

# “E-Consumers' Attitude and Behaviour in the Online Commodities Market”

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## E-CONSUMERS' ATTITUDE AND BEHAVIOUR IN THE ONLINE COMMODITIES MARKET

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### Abstract

This paper investigates the factors determining e-consumers re-purchasing behaviour in the e-business to consumer market. The Theory of Planned Behaviour (TPB) is used as a theoretical framework to interpret consumers' behaviour in the online environment and to study the antecedents of e-purchasing decisions.

This study adopted a quantitative methodological approach within the context of the online CD, Books, music, magazines and DVDs purchasing industry, surveying 211 consumers with prior purchasing experience in this range of products.

The questionnaires were designed using local focus groups from a similar population to identify the most salient beliefs influencing consumers' attitude towards e-purchasing. Notably, these beliefs were found to be 'trust', 'security' and 'convenience'.

The survey's results (n=211), revealed that consumers' attitude towards past e-purchases had significant impact on their intent to re-purchase and that the consumers' experience with an e-brand significantly affected their beliefs regarding the importance of trust, security and convenience in the online environment.

**Key words:** E-commerce, E-loyalty, E-brand, E-security, E-trust, Convenience, Consumers Behaviour, Re-purchase.

### Introduction

The terms "Electronic Commerce", "Internet marketing" and "on-line shopping" are now commonly used by business executives and consumers throughout the world as businesses are recognising the potential opportunities for commerce in the on-line business environment (Karakaya and Charlton, 2001). The potential size of the world-wide market that has resulted from the exponential growth of Internet adoption has fuelled more interest in e-commerce and makes the Internet very attractive to e-retailers and e-businesses (Georgiades *et al.*, 2000). World-wide the number of Internet users is steadily increasing. Notably, the Worldwide Internet Population in 2004 was 934 million with estimated growth for 2005 of 14% (Source: Computer Industry Almanac [www.clickz.com](http://www.clickz.com)).

Similarly, the volume of internet based purchases as well as the amount of money spent on e-purchases continues to increase in a steady arc as consumers' confidence in online shopping increases. Indeed, global e-commerce revenue from e-purchases was over £3.5 trillion in the end of 2004 (Reinhardt, 2000; Wilkerson, 2004; Finfacts, 2005). Western Europe purchased products online for £0.83 trillion in 2004 compared to £ 35.7 billion in 2001 and the same year the e-purchases in the United States of America were of £ 1.77 trillion compared to £ 115.5 billion for 2001 (Finfacts, 2005). Estimates from the UK online annual report (2003) also illustrate the growth of Internet users within the UK market. Notably in 2000, 28% of internet users had bought goods or services online. By 2003 this figure had reached 52%. The same report suggests that UK internet users are the second most likely to buy online after US consumers.

Furthermore, the most common set of products sold online are console games, CDs and DVDs (Forrester, 2005; Kelley *et al.*, 2003). As online gross sales are rapidly increasing, e-retailers on the Internet have multiplied over the last 5 years. Despite the increasing number of online users,

products offered, and e-tailers trading, it has been extensively reported that there is considerable resistance amongst many Internet users to engage in online business to consumer transactions, primarily due to concerns about privacy, security and the trustworthiness of the Internet (Aldridge *et al.*, 1997; Chellappa *et al.*, 2002; Devaraj *et al.*, 2003; Forcht *et al.*, 1995). In addition, as the number of independent e-business and e-retailers is increasing the competition is getting more intense, and it becomes more difficult to maintain e-customers loyalty to the brand.

Friedman (1999), and Sirdeshmukh *et al.* (2002) argue that consumers that engage in online business to consumer transactions can find another provider to meet their expectations just by the click of a mouse. As a result, they face minimal barriers to switching to another brand, especially in cases of little differentiation amongst competing products, – the case in the music industry, or if they do not trust the online provider. Therefore, Farmer (1999) argues that if there is little or no product differentiation and/or the e-consumers are concerned about the trustworthiness of the e-tailer, the need for brand recognition or established customer relationships to sustain loyalty is higher. This case is made even stronger by research conducted by The Boston Consulting Group which estimates that it costs internet-only retailers more than twice as much to acquire a new customer than for store-based retailers, and more than 7 times as much than for a catalogue-based retailer (Source: [www.retailers.com](http://www.retailers.com)). In addition, Reichheld and Schefter (2000) suggested that the high costs of acquiring new online customers may lead to unprofitable relationships for a number of years (see also Ribbink *et al.*, 2004).

The proliferation of commercial activities on the Internet has a significant impact on the business environment and on many academic traditions (Grewal *et al.*, 1998; Malaga *et al.*, 2000; Rogerson *et al.*, 1999). Therefore, an investigation into the drivers of e-brand loyalty in the online marketplace assists in developing successful online marketing strategies. Consequently, based on the Theory of Planned Behaviour (Ajzen 1985) and the adapted model of this theory by George (2002), this paper investigates the antecedents of online brand loyalty intention in the Business to Consumer (B2C) market, within the context of the online CD purchasing industry.

The outline of this paper is as follows: Firstly, research models and theoretical frameworks on the factors affecting consumers' e-purchasing behaviour are reviewed. Secondly, the methodology used to test the consumers' behaviour in the online environment is described and finally, the research findings are presented and discussed and recommendations are made.

