Raising the Web Conversion Rates for Online Ventures with No Name Recognition: Analytical and Empirical Studies

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Attestation of authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

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Acknowledgements

Abstract

This research aims to build a theoretical model of the salient factors affecting the purchase behaviour of visitors to online retailers without an existing reputation. The proposed model, referred to as the conversion behaviour model (CBM), has been developed with two major objectives. The first objective is to provide insight into consumer conversion behaviour within an ecommerce context. The second objective is to provide a theoretical foundation upon which ecommerce managers and web developers can build practical procedures to improve web conversion rates. Three major questions, based on these objectives, guide the current research. The first question is "What are the salient factors involved in the purchase decisions for first-time visitors to an online vendor without reputation?" The second follows from this; "What are the inter-relationships among these determinant factors and their association with consumer purchase intention?" The final question covers the application aspect; "How can ecommerce managers control these factors to improve the website conversion rates?"

The research first reviews the literature related to online shopping adoption from the perspective of several "parent" disciplines. A classification model based on this review reveals three streams in online consumer behaviour research; human-computer interactions (HCI), online purchase decision process (OPDP), and web marketing-mix strategies. The review also suggests that the Conversion Behaviour Model should be developed mainly based on the second stream (OPDP). Research within the OPDP stream is consequently further considered. Most leading models of consumer behaviour online are adapted from Theory of Reasoned Actions (TRA), the Theory of Planned Behaviour (TPB), Technology Acceptance Model (TAM), and theories of trust in the Internet (Javenpaa et al., 2000)

A conceptual model of CBM is proposed, based on this literature, where Trust and Perceived risk enhance online Consumer Purchase Intention. Trust and Perceived risk, in turn, are dependent on Perceived web interface quality and Perceived social acceptance. Published literature in the information systems and marketing fields are reviewed to demonstrate empirical support for the proposed model's theoretical constructs, while at the same time showing that the proposed model goes beyond the existing theoretical specifications by explaining and integrating previous research issues in a cumulative manner.

A C-OAR-SE-based scale development procedure is then established to validate the causal relationships within the proposed model. The C-OAR-SE procedure prompts the researcher to pay more attention to scale validity and attribute nature than to internal consistency; this is contrary to most prior research on online consumer behaviour which conventionally focuses on high coefficient alphas (internal reliability).

Data collection is conducted in Viet Nam where the ecommerce market has blossomed but financial constitutions for e-transactions are not yet in place. A dummy Internet site is constructed and housed on a real trading host server, and "real" online customers are driven to the research site. The collected data is analysed by two different meta-analysis methods, the mediation test (Baron & Kenny, 1986) based on the scale enumeration rules of Rossiter (2002) and a structural equation model, to examine the causal linkages of the theoretical model. The results show trust partially mediates perceived web interface quality and perfectly mediates perceived social acceptance on purchase intention. In contrast to prior research concerning trust and perceived risk in an Internet setting, the results show the perfect mediation of trust on perceived risk to purchase intention. Comparing the two data analysis methods in the current study, the results show the mediation test produces more significant causal relationships than the SEM model; the SEM model on C-OAR-SE-based scales should be subject to further conceptual and empirical studies. Results of the current study also suggest a procedure that ecommerce managers and website developers could follow to improve the conversion rate of their websites.

Chapter 1 Introduction

1.1 Personal motivation

In early 2003 my friend Patrick and I found a great way to make money to support our studies in New Zealand. We found that we could buy cheap, but high quality, collectible wooden model ships and motorbikes in Viet Nam which could be sold in New Zealand, Australia, US, and UK for profit. Since it requires a huge start up cost to open a show room or store in those countries, we decided to start our own Internet business. We considered a few options to make money out of these goods. We could set up an online storefront, an online model ship auction; create a site for online custom wooden ship and Harley Davidson model design; build a wooden models information portal; or get together with all handicraft manufacturers in Viet Nam to sell all different models from one site. Although I personally wanted to choose the last two options which can benefit the small handicraft businesses in my beloved homeland, our circumstance at that time only allowed us to import and sell those goods via an online storefront.

The online business brought us a very good secondary income but we had to give up by the end of 2004 because the manufacturers in Viet Nam could not provide a consistent product quality due to their poor management skills. Although the reason for failure was quite predictable, both Patrick and I were too busy with our own personal problems to sort out the problem and expand our online business. During my two and half year experience of selling the hand-made wooden models online, however, I encountered two primary issues that most e-retailers still struggle with.

First, thousands of ecommerce websites are selling consumer products. However, it is interesting to consider the tiny number of ecommerce merchants that really make enough money to survive, or to grow like Amazon.com.

Second, even if a big advertising budget may drive great numbers of prospective customers to a specific website, it is very hard indeed, if not impossible, to tell why the customers visit in the first place and then, consequently, abandon the site. Such issues have encouraged me to seek for the major factors that keep small online vendors, especially those in Viet Nam, successful at the early stage.

1.2 Background to the research

With an increasing number of Internet users (see O'Cass & Fenech, 2003), the opportunity for ecommerce retailing seems to continue to steadily grow. According to a comeScore report in February 2010, online spending on non-travel retail has been increasing constantly since the major dot com decline by the end of 2001(see Figure 1).

Figure 1

Ecommerce dollar sales growth ($billions)
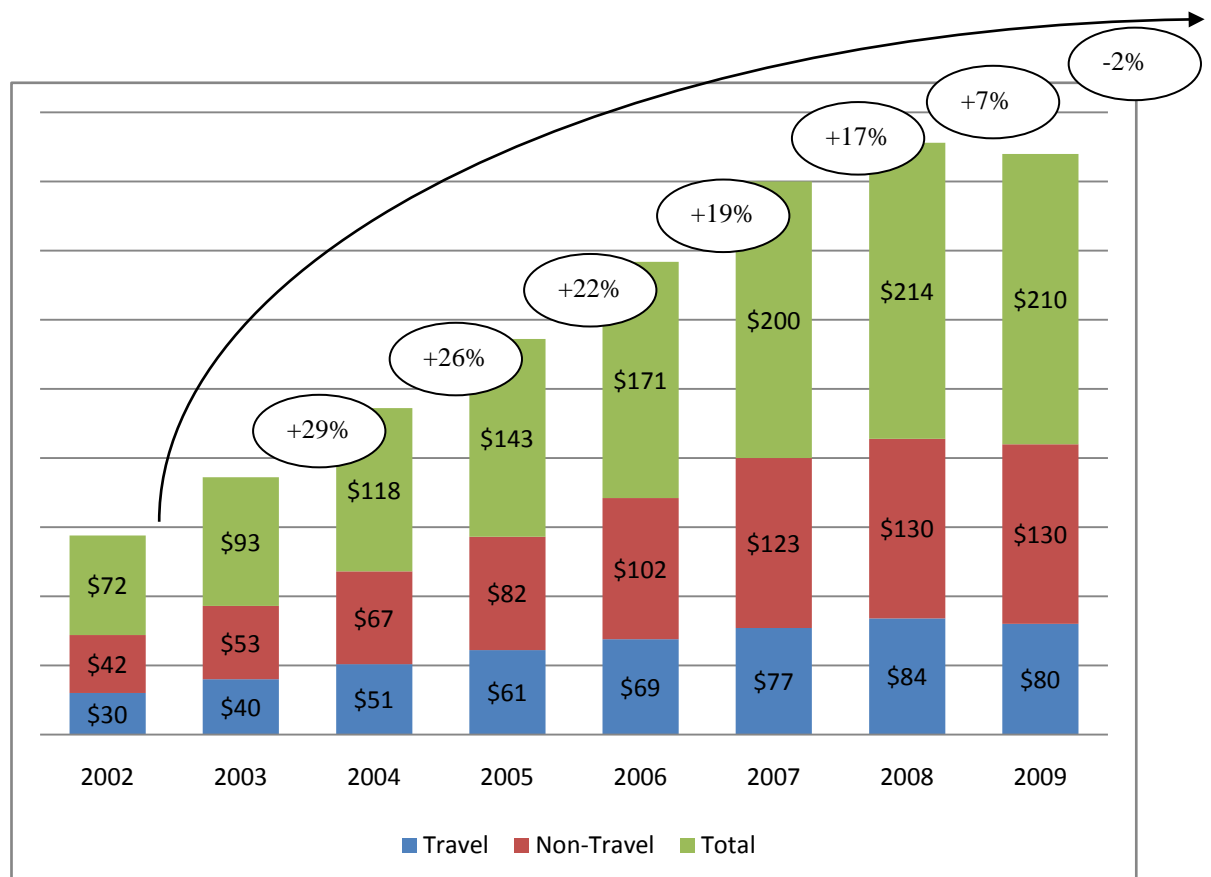
Source: comScore (2009)

Though the total online retail spending in 2009 was lower than 2008 due to the global economy recession since September 2008 (Knowledge@Wharton, 2009), the ecommerce market has been still relatively promising for retailers (comScore, February 2010). This has urged not only the existing online vendors to attract online consumers to their websites but also the traditional brick and mortar enterprises to build online store fronts to share such richness in the ecommerce market. For instance, AlphaCo (zazzle.co.nz), an over 30-year-old catalogue-based apparel retailer in New Zealand, has turned their initial simple website into a complete online sales channel during 2000s; the

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company is now a multichannel retailer (Doolin, McLeod, McQueen & Watton, 2003). Wal-Mart has aggressively chosen to partner with a giant venture capitalist in Bentoville, Arkansas to build their first online store walmart.com. The company then quickly stayed in the top 10 Internet properties by the end of 2009 (see Table 1 below).

Table 1

Fastest growing of the top 25 retailers ranked by dollar sales growth

Rank	Online Venture	Rating
1	Amazon.com	Very Strong
2	HSN.com	Very Strong
3	Sears.com	Very Strong
4	HP.com	Very Strong
5	Costco.com	Very Strong
6	BestBuy.com	Strong
7	Apple.com	Strong
8	QVC.com	Strong
9	Walmart.com	Strong

Source: comScore (2009)

The promising profitability from the ecommerce market has also resulted in a substantial spending on Internet advertising - by about 21% p.a. – since the burst of the technology bubble in 2001 (Economist.com, 2005). According to a ZenithOptimedia report in October 2009, the global online advertising reached over $ 60 billion, representing 12.3% of all advertising – a 20% increase over 2008; these figures may continue growing in 2010 and 2011 (see Tables 2 & 3 below).

Table 2

Global advertising spending (US$millions)

Media	2007	2008	2009	2010	2011
Newspapers	130,178	123,109	102,136	97,703	97,228
Magazines	59,196	56,588	45,415	42,762	42,573
Television	180,460	185,788	172,320	174,836	183,177
Radio	38,583	37,630	33,647	33,280	34,216
Cinema	2,268	2,377	2,180	2,274	2,422
Outdoor	31,752	31,888	29,112	29,828	31,430
Internet	40,242	49,544	54,087	60,253	68,557
Total	482,680	486,924	438,896	440,936	459,603

Source: ZenithOptimedia (October, 2009)

Table 3

Share of global advertising spending by medium (%)

Media	2007	2008	2009	2010	2011
Newspapers	27.0	25.3	23.3	22.2	21.2
Magazines	12.3	11.6	10.3	9.7	9.3
Television	37.4	38.2	39.3	39.7	39.9
Radio	8.0	7.7	7.7	7.5	7.4
Cinema	0.5	0.5	0.5	0.5	0.5
Outdoor	6.6	6.5	6.6	6.8	6.8
Internet	8.3	10.2	12.3	13.7	14.9

Source: ZenithOptimedia (October, 2009)

U.S. Internet users viewed a total of 4.3 trillion online display advertisements in 2009, which is a 21 percent increase compared to 2008 (comScore, 2009). The digital display advertising market in Asia Pacific has also grown significantly and seems to get stronger in the next couple of years (ZenithOptimedia, October 2009). However, while early ads could be effective in creating brand awareness and positive attitudes, such numerous online advertisements as banners, pop-ups, and pop-unders may produce negative effects (e.g., nonsensical, uninformative, forgettable, and intrusive) which in turn distorts consumer initial impression of the ecommerce website (Mccoy, Everard, Polak, & Galletta, 2007).

Unfortunately, despite the potential wealth resulting from the digital realm, the probability of success for small or new online ventures is still very low even if they could afford an effective online advertising plan. The decreasing marginal growth of total dollar sales over each year since 2003 (see Figure 1 above), and the great proportions of market shares and sales that keep going to the giant online ventures (see

Table 4) show that the market for small or new online ventures is extremely competitive. In other words, small or new online ventures are struggling to attract more online consumers to their websites.

Table 4

Larger retailers gained online dollar share from smaller retailers

Sales ($ Millions)	2008	2009	% Change
Total	$27,928	$29,034	4%
Top 25 retailers	$16,634	$18,538	+11%
< 25 Retailers	$11,294	$10,496	-7%
Sales share	2008	2009	Pt Change
Total	100%	100%	N/A
Top 25 retailers	59.6%	63.8%	4.2 pts
< 25 Retailers	40.4%	36.2%	-4.2 pts

Source: comScore (2009)

1.3 Research problem and research questions

For companies using their website as a commercial tool, success may be better defined by a large number of purchases being made from it (Phippen, Sheppard, & Furnell, 2004). In fact, the web conversion rate refers to the percentage of visitors who make purchases during their visits to an online vendor (Berthon, Pitt, & Watson, 1996; Montgomery, Li, Srinivasan, & Liechty, 2004), and therefore reflects the sales success of an online retailer (Reibstein, 2002; Tedeschi, 2000).

One of the first models of trust in ecommerce (Jarvenpaa, Tractinsky, & Saarinen, 1999; Jarvenpaa & Tractinsky, 1999) has proposed that site reputation significantly affects consumer trust, which in turn results in higher purchase intention. Similarly, for dot-com start-ups, Kambil, Eselius and Monteiro (2000) advise that better financed or established ventures have better chance to survive in the ecommerce market. Unlike those well-known online ventures that often achieve high conversion rates (see Table 5 below), online vendors without reputation have been struggling with less than 10% conversion rates (Eisenberg, 2008).

Table 5

Top ten online retailers by conversion rates

By July 2008		By July 2009	
E-commerce Sites	Conversion Rates	E-commerce Sites	Conversion Rates
Office Depot	26.9	Keurig	35.20
1800flowers.com	20.9	ProFlowers	31.30
FTD.com	20.3	vitacost.com	26.00
J.Jill	19.4	DrsFosterSmith.com	22.50
ProFlowers	19.3	Blair.com	22.40
QVC	18.2	Woman Within	22.40
L.L. Bean	15.9	Amway Global	21.30
The Children's Place	15.2	Roamans	20.50
Blair.com	14.9	Office Depot	18.70
Zales	14.6	Keurig	17.90

Source: Nielsen Online (2008; 2009)

It becomes more difficult for those websites selling look-and-feel goods (e.g. apparel, cars, and real estate) or, worse, look-and-feel goods with variable quality (e.g. refurbished electronics, antique, second hand design apparel) to deal with low web conversion rates. Hence, traditional stores are typically recommended as a more suitable sales channel for such goods (Sohn, 1999).

Consumer choice of one website over others is also dependent on various factors other than the online vendor reputation. Reibstein (2002) observes over one million web users at the site Bizrate.com to identify how they sorted the online stores, as well as which online stores they often visited to complete their purchases from 1999 to 2000. The results show that price plays a significant role in the purchase process online. However, Reibstein (2002) suggests that price-sensitive customers tend to switch to another website if it happens to offer low prices, and therefore online vendors that live by price promotions should follow up with on-time delivery policy and good customer support services. Time convenience (Chiang & Dholakia, 2003; Michael, 2006), prior experience (Shim, Eastlick, Lotz, & Warrington, 2001), and product type (Gehrt & Yan, 2004) are also the typical motivations that consumers may develop for their online shopping behaviour (e.g., why they buy online, which website they will buy from) over time.

Thus, in order to improve the web conversion rate, it is sensible for online vendors to seek the salient factors that motivate online consumers to select a website for purchases. The challenges described above naturally lead to the question facing less well-known

online vendors, research and consultation organizations, and ecommerce managers in particular: what primarily affect online consumers' purchase intention in their first time visiting an online vendor without reputation? In particular, what are the salient factors involved in the purchase decisions for first-time visitors to an online vendor without reputation? Furthermore, what are the inter-relationships among these determinant factors and their association with consumer purchase intention? Lastly, how could ecommerce managers control these factors to improve the website conversion rates?

Essentially I propose a conversion behaviour model that suggests trust, perceived risk, perceived web interface quality, and perceived social acceptance are the key factors influencing online purchase intention. Online merchants without reputation might be able to improve the website conversion rates by focusing on customizing the major attributes of the website interface (e.g., ease of use, transaction support, privacy, security, graphic design, information content, e-retailer credibility), and targeting effective viral marketing strategies on the influential word-of-mouth sources (e.g., offline recommendations, virtual communities, pass-along messages). I also suggest a new agenda for future research that centres on a few, key research areas and opens up research to new conversion behaviour models.

1.4 Justification for the research

Table 6 below provides a brief description of prior research related to online consumer behaviour. According to Table 6, a growing body of research on what drives consumers to shop online has been generated in a variety of business disciplines (e.g., Bélanger, 2005; Castillo & Nicolas, 2007; Hsu, Yen, Chiu, & Chang, 2006; Lorenzo, Gómez, & Mollá, 2007; Moe & Fader, 2004b; Pavlou, Liang, & Xue, 2007; Ramaswami, Strader, & Brett, 2000; Schoenbachler & Gordon, 2002). Many researchers have provided reviews of studies in this important research area (Chang, Cheung, & Lai, 2005; Chen & Chang, 2005; Cheung, Zhu, Kwong, Chan, & Limayem, 2003; Dholakia & Bagozzi, 2001; Monsuwe´, Dellaert, & Ruyter, 2004; Reynolds, 2000). Others have developed frameworks to facilitate further study (Cheung, Chan, & Limayem, 2005; Gefen, Benbasat, & Pavlou, 2008; Koufaris, 2002; MccLoskey, 2003-2004; Zhou, Dai, & Zhang, 2007). Furthermore, as Cheung et al. (2003) maintain, the Theory of Reasoned Action (TRA) and its related theories - including the Theory of Planned Behaviour

(TPB) and the Technology Acceptance Model (TAM) - are dominant among the studies investigating the factors affecting online buying behaviour.

Table 6

A review of prior literature related to online consumer behaviour

Independent variable	Concept-centric	Study	Source/Discipline
Technology factors (security, usability and site design, privacy), shopping factors (convenience, trust and trustworthiness, delivery), product factors (merchandising, product value product customization)	Consumer purchase decision process	Bélanger (2005)	Journal of Electronic Commerce Research
Website trust, product perceived risk, product superiority, difficulty of adoption	Consumer purchase decision process	Castillo and Nicolas (2007)	Int. J. Internet Marketing and Advertising
Interpersonal influence, external influence, perceived behaviour control	TPB	Hsu et al.(2006)	International Journal of Human-Computer Studies
Web navigation structure, presentation of product in the website	Consumer purchase decision process	Lorenzo et al. (2007)	Int. J. Internet Marketing and Advertising
Baseline probability of purchasing, positive visit effect on purchasing, negative purchasing threshold effect on purchasing, evolving effects over time	Click-stream behaviour analysis	Moe and Fader (2004b)	Management Science
Trust, website informativeness, product diagnosticity, social presence	TPB, TAM	Pavlou et al.(2007)	MIS Quarterly

Table 7. A review of prior literature related to online consumer behaviour (continued)

Independent variable	Concept-centric	Study	Source/Discipline
Agent performance, motivation (willingness to use, prior knowledge), ability (income), opportunity (time availability)	MAO (motivation-ability-opportunity)	Ramaswami et al.(2000)	International Journal of Electronic Commerce
Perceived risk, past direct marketing experience, motivation to buy from a channel, product category, website design	Consumer Purchase Decision Process	Schoenbachler and Gordon (2002)	Journal of Consumer Marketing
Perceived characteristics of the web as a sale channel, consumer characteristics, website and products characteristics.	Critical Review	Chang et al.(2005)	Information & Management
Subject norm, perceived behavioral control, past purchase experience, channel knowledge	TPB, TAM	Chen and Chang (2005)	Journal of Business and Management
Consumer characteristics, product characteristics, medium characteristics, merchant and intermediary characteristics, environmental influences	TPB	Cheung et al.(2003)	16th Bled eCommerce Conference eTransformation
N/A	Critical Review	Dholakia and Bagozzi (2001)	Marketing Text Book
Trust, subjective norm, attitude, perceived bahavioral control	TPB	Monsuwe´(2004)	International Journal of Service Industry Management
N/A	Critical Review	Reynolds (2000)	International Journal of Retail & Distribution Management
Consumer characteristics, product characteristics, medium characteristics, merchant and intermediary characteristics, environmental influences	TPB	Cheung et al.(2005)	Journal of Electronic Commerce in Organizations

Table 8. A review of prior literature related to online consumer behaviour (continued)

Independent variable	Concept-centric	Study	Source/Discipline
Trust, perceived risk, product uncertainty	Critical Review	Gefen et al.(Spring 2008)	Journal of Management Information Systems
Product involvement, web skills, value-added search mechanisms, challenges, perceived control, shopping enjoyment, concentration, perceived usefulness, perceived ease of use	TAM, Flow Theory	Koufaris (2002)	Information Systems Research
Ease of use, usefulness, security concerns	TAM	MccLoskey (2003-2004)	Journal of Computer Information Systems
Perceived outcome, shopping motivation, shopping orientation, satisfaction, consumer demographics, online experience	TAM	Zhou (2007)	Journal of Electronic Commerce Research

Though many of the studies above have tried to structure the complex effects of the determinant factors affecting online shopping intention, a couple of critical gaps still remain unexplored. First, these studies have investigated extensively such variables as attitude, intention, ease-of-use, usefulness, subjective norms, and perceived behavioural control. However, the question is still wide open for other important factors such as diversified situations and peer acceptance. Second, while many empirical studies have been done on how different website lay-outs affect online shopping behaviour, very few have made a clear distinction between the underlying website attributes and specific website features. Finally, it appears that most of the subjects in these studies are students, thus raising the question on the generalizability of the findings to real online consumers. The current research investigates online shopping adoption behaviour by addressing these deficiencies.

1.5 Methodology

The study has been designed specifically to examine the relation among the two predictors (website attributes and social influences), the mediators (perceived risk and trust), and the dependent variable (purchase intention). The researcher uses a 2 x 2 (social acceptance: high or low; web interface quality: good or poor) between-subjects factorial design as an effort to generate data variation rather than systematically control the variables.

Ho Chi Minh city, Viet Nam, where the ecommerce market and online trading activities have exploded more than ever before (An, 2010; Hà Mai, 2010) and the legal mechanisms have made much effort to keep up with the growth of ecommerce (Nam Anh, 2009; 2010), has been chosen for data collection. The population of interest is consumers involved in actual B2C online market. An advertisement is produced on the two most visited e-markets in Viet Nam (123mua.com.vn, 5giay.vn) to recruit research subjects. The subjects are offered incentives in the form of two brand new Apple iPhones to be raffled among the participants and a report that summarises the result of the survey. In the research method section later, I will explain in more detail why Viet Nam is an interesting place for this type of research.

The survey instrument includes a combination of scale items, three synthetic websites, and an online database. All items result from a scale development procedure adapted from (1) the paradigm that Churchill (1979), Bagozzi and Philips (1982), More and Benbasat (1991), and Boudreau et al. (2001) have advocated, and (2) the C-OAR-SE procedure that Rossiter (2002) has proposed in order to improve content validity.

With respect to scale validation, the researcher has used two different meta analysis methods, the mediation test (Baron & Kenny, 1986) based on the scale enumerations rules (Rossiter, 2002) and the SEM model, to examine the causal linkages of the model. The results show the former method produces more significant results and support for the C-OAR-SE procedure for scale development in marketing. Section three of this thesis describes and justifies the research methodology in far more detail.

1.6 Contributions

There are three contributions this study is designed to attain. First, the research provides an advance to the body of theory explaining conversion behaviour in the ecommerce context. Of equal theory-building importance is that by combining the many micro-studies already conducted into a macro-model, an opportunity arises to inspect the relationships and interaction between the various dependent variables proposed in the literature thus far. Second, the study serves as a guideline to enhance the web conversion rate of those little known or new e-retailers. In the still-emergent field of ecommerce, theory and practice are very close, and many practitioners look to academia for guidance in the day-to-day operations of their businesses. Finally, the extension of scale development theory together with a quasi-experimental and modelling approach, may add methodological knowledge to the topic area of online conversion behaviour.

1.7 Thesis overview

In order to establish the viable steps to improve the website conversion rate, a conversion behaviour model that predicts online purchase intention must be valid. The current research points towards the development of a valid conversion behaviour model, and a procedure that online vendors without reputation could follow to improve their web conversion rates. As a starting point, Chapter 2 reviews research from different disciplines on Internet shopping behaviour to identify the immediate discipline of the research problem, and establish a foundation upon which to build the conversion behaviour model. Published literature in the immediate discipline is also reviewed in this chapter to specify the variables of the proposed model, and demonstrate that empirical support exists for the hypothesized causal relationships within the proposed model. Chapter 3 is devoted to a scale development procedure in order to establish and pre-test the measures of the proposed model's theoretical constructs; a survey design and data collection procedure based upon two synthetic ecommerce websites. Data collected from the survey described in Chapter 3 is then analysed and discussed based on two meta-analysis procedures proposed in Chapter 4. Chapter 5 concludes the research with a discussion of the survey results and contributions to theoretical as well as practical knowledge.

1.8 Conclusion

Chapter 1 has laid the foundation for the thesis. It introduced the research background, the research problem and research questions. This chapter also justified the research, briefly described the methodology, and provided the thesis overview. On these foundations, the thesis can proceed with a detailed description of the research.

Chapter 2 Literature review, model development and hypotheses

2.1 Introduction

The purpose of this chapter is to review the parent and immediate disciplines of the research problem with the aims of charting the body of knowledge with a classification model, showing where the research problem fits into that body of knowledge, building a conversion behaviour model, and developing research hypotheses. These will provide directions for the discussion of later chapters regarding what further research is needed to answer the research problem; that is, to have Chapters 3 and 4 explicitly related to the hypotheses and research questions.

The literature reviewed in this chapter comes from two primary fields: Management Information Systems (MIS) and Marketing. The selected literature from both fields is then classified into parent vs. immediate disciplines. Phillips and Pugh (1987) describe these two disciplines as background and focus theories, respectively. According to the researchers, the former shows the possible aspects of the research problem and how concepts are grouped into different schools of thought or streams; the latter, on the other hand, only focuses on some aspects within the research problem scope. The objective of the literature review in this chapter is to gain an understanding of the existing theories and research related to online consumer behaviour, seek support evidence for the proposed model structure, and identify to what extent the current research could contribute to the body of knowledge.

Literature search and classification are conducted based on the structured approach for literature review described by Webster and Watson (2002). In particular, the relevant literature is identified through the key words and reference lists from the leading research and the citations on Web of Science (http://apps.isiknowledge.com) and Google Scholar (http://scholar.google.com). Articles are then classified based on the concept matrix tables Webster and Watson (2002) suggest. For instance, empirical studies coded as having addressed online shopping adoption are summarised by level of independent variables, concept centric, and source or material (see Table 6). Empirical and conceptual research directly relevant to online shopping adoption is selected for the review. Great attention is paid to prior empirical studies pertaining to the causal relationships within the proposed model.

2.2 Parent disciplines and the classification model

The World Wide Web (or simply the web) has become a popular topic in the influential press (Farber, 1995; Verity & Hof, 1994), social media (Lenhart, Purcell, Smith, & Zickuhr, 2010) and research community (Koufaris, 2002; Reibstein, 2002). In addition to acknowledging the web as an important communication medium, much of the research has been conducted into the nature and effectiveness of this medium as a commercial tool. Li and Gery (2000), for instance, argue that though e-tailing success varies across different product types, all retailers may somehow benefit from ecommerce. Ramaswani, Strader, and Brett (2000-2001) suggest that clients may adopt online channels for financial products due to their conflict with the financial agents or their habit of using online channel for information search. A survey of 337 online consumers (Gupta, Su, & Walter, 2004) shows consumers have tendency to switch from offline to online stores across four types of products: books, airline tickets, wine, and stereo system. Boyer, Hallowel, and Roth (2002) recommend that the integration of e-services into the traditional business operations to expand the business offerings and streamline customer services should be higher for the industries of search or information products.

At the same time, there have been various attempts at examining the factors and relationships that affect consumer purchase intention online. The review of prior leading research on new self-service technologies (Dabholkar & Bagozzi, 2002; Davis, 1993) and online purchase adoption (Childers, Carr, Peck, & Carson, 2001; O'Cass & Fenech, 2003) by Monsuwe', Dellaert, and Ruyter (2004) suggests that besides the exogenous factors proposed by the technology acceptance model (ease of use, usefulness, and enjoyment), consumer traits, situational factors, product characteristics, previous online shopping experiences, and trust also contribute to online shopping intention. Chang, Cheung, and Lai (2005) provide a comprehensive summary about much of what has been done to investigate the factors that affect consumer purchase decisions online. Accordingly, the researchers evaluate the related literature between 1990 and 2003 and integrate a total of 45 relevant empirical studies into a three-domain framework of online shopping determinants which involves perceived characteristics of the web as a sales channel, characteristics of the customers, and characteristics of the website or products. An analysis of the literature during the current research shows three distinct

orientations in online consumer behaviour research: Human-Computer Interaction (HCI), Online Purchase Decision Process (OPDP), and Web-Marketing Mix.

