ONLINE ENVIRONMENTS

*Tactiques de tromperies et contrefaçons trompeuses dans les environnements en
ligne*

Research-in-Progress

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Abstract

With widespread globalization happening at an alarming speed, the manufacturing and copying of goods has become a matter of routine for counterfeiters. The Internet has provided a new advantage for counterfeiters - the opportunity to sell goods without prior consumer inspection. Leveraging this opportunity, deceitful purveyors of imitation goods engage in unethical practices such as selling counterfeit goods presenting them as genuine. We propose that there are two categories of counterfeit deception mechanisms online: product level information and seller level information. In order to successfully deceive prospective buyers, sellers conceal the signals that identify the offering as a fake, and present themselves as legitimate business entities. In this research-in-progress paper, we outline several propositions to guide future research in this area. We are currently conducting an empirical study to test these propositions.

Keywords: Counterfeit deception, deception tactics, theory of deception, trust, unethical behavior.

Résumé

Internet a fourni un nouvel avantage aux contrefacteurs, l'opportunité de vendre des biens sans une inspection préalable de la part du consommateur. En profitant de cette opportunité, les faussaires emploient des pratiques non éthiques. A titre d'exemple, ils vendent des biens contrefaits en les présentant comme des originaux. Nous proposons que le design des sites Internet et la présentation des produits aient un effet sur la perception des produits contrefaits par les consommateurs.

1. Introduction

Deception is an ethical issue prone to occur in commercial transactions due to information asymmetry and opportunistic behavior. Because of the limited amount of information available in cyberspace and the difficulties of verifying such information, deception in electronic environments is most prevalent (Mintz, 2002; Rowe, 2006). When consumers are purchasing tangible goods with specific characteristics such as designer goods, electronics or pharmaceutical products, they may unconsciously become victims of counterfeit deception schemes, depending on how the sellers present themselves and their offerings online. The consequences of unknowingly buying counterfeit products include fraud and health hazards. As such, this research area combines issues of ethics, design and consequences.

Product counterfeiting is unauthorized manufacturing of goods whose characteristics are protected by trademarks, patents and copyrights (Cordell et al. 1996). Although a wide range of goods can be manufactured illegally, the favored objects of counterfeiters are products that convey a status brand image and require somewhat uncomplicated production technology (Penz and Stottinger, 2005). According to the U.S. Customs Office (2007), the top commodities preferred by counterfeiters include footwear, apparel, watches, pharmaceuticals and electronics.

Counterfeiting affects many groups of people and organizations around the world and is estimated to bring in about \$600 billion annually in worldwide sales (International Anti-Counterfeiting Coalition, 2008). According to online brand protection company MarkMonitor, \$137 billion in counterfeit goods will be sold online in 2008. The internet provides organizations with new ways of conducting business by offering innovative means of marketing communications, sales mechanisms, logistics and customer service. However, at the same time, the internet introduces new options for opportunistic behavior and fraud. Since the internet does not provide an opportunity for customers to examine the product before purchasing, they must rely on the information provided by the sellers through text-based descriptions, pictures and more recently, videos. It is therefore very easy for unscrupulous merchants to manipulate website design and product characteristics to make unsupportable claims about the state or origin of their offerings.

Counterfeit product trade is conducted in two types of markets (Grossman and Shapiro, 1988b). The first type is a non-deceptive market where consumers can easily differentiate knockoffs from genuine items. The second type of markets, that Grossman and Shapiro (1998a) term as “deceptive counterfeit markets”, consists of an environment where consumers cannot differentiate fake from authentic due to a lack of information. In the case of deceptive markets not only do consumers get victimized but the image of honest manufacturers can also be harmed.

In this paper we focus on deceptive markets and consider the issue of counterfeit deception from the victim’s point of view. We incorporate into our analysis the effects of counterfeiting that happen when a buyer unknowingly purchases a fake product instead of a legitimate product.