## **Background to the study**

### ***Consumer Behaviour on the Internet***

The Internet provides an information-rich environment offering to the consumers' continuous up-to-date information, about different suppliers, products and/or services (Bruner, 1997; Chung-Hoon, 2003; Settles, 1995). As a result of the information available to the consumers and the ease of switching from one supplier to another, the power as Lindstrom (2002) argues has moved away from the brand and onto the consumer. Previous researchers have studied aspects related to consumers' behaviour online. For example, Rowley considered how consumers search the Web for information. Rowley (1996 and 2000), Morganosky and Cude (2000) studied the criteria of e-consumers' selection of products; Merrilees and Fry (2002) studied how consumers develop brand attitudes about e-retailers. The factors determining the consumers' purchasing decisions are changing as they embrace e-commerce with expectations about efficiency, service and support. Notably, Schultz (2000) describes e-customer loyalty in cyberspace as an evolution from the traditional product driven, marketer controlled concept towards a distribution driven, consumer controlled, and technology-facilitated concept. Hence, understanding the drivers and dynamics of how customer loyalty is developed and maintained in cyberspace is a critical tool for marketers developing future marketing strategies in this area (Gommans *et al.*, 2001).

Finally, studies analysing gender issues related to e-consumers' purchasing behaviour have shown that there are gender differences in the usage of the internet in almost every aspect (see Donthu

and Garcia, 1999; Kongaonkar and Wolin, 1999). On the contrary longitudinal studies according to Fayawardhena *et al.* (2003) suggest that this gender bias is weakening.

### **Online brand loyalty**

There are a number of definitions of brand loyalty focusing on different parameters such as behavioural and attitudinal brand loyalty (see East, 1990; Sheth *et al.*, 1999; Webber, 1998). However, for the purpose of this study we use a definition of brand loyalty given by Dick and Bashu (1994) which conceptualises loyalty as the “*strength of the relationship between an individual’s relative attitude towards a brand and repeat patronage*”.

Customer loyalty has sometimes been operationalised as a behaviour (hard-core loyalty, repeat purchase probability, and other) and at other times as an attitude (brand preference, commitment, intention-to-buy). As behaviour, customer loyalty has been measured as the long-term choice probability for a brand (Dekimpe *et al.*, 1997; Jeuland, 1979), or as a minimum differential needed to prevent switching (Raju *et al.*, 1990).

Attitudinal approaches focused mainly on brand recommendations (Boulding *et al.*, 1993), resistance to superior products (Narayandas, 1996), repurchase intention (Anderson and Sullivan, 1993), and willingness to pay a price premium (Narayandas, 1996; Zeithaml *et al.*, 1996).

While academic research is continuously engaged in refining various conceptualisations for customer loyalty (see Jacoby and Chestnut, 1978; Kahn *et al.*, 1986; Samuelson and Sandvik, 1997), much less attention has been paid to e-brand loyalty with some exceptions, such as: Gommans *et al.* (2001); Lodorfos *et al.* (2003); Lodorfos and Dennis (2005); Reichfeld and Schefter (2000), Ribbink *et al.* (2004) and Smith (2000).

### **Factors affecting the consumer’s online purchase decision**

Previous research into online brand loyalty suggests that consumers weight differently the importance of factors influencing their purchasing decisions in the online market than those in the traditional shopping environments, which in turn may affect their e-brand loyalty. Factors that have been extensively covered in previous research as having a significant effect on the consumers’ purchasing decisions online, are: beliefs about brand, price, trust, experience and convenience (see Chung-Hoon, 2003; Constantinides, 2004; Donthu and Garcia, 1999; Fayawardhena, 2003; Kung *et al.*, 2002; Lodorfos *et al.*, 2003; McCole, 2002; Quint, 1998; Retlev, 1991). In addition to the above issues, time, ease and effort have also been identified as factors affecting e-purchase decision (Devaraj *et al.*, 2003).

### **Price**

In addition to the rapid growth of the Internet population there has been an emphasis on Internet exchanges occurring at lower prices than in conventional outlets. In part this is assumed to be due to the belief that a primary role of an online store is to provide price related information and product information to help reduce consumers’ search and purchasing costs (see Bakos, 1997; Kung *et al.*, 2002; Phau, 2000). The belief that price is a primary purchasing determinant for online buyers is reinforced by the success of ‘auction sites’ (Kung *et al.*, 2002). In addition, there is the perception that the Internet will lead to increased price competition and the standardisation of prices especially when products or services are incapable of significant differentiation (Jarvenpaa and Todd, 1997; Kung *et al.*, 2002). However, a study by Brynjolfsson (2000) which considered pricing comparisons of CDs and books on the Internet to those offered by High Street stores identified that whilst prices were between 9 and 16 per cent lower on the Internet, the online dispersion of prices was high (25% for CDs and 33% for books). He also identified that those e-tailers of CDs and books with the lower prices did not make the most sales. This suggests that price may not always be the determining purchase factor for e-consumers.

Price incentives were notably the motivation for early e-shoppers expecting to find the lowest prices from e-tailers as a reward for their risk taking. This may be changing now because as Fayawardhena (2003) identified the online prices have risen despite the fact that the purchasing cost is

still one of the customers' key concerns. However, according to a number of studies previous experience with an e-brand or value recognition of a product affects the consumers' views about the importance of the purchasing price (Fayawardhena, 2003; and Grunert, 2002).