Scholars embracing an HCI orientation focus on usability, the technical dimension that makes the website interface easier and more pleasant to use. Studies in this area investigate technological elements that facilitate web users' decisions. The use of collected statistical data to improve an ecommerce website performance is an example. Phippen, Sheppard, and Furnell (2004) argue that it is not reliable to use basic web-metrics (hits, visitors or page-views) to measure website success in the current ecommerce context. Instead, advanced web analytics where web metrics are extensively collected and analysed (e.g. segmentation, click-stream analysis, referral analysis) are recommended (Phippen et al., 2004). For example, Internet navigational click-stream data could be adopted to investigate online shoppers' characteristics (Moe, 2003) and shopping behaviour (Moe & Fader, 2004a, 2004b). Researchers of the HCI stream also pay great attention to the critical website elements that affect online purchase intention. Moe (2006) conducted a large-scale field experiment at an informational website to measure the influence of pop-up promotions on web users' reaction. He investigates two major variables: delay in offering pop-up promotions and the page on which the pop-up appears. Based on the click-through rates analysis, Moe identifies two important facts. First, a delayed pop-up may interrupt users' browsing process. This implies that efforts should be made to shorten the delay time when a pop-up message appears. Second, compared to a pop-up window appearing on a gateway page, one that appears on a content page is less likely to be perceived as an interruption and more likely to enhance the online browsing experience. This stream of research thus raises the significant influence of the technological attributes – among other attributes – that influence online consumer shopping behaviour. Table 7 below presents some relevant research findings by HCI stream research about the technological elements that could facilitate consumer purchase decisions online.

Table 9

Web technological dimensions from HCI stream literature

Study	Dimension		
	Hedonic cues	Utilitarian cues	Presentation
Childers et al. (2001)	High resolution images, music	Logical navigation	
Dailey (2004)		Various navigational bar designs	
Eroglu, Machleit, and Davis (2001b)	Music, entertainment, colour, animation	Clear terms of sale, clear description of merchandise	
Vrechopoulos (2002)			Three types of layouts: grid, free-form, and racetrack
Flavián, Guinalíu, and Gurrea (2005)	Clear product images	Logical navigational design	
Nielsen (2006)			F-shaped information content presentation
Adelaar, Chang, Lancendorfer, Lee, and Morimoto (2003)	A combination of text, images, and video on emotions		
Khakimdjanova and Park (2005)			Manner of presentation, presentation technique, supplementary presentation, aesthetics of presentation, and display structure and the layouts
Martin, Sherrard, and Wentzel (2005)			More complicated visual and verbal layout is more suitable for entertainment oriented websites

Table 10. Web technological dimensions from HCI stream literature (continued)

Study	Dimension		
	Hedonic cues	Utilitarian cues	Presentation
Hong, Thong, and Yan (2004)			Flash information format facilitates users' search
Tan and Wei (2006)		Structural navigation, meaning of web content affects users' flow of cognitive processes	
Parsons (2002)	Aural and visual web features affect online shopping motivation		
(Tractinsky, Cokhavi, Kirschenbaum, and Sharfi (2006)	Visual aesthetics affect users' evaluation of the website in general		
Day, Shyi, and Wang (2006)	Flash banners positively affect web users' arousal		

The second group of scholars has taken a behavioural approach, where they investigate the determinants influencing consumers' buying decisions in the cyber market. In this research stream, trust and perceived risk are the central research issues. In general, previous research stresses the importance of trust and perceived risk in explaining and predicting online purchase intention (Gefen, Karahanna, & Straub, 2003; Jarvenpaa, Tractinsky, & Vitale, 2000; Pavlou, 2003; Rattanawicha & Esichaikul, 2005). This supports the assumption that consumers bear great uncertainty when buying goods from unfamiliar online vendors as they may expose themselves to unethical conduct and misuse of personal data (Ohlson, 1999). At the same time, it appears within the OPDP stream that the web interface design and peer acceptance exert a strong impact on trust and perceived risk. For example, on the privacy and security dimensions of the web interface, Pavlou and Gefen (2004) recommend such features as escrow services, credit card guarantees, and intermediary assurance (the third party who sets the rules and

creates the institutional framework on which the marketplace operates) to earn users' trust. Similarly, Nöteberg, Christiaanse, and Wallage (2003) suggest AICPA WebTrust, BBBOnline, TRUSTe are the trusted Web assurance seals. Furthermore, the researchers of the OPDP stream also emphasize the importance of information content; ease of navigation and multi-language support; proper use of fonts and colour; pictures, order tracking and preciseness of calculation (Rattanawicha & Esichaikul, 2005). The global phenomenon of social networking since 2008 has potentially transformed online consumer behaviour (comScore, 2010; Nielsen, March 2009), and therefore has become an important research issue of the OPDP stream. Examples include studying the effects of online ratings and reviews of products and services on consumer purchase intention in the Internet market (Gretzel & Yoo, 2008; Kumar & Benbasat, 2006; Kumar & Venkatesan, 2005; Sundar, Xu, & Oeldorf-Hirsch, 2009); comparing different types of online recommendations on purchase intention in the Internet (Lin & Kanliang, 2008; Wang, 2008); studying the impact of adding social presence (e.g., discussion boards, testimonials) to the website interface (Chiou & C. Cheng, 2003; Hassanein & Head, 2006); identifying the effects of online peer recommendations on trust (Mutz, 2005; Smith, Menon, & Sivakumar, 2005).

The third school of thought has adopted a web-marketing mix perspective (Constantinides, 2002), which focuses on consumer characteristics and e-business strategic plans. The basic notion underlying this stream is that online shoppers' characteristics (such as demographics and personality), and e-business models play an essential part in online purchase behaviour. In general, the Internet market customer was initially considered to be quite young, well educated, in the mid- or upper-economic status, male, and in professions associated with technology (Communications, 2000; Donthu & Garcia, 1999; Emarketer, 1999). Research studies in different markets and regions bring out some interesting demographic facts about consumers in the ecommerce market. For instance, Donthu and Garcia (1999) have found Internet shoppers older and wealthier than non-Internet shoppers. Gehrt and Yan (2004) argue that demographics are generally weak indicators of online consumer behaviour because the online population has been changing and becoming closer to the general population, which make online users profiles more complicated. Chen and Lee (2005) suggest that there is a positive relationship between purchasing frequency and gender, residential area on usage hours and purchasing, and that career is the moderating variable between website features and purchasing amount.

The worldwide Internet market varies across different cultures and regions; this, in turn, affects website design (Chau, Cole, Massey, Montoya-Weiss, & O'Keefe, 2002; Cyr, Bonanni, Bowes, & Ilsever, 2005; Noiwana & Norcio, 2006; Singh, Fassott, Zhao, & Boughton, 2006). Extending the traditional marketing theories, this group has argued for the dominant consumer variables influencing shoppers' purchase intention in the ecommerce context. These studies include such variables as self-efficacy (Kim, Cho, & Rao, 2000; Kim & Kim, 2005), personalization (Ho, 2006; Hupfer & Detlor, 2007; Miceli, Ricotta, & Costabile, 2007; Zhang & Krishnamurthi, 2004), self direction values (Goby, 2006; Jayawardhena, 2004; Seepersad, 2004).

Many researchers have also looked into the effect of different e-business models on online shoppers' decision making (Doolin et al., 2003; Gribbins & King, 2004); Brick-and-Click has been recommended the most among these models (Constantinides, 2004; Goersch, 2002; Kumar & Venkatesan, 2005; Schoenbachler & Gordon, 2002); Internet retailers should target bulky, low value or niche brands at high preference minority markets - those people whose shopping needs are very different from the majority in their living geographic area (Choi & Bell, 2010).

Figure 2 below presents an integrated model that summarizes the discussion so far about the three salient streams in online shopping adoption. The three broad research streams place emphasis on technological, behavioural, and consumer aspects to provide insights into how these factors affect online purchase intention. The present research explores the current knowledge of the second stream – online purchase decision process – to unearth the research questions. In particular, the next section presents a conversion behaviour model out of the discussion of prior leading research within the OPDP stream. Also included in this section is the empirical evidence that supports the causal relationships within the proposed model.

Figure 2

Classification model of prior literature about online shopping adoption

Human-computer Interaction (HCI)	
Click-stream behaviour	Technical web elements
Philippen et al. (2004), Moe (2003), Moe and Fader (2004a; 2004b), Ayanso and Yoogalingam (2009)	Childers et al. (2001), Dailey (2004), Eroglu, Machleit, and Davis (2001b), Vrechopoulos (2002), Flavián, Guinalíu, and Gurrea (2005), Nielsen (2006), Adelaar, Chang, Lancendorfer, Lee, and Morimoto (2003), Khakimdjanova and Park (2005), Martin, Sherrard, and Wentzel (2005), Hong, Thong, and Yan (2004), Tan and Wei (2006), Parsons (2002), Tractinsky, Cokhavi, Kirschenbaum, and Sharfi (2006), Day, Shyi, and Wang (2006)

Web marketing mix	
Online customer demographics	E-business models/strategies
Chen and Lee (2005), Donthu and Garcia (1999), Gehrt and Yan (2004), Chau et al.(2002), Cyr et al. (2005), Noiwana and Norcio (2006), Singh et al. (2006), Kim et al. (2000), Kim and Kim (2005), Ho (2006), Hupfer and Detlor (2007), Miceli et al. (2007), Zhang and Krishnamurthi (2004), Goby (2006), Jayawardhena (2004), Seepersad (2004)	Gribbins & King (2004), Constantinides (2004), Goersch (2002), Kumar and Venkatesan (2005), Schoenbachler and Gordon (2002), Doolin et al. (2003), Doherty and Ellis-Chadwick (2009), Choi and Bell (March 17, 2010)

Online purchase intention

Online purchase decision process (OPDP)			
Trust	Perceived risk	Perceived web interface quality	Perceived social acceptance
Ohlson (1999), Gefen et al. (2003), Jarvenpaa et al. (2000), Pavlou (2003)	Gefen et al. (2003), Jarvenpaa et al. (2000), Pavlou (2003)	Pavlou and Gefen (2004), Nöteberg, Christiaanse, and Wallage (2003), Rattanawicha and Esichaikul (2005b)	Gretzel and Yoo (2008), Kumar and Benbasat (2006), Kumar and Venkatesan (2005), Sundar et al. (2009), Lin and Kanliang (2008), Wang (2008), Chiou and Cheng (2003), Hassanein and Head (2006), Mutz (2005), Smith et al. (2005)

2.3 Immediate discipline, proposed model and hypotheses

The purpose of this section is to develop a conversion behaviour model based on the framework of Figure 2. At the same time, this section seeks the answers for the first and the second research questions: First, what are the salient factors involved in the purchase decisions for first-time visitors to an online vendor without reputation? Second what are the inter-relationships among these determinant factors and their association with consumer purchase intention? Since the current study focuses on online consumer behaviour, the OPDP stream is chosen to investigate these two research questions. In order to address the first, prior leading research within the OPDP stream is reviewed to identify the critical gaps between what has been done and what should be done, thereby offering suggestions about how the proposed model can extend the body of knowledge (section 2.3.1). In reply to the second research question, the constructs that make up the proposed model are then specified while, at the same time, the hypotheses concerning the relationships among these constructs are developed (section 2.3.2).

2.3.1 Conceptual model

This section focuses on discussing the theoretical considerations in which the proposed model is grounded. Table 8 below summarises prior leading studies within the OPDP stream that have attempted to build models of online consumer behaviour. Most of the studies come from the field of information systems and marketing. The number of citations has been obtained from the Google Scholar site (http://scholar.google.com) by March 23, 2010. Trust, Theory of Reasoned Actions (TRA), Theory of Planned Behaviour (TPB), and the Technology Acceptance Model (TAM) are the most popular theories upon which the models are developed. Looking across the constructs included in the models proposed by these studies, we find existing evidence for those salient research issues (trust, perceived risk, perceived web interface quality, and perceived social acceptance) within the OPDP stream (see Figure 2). The next section discusses the theories of Trust, TRA, TBP, and TAM based on which most of prior leading research build models of consumer behaviour online; how such models address the salient research issues within the OPDP stream; What contribution the proposed model could make to the research area.

Table 11

Models of online consumer behaviour from prior leading research

Study	Journal	Type of Study	Citing Articles	Theory-centric	Constructs	Measures
Berthon et al. (1996)	Journal of Advertising Research	Conceptual	285	New Customer/Prospect Buying Phase (Robinson, Faris, & Wind, 1967), Complex Consumer Buying Process (Schoell & Guiltinan, 1992), Key Seller Communications Objectives and Tasks (Churchill, Jr., Ford, & Walker, 1993)	Surfers Aware surfers Hits Active visitors Purchases Repurchases	Awareness efficiency attractability efficiency contact efficiency conversion efficiency retention efficiency
Bhattacherjee (2000)	IEEE Transactions on Systems, Man and Cybernetics	Empirical	129	TPB (Ajenz, 1985), TAM (Fred D. Davis, 1989)	Attitude (formed by usefulness and ease of use), subjective norm (formed by interpersonal influence and external influence), behavioural control (formed by self-efficacy and facilitating conditions)	Intention to use
Jarvenpaa et al. (2000)	Information Technology and Management	Empirical	1233	Exchange Theory (Thibaut & Kelley, 1959), Balance Theory (Heider, 1958), TRA (Ajzen & Fishbein, 1980), TPB (Ajenz, 1985)	Perceived size, perceived reputation, trust in store, attitude, risk perception	Willingness to buy

Table 12. Models of online consumer behaviour from prior leading research (continued)

Study	Journal	Type of Study	Citing Articles	Theory-centric	Constructs	Measures
Koufaris (2002)	Information Systems Research	Empirical	635	TAM (Fred D. Davis, 1989), Flow Theory (Csikszentmihalyi, 1975, 1977; Csikszentmihalyi & Csikszentmihalyi, 1988; Ghani & Deshpande, 1994; Hoffman & Novak, 1996; Mehrabian, Albert, & Russel, 1974; Novak, Hoffman, & Yung, 2000)	Product involvement, web skills, value-added search mechanism, challenges, perceived control, shopping enjoyment, concentration, perceived usefulness, perceived ease of use	Unplanned purchases, intention to return
McKnight, Choudhury, and Kacmar (2002)	Journal of Strategic Information Systems	Empirical	318	Trust (Bigley & Pearce, 1998; McKnight, Cummings, & Chervany, 1998; Menon, Konana, Browne, & Balasubramanian, 1999; Meyerson, Weick, & Kramer, 1996)	Trust in vendor, perceived web risk, perceived vendor reputation, perceived site quality	Intention to follow vendor advice, intention to share personal information with web vendor, intention to purchase from site
Gefen et al.(2003)	MIS Quarterly	Empirical	1100	TAM (Davis, 1989)	Trust, perceived usefulness, perceived ease of use	Intended use
Pavlou (2003)	International Journal of Electronic Commerce	Empirical	625	TRA (Ajzen & Fishbein, 1980), TAM (Davis, 1989)	Trust, perceived risk, perceived usefulness, perceived ease of use	Intention to transact
Smith et al. (2005)	Journal of Interactive Marketing	Empirical	65	Trust (Mayer, Davis, & Schoorman, 1995; McKnight et al., 2002)	Peer recommendation, editorial recommendation, shopping goals, trust in recommender	Perceived influence of recommender, product choice

Table 13. Models of online consumer behaviour from prior leading research (continued)

Study	Journal	Type of Study	Citing Articles	Theory-centric	Constructs	Measures
Pavlou and Fygenson (2006)	MIS Quarterly	Empirical	227	TPB (Ajenz, 1991), TAM (Davis, 1989)	Attitude toward purchasing (formed by trust – product purchasing, perceived usefulness of purchasing, perceived ease of use of purchasing, product value), subjective norm on purchasing, perceived behavioural control on purchasing (formed by controllability on purchasing, which is affected by monetary resources, product diagnosticity, information protection, and sef-efficacy on purchasing, which is affected by purchasing skills)	Intention to purchase, actual purchase
Lim et al. (2006)	Journal of Management Information Systems	Empirical	51	Trust (McKnight et al., 2002; McKnight et al., 1998), Jarvenpaa et al.'s model (2000)	Portal, customer endorsement, trusting beliefs, attitude	Willingness to buy, actual buying behaviour
Schlosser et al. (2006)	Journal of Marketing	Empirical	86	Trust (Mayer et al., 1995; Moorman, Deshpandé, & Zaltman, 1993)	Website investment, privacy/ security statement, trusting beliefs, perceived risk, goal	Purchase intention

Table 14. Models of online consumer behaviour from prior leading research (continued)

Study	Journal	Type of Study	Citing Articles	Theory-centric	Constructs	Measures
Pavlou et al. (2007)	MIS Quarterly	Empirical	93	TPB (Ajenz, 1985), TAM (Davis, 1989)	Perceived uncertainty which consists of perceived information asymmetry, fears of seller opportunism, information privacy concerns, information security concerns, product diagnosticity, trust, website informativeness, social presence	Purchase intentions, actual purchases

2.3.1.1 Theories of trust in the Internet

Hoffman, Novak, and Peralta (1999) state the conceptual foundations that trust significantly affects consumer loyalty and willingness to disclose personal information in the ecommerce market. Jarvenpaa, Tractinsky, and Vitale (2000) then built one of the first models of consumer trust in an online store, which shows that trust exerts a significant impact on consumers' selection of an online vendor. Studying the matter of trust in familiar web stores, McKnight, Choudhury, and Kacmar (2002) suggest that trust significantly reduces consumers' perceived risk and uncertainty and therefore motivates consumers to follow the online vendor's recommendations, share personal information, and buy goods or services from the online vendor's website. Following McKnight et al. (2002), Lim, Sia, Lee, and Benbasat (2006) built a model of initial trust based on the model Jarvenpaa et al. (2000) propose. The model and its hypotheses are tested through a laboratory experiment in a synthetic online bookstore and a questionnaire-based survey. The findings confirm that portal affiliation and customer endorsement affect the perceived trustworthiness of an online bookstore, which in turn directly affect attitude toward the online vendor; positive attitudes consequently result in higher online purchase intention. Similarly, drawing from research on trust, Schlosser, White, and Lloyd (2006) develop a model of consumers' willingness to buy online. Based on the data obtained from four experiments on a synthetic website with different samples, companies, and products sold, the researchers suggest that different web site dimensions can affect different trusting beliefs, which in turn result in different effects on purchase intentions.

2.3.1.2 Theory of Reasoned Actions

The Theory of Reasoned Actions that Fishbein and Ajzen (1975) develop is grounded in various theories of attitude such as Learning Theories, Expectancy-Value Theories, Consistency Theories, and Attribution Theory. Theory of Reasoned Actions proposes that attitude and norms (or the expectations of other people) form behavioural intention; behavioural intention, in turn, is the best predictor of whether or not a particular behaviour is performed. For instance, Mary's attitude is to buy a MP3 player from the online auction site eBay.com but her friends may think buying from eBay involves financial risks. Mary's decision depend on both what her attitudes suggest (buy the MP3 player from eBay) and what the norms of her friends suggest (not buy the MP3 player

from eBay). As Davis (1986) depicts, the construct of behavioural intention that TRA proposes can be defined using three mathematical equations. The first equation implies that an individual's intention to perform a particular behaviour (BI) directly determine that person's overall performance of that behaviour (B); BI is the aggregate effects from that person's attitude toward performing behaviour (AB) and the perceived social influence from those who are important to him or her (SN). Mathematically expressed, the equation is:

(1) $B \approx BI = w_1AB + w_2SN$

Where

    B: behavioural criterion

    BI: behavioural intention

    AB: attitude toward behaviour B

    SN: subjective norm toward behaviour B

    w_1, w_2: importance weights

Behavioural intention is defined as a person's perceived probability that he or she will perform a specific behaviour (Fishbein & Ajzen, 1975). Attitude refers to personal positive or negative beliefs about the target behaviour (Fishbein & Ajzen, 1975). Subjective norm refers to an individual's perception that whether or not the behaviour in question is accepted by his or her important referent people (Fishbein & Ajzen, 1975). The importance weights, which are empirically derived from multiple regression, indicate the relative causal influence of attitude and subjective norm in various situations.

The second equation implies that a person's attitude toward a specific behaviour is the total set of his or her evaluation of each consequence multiplied by his or her subjective probability of that consequence. Consequence here refers to any value, goal, characteristic, quality, object associated with the target behaviour (Fishbein & Ajzen, 1975, p. 223). The equation is symbolically presented as following:

(2) $AB = \sum_{i=1}^{n} bie i$

Where

    bi: belief that performing the behaviour B will result in consequence i

ei: evaluation of consequence i

n: number of salient beliefs

According to this equation, whenever a person learns about the potential results an object could bring, he or she immediately or simultaneously forms an attitude toward that object. This attitude could be positive, negative, or neutral depending on the individual's belief structure. For example, a positive attitude will be formed if a person learns that it is cheaper and more convenient to buy electronic products from online stores than from traditional stores. However, this attitude may become neutral if he or she later learns that the product he or she has bought, in fact, does not look as good as it does on the website.

The third equation deals with the formation of the social influence on an individual's behaviour. According to (Fishbein & Ajzen, 1975, p. 302), *"the general subjective norm is determined by the perceived expectations of specific referent individuals or groups, and by the person's motivation to comply with those expectations."* Mathematically expressed:

$$(3) \ SN = \sum_{j=1}^{k} nbjmcj$$

Where

nbj: a person's normative belief that an individual j or group j expects him or her to perform such behaviour B

mcj: a person's motivation that complies with referent j

k: number of influential referent individuals or groups

It appears that little research about normative beliefs exist when the TRA model is established (Fishbein & Ajzen, 1975, p. 304). Because the construct of normative beliefs may involve some of the attitude components, Fishbein and Ajzen (1975) assume a distinction exists between beliefs about the consequences of performing a behaviour and beliefs about expectations of relevant referents. However, researchers using the TRA model have to specify the beliefs applied to the situation they want to address since the salient beliefs vary across individuals. This could be done by taking

the first two or three beliefs that are primarily elicited from the representative sample of the population, Fishbein and Ajzen (1975) suggest.

2.3.1.3 Theory of Planned Behaviour

The Theory of Planned Behaviour (Ajenz, 1985) is the extension of the Theory of Reasoned Actions. As Ajenz (1991, p. 181) points out, TPB addresses *"the original model's limitation in dealing with behaviours over which people have incomplete volitional control."* In its simplest form, the Theory of Planned Behaviour can be expressed as the following mathematical function:

(4) $B \approx BI = w_1AB + w_2SN + w_3PBC$

Where

    B: behaviour criterion

    BI : behavioural intention

    AB: attitude toward behaviour B

    SN: subjective norm toward behaviour B

    PBC : perceived behavioural control

    w1, w2, w3: importance weights

Thus, the Theory of Planned Behaviour has added another construct, perceived behavioural control, to the Theory of Reasoned Actions. Perceived behavioural control in the Theory of Planned Behaviour, according to Ajzen (1985), is formed by two major components. The first component refers to the beliefs about the existence of factors that may support or interrupt the performance of a specific behaviour. For instance, online consumers are more likely to buy from those ecommerce websites that display third-party assurance seals (Pavlou & Gefen, 2004). Unlike locus of control (Rotter, 1966) where personal beliefs remain consistent across various situations and forms of actions, perceived behavioural control often varies across situations and activities (Ajenz, 1991). Therefore, the second component of perceived behavioural control is concerned with the perceived power of the factors that may support or interrupt the performance of a specific behaviour. For example, despite the available financial assurance by PayPal, many eBay members may still hesitate to buy precious jewels on this virtual auction site. They may perceive the refund procedure could become quite complicated if the

jewels they bought are not authentic. Perceived behavioural control can be symbolically presented, accordingly:

(5) $PBC = \sum_{r=1}^{l} c_r p_r$

Where

cr: an individual's control belief about the presence of factors that may facilitate or inhibit the performance of behaviour B

pr: the perceived power of the factors that may facilitate or inhibit the performance of behaviour B

l: number of salient factors that may facilitate or inhibit the performance of behaviour B

2.3.1.4 Technology Acceptance Model

The Technology Acceptance Model (Davis, 1989) is another extension of the Theory of Reasoned Actions to a technology-driven environment. The model, in fact, has become one of the most dominant and vigorous theoretical foundations for numerous IS studies on technology acceptance behaviours across expertise levels (Taylor & Todd, 1995), cultures (Rose & Straub, 1998), and organizations (Aganwal & Karahanna, 2000). The empirical test following an extensive review on TAM by Gefen and Straub (2000) verifies that PEOU and PU are the key drivers of ecommerce acceptance. According to the Technology Acceptance Model, attitude toward using a new IT system determines whether he or she actually uses it. Attitude toward using (intention to use), in turn, is a function of two major beliefs: the perceived usefulness (PU) of the new IT system and the perceived ease of use (PEOU) of the new IT system. Similar to TRA, the Technology Acceptance Model is symbolically expressed with the following functions:

(6) $PEOU = \sum_{i=1}^{n} \beta_i X_i + \varepsilon$

(7) $PU = \sum_{i=1}^{n} \beta_i X_i + \beta(n+1)PEOU + \varepsilon$

(8) $A_i = \beta_1 PEOU + \beta_2 PU + \varepsilon$

(9) $USE = \beta_1 A_i + \varepsilon$

Where:

Xi: design feature i

PEOU: perceived ease of use

PU: perceived usefulness

Ai: attitude toward using feature i

USE: actual use of the system

β: standardized partial regression coefficient

ε: random error

PU is *"the degree to which a person believes that using a particular system would enhance his or her job performance"* (Davis, 1989, p. 320). PEOU is *"the degree to which a person believes that using a particular system would be free of effort"* (Davis, 1989, p. 320). The definitions of attitude and use in TAM are consistent to those in TRA (Davis, 1986, p. 25). However, since TRA uses the principle of aggregation in defining the construct of attitude, which is neither unable to explain different behaviours across various situations, nor a specific behaviour in a particular situation, TAM specifies each belief separately in the regression for attitude. This disaggregated approach enables TAM to compare the relative importance of different beliefs to attitude toward using a new IT system. Furthermore, the above equations show that the subjective norm and behavioural intention variables, the central attributes within the TRA model, are omitted from TAM. For subjective norm is omitted from TAM, Davis (1986, p.36) explains that *"in the applied user acceptance testing context for which the proposed model is being developed, no information will be available for subjects pertaining to the expectations of their salient referents regarding their usage of the target system."* The main reason which Davis (1986) excludes the behavioural intention variable from TAM is that behavioural intention, which reflects a decision a person has made, is formed through a period of time; however, respondents in the experiment context are asked to make immediate decision directly after the demonstration of the new IT system (Davis, 1986).

A brief discussion of the theories of Trust in the Internet, the Theory of Reasoned Actions, the Theory of Planned Behaviour, and the Technology Acceptance Model shows three critical findings. First, trust has been a sensitive issue in online purchase

adoption. Second, TRA and TPB provide causal linkages between general beliefs and resulting behaviour. Finally, TAM explains IT and ecommerce adoption behaviour. As summarised in Table 8, above, prior leading research that attempts to build models of consumer behaviour online fundamentally focuses on two salient research issues: confirming the direct influence of trust on consumer attitude or purchase intention, and investigating what could affect consumer trust in the ecommerce context. Thus, such models of consumer behaviour online are explicable in part by theories of Trust, TRA, TPB, and TAM.

The study of ecommerce service acceptance behaviour by Bhaattacherjee (2000) is a good demonstration of this case. Bhaattacherjee (2000) reconceptualises the Theory of Planned Behaviour by specifying the three belief sets (attitudinal beliefs, normative beliefs, and control beliefs) in the ecommerce acceptance context. In particular, the two constructs of TAM, perceived usefulness and perceived ease of use, are used to operationalize behavioural beliefs; the two forms of social influence captured by diffusion theory (Rogers, 1995): external influence, which refers to media reports, expert recommendations considered by users in forming a rational acceptance decision, and interpersonal influence, which refers to word-of-mouth influence from friends, colleagues, opinion leaders or other prior users known by the current user, are used to operationalize subjective norm; the two constructs that Ajzen (1991) discusses regarding the determinants of behavioural control, self-efficacy (self confidence in skills or ability to perform a specific behaviour) and facilitating conditions (perceived availability of resources to facilitate the user's behaviour), are used to operationalize control beliefs. The online survey of 172 ecommerce service users used to provide data to empirically test the model shows that usefulness and ease of use, respectively, contribute 51% and 9% to the variance of attitude toward adopting ecommerce services; interpersonal influences and external influences, respectively, explain 37% and 27% of the subjective norm variance; self-efficacy is the primary predictor (20%) while facilitating conditions is the secondary predictor (4%) of the behavioural control variance.