We propose that there are two categories of deception mechanisms online: product level information and seller level information. In order to successfully deceive potential buyers, sellers of fake goods must engage in two types of unethical activities: concealing the signals that identify the product as a fake, and presenting themselves as legitimate business entities. Website characteristics at the product and seller levels are design issues through which deception occurs and sales of counterfeit goods online present a series of consequences for the consumer ranging from financial losses to health risks. Drawing on research in trust and deception we attempt to answer the following question:

What are the mechanisms that counterfeiters use to induce potential buyers to trust the authenticity of goods sold online?

This research-in-progress paper intends to make theoretical and practical contributions to the literature on deception and trust. At the theoretical level we apply and expand the Theory of Deception by Johnson et al. (2001). At the pragmatic level we seek to inform online consumers about deception detection. Furthermore, this paper has the potential to shed light on website design features that lead users to trust dishonest merchants and unknowingly purchase counterfeit goods online. Such knowledge can be essential for further developing the Internet as a commercial medium by lowering the risks for online consumers. The study will be helpful to IS researchers who want to further explore deception mechanisms in online counterfeit markets, as well as legitimate companies, website owners and anti-counterfeit organizations seeking to decrease the number of counterfeit goods sales online.

The rest of the paper is structured as follows: the next section introduces a literature review on counterfeiting; section three describes the Theory of Deception by Johnson et al. (2001) and is used to support propositions regarding product level information with focus on product presentation and deception tactics; section four reviews constructs of trust and forms propositions regarding seller level information with focus on website credibility and seller benevolence; section five talks about technological implications; and section six discusses areas for future research, limitations and conclusions.

2. Literature Review

Since selling counterfeit goods online is a relatively new phenomenon, the vast majority of published papers to date describe counterfeit sales from the offline standpoint. Relevant works with offline focus address the problem from a consumer behavior perspective (Penz and Stottinger, 2005; Tom, Garibaldi, Zeng and Pilcher, 1998), perceived risks and attitudes (Chakraborty, Allred, Sukhdial and Bristol, 1997; DeMatos et al. 2007), investigate legal ramifications (Field, 2004), and discuss ethical implications (Ha and Lennon, 2006).

In consumer behavior studies, the issue of counterfeit goods has been analyzed from the perspective of the consumer as a victim or as a willing collaborator. As victims, consumers believe that they bought an authentic item, while as willing collaborators they know that an item is a counterfeit and purchase it anyway (Cordell, Wongtada and Kieschnick, 1996). While some consumers are misled, others participate in the counterfeit goods scheme willingly, aware that they will not receive imitations of the best quality. Some consumers are motivated by physical and symbolic product attributes and have a favorable attitude towards counterfeit goods because of their lower prices (Grossman and Shapiro, 1998b; Nia and Zaichkowsky, 2000). The cheaper prices of counterfeit goods heavily influence consumers' willingness to purchase non-authentic items (Bloch, Bush and Campbell, 1993; Cordell et al. 1996). Non-price determinants include favorable attitude towards counterfeiting, brand status, novelty seeking, materialism, risk taking, product attributes, perceived fashion content and demographic characteristics (Wee, Ta and Cheok, 1995).

Various ways were suggested in this body of literature to combat counterfeiting. Olsen and Granzen (1992) proposed a close cooperation between a manufacturer and retailers. Technological implications have also been discussed including holograms and chemical fingerprints to mark the products (Colvin, 1999), DNA for textile identifications (Chaudhry and Walsh, 1996), digital watermark method for commercial bills (Ward, 2006), and radio frequency identification (RFID) authentication for pharmaceutical industry (King and Zhang, 2007).

While we recognize the similarity of counterfeit issues in both online and offline worlds, the problem of counterfeiting on the internet is more complicated because of the virtual representation environment. Identifying deception when imitation goods are presented as authentic requires online consumers to recognize fraudulent sellers and counterfeit merchandise without close inspection. Whether at the level of the purveyor or the product itself, counterfeit detection is challenged by the very nature of online transactions.