### ***Trust and security***

Currall and Judge (1995) defined trust as an individual's reliance on another party under conditions of dependence and risk. Considering that risk is a function of the probability that a hazard arises and the consequences of the hazard (Schneider, 1998), an individual's trusting behaviour depends on the nature of the consequences. In the context of high-consequence systems such as e-transactions, risk avoidance behaviour may arise.

There is much academic discourse surrounding security, promise fulfilment, and confidence (See Lynch and Lundquist, 1996; McCole, 2002; McKinsey and Co, 2002). Forrester (2000) found that many consumers consider that lack of security is the main inhibiting factor to adopting on-line purchase behaviour. Studying how trust is developed on the internet, scholars suggest that e-buyers' trust is based upon their confidence in the relationship with the exchange partner (Moorman *et al.*, 1992; Morgan and Hunt, 1994; Urban *et al.*, 2000). Mayer *et al.* (1995) further clarified the relationship between trust and risk: trust is the willingness to assume risk, while trusting behaviour is the assumption of risk. If the level of trust surpasses the threshold of perceived risk, then the trustor will engage in a risk taking relationship. A number of scholars, suggested that consumer's state of knowledge is an important dimension of trust (Butler and Cantrell, 1984; Doney and Cannon, 1997; and Moorman *et al.*, 1993). Reputation and size have also been frequently suggested as factors that contribute to consumers trust in a e-seller organization (Anderson and Weitz, 1989; Doney and Cannon, 1997; Ganesan, 1994; Lohse and Spiller, 1998; Quelch and Klein, 1996).

Therefore, risk reduction may be linked to the consumers' experience of the service (Berry, 1995). Thus, trust in a brand is established over time and will grow or decline with experience (Rutter, 2001). As a result of this, the previous experience that a consumer has had with an e-brand will greatly affect the level of trust and loyalty that shows towards the e-brand (Ratnasingham, 1998). Furthermore, Jarvenpaa *et al.* (2000) and Lynch (2001), both identified that trust increases customers' intention to purchase a product from a company on the web. According to Hampton-Sosa and Koufaris (2002), perceived company trustworthiness is positively associated with customers intention to purchase and re-purchase from the same e-tailer. Similarly, studies from both the consumer and business perspectives, demonstrate that the perceived risk of using the Internet has been a major deterrent in its take up (see Eastlick and Lotz, 1999 and O'Keefe *et al.*, 1998). Therefore, it is important as Hoffman *et al.* (1998) argued, for firms to develop strategies based on trust in order to establish positive relationships with their customers. However, it should be noted that Ribbink *et al.* (2003) did not find e-trust to be a very important factor affecting purchasing decision when they surveyed 350 university students, recent graduates and academics on the purchase of books and CDs online. This may be due to their previous experience with the e-tailer, the e-tailer's reputation or the e-buyer's levels of confidence.

Concluding, the level of trust seems to be of particular importance given the absence of physical exposure and contact with the e-tailer (Kent and Lynch, 2001; Merrillees and Fry, 2003; Reynolds, 2000; Urban, 2002). Therefore, as Rutter (2001) argued, it is important to know the levels of e-consumers' trust in order to be able to understand e-consumers' behaviour and decision making.

### ***Convenience***

Studies investigating e-consumers motivations to purchase products online suggest that convenience is a primary factor affecting e-consumers purchasing decision (Tracy, 1998). This finding is supported by other research, which demonstrates that e-shoppers are convenience oriented (see Constantinides, 2004; Donthu and Garcia, 1999; Korganonkar and Wolin, 1999). There are a number of definitions in the literature for convenience linked to e-consumers purchasing behaviour, however for the purpose of this study we focus on two aspects of convenience, e-satisfaction and ease of use. Szymanski and Hise's (2000) research suggests that site design and convenience have

a significant influence on e-satisfaction levels. These findings are also supported by Brown et al. (2003) and Jiang and Rosenbloom (2005).

Ease of use includes saving time, site design, site navigation, information architecture, site speed, ordering and payment process, accessibility and search facilities (Constantinides, 2004; Wolfinbarger and Gilly, 2001; Szymanski and Hise, 2000). According to Jiang and Rosenbloom (2005), 73 percent of e-customers will leave an internet page and/or site if it takes more than two to three clicks to get to where they want. Huber et al. (2001) as well as Jiang and Rosenbloom (2005) suggest that e-customers satisfaction criteria affect their purchasing attitude and their attitude to the e-retailer. Therefore, satisfaction in this context is the consumer's satisfaction based on ease of use criteria prior to the purchase (see Alba et al., 1997; Wolfinbarger and Gilly, 2001). In addition to satisfaction and ease of use, convenience includes expectations, atmosphere, comfort, selection and control as attributes (Walsh et al., 2003; Wolfinbarger and Gilly, 2001).