The discussion up to now has shown why most models of consumer behaviour online are developed based on theories of Trust, TRA, TPB, and TAM. The rest of this section discusses the critical gaps of prior models of consumer behaviour online, and which of these gaps the present research proposes to fill.

While using trust as the necessary condition that affects consumers' decision making effectiveness and users' evaluation of the website, most models summarised in Table 8 subsume various indicator variables of consumer behaviour in the Internet. This could happen for two reasons. First, as discussed previously, trust has been widely recognised as the central and sensitive issue in online consumer behaviour. Second, the use of one or more parsimonious theories (e.g., TRA, TPB, or TAM) as the reference paradigm(s) for the proposed model development determines the salient attributes included in that model. Table 9 below displays the concept matrix that summarises the research issues that those models built upon the theories of Trust, TRA, TPB, and TAM (see Table 8 above) have addressed. Consistent with the findings summarised by the classification model in Figure 2, trust, perceived risk, perceived web interface quality and perceived social acceptance are the primary issues addressed by prior models of consumer behaviour online. More particularly, trust is consistently included in most of the models as a core attribute. However, those models based on TAM as the only theoretical foundation tend to focus on those constructs related to perceived web interface quality (e.g., perceived ease of use, perceived usefulness) while those based on the theories of Trust or on both TPB and TAM involve more diversified constructs.

Table 15

Concept matrix

Study	Theory-centric	Trust	Perceived risk	Perceived web interface quality	Perceived social acceptance
Bhattacherjee (2000)	TPB, TAM			√	√
Jarvenpaa et al. (2000)	TRA, TPB	√	√	√	
Koufaris (2002)	TAM			√	
McKnight, Choudhury, and Kacmar (2002)	Trust	√	√	√	
Gefen et al.(2003)	TAM	√		√	
Pavlou (2003)	TRA, TAM	√	√	√	
Smith et al. (2005)	Trust	√			√
Pavlou and Fygenson (2006)	TPB, TAM	√		√	√
Lim et al. (2006)	Trust	√			√
Schlosser et al. (2006)	Trust	√	√	√	
Pavlou et al. (2007)	TPB, TAM	√	√	√	√

In retrospect, TRA and TPB do not specify the belief sets but suggest that researchers should identify the salient beliefs according to the research situations they want to address. TAM extends TPB in this sense. Unfortunately, though TAM specifies that perceived usefulness and perceived ease of use are the two salient beliefs that determine intention toward adopting a new IT system, TAM does not explicitly describe where these two specific beliefs come from. Many attempts at extending TPB or TAM to the ecommerce context have resulted in models of online consumer behaviour. The key constructs of such models, as briefly described in Table 8 above, are identified based on prior conceptual and empirical research in information systems and marketing. These constructs, as summarised in Table 9 above, capture various issues related to four salient beliefs: trust, perceived risk, perceived web interface quality, and perceived social acceptance.

Previous empirical research has made much effort to identify those beliefs associated with trust (Bhattacherjee, 2002; Gefen, 2002; Gefen et al., 2003), perceived risk (Forsythe, Liu, Shannon, & Gardner, 2006; Lim, 2003; Pavlou et al., 2007), perceived web interface quality (Rattanawicha & Esichaikul, 2005), and perceived social acceptance (Lin & Kanliang, 2008; Smith et al., 2005). Unfortunately, it appears that such findings have not been integrated well in most models of consumer behaviour online despite the blossoming of the web technology and Internet culture. In particular, most models address perceived web interface quality through such aggregate attributes as perceived ease of use, perceived usefulness, and perceived size; items of high internal consistency rather than specific web dimensions are used to specify these formed attributes. In addition, most models, especially those based on TRA and TPB, have captured a limited number of significant social influences; this, in turn, is unlikely to reveal the salient beliefs associated with perceived social acceptance in the ecommerce context. The current study, therefore, proposes a model of online conversion behaviour with reference to the deficiencies of prior models of consumer behaviour online.

The conceptual model of online conversion behaviour is presented in Figure 3 below, with arrows representing causal relationships. As mentioned earlier, trust emerges during the course of this study as the central issue associated with online shopping behaviour. Since this study focuses on the first -time visitors to an online vendor that has no recognition, the conceptual model proposed here has been built based on the initial trust literature. Following the works of McKnight, Cummings, and Chervany

(1998), Gefen et al. (2003), and Lim et al. (2006), there are three major initial trust antecedents in the cyber market – institution-based trust, personality-based trust, and cognition-based trust. Institution-based trust is the trusting belief established when guarantees and references from a third party are in place (Shapiro, 1987; Zucker, 1986). In the ecommerce market, institution-based trust can be built through the digital certificates or seals from the existing intermediaries (e.g., VeriSign, Escrow services). Personality-based trust is the belief developed during childhood (Erikson, 1968; Webb, 1999); this belief is the trust credit given to an online vendor before the experience is formed (Wrightsman, 1991). Cognition-based trust is built on cognitive cues and first impressions rather than personal interactions (Meyerson, Weick, & Kramer, 1996); this belief is formed via categorization and illusion of control (McKnight et al., 1998b). Categorization refers to the tendency that individuals put trust in people similar to themselves and make judgement based on second-hand information (Morgan & Hunt, 1994; Zucker, 1986). Illusion of control refers to the effort that a person makes to gain some control of the situation in the absence of first hand information; This belief often develops through personal observation to confirm the trustworthiness cues of the second hand information sources (Davis & Kotteman, 1994; Langer, 1975).

Figure 3

Conversion behaviour conceptual model
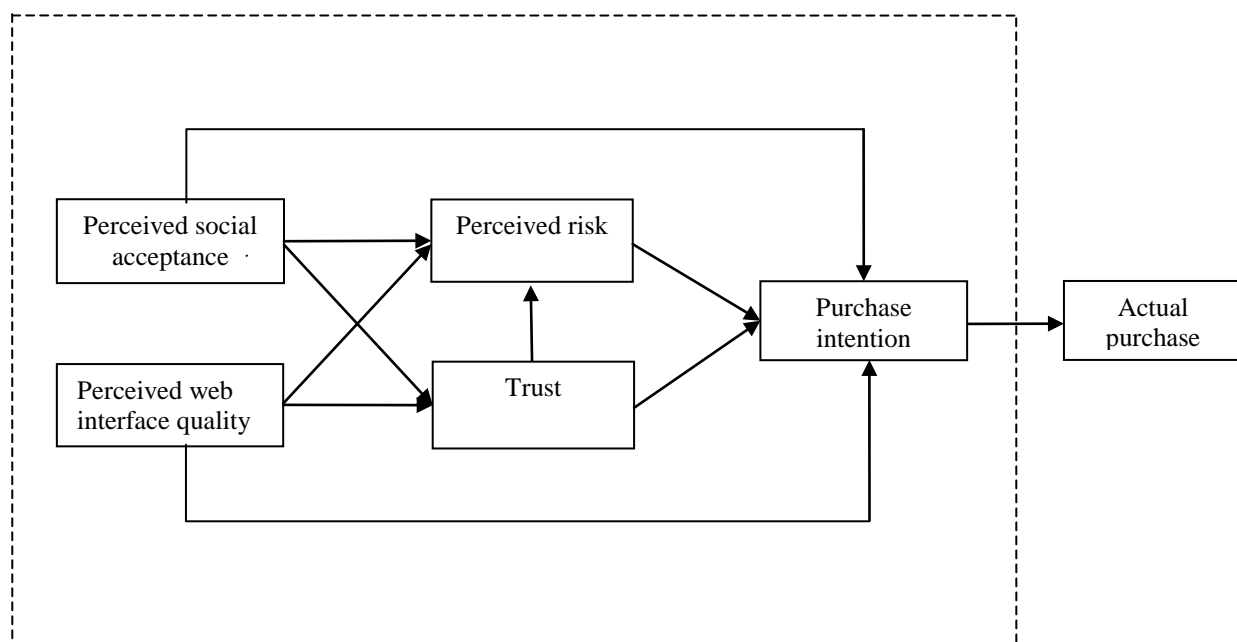
Figure 3 above qualifies much of the discussion about cognition-based trust antecedents in the ecommerce context. Trust, in this model, can be affected by two major antecedents – perceived web interface quality and perceived social acceptance. In other words, first-time visitors to an unknown online vendor form their trust largely through: (1) references from people similar to themselves, (2) their first impression of the vendor from the web interface that they see. Trust, in turn, affects perceived risk and purchase intention. Although perceived risk is powerful at explaining online shopping behaviour, there has been much confusion in separating trust from perceived risk in the literature (Lim, 2003). Many studies involve perceived risk in trust definitions (Boss, 1978; Mayer, Davis, & Schoorman, 1995); and suggest that trust is negatively associated with perceived risk (Pavlou, 2003; Verhagen, Meents, & Tan, 2006). This study conceptualises trust as the general belief in an online vendor which leads to purchase intention.

Purchase intention is the attitude toward the purchase on a particular ecommerce website rather than the attitude toward the ecommerce website itself. The distinction between the two attitudes was explained by Fishbein and Ajzen (1975), who proposed the theory of reasoned action (TRA) to provide a better measurement of behaviour. According to Fishbein and Ajzen, attitude toward the purchase includes one's evaluation of the consequences of a particular behaviour and the perceived probability these consequences will occur. Major theories later that extend TRA such as TPB (Ajzen, 1985), TAM (Davis, 1989), and TAM2 (Venkatesh & Davis, 2000) confirm that better prediction will be achieved if one measures attitude toward the purchase instead of measuring attitude toward the object itself. According to Ajenz (1991, p. 181), *"as a general rule, the stronger the intention to engage in a behaviour, the more likely should be its performance."* Using intention rather than actual behaviour to measure online shopping behaviour has been justified in much empirical research (Cyr, 2008; Gefen et al., 2003; Griffith, Krampf, & Palmer, 2001; Udo & Marquis, 2000). The current study also seeks to uncover a direct relationship between the trust antecedents and purchase intention.

2.3.2 Research model and hypotheses

With respect to the second research question, this section discusses in detail the constructs included in the conceptual model (see Figure 3 above); hypotheses that can

be empirically tested are subsequently presented. In particular, in each subsection, prior research that supports the definition of each model attribute (Perceived Risk, Trust, Perceived Web Interface Quality, and Perceived Social Acceptance) is first discussed. Causal relationships that prior empirical studies have addressed in relation to the proposed model are then analyzed. The proposed model, thus, is grounded in the variables that have been conceptualised and modelled.

2.3.2.1 Perceived risk

Bauer (1960; 1967) is one of the first scholars introducing the concept of perceived risk. Bauer suggests that consumer behaviour can be viewed as risk-taking behaviour insofar as consumers cannot anticipate the possible unfortunate consequences of a purchase decision. Bauer and Cunningham (1967) conceptualise perceived risk as a function of two attributes: uncertainty and purchase consequences. Cox (1967) defines perceived risk as the possibility of negative consequences perceived by a customer before purchasing and a degree of loss perception on the part of a customer when he/she is unhappy with the purchase. Bettman (1973) describes perceived risk as a function of inherent risk and handled risk; inherent risk refers to risk associated with a specific product category, and handled risk refers to risk associated with a particular brand or store. Jacoby and Kaplan (1972) describe five risk categories: financial, performance, psychological, physical, and social. Many empirical studies have reported that consumers admitted to feel more risky when making non-store based purchases rather than store-based purchases (Akaah & Korgaonkar, 1988; Cox & Rich, 1964; Spence, Engel, & Blackwell, 1970). Cox and Rich (1964) acknowledge that perceived risk is one of the major determinants that discourage consumers to shop over the telephone.

Compared to offline shopping, online shopping involves higher uncertainty. Online consumers do not normally have the opportunity to verify the products before the purchase. Especially, consumers bear great uncertainty when buying goods from unfamiliar online vendors as they may expose themselves to unethical conducts and misuse of personal data (Ohlson, 1999). When the perceived risk is high, online consumers are often less price-sensitive than off-line consumers (Hernandez & Vargas, 2002). In other words, special discount or promotions in store become less effective in on-line market than in off-line market because the perceived risk is high. One of the possible explanations for this finding is that off-line retailers gain greater customer trust

than online retailers (Stewart, 2003). On the other hand, on-line consumers become more price-sensitive than off-line consumers if the perceived risk is low (Hernandez & Vargas, 2002). Thus, trust can be considered a "risk-reliever."

Perceived risk is also involved in many customer trust definitions in the literature. For instance, the conceptualisation of trust has been identified to involve perceived risk (Johnson-George & Swap, 1982) and the vulnerability of a party (Boss, 1978). Kim and Kim (2005) claim that an improvement of customer trust significantly reduces the perceived risk. This confirms the previous empirical studies about the effect of trust on risk in ecommerce (Gefen, 2002; Hart & Saunders, 1997; Jarvenpaa et al., 2000; Pavlou, 2003). Thus, the first two research hypotheses:

H1: Perceived risk is negatively associated with online purchase intention.

H2: Perceived risk is negatively associated with trust in the ecommerce context.

Perceived risks in the online market may come from two sources of uncertainty: behavioural or environmental uncertainty (Bensaou & Venkataman, 1996; Ring & VandeVen, 1994). Behavioural uncertainty exists when online vendors take advantage of the impersonal nature of ecommerce and the unavailability of legal procedures to monitor all online transactions to perform opportunistic behaviours. In particular, behavioural uncertainty may create financial risk, vendor risk, privacy risk, product/service risk, physical, risk, psychological risk, technology risk, social risk. Environmental uncertainty arises because of the unpredictable nature of Internet and related technologies, which online vendors and consumers cannot control. Environmental uncertainty may involve such risks as physical risk, psychological risk, technological risk, social risk, financial risk, privacy risk, and institutional risk. Table 10 below summarises the potential risks related to online shopping behaviours.

Table 16

Potential risks associated with online shopping

Potential risk	Concept	Uncertainty source
Financial risk	The possibility of monetary loss because of doing online shopping (Hassan, Kunz, Pearson, & Mohamed, 2006; Pavlou, 2003)	Behavioural/ Environmental
Vendor risk	The possibility consumers have to suffer because of buying products/services from an untrustworthy ecommerce vendor (Hassan et al., 2006; Lim, 2003; Pavlou, 2003)	Behavioural
Privacy risk	The possibility that an ecommerce website misuses the confidential information consumers provide (Hassanein & Head, 2006; Pavlou, 2003)	Behavioural/ Environmental
Product or service risk	Customers' disappointment in relation to expectations concerning product performance (Hassanein & Head, 2006; Lim, 2003; Pavlou, 2003)	Behavioural
Physical risk	The possibility a product purchased online may affect an person's health (Hassan et al., 2006)	Behavioural/ Environmental
Psychological risk	The possibility individuals may suffer mental distress because of doing online shopping (Hassan et al., 2006)	Behavioural/ Environmental
Technological risk	The possibility an individual suffers from online shopping because of the Internet and its related technologies (Hassan et al., 2006; Lim, 2003)	Behavioural/ Environmental
Social risk	Individuals' fear of the others' reaction to purchasing things through the Internet (Hassan et al., 2006; Lim, 2003)	Behavioural/ Environmental
Institutional risk	The possibility consumers suffer loss by the failure of an institution to reduce opportunistic behaviour between trading parties (Verhagen et al., 2006).	Environmental

Thus, risk is a multi-dimensionality concept. This study focuses on the perceived risks that are within the control of an online vendor. More particularly, given that the empirical tests will be conducted in Viet Nam, this study emphasises the financial risk dimension to measure the perceived risk variable in the conceptual model. This is because consumers in this market have not been familiar with the online payment on an

ecommerce website (24h.com.vn, 2009). Ecommerce businesses in Viet Nam have not been able to provide their consumers with an online payment mechanism until 2009. In fact, the introduction of the first electronic payment gateway in South East Asia via nganluong.vn by the joint venture eBay - Chợ ĐiệnTử in April 27th 2009 (Giang, 2009) has eliminated the last barrier against the ecommerce businesses in Viet Nam. This study will, therefore, investigate how the online consumers in Viet Nam perceive risk regarding the electronic payment on an online vendor.

2.3.2.2 Trust

It is argued that the lower price that online retailers often offer is a primary factor that motivates consumers to shop online. For firms such as Buy.com that compete on low price, online technologies provide a low-cost, extremely efficient way to display merchandise, attract customers, and handle orders. However, previous studies identify trust as more critical than price in an online environment (Reichheld & Schefter, 2000; Wang, Head, & Archer, 2000; Yang et al., 2003). Kotha et al. (2004) argue that website usability and product selection do not create a competitive advantage because such attributes are easily exposed to imitation by competitors. However, customer trust is accumulated through internal competencies that are complex, specialized, and not easily observable or imitable by competitors (Lippman & Rumelt, 1982).

The concept of trust has therefore received substantial attention in the literature. One of the most comprehensive definitions of trust in the online context is given by Mayer, Davis and Schoorman (1995, p. 712). Accordingly, trust here is considered as *"the willingness of a party to be vulnerable to the actions of another party based on the expectations that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party."* Mayer et al. (1995) identify the three most frequently cited attributes determining the trustworthiness of a trustee. These attributes are ability, benevolence and integrity. Ability refers to the skills, competencies, and characteristics of the trustees. Benevolence is the extent to which a trustee is believed to do good to the trustor. Integrity refers to the consistency of the trustee's past actions and credible communications. For the past ten years, many researchers have extended much effort in examining these three trust components in the online context (Bhattacherjee, 2002; Gefen et al., 2003; Lim et al., 2006; Pavlou, 2003; Donna Vieve Smith, Satya Menon, & Sivakumar, 2005). For instance, Gefen (2002)

brought further explication to each of these attributes in the case of e-commerce: Integrity is the belief that the online merchant adheres to stated rules or kept promises; ability is the belief about the skills and competence of the online merchant to provide good quality products and services; benevolence is the belief that the online merchant, aside from wanting to make legitimate profits, wants to do good for the customer without regard to making a sale. Most recently, based on the literature from multi-disciplines, Kim and Kim (2005, p.2) have conceptualised trust as *"the belief that the promise of the other party can be relied upon and that, in unpredictable circumstances, the other will act with goodwill toward the trustor."*

In the online context, consumer trust is not only associated with the seller-party trust but is also subject to intermediary-institutional trust (Verhagen et al., 2006). Institutional trust is defined as *"the consumer's subjective belief that favorable conditions are in place to facilitate transaction success"* (Pavlou & Gefen, 2002, p. 669). Party trust is described as the likeliness that sellers can satisfy consumers' subjective expectations, irrespective of consumers' ability to fully monitor sellers (Pavlou, 2002). Consumer overall trust is a central issue in the negotiation process of E-Business (Gefen, 2000; Gefen, 2002; Gefen et al., 2003; Pavlou, 2003). Additionally, lack of trust is the main barrier that keeps consumers from using the vendor's website (Jarvenpaa & Tractinsky, 1999; Reichheld & Schefter, 2000; Rose, Khoo, & Straub, 1999).

Such findings in the literature of trust in the ecommerce context are consistent with the essential premises of the Theory of Reasoned Action (TRA) (Ajzen, 1988; Fishbein & Ajzen, 1975). Ajzen (1985) adds evidence that beliefs and intentions tend to stay consistent. McKnight et al. (1998) later adopts TRA to explain the logical link between trusting beliefs and intention to act. McKnight et al. argue that trusting beliefs and intention to act should be especially consistent in the initial relationship. Based on TRA, a customer's intention to shop on an ecommerce website should follow the accumulated trust. Thus:

H3: Trust is positively associated with online purchase intention.

It has been hypothesised, to this point, that Trust and Perceived Risk improve online purchase intention, and Trust reduces Perceived Risk. The next section presents the

literature synthesis results as an effort to identify the trust-inducing attributes as well as perceived risk relievers.

Hernandez and Vargas (2002) suggest that retailer image, which is formed by the retailer brand and the product brands carried by the online retailer, is positively associated with consumers' trust. The survey by Cases (2002) suggest eighteen risk relievers among which payment security, money back guarantee and product return possibility are ranked as the most useful risk relievers. Institutional trust and online consumer behaviour is also a topic that attract a great number of studies in E-Business marketing. For instance, many empirical studies show that third party trust certificates and promoting seals (such as TRUSTe, Verisign, BBBOnline Reliability Program or AOL Certificated Merchant Guarantee) or other public key encryption infrastructure for transactional security are critical success factors for enforce consumer trust in ecommerce (Hoffman et al., 1999; Hu, Lin, & Zhang, 2003; Wang, Lee, & Wang, 1998). These preceding studies provide important antecedents of trust and perceived risk in the cyber market. For the present study, it appears that perceived web interface quality and perceived social acceptance involve most of the potential elements that cause potential buyers to infer a certain amount of trust and minimum risk in the ecommerce seller. These potential elements are explored below.

2.3.2.3 Perceived web interface quality

Existing evidence from research in traditional shopping contexts suggests that store attributes affect consumers' decisions on where to shop and what to purchase in stores (Baker, 1986; Bitner, 1992; Donnovan & Rossiter, 1982). This also applies to website store fronts. Lohse and Spiller (1999) categorize the major attributes of traditional stores and the corresponding cues of online stores (see Table 11 below).

Table 17

Analogies between traditional stores and online retail stores

Traditional store	Online retail store
Salesclerk service	Product descriptions, information pages, gift services, search function, sales clerk on the phone / email
Store promotion	Special offers, on-line games and lotteries, links to other sites of interest, appetizer information
Store window displays	Home page
Store atmosphere	Interface consistency, store organization, interface and graphics quality
Aisle products	Featured products on hierarchical levels of the store
Store layout	Screen depth, browse and search functions, indices, image maps
Number of floors in the store	Hierarchical levels of the store
Number of store entrances and store outlets / branches	Number of links to a particular online retail store
Checkout cashier	On-line shopping basket and/or order form
Look and touch of the merchandise	Limited to image quality and description, potential for sound and video applications
Number of people entering the store	Number of unique visits to the online retail store
Sales per period	Sales per period

Source: Lohse & Spiller (1999, p. 2)

Although the online shopping environment cannot have all the five sensory appeals, it possesses some other properties (such as flexibility of time and space) that make it a unique context, quite different from conventional retail settings. Virtual stores, therefore, have unique atmospheric elements that have an impact upon consumer behaviour.

Song and Zahedi (2005) describe website attributes, or atmospheric cues, as the features, components, and information used on a website interface. Empirical evidence in the literature affirms that the design of a website will influence consumer online buying decision which, in turn, may determine the web conversion rate (Chau, Au, & Tam, 2000; Chen & Lee, 2005; Griffith et al., 2001; Liang & Lai, 2002; Mathwick, Charla, Naresh, Malhotra, & Edward, 2001; Schoenbachler & Gordon, 2002; Tedeschi, 2000). For instance, Chau et al. (2000) argue that product navigation, which is how the product information is organized and indexed, and presentation mode, which is how easy the online consumer can make sense of the information (textual and visual) presented on the website, are the two main crucial features of an effective ecommerce

website. Schoenbachler and Gordon (2002) add that purchase process and product layout on the website will affect whether consumers who are willing to purchase use the online channel as a buying option or not. Eroglu, Machleit, and Davis (2001) suggest a paradigm that identifies the effect of website atmosphere on consumers' emotional and cognitive states that then alter the shopping outcomes (avoidance vs. approach).

The in-depth interview survey with fifty website owners and website designers across the USA by Geissler (2001) shows that segmenting, targeting, and positioning are the most critical steps in the website design phase. Particularly, website designers should seek balance between design considerations and consumers' objectives and various levels of technological sophistication. The empirical investigation of 252 commercial websites of listed Australian companies by Huang et al. (2006) shows that website features and functions vary among different industries. Furthermore, according to the survey results, photographs or multimedia that provide company information, online advertising, user interaction, menu navigation; features that facilitate customer service and item search are those most common features on commercial websites. Cao, Zhang, and Seydel's survey (2005) focuses on consumers' perceived website quality. The results show that besides the accurate and update information, user friendliness and helpful search facility, online consumers also expect such critical factors as empathetic customer service at an individual level, an emotional dimension and attractiveness that provide a human touch.

In general, a better website design can improve the conversion rate up to 1.8% (Tedeschi, 2000). On the other hand, consumers tend to feel frustrated and leave those poorly designed website interfaces early. For e-retailers who mainly have their sales in the Internet market, this implies a great online sales loss (Fortune, December 2000). Users' bad experience with ecommerce websites often include outdated information, non user-friendliness, and item unavailability (NUA, 2002).

H4a: High perceived web interface quality is positively associated with online purchase intention.

Web interface quality is also reported to relate strongly to trust (Kim & Tadisina, 2005). Koufaris and Hampton-Sosa (2002) describe customers who enjoy their visits and feel in control of an ecommerce website as having a tendency to view that ecommerce

venture more favourably and perceive it as being more trustworthy. This result is consistent with Hwang & Kim's study (2006). Hwang & Kim (2006) report that the perceived web interface quality and e-trust is mediated by Internet users' affective reactions (enjoyment and anxiety).

Despite consumers' familiarity with the ecommerce vendor, the website interface that looks trustworthy and reliable will enhance consumer trust in shopping with it. In contrast, a badly designed web interface will lead to consumers' poor perceptions of company products or services, which in turn decreases their trust in that company. Especially, new consumers tend to compare the current web interface with those they have visited previously. The trust-inducing features placed on the web interface therefore represent a skilful salesperson who reduces the disadvantages of an impersonal website (Jarvenpaa, Tractinsky, & Saarinen, 1999b; Warrington, Abgrab, & Caldwell, 2000). Furthermore, as suggested by Kubilus (2002) and Scheffelmaier & Vinsonhaler (2002), the implementation of a trustworthy e-commerce interface involves many of the general design features for effective interface usability when applied to e-commerce websites (Neilsen, 2000). As posited above, consumer trust is a risk-reliever. Therefore, those website attributes improving web interface quality which in turn result in higher consumer trust are conceptualised as risk-relievers in this study

In the remainder of this section, a framework of trust-inducing website features is proposed as an effort to synthesize existing literature on enhancing consumer trust by web interface design. This growing body of literature, mainly in the field of trust in ecommerce, focuses on the website features that are perceived by consumers to indicate that the site is trustworthy. The framework classifies these trust-inducing website features into seven broad dimensions (ease of use, transaction support, privacy, security, graphic design, information content, and e-retailer credibility) as shown in Table 12 below. A good quality web interface, accordingly, should involve the salient web features that represent each of these primary dimensions. The seven dimensions and salient web features are discussed next.

