Full length article

The antecedents of purchase and re-purchase intentions of online auction consumers

Jengchung V. Chen a, David C. Yen b,*, Wan-Ru Kuo c, Erik Paolo S. Capistrano a, d

a Institute of International Management, National Cheng Kung University, 1 University Road, 701 Tainan, Taiwan
b School of Economics and Business, 226 Netzer Administration Bldg., SUNY College at Oneonta, Oneonta, NY 13820, USA
c Top Union Electronics Corp., No. 480 Nioupu E. Rd., Hsinchu, Taiwan
d Vinate School of Business, University of The Philippines, Diliman, 1101 Quezon City, Philippines

ARTICLE INFO

Article history:
Received 22 January 2015
Received in revised form 8 July 2015
Accepted 23 July 2015
Available online xxx

Keywords:
Online auctions
Purchase intentions
Repurchase intentions
Mediation strategy
Trust
Media richness
Information exchange
Price setting

ABSTRACT

This research explores some factors affecting purchase and repurchase intentions towards online auctions. An experiment, in the context of PChome & eBay and Yahoo Auction online auctions websites, was conducted to simulate an environment manipulating branding, seller evaluation, volume of information, and price ranges to influence purchase intentions, reflecting some aspects of utilitarian and hedonic approaches towards purchase and repurchase intentions. Furthermore, mediation strategies, trust, and media richness were also introduced in the study to examine their influence on repurchase intentions. 120 participants validated the experimental design, where all variables influencing purchase intentions were found to be significant in varying degrees, and where mediator strategies and trust were found to significantly influence repurchase intentions. These results reinforce notions that online auctions are complex processes, especially to induce purchase and repurchase intentions, and that both buyers and sellers have complex utilitarian and hedonic approaches to develop purchase and repurchase intentions. Further theoretical and managerial implications are detailed in this research.© 2015 Elsevier Ltd Elsevier Ltd. All rights reserved.

1. Introduction

E-commerce and Internet shopping is continuously enjoying high and rapid growth and development (Chen, 2012; Shiau & Luo, 2012; Zhou, 2012). The continuous growth of online shopping, the recent developments in B2C and C2C platforms, and the improved interactions between different online entities all contribute to the continuous growth of online auction markets (Dimoka, Hong, & Pavlou, 2012; Muthitacharoen, Claycomb, & Pelkowski, 2011; Shiau & Luo, 2012; Xu, Lin, & Shao, 2010). These ongoing developments, coupled with the rapid competition from other e-commerce platforms (Hsu, Chang, Chu, & Lee, 2014; Shiau & Luo, 2012), encourages constant reexamination and revisiting of online auction design and its effect on consumer behavior. Online auction websites provide a fast and efficient trading platform for different people to influence supply and demand and to utilize a dynamic pricing model for negotiations (Chiu, Fang, Cheng, & Yen, 2013; Liang & Chen, 2012; Zhou, 2012). But since many online auction websites only provide some generic and basic product descriptions, consumers have to do other tasks such as evaluating the specific product or checking the reputation and creditability of the online auction sites (Chatterjee & Datta, 2008; Chiu, Wang, Fang, & Huang, 2014; Gregg & Walzack, 2008; Shin, Chung, Oh, & Lee, 2013) to compensate for this perceived information asymmetry. As a complement to the technical aspects of online auction sites, enhancing service quality is also a conscious effort to influence consumer’s loyalty (Finch, 2007; Kim, Galliers, Shin, Ryoo, & Kim, 2012). Moreover, the level of trust towards online auctions is also posited to affect consumer loyalty, considering their levels of satisfaction (Chiu et al., 2013; Chiu, Hsu, Lai, & Chang, 2012; Hsu et al., 2014). To test the relationships of all these aforementioned factors, this research investigates the operations of Pchome & eBay and Yahoo! Auction, two of the biggest auction websites in the market. This research measures how some factors such as seller evaluations, volume of information, and price ranges influence
purchase intentions, and extending it to repurchase intentions. Repurchase intention is an additional but very crucial variable since repeat purchases is a reliable indicator of customer loyalty, and is a very critical resource for online firms to survive, continue its operations, grow its market, and sustain its online presence (Chen, 2012; Hsu et al., 2014; Kim et al., 2012; Shin et al., 2013). Henceforth, it is not just about what are the aspects of Internet shopping that makes users purchase an item, but the more important question now is to how to encourage online shoppers to make repeat purchases (Chen, 2012; Chiu et al., 2012; Hsu et al., 2014; Kim et al., 2012; Zhang et al., 2011). In other words, this research proposes that a combination of the technical aspects provided by the online auction website itself and the actions of the online sellers will both influence purchase and repurchase intentions of their online customers.

The rest of this paper is structured as follows: Section 2 covers the literature review, where this study's theoretical framework is developed for the experimental design. Section 3 discusses the research methodology while Section 4 presents the experimental analysis and results. Finally, the last section presents the research conclusions, implications, and directions for future research.

2. Literature review

2.1. Attitude formations in online transactions

It is obvious that there are many different ways in which customers form attitudes whenever they go online, and more so when they make purchases, and later on repeat purchases. This issue is anchored on what are the processes, functions, and motivations for individuals to continuously patronize Internet shopping and e-commerce in general (Chen, 2012). This is because purchase and repurchase intentions is a predominantly subjective behavior (Wu, Chen, Chen, & Cheng, 2014), mostly determined by how consumers experience and learn from their interactions with others and with the online environment (Chen, 2012; Hsu et al., 2014). A number of previous studies have approached this issue considering both the utilitarian and hedonic aspects of online transactions. This is an important theoretical lens since human motives, even in online shopping, are still driven by both utilitarian and hedonic needs, and are still geared primarily towards gratification and satisfaction (Chiu et al., 2014). Utilitarian aspects of online shopping include issues on the acquisition of products in an effective (Chiu et al., 2012) and convenient (Chiu et al., 2014) manner, examining the cost of purchasing the product in question (Chiu et al., 2014; Wu et al., 2014; Zhou, 2012).