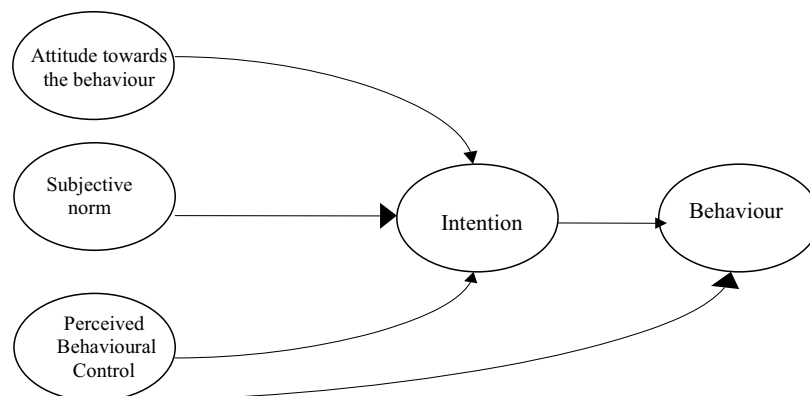
### *Experience*

In the literature on e-commerce, there has been extensive research on consumers' shopping experience and their evaluations based on perceptions concerning e-brands (Griffith *et al.*, 2001; Jarvenpaa and Todd, 1997; Szymanski and Hise, 2000). Fry and Merrilees (2001) found that those consumers with high levels of perceived security risk were more likely to reduce their levels of risk perception via in-depth experience with the internet site. Experience has been recognised as an important factor leading to brand loyalty, as a consumer's experience with a brand will affect the attitudes that the consumer holds towards the brand as well as its intention to purchase from the brand in the future.

East (1990) explains that repetitive brand purchase action depends mainly on previous experience with the product. Supporting this argument, Hoyer and Macinnis (2001) state that the past experience with a brand is by far the most critical factor in brand choice. Furthermore, Kent *et al.* (2001) suggest that the more experienced the e-buyers are, the more confident they are about doing transactions online and the less concerned about site's credibility while, according to O'Cass (2001), consumers satisfied with their previous purchasing experiences are more likely to express brand loyal behaviour.

### **Theory of Planned Behaviour**

The Theory of Planned Behaviour (TPB) (Ajzen, 1985), is an extension of the Theory of Reasoned Action (Ajzen and Fishbein, 1970), and is a widely used and supported model to predict consumer behaviour. One of the central themes in TPB is the individual's intention to perform a given behaviour (see Figure 1). As the principal predictor of behaviour, intention is regarded as the motivation necessary to engage in a particular behaviour: the stronger the intention to engage in a behaviour is, the more likely should be its performance" (East, 1990; Armitage and Conner, 1999).



Source: Ajzen (1985).

Fig. 1. The Theory of Planned Behaviour

A series of narrative and quantitative reviews (e.g. Ajzen, 1991; Conner and Armitage, 1998; Conner and Sparks, 1996; Godin and Kok, 1996; Sparks, 1994; van den Putte, 1991) have shown the efficacy of the TPB in predicting wide range of intentions and behaviours. Ajzen's conceptualization of the TPB implies a causal link between beliefs, attitudes, intentions and behaviour.

The theory postulates that behaviour is a function of salient beliefs, relevant to the behaviour. These salient beliefs are considered to be the prevailing determinants of a person's intentions and actions (Fishbein, 1967). In general TPB does not specify the particular beliefs that are used in the model in relation to the behaviour; this is left to be determined by the researcher.

### Extended Theoretical Framework: Theory of Planned Behaviour

The research model used in this study and illustrated in Figure 2, is based on the Theory of Planned Behaviour (Ajzen 1985), and the adapted model of this theory by George (2002). The revised research model used for this study investigates the determinants of brand loyalty in the online environment by the arrangement of the critical variables that influence online brand loyalty intentions. These intentions were identified through previous research, from which hypotheses were deduced and tested through primary research. The two antecedent constructs are: the intent to be loyal to the e-brand and, e-brand experience. Intent is preceded by attitudes toward e-brand loyalty (see Figure 2). The beliefs that are poised to help analyse attitudes towards e-brand loyalty were determined through preliminary primary research, and were found to be 'trust' (with concerns about security), 'price' and 'convenience'. These determinants are tested within the framework of the model, as these factors may affect consumers' intent to be brand loyal.

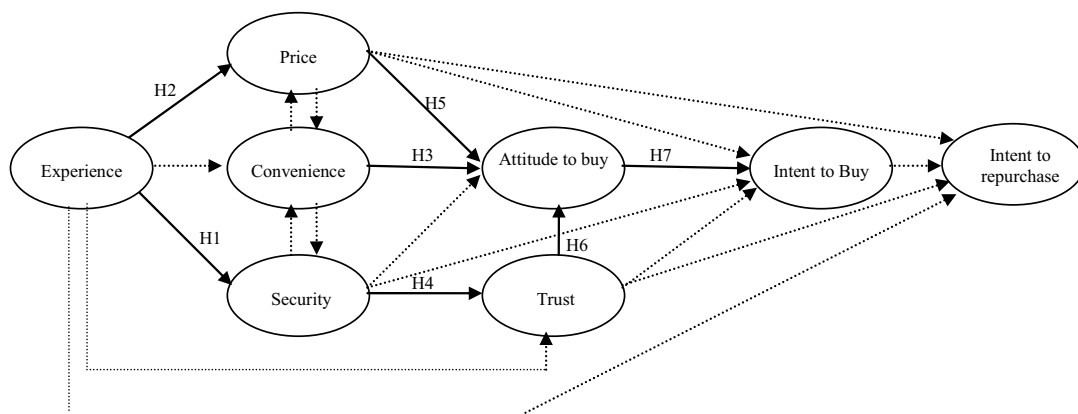


Fig. 2. Research Model

Seven hypotheses have been deduced from the literature review and confirmed by the focus group, then applied to the research model, which was then tested using primary data collected by questionnaire.