Table 18

Mapping trust inducing website features

Study	Classified trust dimension						
	Ease of use	Privacy	Transaction support	E-retailer credibility	Security	Graphic design	Information content
Reibstein (2002)	Functionality, accessibility of information, ease of ordering and navigation						
Ribbink, Riel, Liljander, and Streukens (2004)	User friendly interface						
Warrington et al. (2000)		Privacy policy clearly stated	Availability of company address and telephone number for alternative ordering procedure	Name recognition, return policies and the references and testimonials of existing customers	Display clearly security policies	Good use of graphic design	Proper grammar, correct spelling, appropriate references and citations, appropriate product line
Hemphill (2002)		Business policies on disclosure of personal information Provide options for how a consumer personal data might be used in other contexts Allow consumers to access and view personal data					

Table 19. Mapping trust inducing website features (continued)

Study	Classified trust dimension						
	Ease of use	Privacy	Transaction support	E-retailer credibility	Security	Graphic design	Information content
Kim and Moon (1998)						Three-dimensional, dynamic clipart that covered at least half of the total screen size	
Karvonen and Parkkinen (2001)						High quality photographs of products and well-chosen images generate consumer confidence	
Lightner (2003)						Using selective product photos	
Egger (2001)					Displaying a prominent logo and slogan to facilitate the easy identification of the company		
Archetype/Sapient (1999), Egger (2001), and Neilsen (2000)	Simplicity and Consistent		Display clearly privacy policy		Display security policy Provide financial and legal responsibilities		Company competence description

Table 20. Mapping trust inducing website features (continued)

Study	Classified trust dimension						
	Ease of use	Privacy	Transaction support	E-retailer credibility	Security	Graphic design	Information content
Pavlou and Gefen (2004)					Escrow services, credit card guarantees, and intermediary (the third party who sets the rules and creates the institutional framework on which the marketplace operates)		
Miyazaki and Fernandez (2000)		Disclose privacy policy			Disclose security information		
Jarvenpaa et al (2000)				Provide sales volume or the number of products for sale, and attention to customer relationships			
Nöteberg et al. (2003)					AICPA WebTrust, BBBOnline, TRUSTe		

Table 21. Mapping trust inducing website features (continued)

Study	Classified trust dimension						
	Ease of use	Privacy	Transaction support	E-retailer credibility	Security	Graphic design	Information content
Lee and Lee (2005)					Displaying store assurance seals Displaying product assurance seals for used products		
Akhter, Hobbs, and Maamar (2004)						Clear clip art and nice colour lay out Realistic product image Large size image Multi-media tools	
Koufaris and Hampton-Sosa (2002)	Easy to use in general						
Wakefield and Whitten (2006)					Choose a assurance service provider that has great public recognition		

Table 22. Mapping trust inducing website features (continued)

Study	Classified trust dimension						
	Ease of use	Privacy	Transaction support	E-retailer credibility	Security	Graphic design	Information content
Sharma (2004)	Quick loading pages Efficient search engine Ease of navigation Easy to find desired information Good links				Security policy stated on the website	Attractive and appealing Pictures and text are properly included The website is creative	The website contains exhaustive information about what consumers want to know The language is easy to follow The site is regularly updated
Qiu and Benbasat (2005)			Text and speech which help CRS interact with several shoppers simultaneously				

Table 23. Mapping trust inducing website features (continued)

Study	Classified trust dimension						
	Study	Classified trust dimension	Study	Classified trust dimension	Study	Classified trust dimension	Study
Rattanawicha and Esichaikul (2005b)	Ease of navigation Valid links Proper order of content Provision of index or site map Provision of search tools Multi-language support	Describe clearly how personal data gathered will be used Provide opt-out mechanism for users to exclude themselves from distribution lists	Clear explanation of how to use the system Reversibility of actions Informative feedback Order tracking E-mail confirming customer's transactions Preciseness of calculation Provision of product and service details Provision of product and service pricing Provision of product and service availability	Provision of site owner information Provision of physical address Provision of phone numbers Provision of contact e-mail addresses Product and service warranty	Security mode of the site Use of login ID and password Third party assurance Provision of privacy policy	Attractiveness Professional look Proper use of fonts Proper use of colours Proper use of multimedia Design consistency Layout consistency	Accuracy of content Completeness of content Currency of content Clarity of content

Table 24. Mapping trust inducing website features (continued)

Study	Classified trust dimension						
	Study	Classified trust dimension	Study	Classified trust dimension	Study	Classified trust dimension	Study
Murphy and Blessinge (2003)				Legal and regulatory compliance; Endorsements, testimonials, and business alliances; Business and/or professional experience and technical competency; Communicating a history of successful fulfilment	Promises of payment and information security, product/service guarantees and fulfilment process clarity		
Lim et al.(Fall 2006)				Portal affiliation			
Pavlou (2003)	Ease of use			Online vendor reputation			
Jarvenpaa and Tractinsky (1999) and Jarvenpaa et al. (2000)				Site reputation			
Tedeschi (2000)	Shopper friendly design						
Dabholkar (fall 2006)			Not depending on rating websites				

2.3.2.3.1 Ease of use

This dimension refers to the overall organization of the ecommerce website that facilitates shoppers' effort on the web site. Koufaris & Hampton-Sosa (2002) noted that customers who enjoy their visits and feel in control while using the site, are more likely to perceive the site as useful and easy to use. The perceived usefulness and ease of use in turn lead consumers to view the ecommerce venture more favourably and perceive it as being more trustworthy. In line with this finding, Ribbink et al. (2004) argued that ease of use indirectly affects e-trust through e-satisfaction. In other words, although consumers may still not distrust the ecommerce venture without ease of use, the existence of this dimension will increase their trust.

In an e-tailing context, ease of use includes aspects such as functionality, accessibility of information, ease of ordering and navigation (Reibstein, 2002). This ease-of- use also reflects two characteristics of a trustworthy web site: simplicity and consistency. A simple, clearly designed website interface reduces consumers' frustration and streamlines their shopping experience(Archetype/Sapient, 1999).

Ease of navigation is frequently mentioned as a key to promote online trust (Archetype/Sapient, 1999; Rattanawicha & Esichaikul, 2005b; Sharma, 2004). An empirical study including a series of one-on-one qualitative interviews by Sharma (2004) has established that features relating to loading speed on the website (e.g., webpage loading time, search engine result waiting time), or features relating to ease of navigation (e.g., links that assist consumer to find desired information) have a positive impact on trust. The website should be also exposed to consumers across different countries consistently. As Rattanawicha and Esichaikul (2005) report, website features like multi language support, conciseness and proper order of content greatly enhance consumer trust.

2.3.2.3.2 Transaction support

This dimension refers to those website features that are implemented or created to create conditions that will facilitate transaction success. Based on the fact that electronically mediated forms of communication, including telephony, video telephony, instant messaging, and e-mail, provide less feedback to people who are speaking and fewer

sensory cues to people who are listening, Qiu and Benbasat (2005) investigated the effect of live help support with the addition of TTS voice and 3D avatars on ecommerce website on consumer trust and their purchase intention. In this study, a laboratory experiment was conducted to empirically test the effects of text-to-speech (TTS) voice and 3-dimensional 3D avatars on consumer trust toward CSRs. A TTS synthesizer is a computer-based system designed to read text aloud and automatically produce new sentences (Dutoit, 1997). Although TTS voice still lacks the quality and prosody of natural human speech, it does help those small E-businesses, who cannot afford call centres or real-time video conference systems, to interact with several shoppers simultaneously. TTS voice in fact has a significant impact on both users' perceived cognitive and emotional trust. However, animated avatars that represent customer service staff seem not to have significant influence on consumer trust (Qiu & Benbasat, 2005). Similar website features that facilitate orders (e.g., order tracking, email confirming, reversibility of actions, precise calculation) also affect significantly reinforce consumer trust in ecommerce ventures (Rattanawicha & Esichaikul, 2005). Not every online consumer prefers online payment; in some cases they may be used to dealing with payment through a sales representatives at traditional stores. Therefore, the availability of company address and telephone number for alternative ordering procedure is recommended, to show the company is a real entity with real people (Warrington et al., 2000).

2.3.2.3.3 Privacy

Privacy is understood as the right to be left alone (Archetype/Sapient, 1999). The invasion of privacy on the Internet is commonly regarded as the unauthorized collection, disclosure, or other use of personal information (Wang, Lee, & Wang, 1998). Privacy concerns include sharing (selling, renting) personal information to other companies; tracking of shopping habits, purchases; placement of cookies on a consumer's computer; being contacted by the company without providing consent. In fact, four groups of factors that often attract consumers' concerns about online privacy are types of personal information, the amount of control that consumers are given over how the information is used, the potential consequences for and benefits to consumers, and the consumer characteristics associated with overall privacy concerns. Among these factors, the control over the gathering and use of their personal information is the one that Internet users pay the most attention to (J. Phelps, Nowak, & Ferrel, 2000). For

example, consumers have the right to access and view or edit their personal data anytime (Hemphill, 2002).

Research has shown that an overwhelming majority, 84 percent, of US consumers are concerned about the invasion of personal privacy and the loss of personal information over the Web (Westin & Maurící, 1998). This concern is also evident in an Asian-Pacific sample (Yang et al., 2003). A major credit card scam involving 140,000 transactions at the TalkingTP.com website of Spitfire Ventures, a novelty supplier, caught huge public attention in 2002 (Computerweekly, 2002). The scam was against Online Data, a US credit card processor, which is reported to have approved more than 60,000 of the false charges worth just over $5 each on 12 September. Online Data resells Versign's credit card payment gateway services, which carried out the authorizations. Verisign approved $300 000 in charges but the transactions were stopped before completion so that no money was transferred to Spitfire preventing thousands of dollars from being lost. As soon as Online Data became aware of the problem Online Data sought assistance from VeriSign to notify the credit card companies, which then deactivated the cards (Computerweekly, 2002). Therefore, a great number of features have been recommended to be incorporated on the ecommerce website to reduce consumers' potential privacy and security concerns. Among these features, most studies confirm the essential issue is to disclose privacy policy and security information on the website (E.g., Archetype/Sapient, 1999; Egger, 2001; Hemphill, 2002; Miyazaki & Fernandez, 2000; Neilsen, 2000; Rattanawicha & Esichaikul, 2005; Sharma, 2004; Warrington et al., 2000)

2.3.2.3.4 Security

Perceived security risks involve third-party fraudulent behaviour and fraudulent behaviour of online retailers. This includes unauthorized third-party access to personal information and unauthorized third-party access to credit card information. According to Tarafdar & Zhang (2005/2006), among the five important attributes that an ecommerce website should have (Information Content, Ease of Navigation, Usability, Customization, Download Speed, and Security), Security is the most important characteristic for retailing websites. This confirms consumers' concern about many insecure websites that cause damage to both customers and company's reputation. For instance, in December 2000, the retailing website egghead.com was hacked into and

more than 7500 credit cards belonging to their customers were fraudulently used (Laudon & Laudon, 2004). Egghead.com consequently had to enter into collaboration with Amazon.com. According to Neil Barrett, technical director of security consultant IRM plc, *"hackers gain access to databases of customer information held in an unprotected state by the E-commerce providers, for example. They download and then either use or, worse, sell the credit cards to a fence."* (Wales, 2003)

Although ecommerce ventures are encouraged to have their financial and legal responsibilities stated on their websites (Egger, 2001; Neilsen, 2000), the assurance provided by an intermediary (a third party who sets the rules and creates the institutional framework on which the marketplace operates) has been well known to have more significant impact on online trust. For example, a recent Yankelovich Partners study indicated that potential customers are 46 percent more likely to buy from a site with the WebTrust Seal (LLP, 2008). An experiment by VeriSign (March 2008) shows significant influences of VeriSign Security Seal on Virtual Sheet Music (virtualsheetmusic.com):

> "Sales grew briskly for downloadable sheet music supplier Virtual Sheet Music when its Web site displayed the VeriSign SecuredR Seal, but plummeted when the firm had to remove it and rely on a competitor's seal instead. Reintroducing the VeriSign security mark helped to restore customer confidence so much that sales immediately leapt by 31% according to tests the firm ran using A/B split methodology. In a separate test to learn the effectiveness of Extended Validation (EV) SSL Certificates, Virtual Sheet Music found that customers who see EV's green address bar proceed to purchase 13% more often than those that who do not."

Intermediary based trust or institution-based trust is trust that is based on the guarantees and recommendations from third parties (Shapiro, 1987; Zucker, 1986) symbolised by assurance or privacy seals. A third-party seal therefore indicates the seller or site has some desirable or required property (e.g., high privacy or security standards) that has been verified by an independent third-party assurance service provider. A few major privacy seals such as TRUSTe, CPA WebTrust, BBBOnline, and VeriSign SSL Security (see Figure 4 below) have been developed in the ecommerce industry to serve this purpose.

The TRUSTe program (www.truste.org) was released in June 1997 by a consortium of CommerceNet, the Electronic Frontier Foundation, and the Boston Consulting Group. CPA WebTrust (www.cpawebtrust.org) was introduced in September 1997 by the American Institute of Certified Public Accountants (AICPA), with Version 3.0 released in November 2000. BBBOnline (www.bbbonline.org) was released to the public in March 1999 by the USA Better Business Bureau. VeriSign SSL security (VeriSign.com) has been the gate keeper of the Internet as a spin-off of the RSA Security since 1995, starting out as the security certificate authority for secured socket layer certificates (Wallstrip, 2007). Each of these assurance seals provides different meanings to Internet users. For example, the "BBBOnline Reliability" seal confirms that the seller has been in business for a minimum of one year and has followed the requirements such as having a satisfactory complaint handling record with BBB, being a member, and participating in BBB's advertising selfregulation program. The "BBBOnline Privacy" seal indicates that the online businesses have been verified to clearly post privacy policies meeting rigorous privacy principles. The CPA WebTrust Seal helps increase consumer confidence in a company's business practices and in the integrity and protection of any transaction undertaken. (VeriSign.com) means that the site showing the seal uses state of-the-art technology (e.g., digital certificate and public key infrastructure services).

Figure 4

Some major assurance seals in ecommerce market

For new or unknown ecommerce ventures, recognised third party assurance seals have more influence on consumer initial trust toward the store or the products than for well known sellers (Lee & Lee, 2005). This contributes to the suggestion that little well-known ecommerce websites can still establish consumer trust (Garbarino & Johnson, 1999; Harrison, Dibben, & Mason, 1997; McKnight, Cummings, & Chervany, 1998; Murphy & Blessinger, 2003; Rousseau, Sitkin, Burt, & Camerer, 1998). However, Moores (2005) argued that assurance seals seem not to play their significant role of engendering trust in the ecommerce market in the case that Internet users either don't recognise assurance seal graphics or do not fully understand the function of these assurance seals. Therefore, it's suggested that ecommerce ventures should present the assurance seals released by assurance service providers that have great public recognition (Wakefield & Whitten, 2006) more prominently on their websites (Moores, 2005).

Online consumers may pay a great deal of attention to product risks when buying used goods in the ecommerce market. Though sellers normally have photos and information of the used products on their websites, it's suggested that if a service provider could investigate or test the used products and provide an assurance seal as proof, customers may face less uncertainty before the purchases (Lee & Lee, 2005). Unfortunately, Sang and Jun Lee (2005) reported that no assurance service for second-hand products is available in the Internet market. However, the empirical results also show that a store assurance mechanism rather than a product assurance mechanism has significant influence on consumer purchase intention when it comes to new ecommerce ventures selling second-hand products.

2.3.2.3.5 Graphic design

This dimension refers to the graphical design features on the web site that normally give consumers a good impression. Warrington (2000) has mentioned that ecommerce websites which have good use of graphic design imply more trustworthy sellers. In fact, the proper incorporation of appealing pictures and text gives the interface a professional look which will increase the trustworthiness of the website (Rattanawicha & Esichaikul, 2005; Sharma, 2004). In an experiment that explored the trust cues on the website interfaces within the banking industry in Korea, Kim and Moon (1998) report that the main clipart and overall colour background have a significant impact on the website

trustworthiness. Similarly, based on 18 in-depth interviews, Akhter et al. (2004) show clip art and nice colour layout, which define a user-friendly and clear design website, are the two essential cues that make up a trust-inducing interface. Particularly, the three-dimensional, dynamic clipart should cover at least half the size of the web page to enhance the website trustworthiness; the tone of the background colour should be cool and have low brightness and symmetry (Kim & Moon, 1998). According to Akhter et al. (2004), multimedia tools that allow consumers to interact with the vendor representatives also add more trustworthiness to the website. However, an overuse of clipart may damage the trustworthiness of the site. As Lightner (2003) reported, mature and affluent users of e-commerce web sites tended to favour the absence of gratuitous sensory impact.

Product photos are another factor making up a perceived trusted interface. Consumers give more attention to larger images as compared to smaller images (Akhter et al., 2004). Generally, high-quality product photos and well-chosen images generate consumer confidence that can be transferred to other aspects of the web site. As indicated by Karvone and Parkkinen (2001), realistic product photos rather than animated product images reflect the credibility of the online vendor.

2.3.2.3.6 Information content

This dimension deals with the features relating to the general information about the company and presentation of the website content. Previous research found without the information content dimension, potential customers may distrust the ecommerce vendor; the existence of this dimension enhances consumer trust significantly via adding to the professional appearance of the website interface (Rattanawicha & Esichaikul, 2005). For instance, such features as proper grammar, correct spelling, appropriate product line, accurate references and citations have been identified as providing the website a profession look (Warrington et al., 2000).

Ecommerce provides an impersonal shopping environment. Exhaustive information about what consumers may want to know is essential in increasing their perception of website trustworthiness (Rattanawicha & Esichaikul, 2005; Sharma, 2004). Finally, up-to-date and accurate information written in an easy language to follow are the

fundamental cues to gain consumers' trustworthiness (Rattanawicha & Esichaikul, 2005; Sharma, 2004).

2.3.2.3.7 E-retailer credibility

This dimension refers to the perceived capability and social acceptance of the Internet vendor. The literature in traditional marketing suggests that consumers' perceived store size and perceived reputation contribute significantly to the store's trustworthiness. Such factors as sales volume and number of products for sale assist consumers in forming their impressions of the store size. The perception of large store size implies that the seller has conducted the business successfully with it and the organization can deliver their promises (Doney & Cannon, 1997). Large size also signals that the store has the necessary resources and expertise to support the existing system (Chow & Holden, 1997). Similarly, a good store reputation signals that the organization has established a long-term investment of resources, effort, and attention to customer relationships (Smith & Barclay, 1997). Therefore, firms with a good reputation enhance consumer trust as they are perceived to be reluctant to jeopardize their reputational assets by acting opportunistically (Chiles & McMackin, 1996). In the case of ecommerce, the perceived store size and perceived reputation seem to carry the same effect on consumer trust though this relationship is moderated by the product category or E-store type (Jarvenpaa et al., 2000). Consumers who can identify the name of an ecommerce venture will have more comfort in shopping on the website(Warrington et al., 2000). As a result, ecommerce companies are now advertising in traditional media, even among other offline vendors, to catch public attention and recognition. Recent examples are those advertisements by Amazon.com, E-trade in the New York Times; Trademe in the New Zealand Herald; 5giay.vn on VnExpress.net. Furthermore, Egger (2001) suggests two tactics to promote the brand of an ecommerce venture: (1) displaying a prominent logo and slogan to facilitate the easy identification of the company, and (2) presenting the company's main selling point to arouse consumers' curiosity.

Although a great number of studies have investigated the website features that improve consumer trust, their applicability to those ecommerce stores that have not yet established reputation in the market seems to be limited. For example, Cheskin Research and Studio Archetype/Sapient (1999) identify six factors that communicate trustworthiness: seals of approval, brand, navigation, fulfilment, presentation, and

technology. In this study, respondents were provided a list of websites to evaluate their trustworthiness. The results closely reflect the brand awareness of the sites reviewed. The 12 most trusted sites reviewed were Yahoo!, Wal-Mart, Netscape, Infoseek, Blockbuster Video, Excite, Borders, Amazon.com, USA Today, Dell, Internet Explorer, and Lycos. The 10 least trusted sites reviewed were Monster Board, Spinner, Cyberkids, The Well, JenniCam, Carpoint, @Home, Drugstore.com, Cyberian Outpost, and The Palace.

In fact, a degree of relational trust can be established without the effects of prior familiarity with ecommerce ventures (Garbarino & Johnson, 1999; Harrison et al., 1997; McKnight et al., 1998; Murphy & Blessinger, 2003; Rousseau et al., 1998). Particularly, Murphy and Blessinger (2003) suggest the following credibility attributes that may improve trustworthiness of little-known ecommerce ventures: Legal and regulatory compliance; endorsements, testimonials, and business alliances; business and/or professional experience and technical competency; communicating a history of successful fulfilment. One of the effective business alliances is portal affiliation. Portal affiliation is akin to co-branding, and is a strategy popular with practitioners to increase trusting beliefs in online stores based on the idea of trust transference (Archetype/Sapient, 1999). For example, a new ecommerce store can show prominently the logo of a reputable portal that it has been affiliated with (Yahoo, MSN, AOL), with a clickable link, on the website. Consequently, the initial trust or reputation can be shifted from a well-known website to an unknown website if a strong tie is perceived to exist between the two entities. The stronger the perceived tie, then the higher the trusting belief becomes (Stewart, 1999; Stewart, 2003).

Credibility also reflects sellers' honesty and ethical behaviour. Dishonest behaviour may lead to low trust levels. Ecommerce vendors should provide on their websites all the necessary information that help consumer to eliminate any doubt about the business existence and performance. Some important information such as site owner information, physical address, phone numbers, email address (Rattanawicha & Esichaikul, 2005) or references and testimonials (e.g., Amazon.com) of existing customers have been provided for this purpose. Internet users assume risk in making online purchases. If an Internet store can offer a risk reduction method via an extended warranty or return policy, consumers may presume a higher trust level in that E-retailer (Warrington et al., 2000).

H4b: Positive perceived web interface quality is positively associated with trust in the ecommerce context.

H4c: Positive perceived web interface is negatively associated with perceived risk in the ecommerce context.

2.3.2.4 Perceived social acceptance

Social influences such as roles, family members, reference group and opinion leaders, social classes, and culture and subcultures (Kotler, 2003; Pride et al., 2007) that affect consumer buying behaviour in the traditional market have been widely studied and defined. The findings from such research streams, while enhancing our knowledge of social influences on consumer decision making, show buyers tend to attach greater value to the second choice versus first choice when buying problems are framed in social interactions contexts (Briley & Wyer, 2002; Woodside & Singer, 1994). For instance, when going to the cinema with a group of friends, a person would rank the movie that most of the group members want to watch as his/her first choice; the movie that he/she wants to watch the most would become his/her second choice. Similarly, Maritz Marketing Research (Emanuel, 2000) reports that 53% of moviegoers somehow rely on a recommendation from someone they know. The power that reference groups exert on individuals' product choice and brand decision is even greater for those high perceived value products (Bearden, 1982). Thus, individuals in a group context often choose options that they have not chosen previously in order to balance such individual and group goals (Ariely & Levav, 2000; Briley & Wyer, 2002).

In general, individual buying tendencies are most affected by family and peers among other environmental factors (Corfman & Lehmann, 1987; D'Astous, 1990; Moschis & Churchill, 1978). For instance, according to the Travel Industry Association (Emanuel, 2000), friends and relatives are the first choice among different reference sources of information about places to visit or about flights, hotels or rental cars. In fact, such influences have been well depicted and discussed in diffusion theory (Granovetter, 1973). According to Granovetter, the strength of a tie of individual's friendship network, which depends on the amount of time the individuals spend together, the emotional intensity and intimate level in the dyadic relationship, has significant impact on consumer choice of reference group. While weak ties play significantly in extending

the flow of information, strong ties are more crucial to the flow of influence (Brown & Reingen, 1987). Furthermore, although the mass media has a direct, immediate, and powerful effects on the mass audience, diffusion theory argues that a powerful way for forming and changing attitudes toward a new idea, and thus in influencing the decision to adopt or reject a new idea, is to affect opinion leader attitudes (Frenzen & Davis, 1990; Hung, Ku, & Chang, 2003; Rogers, 1976). Opinion leaders, who could be consumers' friends, family members, group leader, organization head, in this case have immeasurable impact on business sales.

Literature relating family and peer influences in the traditional consumer market often mentions word-of-mouth (WOM) as the communication channel mostly used in the social environment. Westbrook (1987) explains that WOM, in essence, is the informal information exchange between/among consumers about the ownership, usage, or characteristics of particular goods and services or their sellers. WOM also has a greater influence than advertising or direct selling does on consumers (Dye, 2000; Katz & Lazarsfeld, 1955). While there are many studies regarding how buying decisions are made in the family, and what influences the group may have on individual members' choice of products and brands in the traditional consumer market, it appears that very few scholars have identified the relationship between family, reference groups or opinion leaders in the offline environment and consumer behaviour in the cyber market. It brings this research gap to our greater attention when three independent studies by Opinion Research Corp. International of Princeton, NJ in the US, sponsored by name-your-price e-commerce site priceline.com, found that Internet shoppers tend to talk more about their online purchasing than their favourite films or restaurants among family members, friends, relatives, and co-workers (Cox, 1999). There is therefore a possibility that family, peers, and reference group in the offline environment may influence online consumers' choice of ecommerce retailers.

The social environment in the cyber market has its own uniqueness. Firstly, unconstrained by geography, online consumers can access product and retailer information on a scale undreamed of in former years. This revolution transforms consumers from passive to active members within communities formed around the product or brand (Dye, 2000; Yap, 2002). For them, efficacy (which subsumes satisfying other members' needs, being helpful to others, seeking/providing advice, sharing enjoyment) is the most significant motivator that influences members to become

active within the online communities (Wang & Fesenmaier, 2003). Secondly, through those established unique conventions and languages (such as jargon, emotional icons), the online communities have formed their own unique rituals, norms and cohesion which are subject to constant perturbation over different stages of member involvement (Alon, Brunel, & Siegal, 2005; Yap, 2002). Third, online interaction is more than public gift exchange (Kollock, 1999; Wang & Fesenmaier, 2003).

The key difference here, according to Wang & Fesenmaier (2003), is when a member within an online community offers free advice or helpful information, that person may not encounter the recipient again; the offer is unconditional and made without expecting to receive something back in the future. Finally, despite lacking personal connection with the information providers, online information seekers still rely on the weak social ties in the cyber space to obtain useful information to solve their rising problems (Constant, Sproull, & Kiesler, 1997). This happens for two critical reasons. First, as individuals have a limited cognitive capacity to process information (Häubl & Murray, 2003; Kahneman & Tversky, 1993), online consumers are unhappy when confronted with the abundance of product information and choice alternatives on the internet (Bechwati & Xia, 2003; Brynjolfsson & Smith, 2000; Häubl & Trifts, 2000; Schwartz et al., 2002). They tend to seek recommenders who can assist them to navigate through cognitive challenges (Häubl & Murray, 2003; Häubl & Trifts, 2000; Todd & Benbasat, 1992, 1999). Second, while strong ties are more effective than weak ties in spanning information flow about activities within a group, weak ties are more effective than strong ties in spanning information flow about activities outside the group (Friedkin, 1982). Online consumers may refer to different sources of information in the Internet to learn about the activities that their family members or close friends are not familiar with.

As mentioned earlier, consumers in the traditional market often turn to opinion leaders to seek purchase recommendations. Opinion leaders in traditional market search product information on regular basis to augment stores of product knowledge and to experience pleasure characteristics (Bloch, Sherrell, & Ridgway, 1986). Online opinion leaders may rely on differently weighted bases of social power than those found in face-to-face groups. In particular, in the virtual environment such indicators of status as occupation, income, appearance or place of residence, which besiege an opinion leader in face-to-

face groups, may have little influence on community members' reliance upon them (Granitz & Ward, 1996).

However, characteristics and behaviour of opinion leaders in traditional markets and those of online opinion leaders are similar in many ways. For instance, active Internet users possess higher levels of computer skills; greater involvement levels with the Internet than non-leaders; higher levels of self-perceived knowledge about the internet and demonstrate higher levels of curiosity and exploratory tendencies than non-leaders (Lyons & Henderson, 2005). Thus, e-opinion leaders who, in this study, are classified by the type and quality of their postings on virtual communities (Granitz & Ward, 1996) or their pass-along email messages (Goldsborough, 2002; Lewis, Mobilio, Phelps, & Raman, 2005), play a central role among the network members as well as contribute greatly to trendsetting in the society. According to Burson Marsteller, a public relation firm based in New York City, the 11 million active online users in the US influence the purchase decisions of about 155 million online and offline consumers (Goldsborough, 2002). In other words, each user influentially communicates with an average of 14 people, and this then collaterally creates a successive, enormous wave of impact. However, the research has not described specifically which communication mediums these 11 million heavy online users rely on, and how many of those 155 million consumers shop online. Several successful Internet websites such as Amazon.com, eBay, and Wine.com have allowed their members to write reviews and exchange feedback about the products sold on their sites. Furthermore, many successful Internet websites (such as Epinions.com, BizRate.com, Planetfeedback.com, and Ecomplaints.com) are maintained not by a company or by the consumer, but by a third party so that consumers can better share product information and experiences.
The interactions among Internet users have evoked studies on WOM on the Internet (eWOM) and its influence on consumer behaviour (Granitz & Ward, 1996). In particular, it has been widely reported that consumers often turn to eWOM to facilitate their decision process and reduce cognitive dissonance in their decisions (Schindler & Bickart, 2005) and that eWOM has great impact on preference and choices (Bussiere, 2000). There are two major reasons that eWOM is influential to online consumers. Firstly, consumer-created information is more credible than seller-created information from the perspective of trustworthiness (Dellarocas, 2003). Secondly, consumer-created information describes the usage situations and product advantages from the consumer's

perspective. It is more understandable and familiar because it represents consumers' personal feelings or satisfaction about the product (Chen & Xie, 2004).

Consider the example where a laptop owner "buzzes" about the company that he bought his new laptop from "...for years I have been not able to carry my computer to a cafeteria, well, that has ended." Many years ago this customer could have told his/her family and friends about this experience. Now, with a click, he or she can share his/her emotions with thousands of other people. Happy customers can e-mail thoughts to all of their friends and participate in chats or newsgroups to voice their opinion. A user can annotate the retailer ecommerce website with personal comments about their claims. The product can be rated on a consumer website such as Deja.com or Epinions.com. or on a personal website or Blog. A really excited consumer, either positively or negatively, can start a website dedicated to that product company (a fan site or a protest site).

According to Schindler & Bickart (2005), there are seven forms that WOM communications can take on the Internet. They are posted views (consumer opinions published on message boards such as amazon.com, eBay, and eopinions.com), mailbags (exchanged feedback on news service website), discussion forums (bulletin boards, Usenet groups, ongoing discussion on a particular topic). Also electronic mailing lists (consumer opinions sent to a list of email address), personal email, chat room (real-time conversations on the Internet among group members or between consumer and live help/support staff on the ecommerce website), instant messaging (real-time conversations between 2 individuals over the Internet). In this research, these communication forms are classified into two major groups. The first group, electronic customer communities or virtual communities, consists of posted views, mailbags, discussion forums, chat room, and customer testimonials. The second group, pass along messages, consists of electronic mailing lists, personal email and instant messaging.