2.2. Effects of brand awareness

Aside from price, external cues such as brands and branding also affect customers' perceived quality (Agarwal & Teas, 2001; Monroe & Krishnan, 1985). This implies that brand popularity plays an important role in online shopping in mitigating the effects of product risk (Agarwal & Teas, 2001). Generally, consumers have more confidence in the quality of a well-known brand, hereby giving it better product evaluations (Grewal, Monroe, & Krishnan, 1998), higher perceived value, and therefore improved purchase intentions (Dodds, Monroe, & Grewal, 1991). Consumers generally have higher brand attitudes and purchase intentions to brands they are familiar with (Kamins & Marks, 1991), implying that the more famous the brand is, the higher the possibility of purchase (Hoyer & Brown, 1990). In effect, this also encourages a commitment cost to sustain the relationship with another party (Morgan & Hunt, 1994), which can be observed between established brands and their loyal customers. As an alternative information source, brands, and the subsequent reputations built by these brands, can build more online confidence and predict product quality (Hsu et al., 2014; Shiau & Luo, 2012; Yoo & Kim, 2014).

Furthermore, brand awareness brings about familiarity, another important component in developing purchase and repurchase intentions. Aside from the notions of trust and satisfaction, familiarity and reputation are interesting factors since in a number of cases, these two confound how trust influences purchase and repurchase intentions (Chiu et al., 2013; Chiu et al., 2012; Hsu et al., 2014; Shiau & Luo, 2012). Therefore, as far as brands go, whatever images and messages that a brand already entails even before product and seller evaluation commences may already be an interesting factor to consider.

Before users make an online purchase, they evaluate alternative products from different websites, especially to mitigate uncertainties and risks (Chiu et al., 2014; Dimoka et al., 2012; Wu et al., 2014). Branding projects a strong image (Agarwal & Teas, 2001; Monroe & Krishnan, 1985) cultivate familiarity (Chiu et al., 2013; Yoo & Kim, 2014), and project reputations (Hsu et al., 2014; Shiau & Luo, 2012), all of which influence attitudes and perceptions towards purchase intentions. Therefore, generally speaking, the higher the brand awareness and recognition are, the higher the purchase intention will be.

H1. Better branding exerts a more significant influence on online auction customers' purchase intentions.

Furthermore, the more positive the evaluation, the better the chances of eliciting more favorable responses, in this case better purchase intentions (Finch, 2007; Yen & Lu, 2008). This is a reflection of how perceptions of service quality as part of the seller's attributes help build a favorable reputation (Xu et al., 2010), and therefore induce better purchase intentions as well (Chiu et al., 2014). In this case, the level of evaluation of sellers affects reputations, and in turn influences transaction outcomes.

H2. Better buyers' evaluation exerts more significant influence on online auction customers' purchase intentions.

2.3. Price information

Because consumers operate in an information asymmetry environment (Liang & Chen, 2012) dominated by commitment costs and perceived risk considerations, they will take extensive measures to evaluate the risks and benefits of purchasing products or services (Chatterjee & Datta, 2008; Chiu et al., 2014; Gregg & Walzack, 2008; Muthitacharoen et al., 2011; Reynolds, Gilkeson, & Niedrich, 2009; Wu et al., 2014; Xu et al., 2010). This adopts a utilitarian approach which produces an interaction process affecting perceived benefits in an online auction, which starts with a reference price, which in turn affects sellers' promotions strategy (Daniel, Suzanne, & Roger, 2007; Liang & Chen, 2012; Zhou, 2012) and consumers' purchase behaviors (Dimoka et al., 2012; McKechnie, Devlin, Ennew, & Smith, 2007; Muthitacharoen et al., 2011; Zhou, 2012). Reference price is defined as any other related price to evaluate some price standard (Biswas & Blair, 1991), which can be divided into external and internal reference price (Urban, Bearden, & Weibacker, 1998). Obviously, the higher the perceived quality, the higher the purchase price (Becker, 2009; Reynolds et al., 2009). This compels companies to exaggerate the reference price to influence purchase intentions (Blair & Landon, 1981), as well as intensifying promotional activities (Chang & Albert, 1994). However, these relationships can also work the other way, where price perceptions and perceived value influences purchase intentions (Liang & Chen, 2012; McKechnie et al., 2007; Muthitacharoen et al., 2011).
Price promotions may reinforce consumers' satisfaction and cause consumers to change their evaluation of a product (Zhou, 2012), aside from its usual function of attracting potential customers.

During the shopping procedure, when price becomes the only factor, sellers use a variety of ways to stimulate or manipulate buyers' purchase behavior (Liang & Chen, 2012). Lower prices and discounts are very attractive for buyers. However, these strategies may cause negative effects on buyers' perceptions and perceived quality, thus lower the possibilities of future purchase (Raghurib & Corfman, 1999). This implies that sellers have a limit on how much they can manipulate the actual purchase price relative to the base price. Therefore, unlike branding and reputation building, pricing is more difficult to manage, given these certain complexities.

H3. A bigger difference between direct purchase price and base price exerts more significant influence on online auction customers' purchase intentions.

Without the information on the base price, one may end up getting the high end price (Kamins, Dreze, & Folkes, 2004), and therefore not the best deal out of the auction. The way the price changes relative to the base price now depends on the risk profiles of both the sellers and the buyers. Risk-averse sellers will set lower prices (Mathews, 2004). In another perspective, sellers can set a direct purchase price for risk neutral buyers (Myerson, 1981). When consumers are purchasing something, their memory will affect the internal reference price (Monroe & Krishnan, 1985), which is influenced by advertising price cues (Della Bitta, Monroe, & McGinnis, 1981). In the end, these reference prices can heavily influence evaluations and estimations of the item's perceived value, and henceforth decisions to make a purchase (Liang & Chen, 2012; Zhou, 2012). This phenomenon further reflects the complexities inherent in pricing considerations.

H4. A bigger difference between direct purchase price and base price exerts more significant influence on online auction customers' internal reference price.

Additionally, consumers deciding on a product or service purchase usually consider issues on quality and perceived value (Chang & Albert, 1994; Gregg & Walzack, 2008). As previously mentioned, given the complex dynamics of transaction costs economics where people consider all sorts of costs associated with making a purchase and how does this affect perceptions of quality (Wu et al., 2014; Zhou, 2012), these two issues are influenced by comparing actual price and identified price to measure the amount paid and benefits obtained (Liang & Chen, 2012; Muthitacharoen et al., 2011).

H5. A bigger difference between direct purchase price and base price exerts more significant influence on online auction customers' perceived quality.

Additionally, using reference prices influences the effectiveness product's marketing strategies (Daniel et al., 2007; Liang & Chen, 2012; Zhou, 2012), making price still a significant factor. As previously mentioned, these reference prices are often used spontaneously by buyers to make their evaluations and decisions (Zhou, 2012). Consumers still ultimately compare the previous price with the end price to make a decision of whether or not to make a purchase.