#### *Experience hypotheses*

**H1. The more experience the consumer has with the Internet the weaker the consumers' beliefs about the importance of security in their purchasing decision.**

**H2. The more experience the consumer has with the Internet the weaker the consumers' beliefs about the importance of price in their purchasing decision.**

Through these hypotheses intent is measured as a result of previous experience since past behaviour is the best predictor of future behaviour (East, 1990).

***The effect of e-consumers perceived convenience, security, price and trust on their attitude to purchase***

The next four hypotheses relate to the effects of e-consumers perceived convenience, security, price and trust on their attitude to purchase. The strength and outcome evaluation of the identified beliefs about the perceived ‘convenience’, ‘security’, ‘price’ and ‘trust’ provide substantive information about the attitudinal considerations that guide people’s decisions to engage or not in the behaviour under consideration (Azjen, 1985).

*Convenience*

**H3. High perceived convenience on an e-tailer’s site positively influences consumers’ attitude to purchase commodities online.**

*Security*

**H4. High perception of security on an Internet site positively influences consumers’ trust.**

*Price*

**H5. The stronger the perceived price/(value) for a consumer in an e-retailer, the greater the attitude to purchase.**

*Trust*

**H6. High perceived trust in an e-retailer positively influence consumers’ attitude to buy.**

***The effect of attitude on intent***

*Attitude to buy*

**H7. The more positive the consumers' attitude towards an e-retailer, the stronger their intent to re-purchase.**

These hypotheses are tested through a statistical investigation into the relationships between the overall variables measured through the primary research.

## **Research Design**

### ***Data Collection and Sample***

Data were collected by using self-administrated questionnaires distributed using purposive sampling. Therefore, a ‘typical case’ sample of consumers who have previously purchased CD, books, music, magazines and DVDs online was used (N=211). The online commodity industry was deemed suitable for the purpose of the study due to its strong presence and fast growth in the online environment. The sample met the minimum conditions needed for this study in that they were familiar and experienced with the internet for information search; they had previously purchased CDs, DVDs, Music, Magazines or books online at least once; and finally were students and young professionals that comprises a major segment in the commodity buyer market (Forrester, 2000b). This population is considered to be appropriate for this hybrid study, as the age and income distributions are very similar, while the race and education demographics were balanced (George, 2002). In addition, previous studies have suggested that students and young professionals are relevant samples for research on e-purchasing behaviour (see Georgiades *et al.*, 2000; O’Cass, 2001; Ribbink *et al.*, 2003; and VanderHeijden, 2001).

Focus groups were used for the deduction of the most salient beliefs influencing the consumers’ attitudes towards e-brand loyalty which are positioned as pre-determinants of the consumers’ attitude in the research model illustrated in Figure 1. In addition to the consumers’ attitudes and beliefs, the study infers the respondents’ evaluations from their expressions of experience with an e-brand and intent to be brand loyal. Results from the piloting of the questionnaire to 10 students and 7 professionals – representatives of the sample group – were also used to finalise the questionnaire design.

## Results

### *Sample*

Respondents were required to state their gender and results illustrated similar proportion to Ribbink *et al.* (2003) with 46 percent of the respondents being female and 54 percent male. Forty two percent of the respondents were in the age group from 18 to 24 years old, and 45 percent were in the age group from 25 to 30. The majority of the respondents (60.2 percent) were still students, from which 82 percent had part-time jobs and 39.3 percent were professionals. A t-test was conducted to assess whether there are significant relationships between the consumers' responses and their gender, age and occupation.

From the 39 items – *The greater choice of commodities online is important to me* shows a significant difference between the genders (male and female) at the 5 percent level (0.05 level 2 tailed) and *I am not loyal to e-retailers that I had a bad experience with* and *I feel secure making payments on the Internet* show a significant difference between the age groups '18 to 24' and '25 to 30' at the 5 percent level.

### *Reliability*

In terms of internet experience 45.5 percent of the respondents said that they access the Internet more than 20 times a week while only 2 respondents (0.9 percent) access the Internet once a week or less. The mean was calculated to find the average number of times the respondents access the Internet on an average week which was between 11 and 20 times a week. Furthermore, 23.2 percent of the respondents have purchased commodities more than 20 times, 27 percent between 6 to 10 times and 8.5 percent only once. The mean was calculated to find the average number of respondents' e-purchases, of the products that this study's focus is on, which was between 6 and 10 purchases.