2.3.2.4.1 Virtual communities

"People in virtual communities use words as screens to exchange pleasantries and argue, engage in intellectual discourse, conduct commerce, exchange knowledge, share emotional support, make plans, brainstorm, gossip, feud, fall in love, find friends and lose them, play games, flirt, create a little high art, and a lot of idle talk." (Rheingold, 1991)

The most profound aspect of interaction in the virtual environment is the emergence of virtual communities (Venkatraman & Henderson, 1998). Virtual communities actually started as spontaneous social events on electronic networks, whether it was CompuServe or America Online, the early Internet, or the thousands of independent bulletin board services that sprouted up around the US (Hagel, 1999). These types of opinion platforms nowadays are available to consumers in many regions, including North America (e.g., epinions.com, consumer review.com), Western Europe (e.g., dooyoo.com and ciao.com in the United Kingdom, France, Germany, Spain, and Italy; livra.com in Spain and Portugal; plebiscity.fr in France), South America (e.g., livra.com in Argentina, Brazil, and Mexico), India (e.g., customerpowernyou.com and mouthshut.com), and China (e.g., it168.com). In Germany alone, the three biggest platforms, ciao.com, dooyoo.com, and vocatus.de, collectively claim about 40 million page impressions per month, with approximately 1.5 million registered members (Hennig-Thurau & Walsh, 2004). Such virtual communities, as Hagel & Armstrong (1997) and Romm et al. (1997) describe, consist of a group of people who communicate with each other about a common interest via electronic media, unconstrained by their geographical location, physical interaction or ethnic origin. Virtual communities possess five unique characteristics which are presented as follows.

First, virtual communities have a great combination of many attributes across different social communication types (Boush & Kahle, 2005). Table 13 below shows how the attributes (time to respond, physical proximity, anonymity, scale, research access, and archive) are different among different communication mediums (face to face, telephone, letter, email, online chat, online discussion, and publication forum).

Table 25

Characteristics of consumer-to-consumer communications

	Time to respond	Physical Proximity	Anonymity	Scale	Research Access	Achieve
Face to face	Real time	Yes	Low	Small	Low	No
Telephone	Real time	No	Some/rare	Small	Low	No
Letter	Slow	No	Some/rare	Small	Low	Yes
Email	Fast	No	Some/rare	Small	Moderate	Yes
Online chat	Real time	No	High/often	Small	Access	No
Online discussion	Fast	No	High/often	Large	High	Yes
Publication forum	Slow/never	No	Some/rare	Large	High	Yes

Source: Boush & Kahle, 2005, p.103

Second, liminality, a timeless and spaceless state which is enacted in the cyber space (Turner, 1974b), gives the rise to anonymity within online communities and reconstructs the traditional self and community notions. Particularly, virtual community members are liberated from social status and constraints that are often part of face-to-face networks (Fischer, Brislor, & Gainer, 1996). Furthermore, although most online communities exist in a way that augment or mirror the existing ones in the offline world (Boush & Kahle, 2005), they have such unique characteristics over offline ones as broadcasting messages to multiple audiences, unobtrusively observe the ongoing online discussions, expressing without being imposed by social status or appearance (Bagozzi & Dholakia, 2002). Consumers can also obtain a lot of confidence before purchasing the product which is not normally possible in the offline world (Schlosser, 2003).

Third, online consumer communities have transformed the role of marketing in the social context (Venkatraman & Henderson, 1998). In fact, many organizations have orchestrated customer communities for their own products. For instance, Harley Davidson (www.harleydavison.com) hosts an online forum for Harley owners to share their bike reviews and photos. Citibank also created a forum on its own website (www.citibank.com) so that its customers can interact on bulletin boards, chat rooms, and directly send testimonials to the company. Amazon (www.amazon.com) is a great

example of how an organization can leverage the power of virtual community. Since 1995, Amazon.com has allowed consumers to post product comments on its Web site. Amazon.com now has about 10 million consumer reviews relating most of its product categories (Harmon, February 14, 2004). At the same time, many virtual communities have been formed by the groupings of consumers' common interest (photography with www.photoshopper.com, automobiles with www.autoweb.com; www.cdmunds.com). Members on many electronic marketplaces in Viet Nam (such as www.muare.vn, www.webmuaban.com, www.muabanraovat.com, www.toitim.com) also use Yahoo instant messenger to exchange feedback, negotiate prices with one another (Nhung, 2008). Thus, online discussion boards or forums have both social and economic impact. They do not only serve as great venues for consumers to socialize with one another but also as a new model for traditional organisations to serve their consumers better (Hagel, 1999).

Fourth, virtual communities, which provide consumers with the ability to develop relationships, exchange information and buy and sell products, are a good source of WOM for both consumers and marketers (Hagel & Armstrong, 1997). Furthermore, Bickart & Schindler (2001) assert that messages on discussion forums in many ways are similar to WOM and therefore may evoke empathy and positive attitude better than advertising. However, the electronic WOM (eWOM) or online consumer reviews and traditional word-of-mouth are different in several ways. First, the influence scale of electronic WOM is much greater than that of traditional WOM. Second, while sellers cannot control the traditional WOM, they can decide whether or not some particular comments can be posted on their Web-site. Finally, the sources of traditional WOM can be consumers' familiar people (family members, friends, colleagues), whereas online consumer reviews are from anyone in the world (Park, Lee, & Han, 2007).

Numerous empirical studies have verified the effect of the eWOM through virtual communities on consumer behaviour (Fong & Burton, 2006; Kollock, 1999; Pitta & Fowler, 2005; Ratchford, Talukdar, & Lee, 2001; Yap, 2002). In their experiment of eWOM versus online commercial messages influences on consumer purchase intention, Bickart & Schindler (2001) had consumers gather product information online from either online discussions (i.e., Internet forums or bulletin boards) or marketer-generated online information (i.e., corporate WebPages). At the end of a 12-week period, consumers who had used discussion forums were more interested in the topics than

those who collected information from marketer-generated sources. Thus online WOM seems to have greater influence on consumer behaviour than commercial sources. A study conducted by McKinsey - Jupiter Media Metrix (Brown, Tilton, & Woodside, 2001) found that although accounting for only one third of the ecommerce website visitors, those people who used online community features such as chat room and bulletin boards make two thirds of all purchases at these sites. Furthermore, visitors who get involved with the ecommerce website community (through such activities as writing product reviews or posting messages) are nine times as likely to come back to that site and twice as likely to make a purchase. Even users who read but don't get involved in the community sections of an ecommerce website tend to visit and purchase more often than those who do not visit the community on the website at all. The empirical study by Park et al. (2007) shows those quality online peer reviews (logical and persuasive, with sufficient reasons based on specific facts about the product) have significant influence on consumer purchase intention. Furthermore, consumers' general attitude toward the product or online retailers also has a strong relationship with the number of online consumer reviews, especially if the consumers are not familiar with the online retailer (Chiou & Cheng, 2003). This could be explained by assuming that the number of reviews is related to the popularity of the product, which in turn affirm consumer decision (Chatterjee, 2001; Chen & Xie, 2004).

2.3.2.4.2 Pass-along electronic messages

The Pew Internet & American Life Project (2000), which examines the social influences of the Internet, shows that on average 55 million Americans, accounting for 60% of the USA population, go online on daily basis. Email is the number one Internet activity. Particularly, 48 million Americans (which is equal to 87% of Internet users) use email on daily basis. The survey also finds that email becomes a more and more popular electronic communications medium used to enhance relationship with family and friends. Unfortunately, according to this report, there is no evidence that email messages affect consumer purchase intention. Furthermore, for those who feel inundated by unwanted email, 70% say the offending messages are sales solicitations. This could partly explains why even when consumers tripled opt-in, they may still heuristically click "Report Spam" button as there is little perceived value in the emails sent by marketers (Cohen, 2008). E-mail marketers therefore should not solely rely on email to

build an ongoing relationship with their customers; instead they should add a print component to their campaigns (Olrich, 2007).

However, it is found during the course of this research that a number of studies have shed a light on the role of WOM via email passing on the Internet (Lewis et al., 2005). In 1997, Steve Jurvetson and Tim Draper (Knight, 1999) conceptualised the phenomenon that customers email one another positive messages about a product or service as viral marketing. Since then, viral marketing and examples of companies practicing this advertising approach have been discussed in many studies (Bush, 2000; Godin, 2000; Modzeiewski, 2000; Shirky, 2000). The power of viral marketing messages is seen clearly in the email marketing campaign for the band Nsync. One girl forwarded 500 friends the same email since it contained video messages from band members that were not available elsewhere (Parker, 2000). In essence, viral marketing is another form of WOM which requires honest communication and email as the information exchange channel (Pastore, 2000; Shirky, 2000). Viral marketing significantly affects consumer behaviour because of many reasons. First, consumers are more unlikely to delete an email from someone they know than from a seller or marketer as they seem to assume that the product/information must be useful (Lewis et al., 2005). Second, email enables people to reach a larger scale of audience more quickly and easily than many other communication mediums (Parker, 2000). Third, viral marketing appears to be more efficient than traditional WOM in dissimilating images and detailed verbal content (Phelps, Lewis, Mobilio, Perry, & Raman, 2004). Finally, the study by Lewis et al. (2005) indicates that even to infrequent senders, those emails that spark humorous jokes, touchingly sad stories and particularly apt inspirational messages are those could meet the thresholds for passing along. Interestingly, emails about free offers and containing helpful tips are passed along almost half of the time.

Virtual communities and pass-along email messages may also have negative impact on consumers on the Internet market. Consistent with (Chiou & C. Cheng, 2003), the experiments conducted by Schlosser (2003) show that in the online communities those who read negative comments rate product less favourably than those who have not. This happens because of two reasons, Schlosser argues. Firstly, in the face-to-face dialogues, a person' opinions do not necessary represent the entire audience's one. Contrary to this, online messages are broadcasted and they could be assumed to reflect on multiple

audience. Secondly, negative product information is more diagnostic than positive product information. Interestingly, while Schlosser (2003) concludes that negative recommendations have the same impact to both people who personally like and those who dislike the product, Chatterjee (2001) and Chiou & Cheng (2003) explain further that if the brand image is high, infrequent negative messages have little impact on consumers who select an unfamiliar retailer because of a lower price. Unsatisfied online consumers may also email their complaints on some grievance sites such as Planetfeedback (www.planetfeedback.com) or complaints.com (www.complaints.com). These sites normally post consumers' complaint on their site and at the same time forward those emails to the manufacturer or retailer of that product (Goldsborough, 2002). However, this study only focuses on the positive effects that pass-along email messages could bring to online purchase behaviour.

The perceived social acceptance in the ecommerce context by itself also explains up to 25% of the variance in trust beliefs (Lim et al., 2006). Peer ratings and customer endorsements on the websites are the most cited types of social influence that affect trust and unknown store's reputation. It has long been recognised that satisfied customer endorsements could be a means to enhance customers' trusting beliefs (Archetype/Sapient, 1999; Lim et al., 2006). Trademe (trademe.co.nz) and Ebay (ebay.com) have implemented this strategy by allowing potential buyers to view the testimonials from previous customers on the sellers' web page. Similar to customer endorsements, peer ratings form consumer trust as they build a store reputation (Ba & Pavlou, 2002). The concept of unit group and subjective norms addressed by Mc Knight (McKnight et al., 1998b) and theory of reasoned actions (Fishbein & Ajzen, 1975) respectively demonstrate that people who share common characteristics tend to perceive each other in a positive light and, hence, are more likely to trust each other. In his survey of MBA students, Kramer (1994) found that these students admitted to placing great trust upon one another even though they had little interaction. Such bias is also used commonly by traditional marketers to boost credibility by leveraging the influence of peer groups (Woodside & Singer, 1994). Based on the data of users in two online community (AllConsuming book-readers' community and the FilmTrust community), Ziegler and Golbeck (Ziegler & Golbeck, 2007) identify a strong correlation between trust and interest similarity.

However, online interactions also bring new challenges in terms of trustworthiness. Online consumers have to face the task of evaluating peer recommenders who could be completely strangers or cheaters (Dellarocas, 2003). In addition, one member can create multiple identities to boost his/her ratings, or collusion can occur among peers, where a group of malicious peers collaborate to raise each other's rating and to attack other peers (Xiong & Liu, 2004). Fortunately, many etailers have been monitoring the trustworthiness and credibility of information provided within the online communities on their websites (Donna Vieve Smith et al., 2005). One of the approaches that may prevent or resolve some of the security problems within online communities is the reputation-based-trust mechanism adopted by eBay, eopinions.com (Xiong & Liu, 2004). In particular, eBay provides a rating mechanism which allows its members to evaluate the quality of information given by the recommender. Epinions.com offers a more personal system in which consumers can view a brief biography of the reviewer (Smith et al., 2005). With such mechanism in place, the peer who receives the bogus content will be able to submit a negative feedback about the malicious peer and help other peers to avoid it in the future (Xiong & Liu, 2004).

Compared to virtual communities and pass-along email messages, it appears that traditional WOM on online purchase behaviour attracts very little attention from online consumer behaviour research. Fortunately, a recent study by Choi, Bell, and Lodish (2010) about the efficacy between the traditional methods and the web-enabled methods on Internet retailers trying to reach potential consumers reveal some interesting results. The traditional methods, according to these researchers, include word-of-mouth among friends or neighbours, and magazine advertising; the web-enabled methods are electronic WOM (e.g., posted messages on online message boards, blogs, and virtual communities), and online search (e.g., paid or programmed keyword search from search engines, and affiliates with sponsored price comparison sites). The study uses zip level customer acquisition number data obtained from Childcorp.com, a large Internet retailer of children products, to compare the effects of the three focal variables - inter-customer proximity, price, and convenience benefits - on each customer acquisition method. The results show that offline WOM is more effective than online WOM method on new buyer acquisition in the local market. The results also imply that customer acquisition modes (offline WOM vs. online WOM) depend on local characteristics. For offline WOM mode, senders and receivers need to be co-located; whereas for online WOM

mode, the condition is not necessary. To demonstrate this, Wharton marketing professor David R. Bell (Knowledge@Wharton, March 17, 2010, p. 2) quotes:

"If my friend and immediate neighbour tells me something, there is trust. But whatever benefit he reaps, I will get the same benefit because we are physically co-located. If he lives in Miami, and emails me, there is still that same level of trust. However, his word-of-mouth is less effective because different local conditions might mean there is a different cost-benefit to shopping online."

The above discussion, thus, suggests that:

H5a: Positive perceived social acceptance through positive social influences from offline recommendations, virtual communities, and pass-along email messages are positively associated with online purchase intention.

H5b: Positive perceived social acceptance through positive social influences from offline recommendations, virtual communities, and pass-along email messages are positively associated with trust in the ecommerce context.

As trust has been postulated as a risk-reliever, all trust-inducing factors are also risk-relievers. Therefore:

H5c: Positive perceived social acceptance through positive social influences from offline recommendations, virtual communities, and pass-along email messages are negatively associated with perceived risk in the ecommerce context.

Although perceived social acceptance serves as a persuasion cue in a consumer's behaviour, the level of this influence may vary depending on the recommenders' expertise and their rapport with that person. According to Smith et al. (2005, p. 19), *"rapport refers to the affective bond that an individual may feel toward another person, generally arising from shared preferences, tastes, and lifestyles."* Based on the data of users in two online communities (AllConsuming book-readers' community and the FilmTrust community), Ziegler and Golbeck (2007) identify a strong correlation between trust and interest similarity. Research and discussions from multi disciplines have also identified the association between a recommender's expertise and perceived

trustworthiness (Alaszewski, 2005; Frewer & Miles, 2003; Gilly, Graham, Wolfinbarger, & Yale, 1998; Homer & Kahle, 1990; McGinnes & Ward, 1980). In the online context, Smith et al. (2005) and Wang (2008) report that those recommendations given by the perceived experts in a virtual community enhance consumers' trust and favourable attitude.

Given how trust is affected by rapport and expertise in the ecommerce context, it makes sense that an individual with a high level of expertise is less likely to be influenced by social interaction than a less expert individual, and that perceived social acceptance will be exacerbated by a greater level of rapport between influencer and the influenced. In the present instance, these variations in rapport and expertise (and other individual-level variables such as confidence and intelligence) are inevitably experienced at a different level by each member of the sample group. Normal experimental procedures use an appropriate sample size to allow for these variations.

It is not the intention of this research to explore these individual characteristics that determine risk perceptions, but only to measure the perceived risk within a group of respondents in relationship to the relevant research variables. To deal with, for instance, the "Expertise" and "Rapport" variables specifically mentioned here as model moderators would require the research model to be run four times, with four times as many data-points required. This is inappropriate at this point, but might be a worthy post-doctoral avenue of research, even though prior research has already investigated the relationships at a micro-model.

 Figure 5 below shows the complete research model including key constructs, operational variables, and hypothesized relationships. The perceived social acceptance variable is collectively defined by the influences from offline peer recommendations, pass-along emails, and virtual community. The perceived web interface quality is formed by seven primary components: ease of use, transaction support, privacy, security, graphic design, e-retailer credibility, and information content. Perceived social acceptance and perceived web interface quality may either directly or indirectly (through perceived risk or trust) affect purchase intention. As described earlier by the conceptual model, the current study uses intention rather than actual behaviour to measure the consequence of specific beliefs proposed in the conversion behaviour

model. Therefore actual purchase is not included in the proposed model of Figure 5 below.

Figure 5

Conversion behaviour research model
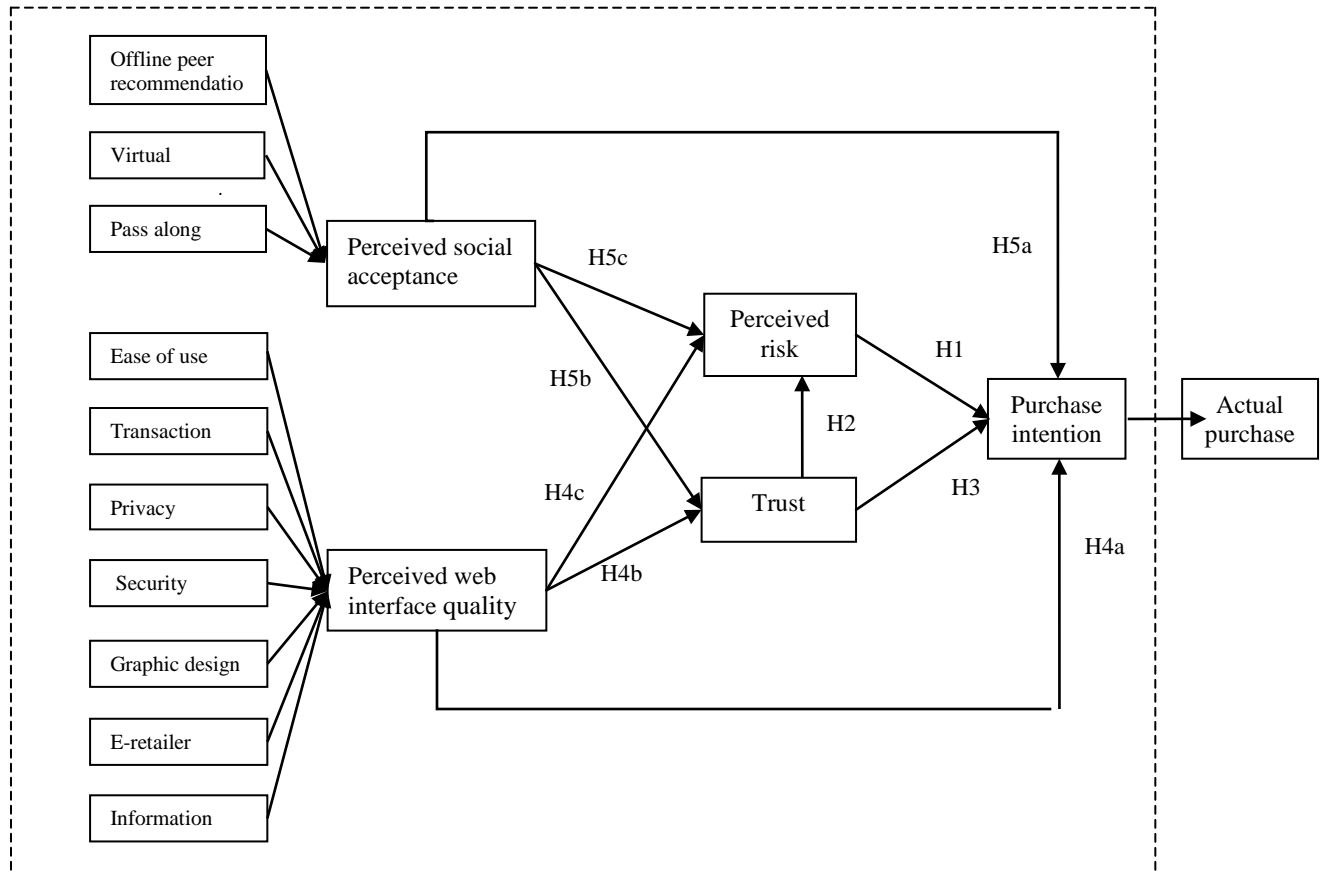
2.4 Conclusion

As summarised in the diagram of Figure 6 below, Chapter 2 first demonstrated a familiarity with the parent discipline by reviewing various studies with reference to the research problem – conversion behaviour in ecommerce. The review resulted in a classification model, with three groups representing the main streams of the field: human-computer interactions (HCI), online purchase decision process (OPDP), and web marketing mix; each stream emphasises in different salient research issues. The research problem's immediate discipline was then identified as falling into one of the streams of the parent discipline, OPDP. This happens as the OPDP stream provides a great number of referent models of consumer behaviour online. A chronological summary of prior leading models of consumer behaviour online within the selected research stream show

that Trust, TRA, TPB, and TAM are the common theories upon which prior leading models of consumer behaviour online have been developed; trust, perceived risk, perceived web interface quality, perceived social acceptance are the fundamental issues within the OPDP stream. A conceptual model was proposed based on the critical gaps of prior leading models. A research model of specified attributes based on the conceptual model was constructed, and hypotheses worthy for empirical tests were unearthed as the chapter progresses through the immediate discipline.

Figure 6

Links between the research problem and the proposed model
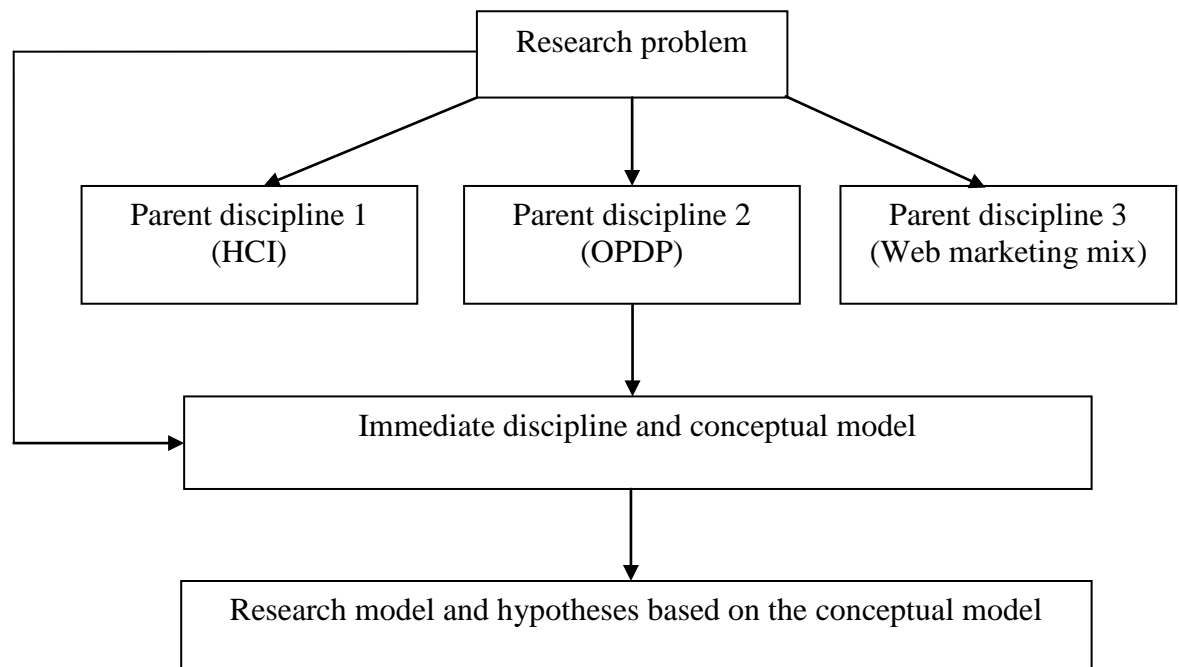
Chapter 3 Methodology

3.1 Introduction

This chapter primarily confirms what has been found in Chapter 2 with respect to the second research question: what are the inter-relationships among these determinant factors and their association with consumer purchase intention? The objectives of this chapter, therefore, are to propose a paradigm for testing the hypothesized causal structure of the proposed conversion behaviour model (CBM), and to develop and validate scales for measuring the CBM theoretical constructs. In connection with these objectives, Chapter 3 first discusses the conventional methods used to test hypotheses regarding the causal structure of prior online consumer behaviour models. A paradigm is then outlined by which the first objective can be achieved. The rest of Chapter 3 discusses the paradigm with regard to the second objective. In particular, the section focuses on explaining and demonstrating those steps 1 to 5 of the paradigm. This happens since the proposed paradigm involves both measure development process and data analysis, which is beyond the scope of this chapter, and so those steps 6 to 8 of the paradigm are discussed in the Chapter 4 (Data Analysis).

3.2 Justification for the paradigm and methodology

Table 14 below summarises the methodological issues that prior research on online consumer behaviour (see Tables 8 and 9 above) has addressed. In general, prior research follows the positivist paradigm where questionnaires or scales are developed and presented to subjects through self-selected mode or experimental design. However, it appears that most prior research has neglected to address a couple of critical issues related to the scale development and survey design, respectively: the attribute nature and situational control. The present section, through discussing the first issue, proposes a paradigm for developing measures of the CBM theoretical constructs. Those methodology issues addressed in Table 14 below (such as data collection method, subjects, instrument, incentive, procedure, analytical techniques, and analysis software package) and the situational control issue are then integrated into the explanation of the proposed paradigm.