H6. Higher internal reference price exerts more significant influence on online auction customers' purchase intention.

2.4. Commitment cost and perceived risk

Transactions cost economics can always come into play whenever online shopping is discussed because consumers consider all sorts of costs in the purchase and repurchase process (Wu et al., 2014). Additionally, economic theory is argued as an effective theoretical lens to explain how pricing strategies can be an effective means to catch consumers' attention (Liang & Chen, 2012). Commitment cost model (Zhao & Kling, 2004), a prominent economic model involving consumer behavior, posits that the maximum amount consumers are willing to pay is relatively low because they expect to have alternative products in the future. Because of the costs associated with information searching, moral hazards, specific asset investments (Wu et al., 2014; Zhou, 2012), and product information comparisons (Liang & Chen, 2012), buyers will only choose a product with a price low enough to compensate the decision of purchasing now and give up expected benefits from future information obtained. Additionally, commitment cost is considered as an emotional or a mental attachment to the service providers or brands (Morgan & Hunt, 1994) or as an attitude of refusing change (Pritchard, Havitz, & Howard, 1999). The relative strength of these attitudes is based on three dimensions: value commitment, intention commitment, and retention commitment (Mowday, Porter, & Steers, 1982). In other words, commitment cost is a set of conditions that make buyers decide to purchase immediately and forego the possible benefits of searching for more information, and possibly purchasing a better product. Additionally, aside from price-related considerations, the presence of a facilitator can be employed to meet client needs from the auction platform (Yen & Lu, 2008), and manage such commitment costs, such as simplifying transmitted messages and fulfilling functional applications. This is an additional relevant factor since online auctions ideally offer low search costs, aggregated purchasing platforms, and intrinsic allocation efficiency, especially if there are such facilitators present (Zhou, 2012).

This is an important consideration since in a dynamic environment, consumers might delay the purchase until they get more information about the product (Gregg & Walzack, 2008; Muthitacharoen et al., 2011). On the other hand, consumers can also accept the current price, foregoing getting more information later and hence, purchase immediately (Dimoka et al., 2012; Xu et al., 2010). This is because consumers usually consult reference prices, which is the price information that they use to spontaneously make evaluations and estimates regarding the value of the item in question and decisions regarding actual purchases and repurchases (Zhou, 2012). In this case, it is truly up to the buyers to decide whether they will choose when to purchase.

However, managing commitment costs do entail risks, both on the seller and buyer side of the auction. One important consideration of perceived risk is to understand how consumers make choices (Chatterjee & Datta, 2008; Liang & Chen, 2012; Xu et al., 2010), especially aside from using price references (Zhou, 2012) and cost considerations (Wu et al., 2014). When consumers make a purchase, they risk experiencing some negative, unexpected results (Finch, 2007; Lim, 2003; Wu et al., 2014; Xu et al., 2010), such as some form of post-purchase dissonance or failing to get enjoy the benefits exactly as promised, leading to dissatisfaction. This risk will keep consumers from choosing certain brands or services for fear of making a wrong decision.

Furthermore, perceived risk deters customers from spending time on online shopping (Chatterjee & Datta, 2008; Doolin, Dillon, Thompson, & Corner, 2005; Gregg & Walzack, 2008). To mitigate perceived risks, sellers provide more information, hereby lowering perceived risks and increasing perceived value (Chiu et al., 2014; Finch, 2007; Kim & Lennon, 2000; Xu et al., 2010; Zhou, 2012). Therefore, perceived risk has a significant effect on consumers' purchase intention. That being said, it is a common practice among sellers to provide as much product and price information (Wu et al., 2014; Zhou, 2012), especially since consumers perceive less and
less real differences across many sellers, making customer loyalty harder to develop and maintain (Shin et al., 2013).

The volume of information provided by the sellers has several implications on how buyers ultimately make perceptions and decisions regarding the item to be purchased (Chiu et al., 2014; Kim et al., 2012; Wu et al., 2014; Zhou, 2012), making this an interesting proposition. Buyers’ commitment cost will be less when sellers provide more product information (Zhou, Dresner, & Windle, 2008). This implies that when buyers expect that they can get more information or learning opportunities in the future, their commitment cost will be low in the first place.

H7. Higher commitment cost exerts more significant influence on online auction customers’ purchase.

2.5. Evaluation of online sellers

The mechanisms for the safety of online transactions, personal preference habits, and competitors’ strategic patterns are some of the possible factors influencing online sellers’ performance. Aside from these mechanisms, the sellers’ reputation is one of the biggest considerations for buyers (Chiu et al., 2014; Finch, 2007; Xu et al., 2010), implying that trust does have a significant effect on customers’ purchase intentions (Chiu et al., 2013; Chiu et al., 2012; Dimoka et al., 2012; Zhang et al., 2011). This brings about the notion of relationship marketing, raising the question as to how can sellers manage the quality of their relationships that they have with their buyers, especially to maximize repurchase intentions (Chiu et al., 2012; Zhang et al., 2011). In relationship marketing, trust implies acknowledging the credibility and goodwill of the other party, considering professional competence, favor levels, and similarity with consumers (Son, Tu, & Benbasat, 2006; Zhang et al., 2011). Furthermore, when consumers browse products, they will be concerned if the company can provide those products with good quality (Chatterjee & Datta, 2008; Chiu et al., 2014; Finch, 2007; Gregg & Walzack, 2008), as promised in their product promotions.

Trust will induce higher commitment (Morgan & Hunt, 1994), which in turn is an important indicator for loyalty and repurchase intentions (Zhang et al., 2011). This implies that when consumers have trust and confidence in a website, it will help them have a continuous favorable purchase behavior (Chiu et al., 2013; Hsu et al., 2014; Shiau & Luo, 2012; Son et al., 2006; Zhang et al., 2011). But what drives trust is the perceptions of quality the seller delivers (Chatterjee & Datta, 2008; Chiu et al., 2014; Finch, 2007; Gregg & Walzack, 2008). Furthermore, perceptions of quality are derived from product evaluations based on the sellers’ strategies (Becker, 2009), which will also influence perceptions of satisfaction and loyalty. Ultimately, it is in the delivery of that perceived quality that will influence buyers’ thinking process on their price referencing.

H8. Higher perceived quality exerts more significant influence on online auction customers’ internal reference price.