As a test for reliability of construct measurement, Cronbach's alpha is typically used (Nunnally, 1967). Therefore, the attitude variable data was measured for reliability using Cronbach's alpha – this was selected due to the large number of question items that were used to evaluate the consumers' attitude towards e-brand loyalty. Table 1 shows the Cronbach alpha for the three factors related to attitude. Scales that produced Cronbach alpha coefficients greater than 0.7 were considered to be measuring the same underlying attribute (Nunnally, 1978) and were thus reliable. Similarly, Sekaran (2000) suggests that the value of alpha should be at least 0.70 as the basis of internal consistency whereby two constructs pass the reliability test. Notably, factor one is very reliable with Cronbach's alpha of 0.803. The second factor has a Cronbach's alpha of 0.668 and the third factor has the Cronbach's alpha value of 0.626 which can be accepted as reliable constructs because these factors are newly developed (Heijden *et al.*, 2001).

Exploratory factor analysis was conducted as a means of data reduction, to see if the face validity of the items held (Pallant, 2001). The items of the attitude scales were subjected to principal component analysis (PCA) using SPSS. Prior to performing PCA the suitability of data for factor analysis was assessed. The correlation matrix revealed many coefficients of .3 and above. The Kaiser-Meyer-Olkin (KMO) measure was 0.686 exceeding the recommended value of .6 (Fidell, 1996; and Kaiser, 1970, 1974) and the Bartlett's Test of Sphericity (Bartlett, 1954) reached statistical significance, supporting the factorability of the correlation matrix. PCA revealed the presence of 3 components with eigenvalues exceeding 1, explaining 68.1 per cent of the variance. Inspection of the screeplot revealed a break after the third component. Therefore using Catell's (1966) scree test, three components were retained for further analysis with Varimax rotation to aid interpretation of the components. The variance explained by each factor is shown in Table 1.

Table 1

## Factor Analysis for attitude variable

Factors and Factor Components	Factor Loading			Reliability Analysis
	1	2	3	
Factor 1 "Attitude" related to "Security"				0.803
I am concerned about e-security when purchasing online	.743			
I am concerned about online fraud when I carry out transactions online	.696			
I am concerned about private information and credit card security online	.695			
I have security concerns when purchasing from a new e-retailer	.644			
I am concerned about viruses and malware when purchasing online	.638			
I have to trust an e-retailer before making a purchase	.501			
I feel secure making payments on the internet	.393			
I always buy commodities from the same e-retailer	.383			
I purchase only from e-retailers that also have offline presence	.347			
If my previous experience with an e-retailer has been good I would recommend it to other people	.407			
I am willing to give my credit card number only to online companies that use secure payment transactions (SSL)	.351			
Factor 2 "Attitude" related to "Price"				0.668
If my previous experience with an e-retailer has been good I will visit this site first when I want to buy within the same product category		.380		
I am prepared to pay more to purchase a commodity from an e-retailer that I trust		.363		
I am a price sensitive customer		.325		
I will search for the cheapest e-retailer		.404		
I expect commodities online to be cheaper than offline		.573		
I do not switch from one e-retailer to another when buying commodities online		.433		
I am not prepared to give private information and credit card details to online companies		.416		
If my previous experience with an e-retailer has been good I would recommend it to other people		.415		
Factor 3 "Attitude" related to "Convenience"				0.626
The easiness of comparison shopping online is important to me			.635	
To be able to purchase commodities at any time on any day is important to me			.495	
The greater choice of commodities online is important to me			.454	
I buy commodities online because it is less time consuming than offline			.423	
It is less time consuming to buy commodities online than offline			.356	
Keiser-Meyer Olkin (KMO) Sampling Adequacy				0.686
Bartlet test of sphericity				741
Bartlet test of significance				0.000

The last two questions in the general section of the questionnaire tested the respondents preferred, compared to used, payment method online. The majority of the respondents (87.7 percent) use credit cards when purchasing products online, however, credit cards are the preferred method of e-payments to 82 percent of them. On the contrary although only 2.8 percent of the respondents pay on collection for their e-purchases, 9.5 percent mentioned pay on collection as their preferred payment method for e-purchases. However, our empirical findings do not show significant difference between the used and preferred methods of payment, but they suggest that it is important for e-tailers to offer a number of alternative payment methods to their customers. Furthermore, Ribbink et al. (2004) suggest that there is correlation between consumers satisfaction and payment methods as well as satisfaction and e-loyalty, therefore further research should be done on different payment methods and satisfaction.

### Validity

The Pearson correlation matrix was used to state the relationship between the variables in the research model and illustrate the relationship between the factors constituting the overall attitude variable, and the other overall variables used for this study. Preliminary analysis was performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity. The results shown in Table 2 illustrate that the strongest relationship exists between trust and security (.474\*\*). There are also strong correlations between overall attitude and security (.588\*\*), convenience (.688\*\*), and trust (.518\*\*). In addition, there are correlations between overall attitude and experience (.304\*\*), overall intent and experience (.341\*\*) and overall intent and trust (.308\*\*). Furthermore, there is some correlation between attitude and price (.180\*) and trust and price (.146\*). However, there are no evidence of any correlation between price and experience (.012).