To our knowledge only two articles have concentrated primarily on the issue of counterfeiting in online environments. The first study is a conceptual paper that discusses online pharmacies and outcomes of usage of illegal and counterfeit medicines (DeKieffer, 2006). The article addresses the differences between buying from certified websites that carry the Verified Internet Pharmacy Practice Sites (VIPPS) seal and buying from illegal 'Canadian' online pharmacies.

The second study proposes legislative solutions to address trademark liability of online auctions such as responsibility for searching and monitoring its marketplace and removing infringing listings upon being alerted by the trademark owner (Favre, 2007). Our study examines online product characteristics and seller characteristics in the context of counterfeit deception and online trust. Our purpose is to identify counterfeit deception mechanisms specific to the online environment.

3. Product Level Information

Deception and Deception Tactics

While the previous section summarized the relevant literature on counterfeit selling online, this section will review and build the case for deception tactics that can be used at the product level. Deception and fraud have received extensive attention in academic literature (Buller and Burgoon 1996; DePaulo et al. 1989; Ekman 1992; Hyman

1989; Johnson et al. 2001). Deception is the form of information manipulation which occurs when a deceiver induces a misrepresentation to influence the behavior of a target (Johnson et al. 2001). Turner et al. (1975) were the first to document that deceptiveness occurs due to manipulation of information. They propose that information can be manipulated through concealment and distortion. This finding is consistent with Ekman (1992) who proposed that there are two major deception strategies – concealment and falsifying. In concealment, the deceiver hides some information without saying anything untrue. In falsifying, the deceiver adds false information as if it were true.

A variety of ways exist in which individuals may deceive others. Deception takes place in almost all areas of activities and is characterized as the conflict of interest (e.g. in business, politics, marriage, warfare and marketplaces (Ekman, 1992; Johnson et al. 2001). Deception can be intentional or unintentional. Intentional deception is used when people want to show themselves in a more positive light, feel better about themselves, and be protected from negative outcomes (De Paulo et al. 1996). Intentional deception can also be used in order to achieve financial gain.

The theory of deception by Johnson et al. (2001) describes the occurrence of intentional deception. The theory explains deception from both the deceiver and the victim sides. The deceiver tries to change the environment in such a way that the victim mistakenly accepts misrepresented facts as true and behaves in accordance with the deceiver's manipulation. The users, on the other hand, may be able to detect deception by telling the difference between their expectations and the information given by the deceiver. However, if a potential victim does not possess enough knowledge or experience in the domain in which the deception is likely to occur, the deceiver may have more chances to succeed.

Grazioli (2004) suggests that Johnson's theory of deception is consistent with other deception theories such as the interpersonal deception theory (IDT) by Buller and Burgoon (1996). The interpersonal deception theory describes deception that takes place in interpersonal situations and is influenced by the interaction between a deceiver and a target. The theory explains the relationship of both parties as interactive, bi-directional and goal-directed activity in which the goals and motivations of the deceiver and the target are discrepant. Deceivers know that they violate the targets' expectations and try to disguise their malicious actions by employing three types of management tactics: (1) *Information management* is associated with controlling the information such as message content and style; (2) *Behavior management* controls actions that may lead to deception detection. (3) *Image management* refers to behaviors associated with trustworthiness and credibility.

Despite many similarities between these two theories, Grazioli (2004) argues that Johnson's theory of deception is more suitable in situations of low interactivity and interpersonality, such as deceptions that occur in the business world. Grazioli asserts that Johnson's theory of deception is mainly centered on the content of financial documents or web pages, and because of this focus, Johnson's theory of deception is more appropriate for online environments in which the internet serves as a medium between deceivers and targets.