2.6. The coordinator mechanism

Online auctions such as eBay have developed an online mediation mechanism and a reputation tracking system to enhance trust and cooperation between sellers and buyers. After concluding a deal, both parties can evaluate each other, providing a reference value that others can use for future evaluations (Ba & Pavlou, 2002). Other functions of mediation systems include diagnostics to provide additional product information, analytics to determine root causes of problems, and suggestion functions to provide additional ideas (Yen & Lu, 2008). Overall, since there are costs involved during the purchase and repurchase process (Wu et al., 2014), being able to acquire the item in question in the most efficient manner is a priority as well (Chiu et al., 2014), as this reflects perceptions of expertise and reputation (Zhang et al., 2011). The information provided by these systems and mechanisms gives buyers a basis to form their perceptions regarding seller reputations and service quality, both of which influence purchase and repurchase intentions. This also explains why repeat customers play such an important role in Internet shopping in general. Not only do they provide a steady stream of revenue, but they are also better equipped and more credible at comprehending and evaluating the information and attributes of an online seller (Chiu et al., 2014; Kim et al., 2012; Shin et al., 2013).

Enhancing the effectiveness and efficiency of making a purchase, and later on acquiring the item in question, also influences purchase and repurchase intentions (Chiu et al., 2012). A seller has several means at his or her disposal to ensure an effective and efficient way of conducting business with a buyer, and therefore develop favorable perceptions that would encourage future repurchase intentions. This includes several methods to be creative in advertising products, offering promotions, and facilitating negotiations (Shiau & Luo, 2012).

Encouraging customers to make repeat purchases through various means, including enhancing the system, information, and service components of the online auction (Chiu et al., 2014; Hsu et al., 2014; Kim et al., 2012), also makes for an interesting proposition. This includes how the auction website offers and executes its customer service. Pressures can also affect how negotiators perform (Pruitt & Carnevale, 1993). Under time pressure, mediators tend to use pressing strategies to those negotiators who distrust each other, pushing for more immediate compromises rather than taking the time to make more careful evaluations (Ross & Weiland, 1996).

H9a. More favorable online mediation strategies exert more significant influence on online auction customers’ level of compromise.

Another important consideration is the structure of the platform facilitating the online auction. This includes some pertinent characteristics of the website that has direct and indirect influences on buyer and seller behaviors (Hsu et al., 2014; Yoo & Kim, 2014). One example of a website characteristic is media richness, which can provide a complete and useful information exchange (Pollach, 2008) to better facilitate online auction interactions, using an efficient combination of visual and textual fluencies (Yoo & Kim, 2014). Higher media richness will make the messages easier to understand (Draft, Lengel, & Trevino, 1987) and thus, improve trustworthiness. This will help negotiators address their trust concerns and better build cooperation, thereby achieving higher levels of compromise (Carnevale, Putnam, Conlon, & O’Connor, 1991).

H9b. Better media richness exerts more significant influence on online auction customers’ level of compromise.

Pertaining to trust, the literature has been quite extensive in agreeing that trust plays a very important role in cultivating customer loyalty, and therefore improving repurchase intentions. Trust is a key factor to capture (Chiu et al., 2013; Hsu et al., 2014; Shiau & Luo, 2012) and maintain the continuity (Zhang et al., 2011) of buyer–seller relationships, especially given the limitations of the richness of interactions due to spatial and temporal considerations (Chiu et al., 2012). Trust is such a powerful factor that despite the inherent riskiness of online shopping, its values and benefits are still driving consumers to shop online (Chiu et al., 2014), especially if trust reinforces these perceptions of values and benefits.
H9c. Higher trust between the online auction seller and customer exert more significant influence on online auction customers’ level of compromise.

A mediator is an individual or a group of people who communicate with the different parties in an online auction that will not cause any negative effects or violations of their free. This type of mediation is also a part of the service being provided, and providing service is a component influencing repurchase intentions (Chiu et al., 2013; Kim et al., 2012). Given the wide array of price and product related issues, online mediation can help consumers make more efficient purchases (Chiu et al., 2012) and enjoy a smoother auction process (Yen & Lu, 2008). Online transaction mechanisms with good online mediations can improve consumers’ perceived usefulness and reduce consumers’ perceived risk.

H10. More favorable online mediation strategies exert more influence on online auction customers’ repurchase intention.

2.7. The purchase and repurchase intentions of online auction consumers

Willingness to buy, and henceforth purchase intentions, is the probability of a consumer making a product purchase (Dodds et al., 1991; Grewal et al., 1998; Zeithaml, 1988). What sellers want to know most is how consumers form their purchase decisions, and how to use a variety of marketing and operational tools at their disposal to effectively influence consumers’ purchasing decisions (Gregg & Walzack, 2008), both from the utilitarian and hedonic perspectives.

As far as utilitarian approaches are concerned, recent researches have pointed to the aspects of website and seller attributes (Chiu et al., 2014), the degree of efficiency and effectiveness of acquiring the item to be purchased (Chiu et al., 2013), and the costs associated with making the purchase (Wu et al., 2014). And as far as the hedonic approaches are concerned, this primarily pertains to the quality of their experiences during the online shopping process (Chiu et al., 2014), including how the sellers’ efforts mitigate risk perceptions and enhance their service quality by building good relationships (Zhang et al., 2011).

And the same is true for repurchase intentions. In fact, there has been a significant shift of the focus from examining how consumers form purchase decisions to inducing how can they be motivated to make repeat purchases (Chiu et al., 2012; Hsu et al., 2014), which is very critical component for sustainable online success, especially since it has been more and more difficult to encourage customer loyalty due to the reduction of how sellers can differentiate themselves from one another (Kim et al., 2012; Shin et al., 2013). Furthermore, it has also been proven that repeat customers are more profitable, since over time more experienced customers can spend less time and effort to make more accurate evaluations (Chiu et al., 2014), making the seller spend less time and effort on them on providing product and price information compared to new customers, with whom they must provide an enormous amount of reference information (Zhou, 2012).

Purchase intention means the possibility that consumers are willing to purchase the product (Dodds et al., 1991). A critical component of the entire purchase process is the satisfaction that consumers experience when making the purchase, which is based on their confirmation or disconfirmation of their expectations while making the purchase (Chen, 2012; Chiu et al., 2013; Hsu et al., 2014). The idea is to judge the product or service satisfaction by comparing the expected and perceived performance and the level of satisfaction (Oliver, 1981) as a reference point for a repurchase intention. Therefore, satisfaction with the purchase process can immensely improve repurchase intentions as well (Shin et al., 2013).

H11. Online auction customers’ purchase intention has a positive influence on their repurchase intention.