Table 2

Pearson correlation matrix

Variables	Meaning	A	B	C	D	E	F	G	H	I	J
Overall Experience	A	1									
Overall Security	B	.095	1								
Overall Price	C	.012	.052	1							
Overall Convenience	D	.099	.210**	.117	1						
Overall Trust	E	.208**	.474**	.146*	.086	1					
Factor 1	F	.297**	.751**	.057	.156*	.625**	1				
Factor 2	G	.370**	.166*	.502**	.485**	.298**	.082	1			
Factor 3	H	.004	.175*	.088	.819**	.115	.098	.312**	1		
Overall Attitude	I	.304**	.588**	.180*	.688**	.518**	.572**	.583**	.611**	1	
Overall Intent	J	.341**	.220**	.236**	.073	.308**	.530**	.155*	-.034	.273**	1

Note: \*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

To examine the attitude factors that contribute to the consumers' intention to be e-brand loyal multiple regression analysis was used. The association between the dependant variable (intent), and independent variables (trust, security and convenience), is illustrated in Table 3, with  $R^2=0.728$ , F-Test 171.068 and significance  $p<0.00$ . Durbin-Watson equal to 2.2, demonstrates that these data fit into the equation.

Table 3

## Multiple regression analysis, attitude factors

	Beta	Significance
Trust	0.268	0.000
Security	0.313	0.000
Convenience	0.590	0.000
R Square	0.728	
Adjusted R Square	0.723	
F	171.068***	
Durbin Watson	2.215	

Note: \*\*\*:  $P < 0.000$

Multiple regression analysis, attitude factors

Dependent value: Total Attitude

There is evidence to support the relationship between three of the attitude factors and the intent to re-purchase online. Notably, price does not have a significant impact on the e-consumers attitudes to re-purchase. The multiple regression analysis presented in Table 3 shows statistical evidence that *security*, *trust* and *convenience* contribute to e-consumers attitudes to re-purchase from the same brand. This finding is consistent with existing/previous studies such as Joines *et al.* (2003), Kung *et al.* (2002), Lodorfos *et al.* (2003), Lodorfos and Dennis (2005).

## Discussion

The results generated from testing the relationship between the consumer's convenience with an e-retailer and their attitude to purchase were found to be strong. This finding supports Hypothesis 3 (H3), and indicates that convenience is the main contributor to a customer's attitude to purchase from an e-retailer. Supporting this finding Constantinides (2004), Donthu and Garcia (1999), Konganankar and Wolin (1999), Tracy (1998) state that convenience is the primary motivation to purchase products online. Furthermore, a user friendly and easy navigable site was found to be very important to the respondents as more than 90 percent argued that a user friendly site is very important to them. Although, there is not a clear definition of what could be perceived as an easy navigable site, our results support Jiang and Rosenbloom's (2005) findings that ease of use despite individuals criteria is a factor that affects e-consumers overall convenience. Similarly, 92 percent of the respondents stated that product information is a very important factor to their convenience when shopping online. On the contrary, 60 percent of the respondents believed comparison shopping to be an important factor to their convenience, which contradicts with Constantinides (2004) findings that suggest comparison shopping as a major part of e-consumers convenience. Furthermore, only 50 percent of the sample thought that being able to purchase at any time and any day were important to them. Finally, consumers said that to shop online in order to save time, is not a key factor to convenience something that contradicts to Constantinides (2004), Wolfenbarger and Gilly (2001) and Szymanski and Hise (2000) findings.

The results of this study suggest similarly to Ha's (2004) and Heuvelman's (2000) that security is the second highest contributor to a customer's attitude to purchase commodities online especially for e-consumers shopping with an e-retailer for the first time. Furthermore, trust is found to be the third highest contributor to consumers' attitude to purchase. This finding supports Hypothesis 6 (H6), and indicates that trust plays an important role for the customer when choosing an e-retailer on the Internet. Pavlou (2003) supports this finding, suggesting that trust is a prerequisite for customers purchasing behaviour. However, even though trust is influencing a customer's attitude to purchase, and re-purchase a product from the same e-tailer we do not have enough evidence to support the link between trust and e-brand loyalty. Notably, 50 percent of our respondents say that they would be loyal to an e-retailer that they trust, which indicates that trust plays an important role in consumers intent to purchase from the same brand, but this does not necessarily mean e-

brand loyal customers. This is supported by our findings in both the correlation and the regression analysis as trust is showing a relationship with intent; however, it does not explain much of the dependent variable, intent to re-purchase.

Hypothesis 4 (**H4**) is supported as our analysis shows a very strong relationship between security and trust supporting previous studies' findings (see Ribbink et al., 2004; Joines et al., 2003; Kung et al., 2002; Lodorfos, et al., 2003 and Lodorfos and Dennis, 2005). Security was also found to be the most important and second most important factor affecting consumers' first e-purchase and their repeated purchases respectively. This is also supported by Liberman and Stashevsky (2002) as their findings showed that security concerns was the main factor affecting Internet purchasing expansion rate.

Notably, sixty nine percent of our respondents highlighted the fact that they have to trust the e-retailer first and then make a purchase, which also supports Ribbink et al. (2004) findings.

However, despite the fact that 70 percent of the respondents are concerned with e-security only 20 percent of the sample said that they feel insecure when making payments online. Furthermore, despite Visa's statistics that show that 50 percent of credit card fraud transactions are online, only 48 percent of our sample is concerned about online fraud (see Salkin, 1999). In addition, only 34 percent of the sample was concerned about virus or malware when shopping online.