According to Johnson's theory of deception the deceiver should know how to modify the victim's process of thinking. The deceiver is aware of three processes that the potential victim uses to interpret information: 1) the victim looks for information in the environment; 2) the victim assesses the information; 3) the victim makes a decision.

Johnson et al. (2001) identified two types of failure in the victim's thinking process that are specifically caused by the actions of the deceiver. These actions are called deception tactics and they are described by referencing to the deception core, which is the item or product whose attributes the deceiver intends to hide or simulate. The first type of failure is done by blocking, removing or confusing the attributes of the core; these tactics intend to disrupt the victim's process of seeking information. The second type is done by modifying or misclassifying the labels of the core; by so doing, the deceiver disrupts the victim's process of information assessment (Table1).

These deception tactics were used in the detection of financial statement fraud (Johnson et al. 2001), in the fields of criminology and information systems security (Grazioli and Jarvenpaa, 2003) and in internet deception (Grazioli, 2004). The deception tactics are centered on the content and information rather than physical cues, which makes them appropriate for deceptive situations set in virtual environments such as the internet.

TABLE 1. DECEPTION TACTICS.

Deception Tactics		Characteristics
Tactics that block the formation of correct representation of the core	Masking	Deceiver skips or removes important parts of the core
	Dazzling	Deceiver hides or makes difficult to find the important parts of the core
	Decoying	Deceiver attracts user's attention away from the core
Tactics that promote incorrect representation of the core	Mimicking	Deceiver modifies the core by copying the features of a legitimate item
	Inventing	Deceiver makes up information about the core while the core does not exist
	Relabeling	Deceiver describes questionable characteristics of the core in a favorable way
	Double Play	Deceiver suggests that the victim is taking advantage of the fabricated situation against the deceiver's will

Grazioli and Jarvenpaa (2003)

The selection of deception tactics depends on the characteristics of the transaction, product characteristics and users' characteristics (Grazioli and Jarvenpaa, 2003). In selling counterfeit goods over the internet to individuals, the deceiver will use deception tactics that work best for the given combination of circumstances.

Masking, dazzling and decoying form a category of deception tactics in which the deceiver hides information about the deception core without adding anything untrue. Mimicking, inventing, relabeling and double play form the second category of deception tactics in which the deceiver adds false information as if it were true. The masking tactic is appropriate for counterfeit deception as it misleads the target by omitting important content such as information about the real quality or origin of the product. The mimicking tactic is also suitable for online counterfeiting as it copies the features of legitimate products and is mainly used in sales of imitation goods presented as authentic (Grazioli and Jarvenpaa, 2003). While all seven tactics can be used in internet deception, dazzling, decoying and double play tactics are relatively rare as they require more sophisticated approach (Grazioli and Jarvenpaa, 2003). The difference between inventing and relabeling is insignificant (Grazioli and Jarvenpaa, 2003), both tactics are related to either product non-delivery or a delivery of a wrongly advertised product and are not specific for counterfeit goods. For these reasons, we focus our attention in this study on masking and mimicking tactics.

Masking

Deceptive and unethical practices in online retailing include embellishing and exaggerating the features of the product (Roman and Munuera, 2005). As the majority of retail websites currently utilize text and pictures to present product information (Lightner and Eastman, 2002), exaggerating or overstating product features becomes possible through product presentation manipulation. The masking deception tactic is a good example of presentation manipulation because it limits the examination of the attributes of the product at the time of purchase. Masking aims to deceive the user by removing critical information about the product. The deceiver anticipates misleading the user by removing crucial elements of the core from the website in hope that the user does not possess enough previous knowledge about the product to notice discrepancies. Gentry, Putrevu, Shultz and Commuri (2001) found that consumers can recognize counterfeit products upon closer examination by inspecting designer logos, quality of materials, and labeling and packaging, but that, participants of the study agreed, only loyal and brand conscious customers can actually identify the differences between counterfeit and original products. To create information asymmetry and to conceal important product attributes that do not match those of the original product, the deceiver may use a static image as a part of the product presentation. The static image allows neither zooming nor rotating of the item, resulting in a lack of information necessary to identify the item as legitimate. In this situation, it does not matter whether the image depicts an original item or not because important attributes of the product are not observable. Masking may work because imperfectly informed users are not able to find deception cues and may incorrectly perceive the product as authentic, however, in some cases masking can raise questions about the authenticity of the offerings.