3. Research methodology

3.1. Operationalization of price range, seller evaluation, volume of information provided and brands

This study combines certain important elements of product and pricing management, buyer–seller relationship management, and management of information systems to examine antecedents of purchase and repurchase intentions.

A. The volume of information: The websites provide two auctions with different volumes of information (Chatterjee & Datta, 2008; Finch, 2007; Gregg & Walzack, 2008; Pollach, 2008), expecting that these two different scenarios will affect consumers’ commitment costs and purchase intentions. This is one way to mitigate product uncertainties (Dimoka et al., 2012).

High volume of information: Websites include the detailed specifications of each product.

Low volume of information: Websites only have basic information of the products.

B. Seller Evaluation: Manipulating sellers’ evaluation will affect the trust of buyers to the sellers and the bidding price (Gregg & Walzack, 2008; Yen & Lu, 2008), hereby affecting perceptions of seller uncertainties as well (Dimoka et al., 2012).

High evaluation: High evaluation is set at 10 points because Yahoo considers sellers who gain over 10 points as senior sellers and sellers who gain recognition from buyers are also regarded as sellers with high evaluation.

Low evaluation: Low evaluation is set at 9 points as calculated by Yahoo. Sellers who have a score of at least 10 points to be considered by the buyers as trustworthy.

C. Price range: In terms of the price range of an unbranded cell phone with similar features as a name brand, data collected from 20 different Pchome & eBay sellers revealed that the average direct purchase price is NT$3079. The average base price for the first and final 50% is NT$3856 and NT$2432, respectively.

High price range: direct purchase price is NT$5000 with the base price set at NT$2400.

Low price range: direct purchase price is NT$5000 with the base price set at NT$3800.

The same procedure was taken for a name brand, Based on the price information from 20 different Pchome & eBay sellers, the average direct purchase price is NT$22,895. The average base price for the first and final 50% is NT$20,977 and NT$14,956, respectively.

High price range: direct purchase price is NT$23,000 with the base price set at NT$21,000.

Low price range: direct purchase price is NT$23,000 with the base price set at NT$15,000.

D. Brands: To compare the unbranded cell phone with a branded one, Pchome & eBay and Yahoo Auction are used to determine the expected influence of these two sets of products.
3.2. Measurement of internal reference price, perceived quality, and purchase intention

In this part, a questionnaire is administered. All variables are defined based on the references discussed earlier in the relevant sections.

3.3. Manipulation of online mediation

A. Trust and Distrust: When the negotiator raises a question, mediators are expected handle these questions to reach a concession. By doing so, negotiators are able to share and acquire more information, thus enhancing trust perceptions. During this mediation process, negotiators decide to trust or distrust based on the information exchanged and on the attitude of the mediators (Son et al., 2006).

B. Harmony and Pressure: Under harmonious situations, negotiators openly provide suggestions, share more information, and agree to a compromise. But when negotiators feel that mediators are playing a pressing strategy to force a compromise, members will achieve harmony superficially but may fail to complete the transaction due to pressure and distrust.

C. Media Richness: High media richness involves the use of instant messaging software like MSN and SKYPE to conduct negotiations because of its wide array of communication features aside from text facilities. For low richness, auction message boards will be used and consumers leave questions on the sellers’ message boards. Most sellers however, respond to these questions during their off-peak times, causing significant delays and making consumers check the messages boards periodically. Consumers can also use facial icons to differentiate the effects of media richness to mediators’ performance. This study will take facial icons to express trust, distrust, harmony, and pressing, where typically can be happy, angry, sad, terrified, contempt and surprised (Knapp & Hall, 2010) and are classified into positive [love, happy, surprised] and negative [angry, sad, scared] ones (Shaver, Schwartz, Kirson, & O’Connor, 1987). Facial icons are used to represent the influence of coordination strategy and trust. A smile emotion icon represents when trust and coordination strategy results to a positive emotion. Praised gesture indicates that mediators used a coordinated strategy to bring good feelings to both parties to encourage them to express some opinions. The angry face icon denotes distrust and pressure. The green face icon indicates that the mediators used a pressing strategy to achieve a compromise as soon as possible.

3.4. The measurement of repurchase intention

Expectation—confirmation theory posits to take the result by comparing the expectation before and perceived performance after the purchase as a basis to evaluate repurchase intentions (Oliver, 1981), implying that consumers’ satisfaction and price acceptance will affect repurchase intentions (Chen, 2012; Hsu et al., 2014; Kim et al., 2012; Muthitacharoen et al., 2011; Yen & Lu, 2008). Additionally, even though customer loyalty is affected by environmental factors or marketing strategies, the preference of some products or the commitment of repurchase may remain unchanged (Oliver & Swan, 1989) (Tables 1–3).

The stimuli are Pchome & eBay and Yahoo auction websites administered to four groups of respondents. After the subjects have their respective experiences in interacting and transacting with these websites, they are asked to fill out a questionnaire on their experiences with interacting with the website. Afterwards, subjects will get into two different auction environments depending on the experiment distribution. Each subject can repeat the experience two to four times in a different auction environment. Since these experimental environments are simulated with real auction environments, the more times they get into the websites, the more features they can feel in each auction website. Subjects have to fill up a questionnaire evaluating the product information (Anderson, Engledow, & Becker, 1979; Brucks, 1985), seller ratings (Abels, White, & Halin, 1997), differences in direct purchase and base prices (Donthu & Gilliland, 1996), brands (Blackston, 1992), and purchase and repurchase intentions (Arnold & Reynolds, 2003), each time they went into a simulation environment, and then they will get into the mediators’ part, which is either a Pchome & eBay or a Yahoo mediation system.

3.4.1. Simulation group 1

Trust and harmony. Mediators will use their expertise and interrupt appropriately. They will list the problems of the disputes and professionally build trust to encourage more information sharing, more goodwill, and achieve final coordination.

3.4.2. Simulation group 2

Distrust and harmony. One negotiator will send a message of distrust to the mediators and take a reserved attitude by sharing more information or making a compromise. Mediators will still adopt a professional attitude. Concessions may not be reached.

3.4.3. Simulation group 3

Trust and pressing. Negotiators share information while the mediators use a pressing strategy to remind the negotiators that they will be penalized if a concession is not achieved. Parties will achieve a concession, but within an uncomfortable environment.

3.4.4. Simulation group 4

Distrust and pressing. Mediators create an uncomfortable atmosphere under pressure. The negotiators insist on their opinions, and mediators will use a pressing strategy to persuade both parties to achieve a concession. There will be no consensus achieved between both parties.