Our findings do not support Hypothesis 1 (**H1**) because there is no correlation between experience and security, contradicting Park and Kim's (2003) findings that suggest that there is a correlation between experience and security. However, similarly to Park and Kim's (2003) and McKnight et al.'s (2002) findings, 83 percent of our sample supports the statement that good experience enhances their trust to an e-retailer. Park and Kim (2003) also highlighted that experience may enhance customer loyalty as experience is closely linked to consumers attitude and intent to purchase and re-purchase. This is also supported by our research, as 82 percent of the sample indicated that they tend to repurchase from an e-retailer that they have experience with; and in addition there is a strong correlation between experience, attitude and intent to purchase.

As for Hypothesis 2 (**H2**), although it is supported from the literature review it is not supported from our empirical data. Notably, our empirical data do not support the relationship between e-consumers experience and the importance of price to their purchasing decision. Similarly, our findings support Brynjolfsson and Smith's (2000) findings that the cheapest e-tailer does not necessarily make the most sales (see also Jiang and Rosenbom, 2005; Kelley et al., 2003). However, although price may not be the main factor affecting consumers' behaviour online we believe that price is still an important factor both for first time buyers and repeated purchasers. This view is based on the fact that 75 percent of the sample will search for the cheapest e-retailer, while 40 percent will purchase from the cheapest e-retailer. Furthermore, 60 percent of the sample suggested that experience does not change their views about price which contradicts with Kelley et al.'s (2003) findings that loyalty reduces price sensitivity in the case of commodities. However, 90 percent of the sample states that the perceived value is of more importance than price, and therefore the e-consumers perceived value may affect their price sensitivity.

Hypothesis 5 (**H5**) is supported by our findings, as price and attitude to purchase have a strong correlation. These findings support Kelley et al. (2003) findings that price perception is likely to influence attitudes and intentions to purchase commodities which contradicts with Gupta's (2001) and Lodorfos and Dennis (2005) findings who suggest that attitudes related to price are not of significant influence on consumers intent to re-purchase from the same e-brand.

Finally, our results support Hypothesis 7 (**H7**), as there is significant correlation between consumers' attitude and intent. This supports extensive previous research highlighted in the literature review, and particularly Ajzen's (1985) research finding that "the intention to purchase is closely related to the attitude". The correlation also indicates that price, experience, trust and security are related to consumers intent to purchase. However, based on the regression analysis these factors only play a part in explaining e-consumers intent to buy, supporting Kelley et al. (2003) and Jiang and Rosenbloom (2005) findings that customers rely on the entire experience when forming inten-

tions to purchase products online. Another interesting finding is that intent to purchase is not correlated with convenience.

Despite the fact that we did not intend to prove a relationship between intention to be e-brand loyal and e-brand loyalty behaviour, the findings from the literature review indicated that the intent to be brand loyal can be considered as an accurate predictor of future intention to repurchase from the same brand.

## **Conclusions**

This study investigated the factors determining consumers' intent to re-purchase in the online environment, specifically within the commodity market. The primary research undertaken for the purpose of this study enabled a further exploration of consumers' experience, beliefs, attitudes and intent to purchasing and repurchasing. Overall, the results of this primary research for Hypotheses 3, 4, 5, 6 and 7 were in line with the expectations stated. However, Hypotheses 1 and 2 were not supported by this study's primary research despite being supported in previous research studies.

The research reveals that the consumers' experience with an e-brand significantly affects their beliefs about the importance of trust. The empirical evidence also suggest that attitudes related to convenience, trust and security were of significant influence on consumers' intent to re-purchase from the same e-tailer. Hence, e-customers show strong beliefs about the importance of convenience, trust and security and perceived value in their decision re-purchase.

Based on this study's findings it is concluded that managers and marketers in order to acquire and retain consumers in the online environment should understand and develop strategies based on e-consumers attitudes towards re-purchasing related to convenience – with concerns about ease of use and product information – trust and security. A further promotional implication for brand managers is the importance of experience to repurchase.

In conclusion, this research has identified that there are a number of factors determining consumers' intent to repurchase within the online commodity market, specifically these factors are consumers' experience with an e-brand and beliefs concerning the importance of convenience, trust and security when purchasing.

## **Limitations**

This study investigated the factors determining consumers' intent to re-purchase. However, it is limited in that it is confined to a single typology, namely the online commodity market. Therefore, the findings of this research may not represent the online buying behaviour of consumers purchasing from alternative product categories. The items used to measure the constructs in the theoretical model in this study, were utilised for the first time, and consequently, despite the use of testing the item for suitability and reliability, they are subject to a degree of error. Furthermore, the sample may not be fully representative of the population of web shoppers. According to the theory of reasoned action (Fishbein and Ajzen, 1975), behaviour can best be predicted from a person's intention, or willingness, to perform the behaviour. Intention is, in turn, proposed to be a function of two conceptually independent components: (1) an attitudinal component, and (2) a normative component (subjective norm). The attitudinal component reflects how favourably people evaluate the behaviour, whereas the subjective norm refers to people's perception of the extent to which others who are important to them think that they should perform the behaviour. Due to the nature of the products it was decided to focus more on the attitudinal component, however for alternative product categories the normative component of the theory may have also to be taken into consideration. Despite these limitations, the findings from this study are suggestive of the determinants of e-consumers repurchasing behaviour in relation to the purchasing of commodities such as CD, Books, music, magazines and DVDs online amongst those e-consumers who have previously purchased any of the above products.

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