Proposition 1: The masking deception tactic performed through omitting some visual attributes of the product will increase users' perception of counterfeit deception online.

Mimicking

Mimicking is an appropriate deception tactic in counterfeit context as it may be used to make consumers believe that products they want to purchase are legitimate when in fact they are not (Grazioli & Jarvenpaa, 2003). Mimicking prevents the user from identifying deception by providing false information about the core. Compared to the masking tactics that might work against an inexperienced buyer, mimicking might work against a more informed one (Grazioli and Jarvenpaa, 2003). If some elements of a product are missing, more knowledgeable users will experience product quality uncertainty and will require more information cues to perceive a product as genuine. To influence consumers' favorable perception of the product, the deceiver may create an environment in which nothing seems to violate the expectations of the user. In this case, the deceiver should let the user inspect the product from every angle including exterior and interior parts of the product. To do so, the deceiver might use multiple pictures of the product or more complicated video and virtual product experience designs. Upon closer inspection of the product, users may recognize pitfalls in the product that influence their attitudes, and change their purchase intentions (Suh and Lee, 2005). To prevent negative outcomes, the deceiver may use an image of the authentic product in combination with advanced 3-D product presentation or multiple pictures.

Past research confirms that virtual presentation online affects purchase intent by reducing apparent risk, creating better mood, and providing an entertaining shopping experience (Jeandrain, 2001; Park, Lennon and Stoel, 2005). In this situation, even sophisticated and technologically competent consumers looking for genuine items may be deceived by multimedia presentation because there is no discrepancy between their expectations and the product presentation.

Proposition 2: The mimicking deception tactic performed through advanced product presentation will reduce users' perception of counterfeit deception online.

4. Seller Level Information

Trust

This section will sketch out the relevant theory that is needed to support trust as the main seller level variable that will have an impact on deception. Trust is a crucial aspect of any dyadic (buyer-seller) relationship in which a trustor (buyer) cannot control the behavior of a trustee (seller) that in turn can lead to negative consequences of one party not complying with contractual requirements (Mayer et al. 1995). Trust is particularly important in the electronic environment because there is no human touch between a seller and a buyer since cues that are present in interpersonal communication are absent in online interactions (Galanzhi and Nah, 2007). Jarvenpaa, Tractinsky and Vitale (2000) define trust in an online store as the buyer's readiness to put faith in the seller in a situation where the buyer is vulnerable to the seller.

Prior research has identified methods that are used online to promote trust. They include third party assurance seals (Head and Hassanein, 2002; Mcknight, Kacmar and Choudhury 2004), online reputation systems (Resnick and Zeckhauser, 2002), social presence (Gefen and Straub, 2003) and feedback mechanisms (Ba and Pavlou, 2002). Other studies have suggested techniques to promote trust online such as community responsibility systems (Ba, 2001), economic incentive mechanisms (Ba, Whinston and Zhang 2003), and government regulations (Schoder and Yin, 2000).

The literature agrees that there are two dimensions of trust: benevolence and credibility (Ba and Pavlou, 2002; Doney and Cannon, 1997; Pavlou and Dimoka, 2006). Benevolence is a buyer's belief that a seller will act in a goodwill manner toward the buyer despite the chance to act opportunistically, whereas credibility is a buyer's belief that a seller is competent and reliable and will act in accordance with stated promises and agreements (Pavlou and Dimoka, 2006). While credibility describes the seller's intentions to fulfill obligations and acknowledge contracts, benevolence describes the seller's friendly intentions to go beyond contractual obligations (Bhattacharjee, 2002). Benevolence in online buyer-seller relationships requires familiarity and prior interaction with the seller while credibility is predominantly impersonal, built on economic rationale and is more suitable for unfamiliar websites without established brand or recognition (Ba and Pavlou, 2002). Next we will discuss how trust in credibility and benevolence influences users' perception of whether items offered online are counterfeit.