After the mediation process, participants fill out another questionnaire to complete the experiment. The study uses unbranded cell phones as the experimental product put up for bid on the same day. This prevents buyers from setting the direct purchase price too low. The experiment sets the average direct purchase price in the websites. Setting base prices are based on the average base price of each seller. Product information covers price, product attributes, brand, and advertising (Dodds et al., 1991; Zeithaml, 1988) (Table 4).

| Table 1
Four factor experiment design – Yahoo Auction/Pchome & eBay. |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Product information highly provided</td>
<td></td>
<td>Product information insufficiently provided</td>
</tr>
<tr>
<td></td>
<td>Sellers with high reputation</td>
<td>Sellers with low reputation</td>
<td>Sellers with high reputation</td>
</tr>
<tr>
<td>Unbranded Cell phone</td>
<td>Low price range</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>High price range</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Branded cell phone</td>
<td>Low price range</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>High price range</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>
4. Experimental analysis and discussion

The total number of questionnaires returned for both part are 120 each (Tables 5 and 6).

This research takes independent samples t-test to see if there is a significant difference between Yahoo Auction and PChome & eBay Auction in the context of unbranded cell phones. Under conditions of high evaluation, high volume of information, and high price, Yahoo (M = 118.73, SD = 15.92) and PChome & eBay (M = 139.27, SD = 10.05) have a significant difference (t = 4.22, p = 0.00). With low evaluation, high volume of information, and high price, Yahoo (M = 111.60, SD = 20.25) vs. PChome & eBay (M = 124.27, SD = 11.04) also has a significant difference (t = 2.13, p = 0.04). Under conditions of high evaluation, low volume of information, and high price, Yahoo (M = 101.00, SD = 9.20) vs. PChome & eBay (M = 119.73, SD = 9.91) also has significant difference (t = 5.37, p = 0.00). With low evaluation, low volume of information, and high price, Yahoo (M = 93.27, SD = 12.23) vs. PChome & eBay (M = 115.20, SD = 12.01) also has a significant difference (t = 4.76, p = 0.00). The rest of the pairing combinations show no significant difference. As for branded cell phones, no significant difference was found in any of the pairing combinations done for this study.

This means that branded cell phones will not be affected by the evaluation, volume of information and price differences in online auction website because all t-tests show that there is no significant difference. On the other hand, unbranded cell phones will be affected by the evaluation, volume of information and price differences in online auction website because the t-tests show that there is significant difference found in some dimensions between Yahoo Auction and PChome & eBay Auction. These results already provide some credence to the potential overriding influence of branding (Kamins & Marks, 1991) and familiarity (Hoyer & Brown, 1990) towards purchase intentions as earlier argued, even in online contexts (Shiau & Luo, 2012).

A significant difference (t = 2.56, p = 0.016) exists between independent samples of high media richness, trust, and cooperation (M = 60.00, SD = 8.70) vs. high media richness, trust and pressing (M = 52.87, SD = 6.39). No significant differences were found in the other pairing combinations.

4.1. Multivariate analysis

This research conducts one-way ANOVA to measure the significance of the study variables’ effects. For the product information dimension, information on product return processes and costs has a significant effect on purchase intention (F = 4.750, p < 0.05). For the sellers’ evaluation dimension, the seller meeting online buyers’ needs (F = 4.887, p < 0.05), the product and service meeting online buyers’ needs (F = 4.726, p < 0.05) and seller trustworthiness (F = 4.725, p < 0.05) have significant effects on purchase intentions (Tables 7 and 8).

Price range dimension has no significant effect on purchase intention. As to brand dimensions, the ability to purchase brand product (F = 4.247, p < 0.05), the choice to buy an unbranded phone, (F = 5.383, p < 0.05) and feeling the difference between unbranded and branded phones (F = 7.161, p < 0.05) significantly affect purchase intentions. The mediation strategy was found to have no significant effect on purchase intentions (Tables 9–11).

The next part discusses the results of the four-factor multivariate analysis on each website considered in the experiment. For Yahoo, unbranded cell phones (M = 104.2, SD = 18.64) and branded cell phones (M = 109.47, SD = 18.37) have a significant difference (F = 8.193, p < 0.05). Higher seller evaluation (M = 112.98, SD = 17.95) vs. lower seller evaluation (M = 100.69, SD = 17.34) have a significant difference (F = 44.484, p < 0.05). Price also has a very significant effect (F = 121.232, p < 0.05). This means that high range of price difference (M = 116.98, SD = 15.74) and low range of price difference (M = 96.69, SD = 15.61) have a significant difference. Furthermore, providing more product information (M = 108.94, SD = 19.28) vs. less product information (M = 104.73, SD = 17.84) also induced significant difference (F = 5.214, p < 0.05).

The ANOVA analysis results for PChome & eBay are as follows. Unbranded cell phones (M = 116.88, SD = 17.98) and branded cell phones (M = 110.25, SD = 18.64) have a significant difference (F = 14.77, p < 0.05). Seller reputation also has a significant effect (F = 33.58, p < 0.05). This indicates that high seller reputation

<table>
<thead>
<tr>
<th>Table 2</th>
<th>Three factor experiment design.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coordination strategy</td>
</tr>
<tr>
<td>High media richness</td>
<td>Trust</td>
</tr>
<tr>
<td>Low media richness</td>
<td>Trust</td>
</tr>
<tr>
<td></td>
<td>Distrust</td>
</tr>
<tr>
<td></td>
<td>Distrust</td>
</tr>
</tbody>
</table>

| Group 1 (A) | High evaluation, high volume of information, high price range, fake cell phones |
| Group 2 (B) | High evaluation, high volume of information, high price range, fake cell phones |
| Group 3 (C) | High evaluation, high volume of information, low price range, fake cell phones |
| Group 4 (D) | High evaluation, high volume of information, high price range, branded cell phones |
(M = 118.56, SD = 17.13) vs. low seller reputation (M = 108.56, SD = 18.68) can also induce significant differences. Price has a very significant effect (F = 130.55, p-value < 0.05), indicating that high price ranges (M = 123.42, SD = 13.99) and low price ranges (M = 103.70, SD = 17.35) exert significant influence. More product information provided (M = 119.00, SD = 17.31) compared to less product information provided (M = 108.13, SD = 18.26) also has a significant difference (F = 39.65, p < 0.05). Furthermore, there is significant interaction effect between cell phone type and level of product information provided (F-value = 7.106, p-value < 0.05). Cell phone type and price levels also produces a significant interaction effect (F-value = 8.564, p-value < 0.05). Both sets of results from these two online auction websites lend support to H1–H8, and H11.