Table 26

Methodological issues from prior research on online consumer behaviour

Study	Data collection method	Subjects	Instrument	Incentive	Procedure	Paradigm	Analytical techniques	Analysis software package
Bhattacherjee (2000)	Online questionnaire survey	172 electronic brokerage adopters	33 item, 7 point Likert scales	Small cash prizes	Subjects are self-selected via messages placed on over 100 heavily-trafficked online message boards on Yahoo! Finance, Silicon Investor, Motley Fool, and Raging Bull websites	Positivist	SEM	EQS
Jarvenpaa et al. (2000)	Experiential survey	184 undergraduate and MBA students in Australia	38 item, 7 point Likert scales	Two $100 prizes	Subjects first complete a demographic questionnaire and a consent form. They are then pointed to seven ecommerce websites to view and complete a multi-item scale	Positivist	SEM	AMOS
Koufaris (2002)	Online questionnaire survey	280 new customers to Booksamillion.com	27 item, 7 point Likert scales	$10 gift certificate, $10 cash, and a chance to win $1000 in cash	Subjects from the database of Dynamic Logic, Inc., an online market research firm, are randomly invited to join the online survey. Subjects first fill out the first part of the questionnaire about their shopping experiences. Next, subjects are instructed to visit Booksamillion.com and then fill out the main part of the questionnaire	Positivist	Regression	n/a

Table 27. Methodological issues from prior research on online consumer behaviour (continued)

Study	Data collection method	Subjects	Instrument	Incentive	Procedure	Paradigm	Analytical techniques	Analysis software package
McKnight, Choudhury, and Kacmar (2002)	Experiment	1403 undergraduate students	A custom-created web site and 44 item, 7 point Likert scales	1-2% of the course grade	Subjects are first exposed to a pre-test questionnaire measuring structural assurance and perceived risk. Subjects are then given an air conditioning legal problem and directed to the hypothetical website that provides visitors with advice on legal matters. Subjects are guided to interact with the website and fill out the multiple item questionnaire	Positivist	SEM	LISREL
Gefen et al.(2003)	Questionnaire survey	72 undergraduate students participating in the pre-test, and 172 undergraduates and 41 graduate students participating in the main data collection	34 item, 7 point Likert scales	n/a	Subjects are requested to complete the questionnaire based on their prior shopping experience at an online book vendor or online CD vendor. Questionnaires from those subjects have bought books or CDs in the Internet are discarded	Positivist	SEM	LISREL

Table 28. Methodological issues from prior research on online consumer behaviour (continued)

Study	Data collection method	Subjects	Instrument	Incentive	Procedure	Paradigm	Analytical techniques	Analysis software package
Pavlou (2003)	Study 1: Experiential exploratory surveys	36 undergraduate students in the first survey, 41 undergraduate students in the second survey, and 25 undergraduate students in the third survey	24 item, 7 point Likert scales	Extra credit of the course grade	12 consumers are invited to check content validity. In the first survey, subjects complete the questionnaire regarding Amazon.com. In the second survey, subjects complete the questionnaire with respect to their own choice of an e-retailer. In the third survey, subjects fill out the questionnaire based on their general perception of web retailers	Positivist	Chow's test statistic and Wilks's lambda, and SEM	PLS
	Study 2: Online questionnaire survey	155 online consumers	24 item, 7 point Likert scales	A $250 prize and a report summarising the survey results	Invitations are sent to 2000 online consumers randomly collected from multiple web addresses via email extractor program. Subjects asked to click on the URL link provided in the e-mail message, which linked to the Web-based on-line survey instrument	Positivist	SEM	PLS
Smith et al. (2005)	Study 1: 2x2x2 between subjects experimental survey	252 undergraduate students	A simulated online restaurant database, and 20 item, 7 point Likert scales	Each participant receives $5 incentive payment	All subjects are exposed to a manipulated online environment and then fill out the questionnaire	Positivist	ANOVA	SAS

Table 29. Methodological issues from prior research on online consumer behaviour (continued)

Study	Data collection method	Subjects	Instrument	Incentive	Procedure	Paradigm	Analytical techniques	Analysis software package
	Study 2: 2x3 between subjects experimental survey	150 undergraduate students	A simulated online restaurant database	Each participant receives $5 gift certificates	All participants are instructed to perform several tasks within a simulated online environment	Positivist	CATMOD	SAS
Pavlou and Fygenson (2006)	Online questionnaire survey	75 students in the first pre-test, 214 students in the second large scale pre-test, and a mix sample of 312 students and Internet consumers in the main survey	120 item, 7 point Likert scales and 10 item, nominal scales	A $250 draw and a report summarising the survey results	Subjects in the main survey are asked to select one particular product that they seriously intend to buy within the next 30 days. They are then asked to fill out the questionnaire based on a specific online retailer that they have recently visited to view that product. Subjects are contacted in 30 days after the survey regarding their follow-up actions	Positivist	Chow's test statistic, Wilks's lambda and SEM	PLS
Lim et al. (2006)	Study 1: 2x2 between subjects experimental survey	133 undergraduate students	A simulated online bookstore, and 16 item, 7 point Likert scales	5 percent discount at the university bookstore, and a lucky draw	Subjects are requested to visit the hypothetical online store, browsing the website for 15 minutes and then fill out the questionnaire	Positivist	SEM	PLS

Table 30. Methodological issues from prior research on online consumer behaviour (continued)

Study	Data collection method	Subjects	Instrument	Incentive	Procedure	Paradigm	Analytical techniques	Analysis software package
	Study 2: Questionnaire survey	174 undergraduate students	Five hypothetical home page versions of the synthetic online bookstore, a large piece of paper with five screen shots printed	Draw of three cash vouchers	Subjects are instructed to rank the five versions of an online bookstore based on their trust to purchase from the vendor	Positivist	Wilcoxon signed rank test	PLS
Schlosser et al. (2006)	Study 1: 2x2x2 between subjects experimental survey	111 university employees	A hypothetical ecommerce website, and multiple item, 7 point Likert scales	Every participant receives $10 cash	Subjects are invited through a printed and an electronic newsletter. Subjects are randomly assigned to one of the experimental conditions. They are asked to imagine they are seeking to buy some furniture and visiting an online vendor selling this type of products. Subjects fill out the questionnaire after visiting the site	Positivist	ANOVA, ANCOVA	SPSS
	Study 2: 2x3 between subjects experimental survey	79 undergraduate students	A hypothetical ecommerce website and multiple item, 7 point Likert scales	Extra credit of the course grade	Similar to study 1	Positivist	ANOVA, ANCOVA	SPSS

Table 31. Methodological issues from prior research on online consumer behaviour (continued)

Study	Data collection method	Subjects	Instrument	Incentive	Procedure	Paradigm	Analytical techniques	Analysis software package
	Study 3: 2x2 between subjects experimental survey	152 undergraduate students	A hypothetical ecommerce website and multiple item, 7 point Likert scales	Extra credit of the course grade	Similar to study 1	Positivist	ANOVA, ANCOVA	SPSS
	Study 4: 2x2 between subjects experimental survey	98 undergraduate students	A hypothetical ecommerce website and multiple item, 7 point Likert scales	Extra credit of the course grade	Similar to study 1	Positivist	ANOVA, ANCOVA	SPSS
Pavlou et al. (2007)	Two independent online questionnaire surveys (one for online book purchasing, the other for online prescription filling	From the initial sample of 1000 online consumers obtained from a purchased consumer list, 268 respond to the survey for book and 253 respond to the survey for prescription filling	48 item, 5 point Likert scales	Several raffle $100 prize and a report summarising the survey results	Subjects of both studies are notified by email to visit the relevant commercial websites. Subjects are asked to browse and purchase a specific book or a prescription drug, respectively. After one month, the subjects are contacted to follow up their actual purchases.	Positivist	SEM	PLS

Traditionally, the scales used for model testing by the studies building models of consumer behaviour online (as depicted in Table 14 above) follow the specific procedure that Churchill (1979) and many other measurement theorists such as Bagozzi and Philips (1982), More and Benbasat (1991), and Boudreau et al. (2001) have advocated. According to their suggestions, three critical issues attract great concern in the scale development: content validity, reliability, and construct validity. Content validity examines the degree to which the items represent the constructs in a given model (Nunnally & Bernstein, 1994). Reliability refers to how consistently the items compose a scale (Hair, Anderson, Tatham, & Black, 1998). Construct validity, a set of quantitative measures of the scale including convergent, discriminant, and predictive validity (Bagozzi, 1980; Boudreau et al., 2001), indicates how accurately the scale measures the studied construct (Hair et al., 1998).

Jarvenpaa and Tractinsky (1999; 2000), Pavlou (2002; 2003), Gefen (2002), Gefen et al. (2003) are some of the leading online trust studies that follow this specific scale development procedure. The scale development procedure in these studies is summarised as following. Content validity is established through two steps. First, each construct in the proposed conceptual model is operationalized with multiple items withdrawn from the literature review. Second, a validity test is conducted on a convenient sample of three to five people who have extensive online shopping experience, using the Q-sort technique (see Davis, 1986; Moore & Benbasat, 1991). Scale purification and refinement is established via reliability coefficient alpha. Scale unidimensionality, convergent validity, discriminant validity, and predictive validity and are established via confirmatory factor analysis (CFA).

However, the traditional scale development procedure exposes itself to several potentially problematic aspects. First, the pursuit of high coefficient alpha items to achieve factorial unidimensionality may require the deletion of significant items or the addition of unnecessary. This in turn reduces the scale validity (Rossiter, 2002). Examples of adding unnecessary items for the sake of high coefficient alpha which may produce lower validity can be found in (Bhattacherjee, 2002), (Verhagen et al., 2006), and Lim et al. (2006). In these three studies, the researchers use three to four items to measure the concrete attribute "willing to buy". The responses to these items, as expected, produce over 0.80 construct reliabilities. The question here is if it is necessary to create multiple items to measure this concrete attribute when there is only one holistic

characteristic pertaining to this attribute. Strongly correlated items here obviously become meaningless and distort the scale validity.

Second, researchers following the traditional scale development procedure often neglect defining the nature of different attributes in their model. In particular, they seem not to keep the formed and eliciting attributes distinct. The traditional scale development procedure, in fact, assumes all the attributes are of the eliciting type; this therefore confuses the selection of measurement items (formative vs. indicative). A notable case demonstrating this statistical bias is the study of perceived risk in online shopping by Hassan et al. (2006). Perceived risk, in their study, is conceptualized as a set of eight formed attributes including perceived financial risk, perceived performance risk, perceived time-loss risk, perceived social risk, perceived psychological risk, perceived physical risk, perceived source risk, and perceived privacy risk (Hassan et al., 2006, p. 140). However, the researchers then use factor analysis and coefficient alpha to develop the scales for each of these first-order formed attributes. In particular, they find twelve items for the financial risk scale, three for the performance risk scale, three for the time risk scale, two for the social risk scale, one for the psychological risk scale, one for the physical risk scale, and eight for the source risk scale. In other words, they have used both eliciting and formed attribute assumption to develop scales for the second-order formed attributes. As a result of this, the attributes, cannot be rated consistently and the scales are not as valid as they should be.

The third problematic characteristic of traditional scale development procedure is the unnecessary test-retest reliability. As Rossiter (2002) explains, reliability refers to the scale score precision, not the scale itself; reliability should be judged based on the raters' profile (individual, experts or groups). Test – retest reliability has nothing to do with the score reliability. If respondents provide different answers to the same items, then it should be a content validity matter. In the line of this finding, the conventional test – retest reliability procedure in the IS/IT literature relating trust in the ecommerce market (Bhattacherjee, 2002; Gefen, 2000; Pavlou, Huigang Liang, & Yajiong Xue, 2007) should be dismissed. Finally, it's inappropriate for the researchers following the traditional scale development procedure to prune attributes or items for higher construct- to-construct correlation. The example Rossiter (2002, p. 327) provides is an obvious demonstration:

"For example, from meta-analysis, the true correlation between high-involvement ATTITUDE and subsequent BEHAVIOR is estimated to be r = 0.4 (Kraus, 1995; J. R Rossiter & Percy, 1997, p. 271). To then seek other measures of the predictor construct (like taking sample statistics) that try to improve on the population correlation would be improper. For example, by adding BEHAVIOR INTENTION items to the ATTITUDE measure, the correlation could be raised above 0.4, but then this ''predictively more valid'' measure would be drifting away from the original construct of ATTITUDE, defined as an overall evaluation."

In short, content validity is the central issue in the traditional scale development procedure used by most researchers studying online consumer trust. This study has proposed an alternative scale development procedure with respect to avoiding this problem, as depicted in Figure 7 below.

Figure 7

Suggested scale development and validation procedure

Construct definition & scale formation	**Survey**	**Scale refinement & purification**	**Scale validation**
Operational definition (Step 1) • Object • Rater • Attributes **Domain specification (Step 2)** • Object specification • Attribute specification • Expert judge interviews conducted **Scale formation (Step 3)** • Expert reviews • Concrete attribute item generated • Formed attribute items generated • Eliciting attribute items generated • Content validity test via Q-sort	**Survey design (Step 4)** • Data collection method • Control of situational variables • Subjects • Instrument development **Data collection (Step 5)** • Incentive • Procedure	**Clean data (Step 6)** • Remove outliers • Descriptive statistics **Scale purification (step 7)** • Item analysis • Internal consistency • Principal components factor analysis on eliciting attributes	**Test for the validity of causal structure (Step 8)** • Regression analysis (test for mediation and causal linkages) • SEM (CFA and path coefficients)

3.2.1 Construct definition and scale formation

Figure 7 above provides a blueprint of the scale development procedure employed in this research. The scale in this research is formed based on: (1) the accepted paradigm for scale development provided by (Churchill, 1979) and augmented by other measurement theorists (Arnold & Reynolds, 2003; Bagozzi, 1980; Boudreau et al., 2001; Edwards & Bagozzi, 2000; Gerbing & Anderson, 1988; Moore & Benbasat, 1991; Nunnally & Bernstein, 1994); (2) the C-OAR-SE procedure suggested by Rossiter (2002) with respect to validity; (3) the Q-sort technique proposed by (Moore & Benbasat, 1991) to facilitate the expert reviews.

3.2.1.1 Step 1, operational definition

Churchill (1979) suggests that the first step in forming a measurement scale is to conceptualize the constructs and specify the domains associated with ecommerce website conversion rate. A construct is *"a conceptual term used to describe a phenomenon of theoretical interest"* (Edwards & Bagozzi, 2000, pp. 156-157). However, a construct would not be operationally defined adequately unless it includes three constituents: the object and its components; the attribute and its components; the rater identity (Rossiter, 2002). Given the detailed explanation of Figure 3 earlier, the conversion behaviour construct in this study is defined as *"the purchase intention on an ecommerce website which may be enhanced by consumer trust, perceived risk, website interface, and social influence."* This definition has specified: the object, ecommerce website; the attributes, purchase intention, consumer trust, perceived risk, social influence, and website quality; the rater, consumers, that is, online shoppers.

3.2.1.2 Step 2, domain specification

Consistent with Rossiter (2002), following the initial literature review in step 1, the second step continues with an exhaustive literature search to identify all the potential components that may associate with the object and attributes. The purpose of this step is to classify the object and attributes into the adequate categories base on the C-OAR-SE procedure (Rossiter, 2002). Which items are selected to measure the attributes in step 3 also depends on this classification (Rossiter, 2005).

The previous literature review has identified the object, ecommerce website; the four key attributes that make up the conversion behaviour theoretical construct, purchase intention, perceived risk, trust, perceived social acceptance, and perceived web interface quality (see Figure 3 above). The ecommerce website, in this study, is controlled as a click-only vendor website selling MP3 player (see the situational control section below). Ecommerce website is therefore a concrete singular object. The first attribute making up the conversion rate construct, purchase intention, is conceptualized as the attitude toward the purchase on a particular ecommerce website. Based on this singular meaning, purchase intention is a concrete attribute.

The second attribute that makes up the online conversion behaviour construct is perceived risk. As described earlier in section 2.3.2.1, though it requires numerous dimensions (e.g., environmental risk, physical risk, psychological risk, and financial risk) to capture an individual's perceived risk, the perceived risk construct is only confined to the financial dimension in this research. Financial risk consequently becomes the only perceived risk attribute in the research model. Since financial risk causes the different ways a consumer would select to purchase items from an online vendor, it is a first-order eliciting attribute (Rossiter, 2002).

As mentioned earlier (section 2.3.2.2), many researchers have hypothesized trust as a product of three primary trustworthiness beliefs: ability, benevolence and integrity. These components, however, may overlap with some of the website attributes definitions in the study (e.g., transaction support, security and privacy). This study adopts the conceptualisation of trust that Jarvenpaa et al. (2000) suggest; trust, the second attribute making up the conversion rate construct, may therefore be hypothesized as the respondents' general belief in the online vendor, which is subject to different states. Thus, trust should be an eliciting attribute.

The fourth attribute that makes up the online conversion behaviour construct, perceived social acceptance, is formed by influences from three distinct sources of eWOM: offline peer recommendations, virtual community references, and pass along emails. There is not something in "perceived social acceptance" that causes such influences. Rather, it is the other way round: these influences contribute to the overall perceived social acceptance. Therefore, perceived social acceptance is a formed attribute.

The final attribute that makes up the online conversion behaviour construct is perceived web interface quality. With a great number of studies relating to trust-inducing website characteristics (see Table 12 above), perceived web interface quality is a complex formed attribute in that its components (evaluations of the salient website attributes such as ease of use, transaction support, privacy, security, graphic design, e-credibility, and information content) are also formed attributes. Each of these seven components is the sum of a comprehensive list of potential dimensions (see Table 15 below, adapted from Table 12 above). However, as Rossiter (2002, p. 314) recommends, *"the formed attribute need only include its main components rather than every possible component and this calls for expert judgement aided by a reasonable cut-off for inclusion."* Expert review interviews have been conducted, adapted from the Q-sort procedure proposed by Moore and Benbasat (1991), to eliminate the low-incidence components (the components that most raters do not include in the attribute concept).

Table 32

Initial perceived web interface quality components

Parental attribute	Perceived web interface quality						
Second-order formed attributes	Ease of use	Transaction Support	Privacy	Security	Graphic design	E-retailer credibility	Information content
Proposed first-order formed attributes	Easy order system, easy navigation, easy to find desired information, functional, simple and consistent design, quick loading pages, efficient search engine, easy to use overall valid links, proper order of content, provision of index or site map, shopper friendly design	Availability of vendor physical address for alternative ordering procedure, availability of vendor telephone number for alternative ordering procedure, live help with text chat/voice chat, clear explanation of order system, reversibility of actions, informative feedback, availability of order tracking, email confirming customer's transactions, preciseness of calculation, provision of product and service details, provision of product and service pricing, provision of product and service availability	Provision of business policies on disclosure of personal information, provide options for how a consumer personal data might be used in other contexts, allow consumers to access and view their personal data, Provision of clear privacy policy on the home page	Description of vendor's legal responsibilities, description of vendor's financial responsibilities, disclosure of information security on the vendor's web site, displaying prominent logo and slogan to facilitate the company identity, credit card information protection guarantees by a well known third party, transaction assurance by a well known third party, disclosure of product quality assurance by a well known third party, disclosure of product guarantee policy, use of member login ID and password, promises of payment security by the vendor, order fulfilment process clarity	Good use of graphic design, including 3D clipart, high quality photographs of products, well chosen photographs of products, provision of realistic product image, 3D clipart covers at least half of the total screen size, nice colour layout, large size image, provision of attractive and appealing pictures, creative website interface, professional look website interface, proper use of text fonts, website layout consistency, website design consistency, proper use of multi media	References or testimonials of existing customers on the vendor's website, number of products for sale on the vendor's website, attention to customer relationship, provision of site owner's profile, provision of physical address, provision of vendor's phone number, provision of contact email address, disclosure of product or service warranty, provision a history of successful fulfilment, disclosure of business alliances, disclosure of legal and regulatory compliance, company competence descriptions, clear product return policy	Proper grammar, correct spelling, appropriate customer testimonials and references, appropriate product information, the vendor provides exhaustive information about what customers want to know on the website, the language is easy to follow, the website is regularly updated, accuracy of content, completeness of content, clarity of content, usefulness of content

Table 33

Perceived web interface quality components resulting from Q-sort 01

Parental attribute	Perceived web interface quality						
Second-order formed attribute	Ease of use	Transaction support	Privacy	Security	Graphic design	Information content	E-retailer credibility
First-order formed attribute	Simple and consistent design	Clear explanation of order system	Provide business policies on disclosure of personal information	Provide member login ID and password	Proper use of multi-media	The website is regularly updated	References or testimonials of existing customers on the website
	Quick loading pages	Live help with text chat/voice chat	Provide options for how a consumer personal data might be used in other contexts	Disclose product guarantee policy	Nice colour layout	The vendor provides exhaustive information about what customers want to know on the website	Provision of physical address
	Easy to use overall	Availability of order tracking		Description of vendor's legal responsibilities	Provision of attractive and appealing pictures		Disclosure of product or service warranty
	Easy to find desired information	Availability of vendor physical address for offline- -purchases	Allow consumers to access and view their personal data	Credit card information protection guarantees by a well known third party	Large size image	Accuracy of content	Descriptions of company competence
			Provide clear privacy policy on the home page			The language is easy to follow	

In this Q-sort interview (Q-sort 01), three participants in Ho Chi Minh City (see section 3.2.2.1.2 for population frame) who have extensive online shopping experience were selected. These participants worked individually and could not influence one another. Interview instrument items are the cue-cards; each was labelled with a different first-order formed attribute in Table 15 above. Seven substrata represent seven second-order formed attributes in Table 15 above. Each participant was asked to comment on item wording clarity (and recommend changes if necessary), categorize the items into seven substrata. Only items that are marked by at least two participants are included in the resulting substrata. Next, each participant is asked to rank the items within each substratum according their semantic proximity to that of the underlying substratum. Item ranking orders are then converted into absolute item rating points where higher points were given to higher ranked items. Only the four items in each substratum that accumulate the highest rating points of the three interviews were selected as the final first-order formed attributes of the perceived web interface quality construct (see Table 16 above).

3.2.1.3 Step 3, scale formation

Scale formation is a matter of combining the object item parts with their corresponding attribute item parts to form scale items. In this research, a pool of those candidate items that may be included in the final scales has been established through two steps. The first step is to identify the items from the existing scales in the literature (Fink, 2003); minor modifications (including the wording of the items) of the derived items will be applied to suit the nature of the study. The second step is to create the new items - the items that step one could not achieve. All of the items are measured on seven-point Likert-type scales, which allow respondents to select a response indicating their opinion about the item. The responses range from "1", indicating that the respondent "strongly disagree", to "7", indicating that the respondent "strongly agree." Following the recommendation by Rossiter (2002), all the items are built without intensity stems to avoid unambiguous responses. All the items have short and direct style wording to prevent a high drop-out rate (Ganassali, 2008). Table 17 below presents the list of attributes and proposed items.

Table 34

Initial attribute components and scale items

Attribute	Type	Proposed components	Proposed items	Wording	Scale	Source
Purchase intention	Concrete	n/a	PI1	I will purchase this product from this online vendor	Strongly disagree/ Strongly agree	(Hassanein & Head, 2006; Jarvenpaa & Tractinsky, 1999; Jarvenpaa et al., 2000; Kim & Kim, 2005; Pavlou, 2003)
			PI2	I will recommend this online vendor to my friends	Strongly disagree/ Strongly agree	(Kim & Kim, 2005)
			PI3	I would use my credit card to purchase from the online vendor	Strongly disagree/ Strongly agree	(Gefen et al., 2003)
			PI4	I will use this online vendor for some of my purchases in the near future.	Strongly disagree/ Strongly agree	(Bhattacherjee, 2002; Jarvenpaa et al., 1999; Jarvenpaa & Tractinsky, 1999; Jarvenpaa et al., 2000; Pavlou, 2003)
Trust	Eliciting	n/a	T1	Promises made by this online vendor are likely to be reliable	Strongly disagree/ Strongly agree	(Ba & Pavlou, 2002; Gefen et al., 2003; Verhagen et al., 2006)
			T2	I doubt the honesty of this online vendor	Strongly disagree/ Strongly agree	(Ba & Pavlou, 2002; Gefen et al., 2003; Verhagen et al., 2006)
			T3	I believe that this online vendor has good intentions toward customers	Strongly disagree/ Strongly agree	(Ba & Pavlou, 2002; Gefen et al., 2003; Verhagen et al., 2006)
			T4	I trust that this online vendor is open and receptive to customer needs	Strongly disagree/ Strongly agree	(Bhattacherjee, 2002)

Table 35. Initial attribute components and scale items (continued)

Attribute	Type	Proposed components	Proposed items	Wording	Scale	Source
Perceived risk	Eliciting	n/a	PR1	I think that if I use this online vendor there will be a of financial loss	Strongly disagree/ Strongly agree	(Jarvenpaa et al., 2000; Pavlou, 2003; Sitkin & Weingart, 1995)
			PR2	It seems to be risky when I have to pay directly on this web site for the item I bought	Strongly disagree/ Strongly agree	New Scale
			PR3	I believe the vendor will refund me if the phone I purchased is faulty	Strongly disagree/ Strongly agree	New Scale
Perceived social acceptance	Formed	Pass-along messages	SI1	I received much digital information about Internet sites that sell MP3 players before I made my decision to buy or not to buy on this website	Strongly disagree/ Strongly agree	Pass-along messages
		Virtual communities	SI2	I have had a great deal of experience with groups of people online who discuss MP3 players and which Internet sites to buy them on	Strongly disagree/ Strongly agree	Virtual communities
		Off-line peer recommendations	SI3	I often talk to my friends about MP3 players and good Internet sites where they can be bought	Strongly disagree/ Strongly agree	Off-line peer recommendations

Table 36. Initial attribute components and scale items (continued)

Attribute	Type	Proposed components	Proposed items	Wording	Scale	Source
Ease of use	Formed	Easy to Use Overall	EOU1	I find this vendor's Web site easy to use	Strongly disagree/ Strongly agree	(Gefen et al., 2003; Pavlou, 2003; Venkatesh & Davis, 2000)
		Quick Loading Pages	EOU2	The rate at which the information is displayed is fast	Strongly disagree/ Strongly agree	(Tarafdar & Zhang, 2005/2006)
		Simple and Consistent Design	EOU3	It requires very little mental effort to interact with the Web site	Strongly disagree/ Strongly agree	(Pavlou, 2003; Venkatesh & Davis, 2000)
		Easy to Find Desired Information	EOU4	Anyone could find desired items on such a website as this, not just an IT-savvy person	Strongly disagree/ Strongly agree	New Scale
Transaction support	Formed	Clear Explanation of Order System	TS1	The website provides a clear order fulfilment process	Strongly disagree/ Strongly agree	New scale
		Live help with text chat/voice chat	TS2	This website has efficient functions for transaction support	Strongly disagree/ Strongly agree	New scale
		Availability of Order Tracking	TS3	This website allows me to follow up my order status	Strongly disagree/ Strongly agree	New scale
		Availability of Vendor Physical Address for offline-Purchases	TS4	This online vendor provides a flexible order system	Strongly disagree/ Strongly agree	New scale

Table 37. Initial attribute components and scale items (continued)

Attribute	Type	Proposed components	Proposed items	Wording	Scale	Source
Privacy	Formed	Allow consumers to access and view their personal data	P1	I can totally control my personal information on this website	Strongly disagree/ Strongly agree	New scale
		Provide options for how a consumer personal data might be used in other contexts	P2	I am confident to provide this online vendor my confidential information	Strongly disagree/ Strongly agree	New scale
		Provide business policies on disclosure of personal information	P3	This online vendor might disclose my personal information	Strongly disagree/ Strongly agree	New scale
		Provide clear privacy policy on the home page	P4	This online vendor respects my privacy	Strongly disagree/ Strongly agree	New scale

Table 38. Initial attribute components and scale items (continued)

Attribute	Type	Proposed components	Proposed items	Wording	Scale	Source
Security	Formed	Provide member login ID and password	S1	This website provides user authentication	Strongly disagree/ Strongly agree	(Tarafdar & Zhang, 2005/2006)
		Credit card information protection guaranteed by a well known third party	S2	The website provides a secure monetary transaction	Strongly disagree/ Strongly agree	(Tarafdar & Zhang, 2005/2006)
		Description of vendor's legal responsibilities	S3	This vendor complies legal regulations	Strongly disagree/ Strongly agree	New scale
		Disclose product guarantee policy	S4	This vendor is selling high quality products	Strongly disagree/ Strongly agree	New scale
Graphic design	Formed	Proper use of multi- media	GD1	This website uses effective multimedia (for instance, video clip)	Strongly disagree/ Strongly agree	New scale
		Provision of attractive and appealing pictures	GD2	I enjoy interacting with the website	Strongly disagree/ Strongly agree	New scale
		Nice colour layout	GD3	I find this website layout creative	Strongly disagree/ Strongly agree	New scale
		Large size image	GD4	I can easily view the products on this website	Strongly disagree/ Strongly agree	New scale

Table 39. Initial attribute components and scale items (continued)

Attribute	Type	Proposed components	Proposed items	Wording	Scale	Source
Information content	Formed	The website is regularly updated	IC1	The information that is provided on this website is up-to-date	Strongly disagree/ Strongly agree	(Tarafdar & Zhang, 2005/2006)
		The vendor provides exhaustive information about what customers want to know on the website	IC2	The information that is provided on this website is detailed	Strongly disagree/ Strongly agree	(Tarafdar & Zhang, 2005/2006)
		Accuracy of content	IC3	The information that is provided on this website is accurate	Strongly disagree/ Strongly agree	(Tarafdar & Zhang, 2005/2006)
		The language is easy to follow	IC4	The meaning of the information on this website is clear	Strongly disagree/ Strongly agree	(Tarafdar & Zhang, 2005/2006)
E-retailer credibility	Formed	References or testimonials of existing customers on the website	EC1	I feel this online vendor is sincere	Strongly disagree/ Strongly agree	New scale
		Provision of physical address	EC2	This website discloses valid contact information	Strongly disagree/ Strongly agree	New scale
		Disclosure of product warranty	EC3	This website provides clear product warranty policy	Strongly disagree/ Strongly agree	New scale
		Descriptions of company competence	EC4	The website shows the online vendor's competence clearly	Strongly disagree/ Strongly agree	New scale

Besides generating a comprehensive list of potential items, the purpose of step 3 is threefold. First, it is important to refine the wording so that each item provides the consistent meaning among the raters and correlates to its first order attribute. Second, the scale refinement procedure prunes the proposed items so that each concrete attribute and first-order formed attribute has one good measurement item (Rossiter, 2002). Third, unlike the first-order formed attributes which are concrete and have single measurement items, each eliciting attribute is abstract and measured by a set of three to five indicative items. This set of indicative items should achieve an internal consistency (coefficient alpha) of 0.8 or over (Rossiter, 2002). Therefore, despite excluding the reliability test-retest recommended by the traditional scale refinement and purification process, it is important to purify the unidimensionality of the items measuring the eliciting attribute, perceived risk, before delivering the scale to respondents.

The scale items are refined through the Q-sort interview procedure that numerous researchers (e.g., Bhattacherjee, 2002; Davis, 1986; Gefen, 2002; Pavlou et al., 2007) have used to study trust in the online shopping environment. Particularly, the Q-sort interview (Q-sort 02) is conducted with a pre-test convenient sample of seven Vietnamese experts who have extensive online shopping experience in Viet Nam. The participants are selected through the researcher's online association networks (Yahoo Instant Messenger, Face book). Interview instrument items are the cue-cards representing the items in Table 17 above. The participants work individually and cannot influence one another. Each participant is asked to comment on item wording clarity (and recommend changes if necessary), categorize individual items into eleven substrata. Only items that are marked by at least four participants are included in the resulting substrata. Based on this result, each participant is asked to rank the items measuring the concrete attribute and formed attributes according to their semantic proximity to that of the underlying attribute. Ranking orders are then converted into absolute rating points where higher points are given to higher ranked items. The item with the highest point is selected as the measurement item.