Trust in website credibility

To promote credibility, an online seller has to satisfy ethical obligations to a buyer by fulfilling promises and delivering an authentic product. However, according to Grewal et al. (2004), online stores have limited ability to signal trust and ethical attitudes due to their incapacity to convey longevity. Unlike physical stores that require significant investments into property, personnel and inventory, online stores enjoy low entry cost and are relatively easy and inexpensive to maintain. The minimal expenses required for entering and exiting online marketplaces create doubts for consumers as they are uncertain if the online retailer will stay in business for a long time (Jarvenpaa and Tractinsky, 1999). Such uncertainty and the impersonal nature of the electronic environment create the need for the consumer to seek additional cues and more information on credibility and the trustworthiness of the seller. In this regard, logical inconsistencies in the identity of the seller, such as mismatches between company name and email address or inconsistencies in links available through the website, provide useful means to detect deception.

Commercial website quality assessment is a priority for retailers because customers who are not satisfied with their experience will never return (Kim and Stoel, 2004). It is important to focus on two characteristics of the website – content and design. Huizingh (2000) identifies the website content as a combination of commercial information, transaction information, entertainment and perceived content. Commercial information includes company background information such as financial statements and completed projects, and product description such as product features, price and terms of delivery. Transaction information supports direct sales from the website. Entertainment feature supports user involvement and hedonic benefits and includes jokes, videos, games and animation. The perception of the content provides an insight into the ‘likeability’ of the website. The website content should provide value to consumers and fulfill user expectations; the information should be available, reliable and presented in favorable way. In terms of design, websites should provide navigation structures, search functions and protected content, while perceived quality, images and presentation style are equally important (Huizingh, 2000). Users should be able to navigate through available information easily, feel secure and perceive website design favorably as it stimulates the interaction between the user and the website (Benbunan-Fich, 2001).

A study performed by Cheskin Research/Sapient (1999) identified six fundamental factors that convey trust online including brand, ease of navigation, fulfillment, presentation, the latest technology and seals of approval. In the academic literature, Roy et al. (2001) found a strong relationship between the website interface and trust. Wang and Emurian (2005) created a framework of four dimensions associated with trust including graphic design dimension (colors and images); structure design (easy navigation, no broken links); content design (product information, seals of approval); and social cue design (communication media). Kim and Benbasat (2006) through intensive literature review identified that trust in e-commerce is communicated via seals of approval, brand and reputation, fulfillment (privacy and security policy and efficient communications with consumers), and referrals, feedback and links to other reputable websites. Based on the prior research, well-designed websites with favorably perceived content are likely to influence buyers’ trust towards the seller and further encourage shopping activity. Depending on the website content and design characteristics, buyers will make their judgment of the overall usability, credibility and attractiveness of the website which in turn will lead to a positive or negative attitude towards the authenticity of offerings.

Proposition 3: Trust in website credibility will reduce users’ perception of counterfeit deception online.

Trust in the seller’s benevolence

To promote benevolence an online retailer has to perform according to a buyer’s expectations of beneficial outcome by minimizing opportunistic behavior. Opportunistic behavior on the internet is greatly powered by the information asymmetry that is created as a result of unequal distribution of the information between online trading parties. In buyer-seller relationships, examples of opportunistic behavior include distortion of the real characteristics of goods, incomplete disclosure of information, misrepresentation of actual quality, or failure to acknowledge warranties (Mishra, Heide and Cort 1998). The fact that buyers do not possess enough information about the seller or perceive existing information as incomplete can lead to lower trust in the seller. Fears of being deceived could in turn cause negative attitudes towards the genuineness of offerings. Ba and Pavlou (2002) suggest that in order to promote trust and decrease opportunism, credible signals should be available to distinguish among sellers. Some of the signals include appropriate feedback mechanisms that induce trust between parties (Ba and Pavlou, 2002), and the familiarity with online vendor that influences intentions to purchase online (Gefen, 2000).