Examining mediator effects requires a three-factor multivariate analysis. Differences in mediation strategies have a significant effect (F = 381.63, p-value = 0.001), indicating that creating a harmonious environment (M = 57.36, SD = 7.16) and exerting pressure (M = 53.80, SD = 4.86) has a significant difference. High and low media richness was found to have no significant difference (F = 0.507, p-value = 0.478). Trust (M = 56.71, SD = 6.33) and distrust (M = 54.45, SD = 6.23) also account for significant differences (F = 154.13, p-value = 0.038). Additionally, media richness and trust have a significant interaction effect (F = 7.421, p = 0.007). These results provide support for H9a, H9c, and H10 (Tables 12–14).

5. Conclusion

5.1. Discussions and suggestions

This study is anchored on the factors that influence consumers’ purchase and repurchase intentions. The experimental design

Table 4
Product information categories.

<table>
<thead>
<tr>
<th>Sample characteristics</th>
<th>Items</th>
<th>Times</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exterior Design</td>
<td>Size, weight, designs</td>
<td>62</td>
<td>53.3</td>
</tr>
<tr>
<td>Basic function</td>
<td>MP4 standard function, memory, accessories</td>
<td>57</td>
<td>49.1</td>
</tr>
<tr>
<td>Special features</td>
<td>E-book, file view, play videos and other special functions</td>
<td>68</td>
<td>58.3</td>
</tr>
<tr>
<td>Transaction process</td>
<td>Bidding, delivery, payment and other information</td>
<td>69</td>
<td>59.1</td>
</tr>
<tr>
<td>Benefit</td>
<td>Benefits from using this product</td>
<td>53</td>
<td>45.8</td>
</tr>
<tr>
<td>Seller information</td>
<td>Seller features and requested information</td>
<td>70</td>
<td>60.8</td>
</tr>
<tr>
<td>Other services</td>
<td>Provide service for returns, replacements, etc.</td>
<td>63</td>
<td>54.2</td>
</tr>
</tbody>
</table>

Table 5
Participants’ demographic profile.

<table>
<thead>
<tr>
<th>Sample characteristics</th>
<th>Items</th>
<th>Times</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>52</td>
<td>45.8</td>
</tr>
<tr>
<td>Age</td>
<td>15–18 years old</td>
<td>6</td>
<td>5.3</td>
</tr>
<tr>
<td>Number of years participating in online auctions</td>
<td>0 times</td>
<td>41</td>
<td>35.0</td>
</tr>
<tr>
<td>Browsing time spent</td>
<td>Less than 0.5 h</td>
<td>42</td>
<td>37.5</td>
</tr>
<tr>
<td>Reference price (NT$)</td>
<td>2500–3500</td>
<td>16</td>
<td>13.7</td>
</tr>
<tr>
<td>Branded phones used</td>
<td>APPLE</td>
<td>19</td>
<td>16.7</td>
</tr>
<tr>
<td>Unbranded phones used</td>
<td>LG</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Provider</td>
<td>Chunghwa Telecom</td>
<td>103</td>
<td>88.3</td>
</tr>
</tbody>
</table>

Table 6
Participants’ online purchasing characteristics.

<table>
<thead>
<tr>
<th>Sample characteristics</th>
<th>Items</th>
<th>Times</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auction website that browse the most</td>
<td>Yahoo!</td>
<td>93</td>
<td>77.5</td>
</tr>
<tr>
<td>Total browsing time spent</td>
<td>Less than 0.5 year</td>
<td>9</td>
<td>7.5</td>
</tr>
<tr>
<td>Roles in online auction sites</td>
<td>Almost are buyers</td>
<td>18</td>
<td>15.0</td>
</tr>
<tr>
<td>Amount of the transaction (Volume)</td>
<td>Under 500</td>
<td>55</td>
<td>45.8</td>
</tr>
<tr>
<td>Satisfaction on handling of disputes</td>
<td>A little dissatisfied</td>
<td>9</td>
<td>7.5</td>
</tr>
<tr>
<td>Auction times</td>
<td>0–1 times</td>
<td>50</td>
<td>41.7</td>
</tr>
<tr>
<td>How many cell phones purchased?</td>
<td>0</td>
<td>5</td>
<td>4.2</td>
</tr>
<tr>
<td>Brands of the cell phones</td>
<td>APPLE</td>
<td>6</td>
<td>5.0</td>
</tr>
<tr>
<td>Provider</td>
<td>Chunghwa Telecom</td>
<td>103</td>
<td>88.3</td>
</tr>
</tbody>
</table>
observed consumers’ behavior under different simulated environments affecting purchase intentions, taking different factors from economics, marketing, and information systems and examining their direct and interaction roles in influencing purchase and repurchase intentions. Furthermore, examining the occurrence of post-auction disputes, the role of the mediators and the strategies at their disposal were also studied to see its effects on repurchase intentions. This is an important aspect of online shopping, as increased repurchase intentions is dependent on several different factors (Chiu et al., 2014; Hsu et al., 2014), and can ensure the future of an online business (Hsu et al., 2014; Kim et al., 2012; Shin et al., 2013).

As the number of consumers using online auction websites grows over time, so do their abilities to find more product information on items for purchase, especially since repeat customers generally become better in searching, comparing, and evaluating products (Chiu et al., 2014). The results show that the accuracy of sellers’ information and products’ information mitigate purchase risks and improve purchase intentions. Furthermore, mediation strategies and competitive pressures help to develop customers’ loyalty encouraging repurchase intentions, all consistent with previous literature. These effects are further bolstered when trustworthiness comes into the picture, further implying that trustworthiness, earned by superior delivery of quality, also encourage repurchase intentions (Chiu et al., 2013; Chiu et al., 2012).

Several elements of this online auction process are considered here. Overall, the findings indicate that when consumers purchase a certain product, they usually refer to multiple sources to make evaluations. This is most especially true for unbranded items (Chiu et al., 2014). The results show that the accuracy of sellers’ information and products’ information mitigate purchase risks and improve purchase intentions. Furthermore, mediation strategies and competitive pressures help to develop customers’ loyalty encouraging repurchase intentions, all consistent with previous literature (Chiu et al., 2012; Yoo & Kim, 2014). This was further evidenced by the results where product evaluations, information volume, and price information does not matter when examining branded products. As consumers’ familiarity with a seller improves, purchase intentions also tend to improve. The same can be said with comparing price levels, again especially for unbranded items. Thirdly, as sellers enhance the security, privacy, and feedbacks capabilities, the consumers’ desire to purchase and likelihood of a repurchase will also improve (Chiu et al., 2014). In summary, information on the brand is the first thing customers tend to look for. Otherwise, other pieces of information, such as prices and seller reputations will be considered.