Table 40

Attribute components and scale

Attribute	Type	Confirmed components	Confirmed items	Code	Source
Purchase intention	Concrete	n/a	I will purchase the product from this online vendor	PI1	(Hassanein & Head, 2006; Jarvenpaa & Tractinsky, 1999; Jarvenpaa et al., 2000; Kim & Kim, 2005; Pavlou, 2003)
Trust	Eliciting	n/a	Promises made by this online vendor are likely to be reliable	T1	(Ba & Pavlou, 2002; Gefen et al., 2003; Verhagen et al., 2006)
			I doubt the honesty of this online vendor	T2	(Ba & Pavlou, 2002; Gefen et al., 2003; Verhagen et al., 2006)
			I believe that this online vendor have good intentions toward customers	T3	(Ba & Pavlou, 2002; Gefen et al., 2003; Verhagen et al., 2006)
			I trust that this online vendor is open and receptive to customer needs	T4	(Anol Bhattacherjee, 2002)

Table 41. Attribute components and scale (continued)

Attribute	Type	Confirmed components	Confirmed items	Code	Source
Perceive risk	Eliciting	n/a	I think that if I use this online vendor there will be a of financial loss	PR1	(Jarvenpaa et al., 2000; Pavlou, 2003; Sitkin & Weingart, 1995)
			It seems to be risky when I have to pay directly on this web site for the item I bought	PR2	New Scale
			I believe the vendor will refund me if the phone I purchased is faulty	PR3	New Scale
Perceived social acceptance	Formed	Pass-along Messages	I received much digital information about Internet sites that sell MP3 players before I made my decision to buy or not to buy on this website	SI1	New Scale
		Virtual Communities	I have had a great deal of experience with groups of people online who discuss MP3 players and which Internet sites to buy them on	SI2	New Scale
		Offline Peer Recommendations	I often talk to my friends about MP3 players and good Internet sites where they can be bought	SI3	New Scale

Table 42. Attribute components and scale (continued)

Attribute	Type	Confirmed components	Confirmed items	Code	Source
Ease of use	Formed	Easy to Use Overall (Com 1)	I find this vendor's web site easy to use	EOU1	(Gefen et al., 2003; Pavlou, 2003; Venkatesh & Davis, 2000)
		Simple and Consistent Design (Com 2)	It requires very little mental effort to interact with the web site	EOU3	(Pavlou, 2003; Venkatesh & Davis, 2000)
		Easy to Find Desired Information (Com 3)	Anyone could find desired items on such a website as this, not just an IT-savvy person	EOU4	(Pavlou, 2003; Venkatesh & Davis, 2000)
Transaction support	Formed	Clear Explanation of Order System (Com 4)	The website provides a clear order fulfilment process	TS1	(Gefen et al., 2003)
		Live help with text chat/voice chat (Com 5)	This website has efficient functions for transaction support	TS2	(Gefen et al., 2003)
Privacy	Formed	Provide business policies on disclosure of personal information (Com 6)	This online vendor might disclose my personal information	P3	New Scale
		Provide clear privacy policy on the home page (Com 7)	This online vendor respects my privacy	P4	New Scale

Table 43. Attribute components and scale (continued)

Attribute	Type	Confirmed components	Confirmed items	Code	Source
Security	Formed	Provide member login ID and password (Com 8)	This website provides user authentication	S1	(Tarafdar & Zhang, 2005/2006)
		Credit card information protection guaranteed by a well known third party (Com 9)	The website provides a secure monetary transaction	S2	(Tarafdar & Zhang, 2005/2006)
Graphic design	Formed	Proper use of multi- media (Com 10)	This website uses effective multimedia (for instance, video clip)	GD1	New Scale
		Nice colour layout (Com 11)	I find this website layout creative	GD3	New scale
		Large size image (Com 12)	I can easily view the products on this website	GD4	(Tarafdar & Zhang, 2005/2006)
Information content	Formed	The website is regularly updated (Com 13)	The information that is provided on this website is up-to-date	IC1	(Tarafdar & Zhang, 2005/2006)
		The vendor provides exhaustive information about what customers want to know on the website (Com 14)	The information that is provided on this website is detailed	IC2	(Tarafdar & Zhang, 2005/2006)
		Accuracy of content (Com 15)	The information that is provided on this website is accurate	IC3	(Tarafdar & Zhang, 2005/2006)
		The language is easy to follow (Com 16)	The meaning of the information on this website is clear	IC4	(Tarafdar & Zhang, 2005/2006)
E-retailer credibility	Formed	References or testimonials of existing customers on the website (Com 17)	I feel this online vendor is sincere	EC1	New scale
		Descriptions of company competence (Com 18)	The website shows the online vendor's competence clearly	EC4	New scale

Table 44

Survey questionnaire items

Item	Code
The information that is provided on this website is up-to-date	IC1
The website provides a secure monetary transaction	S2
I find this vendor's web site easy to use	EOU1
The information that is provided on this website is accurate	IC3
This website uses effective multimedia (for instance, video clip)	GD1
I received much digital information about Internet sites that sell MP3 players before I made my decision to buy or not to buy on this website	SI1
Anyone could find desired items on such a website as this, not just an IT-savvy person	EOU4
The meaning of the information on this website is clear	IC4
This website provides user authentication	S1
I find this website layout creative	GD3
The information that is provided on this website is detailed	IC2
I can easily view the products on this website	GD4
The website shows the online vendor's competence clearly	EC4
The website provides a clear order fulfilment process	TS1
It requires very little mental effort to interact with the website	EOU3
I feel this online vendor is sincere	EC1
I have had a great deal of experience with groups of people online who discuss MP3 players and which Internet sites to buy them on	SI2
I think that if I use this online vendor there will be a financial loss	PR1
I believe that this online vendor has good intentions toward customers	T3
This website has efficient functions for transaction support	TS2
It seems to be risky when I have to pay directly on this web site for the item I bought	PR2
I doubt the honesty of this online vendor	T2
This online vendor respects my privacy	P4
I trust that this online vendor is open and receptive to customer needs	T4
I often talk to my friends about MP3 players and good Internet sites where they can be bought	SI3
I believe the vendor will refund me if the phone I purchased is faulty	PR3
This online vendor might disclose my personal information	P3
Promises made by this online vendor are likely to be reliable	T1
I will purchase the product from this online vendor	PI1

Table 18 shows the final scale items resulted from Q-sort 2. As the intent of this study is not to rank the attributes, the order of the items has been arranged randomly to minimized response-set artefacts in the obtained scores (Rossiter, 2002). This means the randomization runs across multiple items for first-order attributes or components as well as the items for each attribute or component are separated. However, the purchase intention items are kept until last as they may confuse respondents' decisions. A list of these randomized items, which is also the survey questionnaire, is included in Table 19.

3.2.2 Survey

With respect to the major methodological issues (data collection method, subjects, instrument, incentive, procedure, paradigm, analytical techniques, and analysis software package) depicted in Table 14 above, Chapter 3, up to this point, has suggested an alternative paradigm and, through steps 1 and 2 of this paradigm, developed a multi-item survey questionnaire. The rest of Chapter 3 progresses to discuss those steps 4 and 5 of the proposed paradigm, through which other relevant methodological issues are demonstrated. In particular, step 4 (survey design) addresses such issues as data collection method, subjects, and instrument development. Situational control, a critical issue in survey design which most prior research on online consumer behaviour has not addressed in detail, is also included in step 4 discussion. Step 5 (data collection) finally involves the discussion of the data collection procedure and used incentive items for the current study.

3.2.2.1 Step 4, survey design

3.2.2.1.1 Data collection method

Since the independent variables in the model (perceived social acceptance and perceived web interface quality) involve individual perceptions, the study has been designed specifically to generate the variation of item responses. The research uses a 2 x 2 (social acceptance: high or low; web interface quality: good or poor) between-subjects design (see Figure 8 below). Subjects are asked to imagine that they are seeking to buy an MP3 player in the online market; they are recommended by a friend to visit an ecommerce website. One of the following four scenarios is given to respondents: (1) The subject is exposed to high social acceptance to visit an ecommerce website that has

good interface, (2) The subject is exposed to high social acceptance to visit an ecommerce website that has poor interface, (3) The subject is exposed to low social acceptance to visit an ecommerce website that has good interface; (4) The subject is exposed to low social acceptance to visit an ecommerce website that has poor interface.

Figure 8

Research design

	Scenario 1 Poor web Interface quality	Scenario 1 Good web interface quality
High social acceptance		
Low social acceptance	Scenario 2 Poor web interface quality	Scenario 2 Good web interface quality

Insufficient trust-inducing website features   Sufficient trust-inducing website features

The manipulation of social acceptance and web interface quality, according to Figure 8 above, is explained as follows. Social acceptance is manipulated through two scenarios, shown to relevant subjects (see Appendix 1). High social acceptance is cued through the information that the subject has been recommended by the three social reference sources - offline peer recommendations, emails, and virtual communities - to visit a particular ecommerce website. Low social acceptance is cued through the information that the subject has come across a potentially useful ecommerce website. Web interface quality is manipulated by presenting two synthetic ecommerce websites. The features on these two websites are manipulated based on the trust-inducing website features summarised in Table 15 above. In particular, the synthetic website that has good interface (high web interface quality) includes most of these features while the synthetic website that has poor interface (low web interface quality) includes only half of the features listed in each trust inducing website dimension.

3.2.2.1.2 Situational control

Belk (1974a, p. 157) describes situational attributes as:

> "All those factors particular to a time and place of observation which do not follow from knowledge of personal (intra-individual) and stimulus (choice alternative) attributes and which have a demonstrable and systematic effect on current behaviour."

Belk (1975) later provides a structural definition of situational attributes which includes a physical context consisting of geographic and institutional location, sights, sounds, and aroma; a social context defined by interpersonal roles and expectations; a temporal context defined by time of day, day of week or season; a task definition described by overall subject intentions; and finally, by the antecedent conditions subsuming miscellaneous residual or "carried-over" effects from a prior state, like a bad headache, having little money in pocket or being in a good mood. The literature synthesis in this study (see Table 20) confirms some of the situational factors listed by Belk (1975) in the online context. The next section presents the findings from the literature as an effort to explain each of these situational dimensions.

3.2.2.1.2.1 Temporal context

Temporal context is the situational dimension specified in units ranging from time of day to season of the year (Belk, 1975). This allows conceptions regarding time relative to some past or future event such as time constraints imposed by future or standing commitments, short term promotion and discount. For instance, seasonal events have had greater and greater impact on online consumer behaviour. White & Wingfield (2002) report that online holiday sales increased dramatically from 1999 to 2000. Similarly, Lavin (2002) has confirmed that during Christmas season of 1998, US consumers spent approximately USD1.5 billion on Internet shopping. An estimated USD 5-6 billion of goods over the Internet followed during Christmas 1999.

Table 45

Number of situational influences research studies in journals

Situational factors	Empirical support
Temporal context	Shopping time budget/Seasonal holidays (Degeratu, Rangaswamy, & Wub, 2000; Gehrt & Yan, 2004; Hornik, 1982; Jacoby, Szybillo, & Berning, 1976; Kenhove, Wulf, & Waterschoot, 1999; Lavin, 2002; Mattson, 1982; Volle, 2001; White & Wingfield, 2002), promotion elasticity (Burke, Harlam, Kahn, & Lodish, 1992; Narasimhan et al., 1996; Volle, 2001), Internet usage/shopping frequency (Donthu & Garcia, 1999; Gehrt & Yan, 2004; Lynch & Beck, 2001; Miyazaki & Fernandez, 2001; Overby & Lee, 2006)
Product type	Search and experience goods (Chiang & Dholakia, 2003; Darby, Michael, & Karni, 1973; Dinlersoz & Pereira, 2005; Ford et al., 1988; Gehrt & Yan, 2004; Nelson, 1970, 1976, 1981, 1974; Norton & Norton, 1988; Park & Lee, 2008; Phau & Poon, 2000; S. J. Tan, 1999), familiar goods (Beldonaa, Morrisonb, & O'Leary, 2005; Park, Lyer, & Smith, 1989), mediating effects of product type on eWOM (Bone, 1995; Park & Lee, 2008; Sundaram & Webster, 1999), mediating effects of product type on E-tailer's reputation (Jain & Posavac, 2001; Park & Lee, 2008), goods with variable quality (Darley & Lim, 1993; Figueuredo, 2000; Varadarajan & Yadav, 2002)
E-retailer type	Click only vs. Brick-and-Click Vendor (Constantinides, 2004; Doolin, McLeod, McQueen, & Watton, 2003; Goersch, 2002; Kumar & Venkatesan, 2005; Lee & Huddleston, 2006; Schoenbachler & Gordon, 2002)
Task definition	Utilitarian vs. hedonic (Martínez-López, Huertas, & Martínez, 2006; Overby & Lee, 2006; Shun & Yunjie, 2006), goal directed vs. experiential behaviours (Balabanis & Reynolds, 2001; Bhuian, 2001; Gehrt & Yan, 2004; Hammond, McWilliam, & Narholz, 1998; Hoffman & Novak, 1996, 1997; Michael, 2006; Novak, Hoffman, & Yung, 2000; Rohm & Swaminathan, 2004; Rosen & Howard, 2000; Wolfinbarger & Gilly, 2001)
Physical context	Competitive setting (Sturdivant, 1970), Geographic setting (A. Bhattacherjee, 2001a; Lynch & Beck, 2001)

Time pressure is another temporal factor that has great impact on online consumer behaviour (Degeratu et al., 2000). This is likely because consumers may encounter purchase risks when making decisions under time scarcity condition (Jacoby et al., 1976). For example, couples who have high opportunity cost of time, due to the availability of overtime work opportunities, are more likely to shop online, and are also more likely to be less price sensitive than others with the same observable

demographics (e.g., income). Furthermore, time budget for shopping has been widely reported to have mediating effect on consumers' choice of store format (Kenhove et al., 1999; Mattson, 1982). In the offline market, Mattson & Dubinsky (1987) identify that mass merchandisers and discount stores (versus department stores) are more likely consumers' first and subsequent choice of visits when they are time pressured than not time pressured. According to Gehrt & Yan (2004), online merchants' characteristics have significant relationship with consumers' time budget for shopping. For instance, when shoppers have ample time, the E-merchant's personality (such as user friendly, well designed, informative, and complete with name brand merchandise) is significant whereas when shoppers have less time, the merchandise factors on the Website (easy to find, quality, unique, large selection, immediate availability) and the transaction service factors (easy to order, 24 hour accessibility, ability to experience merchandise, security and privacy, several options for payment, reliable shipping) are critical.

Store level promotion is the third temporal context that affects consumer behaviour. This is because price should be a situational factor rather than one of the product lasting characteristics when it varies across purchase occasions (Degeratu et al., 2000). Contrasting the purchase behaviour of the same group of 18 consumers in two shopping environment: traditional supermarket and simulated online store, Burke et al. (1992) find no significant differences in the effects of promotions when the online store presented promotion information graphically in a manner that resembled promotions in the regular store. Conventional wisdom suggests that store promotions that demonstrate cutting prices of a number of product portfolios often generate short term effects (such as achieving a higher penetration rate in the market area, an increase in the frequency of visits, and/or an increase in the average amount spent in the store). Unfortunately, many studies have found that the impact of sales promotions on traffic is ambiguous. Indeed, the studies reported by Walters and Rinne (1986) and Walters (1988) show little impact of advertised promotions on store traffic. Mulhern and Leone (1990) demonstrate that a change from ''many products/low discounts'' to ''a few products/deep discounts'' only bring significant sales increase rather than store traffic. Finally Volle (2001) identifies the effect of store-level promotions on store choice probabilities is weak. This could happen because of two reasons. First, the time unit (monthly) applied in this study may have created dynamic effects of store-level promotional variables (radio and out-door advertising) on store choice. Second, the five chosen competing stores vary in terms of sizes and locations which have moderated the influences of promotion on store choice.

Frequency of Internet usage or online shopping is the fourth factor classified into the temporal context group. In general, the more often individuals spend time online, the more purchasing activity for both low and high risk consumer products they commit to (Donthu & Garcia, 1999; Lynch & Beck, 2001). This is because light Internet users hold less favourable attitudes toward the Internet; are less certain as to how they should shop on the site; are more wary of web stores they shopped; are less committed to return to those websites to make purchases while heavy users only differed in the favourableness of their Internet attitudes (Lynch & Beck, 2001). Furthermore, online shopping frequency mediates hedonic and utilitarian values on the website. In particular, while infrequent shoppers are tagged to hedonic attributes, frequent shoppers are more influenced by utilitarian attributes. For instance, experienced shoppers may be less likely to evaluate the ecommerce website based on visual appeals and functional features. Instead, they focus on those attributes that facilitate their shopping task and payment (Gehrt, Ingram, & Howe, 1991; Overby & Lee, 2006).

3.2.2.1.2.2 Product type

Prior research has described product type as a situational factor (Gehrt et al., 1991; Laband, 1991; Stoltman, Gentry, Anglin, & Burns, 1990) that significantly affects online consumer behaviours (Beldonaa et al., 2005; Chiang & Dholakia, 2003a).

De Figueuredo (2000) has classified products in the ecommerce market into four categories: commodity products (e.g., Oil, paperclips), quasi-commodity products (e.g., books, CDs), look-and-feel goods (e.g., suits, homes), and look-and-feel goods with variable quality (e.g., second-hand cars, antique). He also points out that it is difficult to judge the quality of look-and-feel goods from afar. Nelson (1970; 1976; 1981; 1974), Tan (1999), and Gehrt & Yan (2004) define the first two product categories as "search products" and the others as "experience goods". Search goods involve those characteristics that consumer can easily obtain information about before making purchase. In contrast, experience goods involve those characteristics that are too difficult or costly for consumers to obtain the total information about until they purchase and use the product. Experience goods are normally considered to represent high involvement purchase situations, and it seems most likely that customers use the Web as an information source rather than as a purchase point for these types of good. Furthermore, there are some attributes of experience goods that consumers cannot verify

even after use (Darby et al., 1973), due to their varying expertise (Ford et al., 1988). Whethere a product is an experience or search type also depends on the quality. For instance, a normal car can be a search good as it's easy and cheap to obtain non-sensory attributes (Internet) and sensory attributes (friends, car park). However, a very expensive car such as Ferrari or Lamborghini brand should be considered experience good as it's customised per order.

The study by Chiang & Dholakia (2003) reveals that consumers have tendency to choose online stores rather than traditional stores when they shop search goods. However, for experience goods, traditional stores are, in general, favoured over online retailers. This is firstly because consumers perceive it riskier for non-store shopping than in-store shopping. In fact, they prefer buying experience goods through channels that provide certainties (Tan, 1999). For instance, clothing and apparel are considered less suitable for buying online in terms of convenience of return, alterations and personal taste (Dinlersoz & Pereira, 2005). Secondly, the high entry barrier of experience goods in the electronic market may be also because a website can only provide for two out of our five senses – sight and sound – which limits the success of physical products on the Net (Phau & Poon, 2000). Finally, the economics of transaction-fulfilment that occur in the electronic market favour those products which are less bulky and command a high price relative to transportation costs (Dinlersoz & Pereira, 2005). Bulky products that have low value/weight ratio become less economic when the transactions are conducted in electronic market. For instance, few people are willing to go online shopping for a table costing $50 which may have a delivery cost of $100!

Although experience goods seem to be less suitable to sell online than offline, there is a great potential for e-merchants of look-and-feel goods with variable quality. This is firstly because it has been reported that clothing and apparel, which are overwhelmingly experience goods, were some of the top selling products during the 2004 holiday season (McGann, 2004). Secondly, this product category (e.g., antique cars, paintings and refurbished laptops) tends to have undesirable properties for both buyers (not a great deal of choice) and sellers (cannot locate buyers); electronic markets, due to their effectiveness, can bring buyers and sellers together (Varadarajan & Yadav, 2002). Furthermore, branded look-and-feel goods with variable quality which have standardized features (size, technical indexes, and colour) could be evaluated with ease

and easy for customers to come back for repurchases (Figueuredo, 2000; Varadarajan & Yadav, 2002). Finally, adding the attributes for search goods to the experience goods could stimulate online purchases (Chiang & Dholakia, 2003).

Product categories and characteristics may have great impact on the effect of WOM on consumer behaviour (Sundaram & Webster, 1999) and social presence on the website (Hassanein & Head, 2006). Bone (1995) suggests that the influence of WOM varies depending on different purchase situations. In particular, the value of available information for the purposes of analysis increases along the search-experience product continuum. For this reason, when looking to buy experience goods, online consumers have greater tendency to refer to eWOM information (online reviews, emails etc.) than when they look for search goods. The eWOM effect on experience goods is therefore greater than on search goods (Park & Lee, 2008). In an empirical study that compare the impact of different product types (apparel vs. headphones) on the effects of infusing social presence in the website interface, Hassanein and Head (2006) identified that the variance of social presence effects on these shoppers' attitude depend on the product being sold online. Particularly, Websites selling apparel benefit from higher levels of social presence. On the other hand, Websites selling headphones do not exhibit a positive effect from higher levels of social presence.

Jain & Posavac (2001) and Park & Lee (2008) have identified that the effect of e-retailer's reputation on consumer purchase decisions is greatly moderated by the product category. They argue that consumers tend to view a well known website as the highly credible source of information. Therefore, compared to little well known websites, the effect of reputable websites on consumer decision is greater for experience goods than for search goods.

Consumer evaluations of an ecommerce website also vary depending on what type of products they are pursuing. Based on the telephone survey of travel products and services on 2306 respondents in US and Canada, Beldonaa, Morrisonb and Leary (2005) suggest that for well established brands or products within established sectors (such as flights and car rentals), online consumers weigh higher value on the transactional attributes (reward points, familiarity and price); whereas they pay higher attention to the informational attributes (ease of use, information detail and availability) when buying the products they are not familiar with or the products that involve higher perceived

risks and less control (such as accommodations, tours, attractions, activities and events). It should be noted that the perceived complexity or familiarity of a product depends on the level of experience consumers have with online shopping. Repeat buyers need stronger stimuli (such as detailed information) compared to earlier stimuli (e.g., availability) in this case that played a persuading role (Park et al., 1989).

3.2.2.1.2.3 E-retailer type

Doolin et al. (2003) suggest that existing retailers should consider the following generic strategies before moving online: (1) use the Internet to support the existing traditional channels; (2) establish a separate channel for online order requests; (3) integrate the Internet channel into the existing traditional channels so that customers are able to switch their channel choices; (4) move to Internet-only channels as the online business grows significantly or the industry changes. Though quite a number of businesses choose the last strategy and greatly succeed (e.g., Amazon.com, ProFlowers, FTD), multi-channel retailing based on the other three strategies has been still a popular e-business model (Dennis, Harris, & Sandhu, 2002; Sharma & Sheth, 2004). In fact, compared to online start-ups and unknown pure Internet retailers, companies with well-established reputation such as Wal-Mart, Kmart usually have more competitive advantages when going online. Reputation, local store presence, exchange facilities, and availability of channel crossing make those multi-channel firms (brick-and-clicks) easier for customers to trust them online (Hoffman et al., 1999; Lee & Huddleston, 2006; Min & Wolfinbarger, 2005; Nataraj & Lee, 2002; Schoenbachler & Gordon, 2002).

3.2.2.1.2.4 Task definition

In traditional retail settings, shopping orientation has been widely reported to have great impact on consumer behaviour (Hirschman and Holbrook, 1982). For instance, personal shoppers (compared to gift shoppers) prefer rich personality retailer (Gehrt et al., 1991); have greater tendency to visit department store (Mattson, 1982), to set price before visiting the store (Ryans, 1977), to spend less time in decision making (Heeler, Francis, Okechuku, & Reid, 1979). It's been also found that online shopping motivation affects the Web visitors' benefit expectations and shopping behaviour (Hoffman et al., 1996).

Researchers that focus on consumer behaviour in the ecommerce market have identified two broad shopping orientations: goal directed vs. experiential behaviours. In general, goal directed online consumers look for specific shopping tasks while the experiential group pursue new and pleasant shopping experiences (Hammond et al., 1998; Hoffman & Novak, 1997; T. Novak et al., 2000; Wolfinbarger & Gilly, 2001). Some of the most frequently mentioned benefits goal directed online consumers often look for are convenience, easy access to the existing products or services, time and money savings (Balabanis & Reynolds, 2001; Bhuian, 2001; Rohm & Swaminathan, 2004; Rosen & Howard, 2000). In contrast, the focus group studies of Wolfinbarger and Gilly (2001) identify those dimensions defining online experiential consumers are: surprise, uniqueness, excitement, positive sociality, online deal searching and involvement with a product class.

Thus, consumers who use the web to solve certain decision problem (goal directed) are driven by utilitarian motivations while consumers who aim to look for pleasant and funny online shopping experiences (experiential behaviours) are driven by non functional or hedonic motivations. Utilitarian value is described as the trade off between consumer functional benefits and what they spend (time, money for example); online consumers often look for utilitarian values (price, service, and product) to complete a specific shopping task (Hoffman & Novak, 1997). Hedonic value is defined as an overall assessment (i.e., judgment) of experiential benefits and sacrifices, such as entertainment and escapism; online shoppers who look for hedonic benefits to obtain experience rather than to complete a shopping task (Babin, Darden, & Griffin, 1994). Thus, consumers with utilitarian motivations have higher tendency than the others with experiential motivations to make purchases on the website.

Furthermore, hedonic vs. utilitarian motivations also meditate how consumers navigate on the website (Martínez-López et al., 2006; Overby & Lee, 2006). Although a consumer may be simultaneously driven by utilitarian and hedonic consumption motivations at the same time, there should be a dominant motivation during the navigation process because of the differences in the intensity of initial motivations. More particularly, the navigation process of the consumer driven by hedonic motivations is goal-directed. In contrast, the navigation process of the consumer driven by utilitarian motivations is predominantly experiential.

3.2.2.1.2.5 Physical context

Internet technology has spawned a world culture by removing geographic barrier and interconnecting local cultures. Gehrt and Yan (2004) argue that demographics are generally weak indicators of online consumer behaviour because the online population has been changing and becoming closer to general population which make online users profiles more complicated. However, Sinha (1994) argue that whether the situational influence level is high or low also depend on the normative dimension in which the individual behaviour pattern meets the social popularity and cultural expectations. In light with Sinha (1994), Lynch & Beck (2001) argue that even though Internet buyers may share commonalities in gender, occupation, and income, a typical segment of global online consumer appears unlikely to exist. Their survey of 515 people from twenty countries in three regions (North America, Western Europe, and Asia) show several key differences between North American and Asian consumers. While the former group have less fear for Internet shopping and highest probability to return to the websites for purchases, those Asian consumers have the highest risk perception toward online shopping and low commitment to return to the sites for purchases. Similarly, Weathers and Makienko (2006) find that e-retailers with a national presence are more likely to be successful than those with a lesser presence.

As an agglomeration of the above ecological factors (such as time, place, social setting, and task objectives), a situation may by itself – or in conjunction with the effects of individual (attitude and knowledge) and brand characteristics (marketing mix variables) – affects consumer purchase decisions (Belk, 1975; Mowen, 1990). In general, a situation, according to Bowers (1973), accounts for an important portion (4 to 43 percent) of total behavioural variance in this sort of purchase environment.

3.2.2.1.2.6 Relevance to the current study

Given the nature of situational effects on consumer behaviour, the experimental design in this study is conducted while the situational attributes are held consistent across the four different scenarios. In particular, all subjects in the survey live in Ho Chi Minh City (physical context); the subjects are instructed to purchase a MP3 player (product type) as a birthday gift (task definition) on a simulated click-only vendor website (e-retailer type); the purchase has to be made today (temporal context).

3.2.2.1.2 Subjects

The researcher has chosen Viet Nam to collect data because of the following reasons. Firstly, with 20.2 million Internet users and over 30% of enterprises having websites, the ecommerce market in Viet Nam, particularly in Ho Chi Minh City has emerged and blossomed for the past five years (OnePay, 2008). E-markets have been the one of the most favourite shopping places for online customers in Viet Nam. For instance, 5giay.vn has up to 1.5 million page-views per day (Huy Mai, 2008). Since 27th June 2007, eBay has established its localized website in Viet Nam (www.ebay.vn) (Nguyễn, 2007). OnePay has been well known as a reliable online merchant payment solution among many online enterprises in Viet Nam such as chodientu.vn, Saigontourist, Jetstar Pacific, Vietravel, Ivivu Tour, FPT Online (OnePay, 2008). The introduction of the first electronic payment gateway in South East Asia via nganluong.vn by the joint venture eBay - Chợ ĐiệnTử in April 27th 2009 (Giang, 2009) has eliminated the last barrier against the ecommerce businesses in Viet Nam for so many years. The successful brick-and-click business model of thegioididong.com, which achieves on average over 60,000 sold items or USD 7 million turnovers per month (thegioididong.com, 2007), inspires many e-retailers in Viet Nam. Secondly, it appears during the course of this study that few research or empirical studies on E-commerce issues in Viet Nam have been reported. Finally, the survey was conducted in Ho Chi Minh City, where the general population is quite familiar with experimental and survey techniques. A.C. Nielsen has been established and practicing such research in the City since 2001 (A. C. Nielsen, 2010).