Trust towards the seller is a very important element in buyer-seller online interactions. Ba and Pavlou (2002) point out that trust has a considerable effect on transactions by generating price premiums. Pavlou (2003) argues that trust in online sellers can reduce the levels of perceived risk linked to transaction processes. Gefen, Karahanna and Straub (2003) indicate that trust increases consumers' belief that online merchants will not engage in opportunistic behavior. As trust in the online seller develops positive attitudes towards online shopping, we can expect that trust also increases positive attitudes towards the authenticity of offerings.

Proposition 4: Trust in a seller's benevolence will reduce users' perception of counterfeit deception online.

5. Impact of Technology on Deception

To support the detection of counterfeit goods it is essential that a means of product authentication exist. Some solutions for such authentication are already available. eBay's Verified Rights Owner (VeRO) Program offers an opportunity for brand owners to remove suspicious sales from eBay website. Online brand protection companies such as Mark Monitor (www.MarkMonitor.com) provide an ongoing monitoring of online storefronts and auctions by using web-crawling technology. To detect fraudulent offerings they look for keywords such as 'replica', 'cheap' and 'authentic', identify false usage of brand logos and trademarks and search for low prices.

However, such solutions can be adopted mainly by business owners in order to protect their trademarks. Meanwhile, consumers can identify deception based solely on their own knowledge of counterfeit markets and security mechanisms. The lack of consumer awareness and understanding is a considerable barrier to online counterfeit detection. We believe that authentication technology may help to alleviate this problem. A possible solution could be a browser add-on that uses web crawling technologies and flags suspicious websites. The signals prompting the software to flag distrustful websites could be mismatches in seller's company and street address, forged seals of approval, keywords, warranty statements and testimonials. A limitation of this design is that it may not be able to recognize all available signs of counterfeit deception and will likely be effective temporarily. For this reason constant updates will be required to overpower deceivers' attempts to improve counterfeit deception tactics. We expect that widespread adoption of anti-counterfeit software can increase users' ability to detect counterfeits; therefore the following proposition is formulated.

Proposition 5: Authentication technology will affect users' perception of counterfeit deception online by increasing their ability to correctly identify counterfeits.

6. Conclusion

This study conceptualizes the nature and role of product information and the seller as a means for understanding the mechanisms of online counterfeit deception. To the best of our knowledge, empirical up-to-date evidence has not focused on online product characteristics and seller characteristics in the counterfeit context. The study suggests five propositions for future research in the area of counterfeit deception and online trust. Taken together our propositions lay the groundwork for testing whether these mechanisms truthfully represent products and sellers and how these mechanisms influence trust. Empirical research could provide valuable findings in the investigation of which type of deception mechanisms are more powerful in deceiving potential buyers into thinking that fake goods are authentic, and in the investigation of potential interaction effects between these two types of mechanisms on successful deception. We are currently testing the task and the experimental procedures as well as the development of the manipulations to simulate the different conditions. We expect to present preliminary results at the ICIS conference.

The propositions that we developed could be equally interesting in studying deception in Business-to-Consumer (B2C) transactions when sellers set up fraudulent online storefronts and in Consumer-to-Consumer (C2C) dealings when sellers conduct dishonest business transactions through online auction sites. Further examination of counterfeit deception mechanisms can improve the effectiveness of available institutional methods of controlling counterfeit goods, provide a better explanation of trust in online storefronts, and enable the progress of online transactions in internet retail and e-commerce in general.

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