Going deeper, A very important feature in an online auction is the capability to provide and compare different product and price information, especially designed to minimize uncertainties and information asymmetries (Wu et al., 2014). Furthermore, as consumers rate these online auction websites favorably, the product information provided is perceived to be more reliable. For the two auction websites included in this study, Yahoo and PChome & eBay, factors such as product evaluations, sellers’ evaluation, volume of information provided, and branding affect purchase intentions. Again, the results show that if the item to be purchased is unbranded, the results of the evaluation made, the volume of product information provided, and the price range all have an effect on purchase intentions. Branded products makes sellers and buyers have more confidence on the products simply because they are generally more trustworthy, especially given general consumer beliefs on brands.

Additionally, the manner in which product information is exchanged also matters. Buyers and sellers can easily reinforce their situational behaviors to exert competitive pressures and respond to all the problems among mediators and negotiators promptly. This is evidenced by the results where mediation strategies and competitive pressures were found to have significant effects. In other words, buyers and sellers interacting with each other more often can induce repurchase intentions as this is another way where information asymmetries can be reduced (Chiu et al., 2014).

These interaction results imply that if sellers want improved perceptions, their online auction websites must build credibility through several media channels and methods (Chatterjee & Datta, 2008; Son et al., 2008). This presents customers additional channels for which to communicate with the sellers. Furthermore, the more product information provided by the sellers, especially in the form of pictures, product descriptions, prices, and sellers’ evaluations, the more buyers will have favorable perceptions towards sellers (Gregg & Walzack, 2008). The more interesting thing about this part is that improving media richness does not by itself influence repurchase intentions. Improving media richness only matters if there is enough trust developed and maintained. This further reinforces the notion of how important trust is in inducing consumers to make repeat purchases (Chiu et al., 2013; Chiu et al., 2012).

In addition, sellers’ evaluations positively affect buyers’ purchase intentions simply because buyers usually check sellers’ evaluation before making a purchase (Zhang et al., 2011). Sellers can actually publish their positive evaluations and even implement

<table>
<thead>
<tr>
<th>Table 7</th>
<th>ANOVA results of product information and purchase intention.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
</tr>
<tr>
<td>Reference information</td>
<td>3.187</td>
</tr>
<tr>
<td>Comparison and evaluation</td>
<td>2.583</td>
</tr>
<tr>
<td>Meet the demand</td>
<td>3.641</td>
</tr>
<tr>
<td>Consider buying</td>
<td>4.750</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 8</th>
<th>ANOVA results of seller evaluation and purchase intention.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
</tr>
<tr>
<td>Evaluation</td>
<td>3.035</td>
</tr>
<tr>
<td>Service</td>
<td>4.887</td>
</tr>
<tr>
<td>Be careful</td>
<td>1.549</td>
</tr>
<tr>
<td>Behavior</td>
<td>4.726</td>
</tr>
<tr>
<td>Overall</td>
<td>4.725</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 9</th>
<th>ANOVA results of price range and purchase intention.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
</tr>
<tr>
<td>No big difference</td>
<td>1.410</td>
</tr>
<tr>
<td>Big difference</td>
<td>1.911</td>
</tr>
<tr>
<td>Higher</td>
<td>1.485</td>
</tr>
<tr>
<td>Lower</td>
<td>1.605</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 10</th>
<th>ANOVA results of brand and purchase intention.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
</tr>
<tr>
<td>Loyal customer</td>
<td>1.676</td>
</tr>
<tr>
<td>Purchase ability</td>
<td>4.247</td>
</tr>
<tr>
<td>Willing to buy</td>
<td>5.383</td>
</tr>
<tr>
<td>Difference</td>
<td>7.161</td>
</tr>
</tbody>
</table>
some methods to enhance media richness such as providing a Frequently Asked Questions page and additional e-mail facilities to encourage more positive buyer feedback (Chatterjee & Datta, 2008; Son et al., 2006).

Overall, these results further imply that the website design and the degree of interactive freedom given to the buyers to browse around are very important factors (Chiu et al., 2014; Zhang et al., 2011). Addressing these different factors to influence both purchase and repurchase intentions are obviously a great consideration for sellers to achieve better performance. Especially in terms of online buying behavior, how to build and improve relationships with buyers and maintain their trust are also critical (Zhang et al., 2011). Building on the strengths of trust intentions and transferring trust intentions into an auction behavior is also a crucial e-commerce business strategy which is a key factor in not only developing the e-commerce market, but also ensuring its sustainability by having a steady stream of loyal customers who are willing to make repeat purchases (Chen, 2012; Kim et al., 2012; Shin et al., 2013).

This research contributes to existing knowledge by examining how a number of utilitarian and hedonic factors can work together to influence purchase and repurchase intentions. By taking crucial elements from recent previous studies on how website characteristics (Hsu et al., 2014; Yoo & Kim, 2014), product and pricing characteristics (Liang & Chen, 2012), and seller behaviors (Hsu et al., 2014; Shiau & Luo, 2012), this research presents a more comprehensive look at the dynamics of online auction websites and how they can encourage purchase and repurchase intentions, especially in the face of competition from other e-commerce platforms. Furthermore, aside from the validated direct effects, this research also highlights the resulting interaction effects of brand and product information, and of media richness and trust. Also, the use of the experiment research design enables the examination of a number of these complexities of online auctions, identifying which factors can directly influence purchase and repurchase intentions, and which ones have to interact with other factors to do so.

### 5.2. Limitations and directions for future research

The samples in this research focused on students with some online auction experience. While the use of student sample is common practice (Liang & Chen, 2012; Yoo & Kim, 2014), it is obvious that different demographic groups can have differing effects as they would have different approaches to learning and interaction approaches, having different capacities for observing, imitating, modeling, and possess different attitudes towards control, self-confidence, motivations, and self-efficacy (Chen, 2012). Focusing on different groups of consumers and on different e-commerce platforms selling other products online in future research will definitely provide some more useful insights and would improve overall generalizability as it can be observed how different demographic groups put emphasis on the same independent variables and find out which ones are more important or less important for them as far as making purchase and repurchase decisions. This can further help both researchers and managers to see how to make their online selling and promotion strategies more tailor-fit in the hopes of inducing more favorable behavior.

### References