Many empirical studies of online consumer behaviour have used undergraduate or graduate students as their sampling subjects (Bridges & Florsheim, 2008; Elliot & Speck, 2005; Gefen et al., 2003; Jarvenpaa et al., 2000; Lee & Huddleston, 2006). The concern for generalizability is valid if the research issues are not directly relevant to the students (Gopal, Bostrom, & Chin, 1992-1993). Although previous studies often involve a screening process to ensure students in their study associate with Internet purchases, the samples are still viewed with great suspicion regarding respondents' self reported online shopping experience. Furthermore, the study may contain great sampling bias if we assume students are relevant subjects as they at least have variety of online experiences. Students may only be active and experienced users of emails or social networks such as facebook.com, youtube.com, myspace.com rather than online

shoppers. Last but not least, it could be argued that students should be asked to project themselves into an artificial role to complete the survey questionnaire. Unfortunately, this leads to the sensible restraint in recommending strategic interventions where a real purchase, not an imaginary behaviour, is the ultimate expected outcome to an online vendor. Thus, there is less concern for the generalizability of the results if respondents are consumers involved in actual B2C online market.

Respondents of this research study are drawn from the users of two of the biggest e-markets in Viet Nam (123mua.com.vn, 5giay.vn) based on the page view statistics. It is reasonable to expect that the respondents have visited or purchased from some online vendors.

3.2.2.1.3 Instrument development

The survey instrument includes a questionnaire, three synthetic websites, and an online database. The survey questionnaire, which is established and confirmed in step 3, has been-back translated (see Appendix 2). Specifically, the researcher firstly translated the original English-language survey questionnaire (SQ1) into Vietnamese (SQ2); next, a professional translator translated SQ2 back into English (SQ3); finally, the two English versions, SQ1 and SQ3 are inspected for congruence.

Figure 9

Researcher's Personal Website

The researcher's personal website (Figure 9 above) and two synthetic ecommerce websites (Figures 10 & 11 below) combined with two social influence scenarios (see Appendix 1) provide the four experimental conditions developed for data collection purpose. The imaginary names davidaut01.com, davidaut02.com, davidaut03.com, davidaut04.com, davidaut05.com have been given to the websites respectively. The domains and web pages, which are accessible to the general public, are registered and hosted at www.ipower.com. The researcher's website includes information about the research and a consent form. The synthetic ecommerce websites, which have manipulated features as discussed earlier, are adopted and modified from an actual ecommerce website in Viet Nam (www.vienthonga.com).

This website has been chosen for two reasons. First, the website includes most of the trust-inducing website characteristics recommended by the literature (see Table 12 above). This, in turn, has saved the researcher a tremendous amount of time and effort in designing the research instrument. Second, the website manager acceded to the researcher's request to provide a duplicated version of www.vienthonga.com for the purpose of this study in return for information about the study results. Each synthetic ecommerce website has an introductory page, a simulated online store, and a survey questionnaire. The introductory page presents information about the scenario and instruction on how to complete the survey. The same survey questionnaire is included in every synthetic ecommerce website.

Information on each completed questionnaire is exported to a database. The database, which is hosted on the same server as the synthetic websites, is designed to be compatible with an MS Excel spread sheet. Each field of the database represents one item of the questionnaire. Once a completed questionnaire is sent to the database, information provided for each item of the questionnaire is automatically input in the appropriate field of the database.
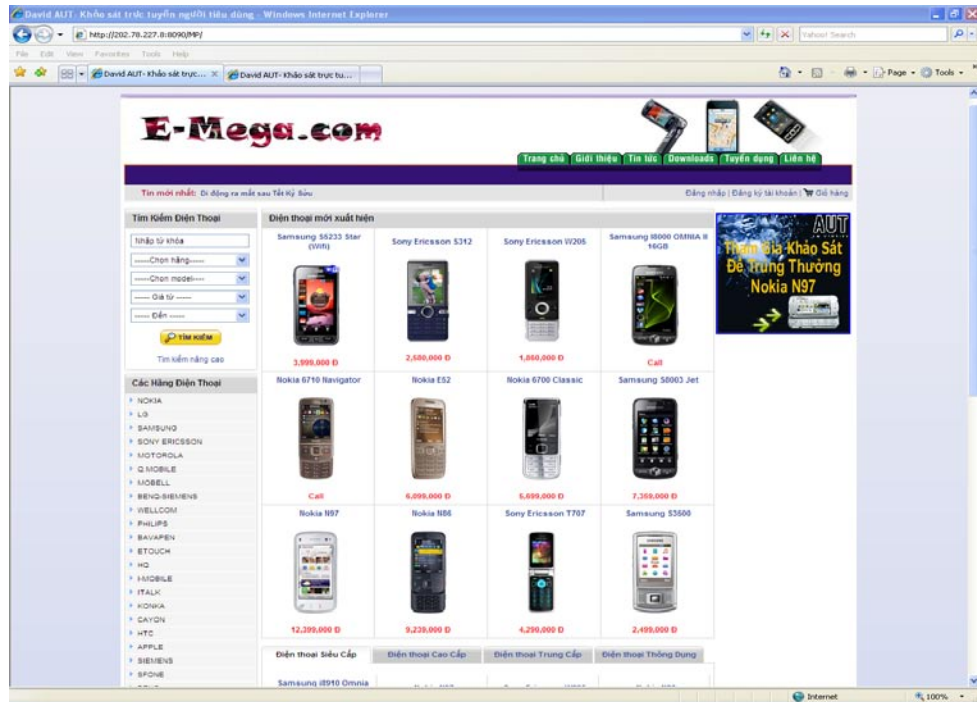
Figure 10

Poor web interface quality

Figure 11

Good web interface quality

3.2.2.2 Step 5, Data collection

A website-based survey questionnaire adapted from items in Table 19 above was used to collect data in step 5. An advertisement (see Appendix 4) was produced on the two most visited e-markets in Viet Nam (123mua.com.vn, 5giay.vn) from 12/08/09 to 12/09/09 to recruit research subjects, as discussed. The subjects were offered incentives in the form of two brand new Apple iPhones to be raffled among the participants and a report that summarises the result of the survey. This incentive is considered sufficient to motivate a response yet not so excessive as to induce false applications.

The respondents who wanted to take part in the research study followed the URL link provided in the advertisement. This link directed the respondents to the first synthetic website www.davidaut01.com. On this website, the respondents were introduced to the research background (such as the research topic, the researcher's profile, the randomly drawn awards) and instructed to read a consent form (see Appendix 3). As the respondents clicked on an "I agree" button at the bottom of the consent form, they were randomly directed to one of the four synthetic ecommerce websites (david02aut.com, davidaut03.com, davidaut04.com, davidaut05.com). On the introductory page of the website, the respondents were given the purchase scenarios (see Appendix 1) and instructed to perform two tasks: browse the simulated online store for about 20 minutes and click on a particular icon on this page to fill out a questionnaire (see Appendix 2) describing their experiences. The draw number was only provided after the respondents had completed all the items and clicked the "send" button at the bottom of the questionnaire. The respondents were notified to do a field check in case they clicked the "send" button while still missing some items. The completed questionnaire was sent directly to the database for analysis.

3.3 Conclusion

Chapter 3 has discussed the critical issues that have existed in the scale development and survey design of prior research on online consumer behaviour. An alternative paradigm including eight steps for developing the scales measuring the proposed CBM theoretical constructs was suggested out of this discussion. Through the first three steps of the proposed paradigm, (operational definition, domain specification, and scale formation), a survey questionnaire relevant to the current study (shown in Table 19

above) was developed. Relevant methodological issues (such as data collection method, subjects, instrument) as well as situational control, an important research design issue most prior research on online consumer behaviour have missed, were then respectively demonstrated in step 4, survey design. Data was finally collected based on the data collection procedure and incentive items for respondent recruitment in Step 5 (data collection).

Chapter 4 Data analysis

4.1 Introduction

Chapter 4 continues explaining those steps 6 to 8 of the proposed research method paradigm (Figure 7) with reference to the two methodological issues (Table 14 above) that has not been addressed thus far: analytical techniques and analysis software package. This chapter firstly demonstrates step 6 by reviewing the data collected in step 5 and eliminates incomplete and inappropriate answers. Some descriptive information is also presented in this step. Next, using data obtained from step 6, step 7 is demonstrated through the performance of item analysis based on different attribute natures. Finally, relevant analytical techniques to test the theoretical constructs of the proposed conversion behaviour model are proposed out of the discussion of step 8.

4.2 Scale refinement and purification

4.2.1 Step 6, clean data

The purpose of step 6 is to review the data collected in step 5 to remove obvious errors and produce some fundamental descriptive statistics from the data. The website-based survey generated 326 responses. After carefully checking the responses for completeness, 252 responses were retained for the quantitative assessment of scales. Removing 74 responses in this way seems extreme. However, each of these respondents had used a single scale score for every question; usually either a "4" or a "7." On reflection, it seems highly probable that the prize offered for participation was too great an inducement, so that these 74 respondents made merely token responses in order to be included in the prize draw. There were an unequal numbers of retained responses among the four manipulated scenarios. In particular, 67 responses came from the "high social influence/low website quality" scenario (HS-LW); 71 responses came from the high social influence/high website quality scenario (HS-HW); 65 responses came from the low social influence/low website quality scenario (LS-LW); 49 responses came from the low social influence/high website quality scenario (LS-HW). Therefore, in order to produce compatible statistics among the four scenarios, 49 responses were randomly selected from each scenario other than (LS-HW). The descriptive comparison, however, is only suggestive rather than conclusive due to insufficient data for split run tests in this

case. Table 21 below displays means, medians, modes, minimums, and maximums of the answer to the items of purchase intention, trust, and perceived risk. Adapted from this table, Figure 12 below shows respondents' preferences and perception among the different manipulated scenarios. Respondents' extreme evaluation on preferences among the four scenarios has been also presented in Table 22 below.

Table 46

Item indexes on purchase intention, trust, and perceived risk among the four manipulated scenarios

Attribute	Statistics	HS-LW	HS-HW	LS-LW	LS-HW
Purchase intention	Mean	5.12	5.40	4.70	4.74
	Median	5.00	6.00	5.00	5.00
	Mode	5	5(a)	6	4
	Minimum	1	2	1	1
	Maximum	7	7	7	7
Trust	Mean	5.40	5.58	5.56	5.32
	Median	5.50	5.75	5.50	5.50
	Mode	5.00(a)	5.75	5.50	6.25
	Minimum	3.50	2.75	4.00	1.75
	Maximum	7.00	7.00	7.00	6.75
Perceived risk	Mean	3.25	3.00	3.13	3.34
	Median	3.33	2.66	3.33	3.66
	Mode	3.00	3.00	2.33	3.67
	Minimum	1.00	1.00	1.00	1.00
	Maximum	6.33	6.00	6.33	6.33

a Multiple modes exist. The smallest value is shown

Figure 12

Average scores on the purchase intention, trust, and perceived risk – four manipulated scenarios
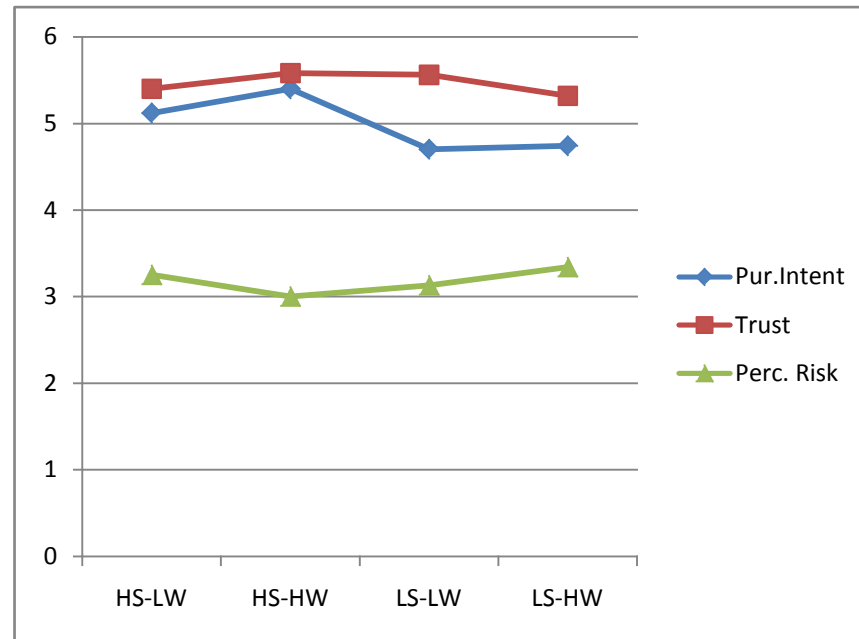
Table 47

Percentage of people who could most likely buy the product across four manipulated scenarios

Scenario	Highest purchase intention (%)	Lowest purchase intention (%)	Difference (%)
HS-LW	23.3	2.3	21
HS-HW	20.9	4.7	16.2
LS-LW	14	14	0
LS-HW	14	2.3	11.7

4.2.2 Step 7, scale purification

Using the data obtained in step 5, step 7 is to purify the measure that generates maximum internal consistency. In other words, this step involves conducting item analysis and principle component factor analysis to select the items that are strongly correlated with the measure as a whole and with the attribute that they are hypothesized to belong to. However, as Law, Wong, and Mobley (1998) and Rossiter (2002) argue, the required unidimensionality of the multiple items of an attribute scale varies depending on that attribute type. Eliciting attributes comprise items from a single

unidimensional scale and thus the item scores need to be highly correlated (indicated by a coefficient alpha of 0.8 or higher). In contrast to eliciting attributes, formed attributes comprise items from subscales of multidimensional scales and thus the item scores only need to be positively correlated but not highly correlated.

As discussed previously in the domain specification section, trust and perceived risk in this study are the first order eliciting attributes. The unidimensionality of the items measuring trust and perceived risk is estimated by simply going straight to the computation of coefficient alpha, one of the most widely used internal consistency measure (Churchill, 1979; Cronbach, 1970). Candidate items for elimination are those that (1) fail to correlate strongly with the other items in the same construct are eliminated (Tian, Bearden, & Hunter, 2001), (2) are not correlated more strongly with the attribute to which they are hypothesized to belong than with the remaining attribute are also deleted (Bearden, Richard, & Teel, 1989). In addition, items that reduce the internal reliability (low item-total correlations) are also deleted. Next, a principle component factor analysis (PCA), using oblique promax rotation with the scree test criterion, is applied on all the items measuring trust and perceived risk. In light of recommendations by leading studies (Robert, Browne, & Sugawara, 1996; Nunnally & Bernstein, 1994), items with factor loadings of less than 0.40, cross-loadings of greater than 0.40, and communalities of less than 0.30 are dropped from the scale.

On the other hand, perceived social acceptance, and the components of perceived web interface quality (evaluations of the website attributes such as ease of use, transaction support, privacy, security, graphic design, information content, and e-retailer credibility) are formed attributes. Each of the formed attributes is composed of concrete components, which are not unidimensional; each component is measured by one item (see Table 18 above). The components, and thus item scores, are expected not to have strong correlations (indicated by low coefficient alpha) (Rossiter, 2002). Only an item analysis is performed on the responses to the items measuring each website attribute evaluations.

The inspection of item correlations (see Table 23 below) and factor loadings (see Table 24 below) show that no items should be eliminated. The resulting scales show acceptable reliability, with coefficient alphas of 0.80 or 0.81 for trust and perceived risk, and from 0.49 to 0.68 for the seven website attribute evaluations.

Table 48

Scale reliability (N=252)

| Attribute	Type	Components	Items	α
Trust	Eliciting	n/a	T1	.81
			T2	
			T3	
			T4	
Perceived risk	Eliciting	n/a	PR1	.80
			PR2	
			PR3	
Perceived social acceptance	Formed	Pass-along messages	SI1	.51
		Virtual communities	SI2	
		Offline peer recommendations	SI3	
Ease of use	Formed	Easy to use overall (Com 1)	EOU1	.55
		Simple and consistent design (Com 2)	EOU3	
		Easy to find desired information (Com 3)	EOU4	
Transaction support	Formed	Clear explanation of order system (Com 4)	TS1	.56
		Live help with text chat/voice chat (Com 5)	TS2	
Privacy	Formed	Provide business policies on disclosure of personal information (Com 6)	P3	.49
		Provide clear privacy policy on the home page (Com 7)	P4	
Security	Formed	Provide member login ID and password (Com 8)	S1	.49
		Credit card information protection guaranteed by a well known third party (Com 9)	S2	
Graphic design	Formed	Proper use of multi- media (Com 10)	GD1	.68
		Nice colour layout (Com 11)	GD3	
		Large size image (Com 12)	GD4	
Information content	Formed	The website is regularly updated (Com 13)	IC1	.69
		The vendor provides exhaustive information about what customers want to know on the website (Com 14)	IC2	
		Accuracy of content (Com 15)	IC3	
		The language is easy to follow (Com 16)	IC4	
E-retailer credibility	Formed	References or testimonials of existing customers on the website (Com 17)	EC1	.61
		Descriptions of company competence (Com 18)	EC4	

Table 49

Rotated component matrix and communalities

Item	Component		Communalities	
	1	2	Initial	Extraction
PR1	.13	.82	1	.69
T3	.77	.25	1	.66
T2	.78	.09	1	.61
T4	.81	.06	1	.66
PR2	.05	.83	1	.70
PR3	.24	.72	1	.57
T1	.77	.18	1	.63

4.3 Scale validation: step 8, test for the validity of causal structure

Based on the item analysis results, 28 indicator items have been used to measure the hypothesized structural model (see Figure 5 above). The full structural model is schematically presented in Figure 13. As seen in Figure 13, the C-OAR-SE based scale, while solving the content validity issue in the traditional scale development, generates an excessive number of indicators. Theoretically, using principal components factor analysis or confirmatory factor analysis (CFA) to remove any component under the formed attribute (perceived web interface quality in this case) may distort the construct itself (Diamantopoulos & Winklhofer, 2001). On the other hand, practically, although the researcher has successfully managed to meet the data collection demand that the scale imposed, the great number of indicators increases the number of parameters which make the structural model too complicated for some covariance structure analysis packages (e.g., AMOS in this study) to handle (Diamantopoulos & Winklhofer, 2001; Law & Wong, 1999). However, the literature is unclear as to exactly how to balance these two problems. Based on the scale enumeration rules (Law et al., 1998; Rossiter, 2002), this study uses the same data-set to perform and compare two methods available in the literature, test for mediation (Baron & Kenny, 1986) and structural equation model (Byrne, 2001; Law & Wong, 1999), to validate the scale and evaluate the hypothesized structural model.
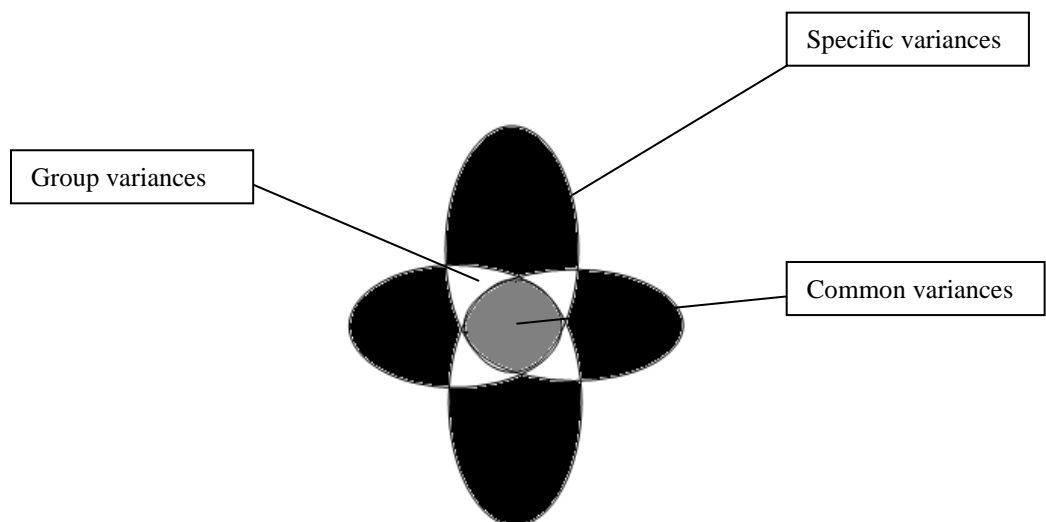
Figure 13

Hypothesized conversion behaviour model: measurement and structural components
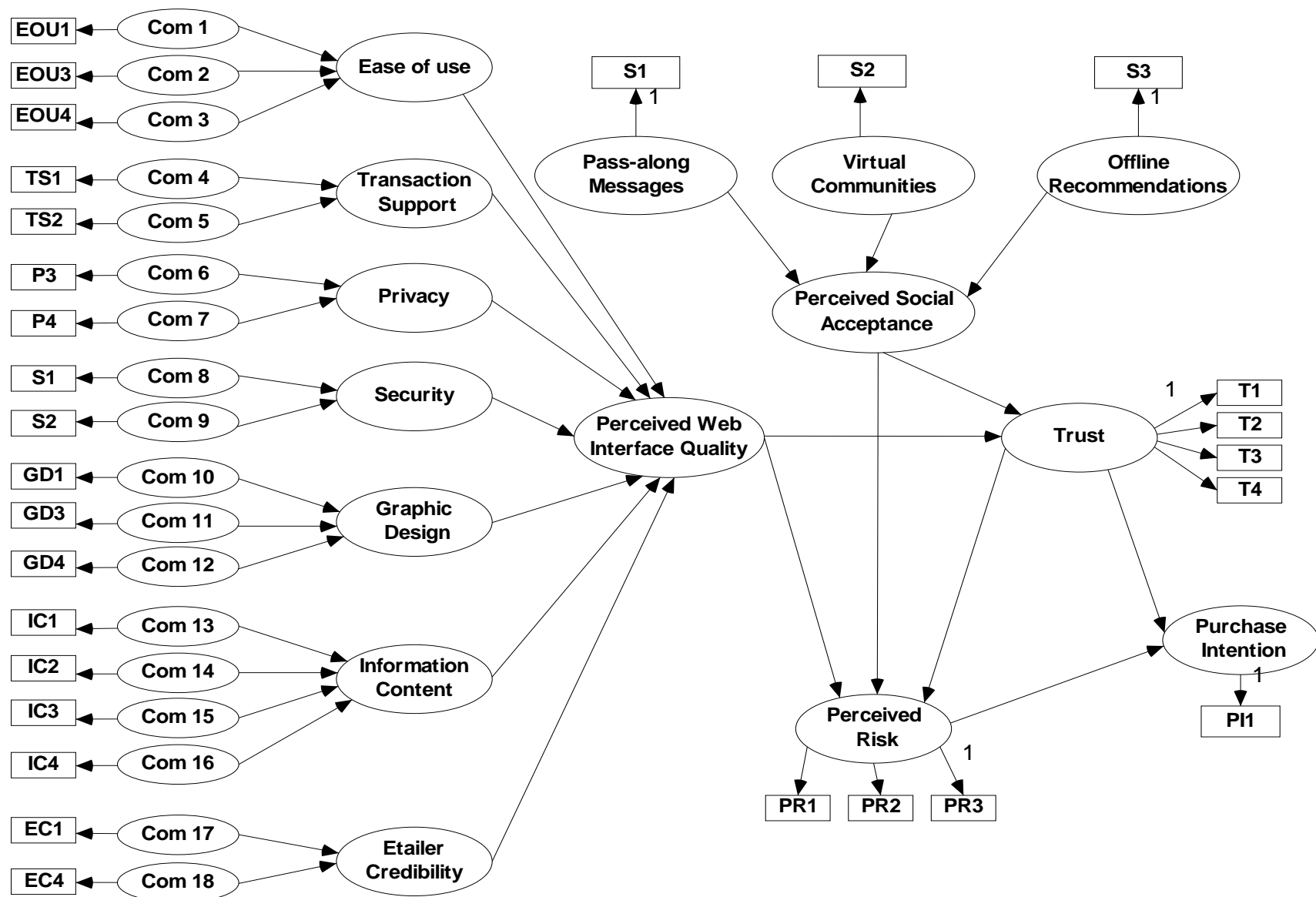
4.3.1 Test for mediation

The scale enumeration rules Rossiter (2002) suggests involve combination rule for formed attributes and averaging rule for eliciting attributes. For the formed attributes in the model, each is an algebraic composite formed by the dimensions (Law et al., 1998). The true covariance of these constructs involve common variances (those are share by all the dimensions of the multidimensional construct), specific variances (those are unique to a single dimension), and group variances (those are shared by only some dimensions within a construct) (Law et al., 1998).These partitioned variances, as Nunnally (1978) explains, are illustrated in Figure 14 below. The index for each formed attribute (in this case, perceived web interface quality and perceived social acceptance) is, therefore, the summation of items scores. On the other hand, each eliciting attribute in the model is defined as the commonality among the dimensions (for second order eliciting attributes) under which the items are a sample of interchangeable items (Rossiter, 2002). As a result, only common variances or covariance shared by all the dimensions are the true variances of the constructs. Eliciting attributes in the model, trust and perceived risk, consequently receive averaged item scores (Rossiter, 2002). The next important step is to test the validity of the causal structure hypothesized in the model.

Figure 14

Partitioned variances illustration

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The scale enumeration procedure has reduced the number of indicators within the hypothesized structural model. Specifically, the hypothesized model in Figure 15 below is now not different from the original model (see Figure 3 above – page 46) with two independent variables (perceived web interface quality, perceived social acceptance), a dependent variable (purchase intention), and the mediators (trust and Perceived risk). The purpose of this step is to examine the hypothesized relationships in the model.

It is almost always more reliable to test how strongly the independent variables affect the dependent variable not by correlation coefficients but by unstandardized (not beta) regression coefficients (Duncan, 1975). A series of regression models are estimated here based on the guideline by Baron and Kenny (1986). First, trust is regressed on perceived web interface quality and perceived social acceptance. Second, purchase intention is regressed on web interface quality and perceived social acceptance. Finally, the purchase intention is regressed on trust, web interface quality and perceived social acceptance. A similar three step regression procedure is also conducted to test how perceived risk mediates trust, web interface quality and perceived social acceptance on purchase intention. For a valid mediation to take place, the following conditions must hold: first, the independent variables must have significant influence on the mediator in the first regression model; second, the independent variables must be shown to affect significantly the dependent variable in the second regression step; third, the mediator must affect the dependent variable in the third regression model; finally, the effect of the independent on the dependent variable must be less in the third regression step than the second (Baron & Kenny, 1986). Furthermore, perfect mediation exists in case the independent variable brings no significant effect to the dependent variable when the mediator is controlled (Baron & Kenny, 1986).

Table 25 below summarises the regression models performed to test the hypothesized relationships of the model. The data has confirmed several hypotheses and disconfirmed others. Trust receives significant effect from perceived web interface quality (t = 12.45, p < .01) and perceived social acceptance (t = 3.78, p < .01). Web interface quality has significant indirect effect on purchase intention (t = 8.40, p < .01). Perceived social acceptance exerts no significant effect on purchase intention (t = .90, p > .05). Purchase intention receives less direct effect (t = .03, p < .01, B = .03) than indirect effect (t = 8.40, p < .01, B = .05) from perceived web interface quality. Thus, trust partly mediates

perceived web interface quality on purchase intention and holds perfect mediation from perceived social acceptance to purchase intention.

Table 50

Regression tests for hypothesized relationships in the model

Dependent variable	R^2	Independent variable	B	Std. error	Beta	t	Significant level
Trust	.53	Constant	.85	.40		2.14	.03
		Perceived web interface quality	.06	.00	.62	12.45	.00
		Perceived social acceptance	.08	.02	.18	3.78	.00
Purchase intention	.29	Constant	.24	.52		.45	.65
		Perceived web interface quality	.05	.00	.51	8.40	.00
		Perceived social acceptance	.02	.03	.05	.90	.37
Purchase intention	.34	Constant	-.080	.52		-.15	.88
		Perceived web interface quality	.031	.00	.30	4.05	.00
		Perceived social acceptance	-.00	.03	-.01	-.15	.88
		Perceived risk	.00	.05	.00	.08	.93
		Trust	.361	.082	.33	4.40	.00
Perceived risk	.10	Constant	1.96	.580		3.40	.00
		Trust	.23	.09	.23	2.63	.01
		Perceived web interface quality	.00	.01	.05	.56	.57
		Perceived social acceptance	.04	.03	.01	1.35	.17
Purchase intention	.34	Constant	-.07	.51		-.13	.89
		Trust	.36	.08	.34	4.49	.00
		Perceived web interface quality	.03	.00	.30	4.06	.00
		Perceived social acceptance	-.00	.02	-.01	-.14	.88

Trust has significant influence on perceived risk (t = 2.60, p < .05). However, contrary to expectation, there are insignificant effects from perceived web interface quality (t = .56, p > .05) and perceived social acceptance (t = 1.35, p > .05) to perceived risk. Furthermore, perceived risk has no significant direct influence on purchase intention (t

= .08, p > .05). Therefore, it is unlikely that perceived risk could mediate perceived web interface quality, perceived social acceptance, and trust on purchase intention. Alternatively, because trust has a significant direct effect on purchase intention and mediates perceived website interface quality and perceived social acceptance on purchase intention, the same regression procedure is applied to check whether trust could mediate perceived risk on purchase intention. First, trust is regressed on perceived website interface quality, perceived social acceptance, and perceived risk; second, purchase intention is regressed on perceived website interface quality, perceived social acceptance, and perceived risk; finally, purchase intention is regressed on trust, perceived website interface quality, perceived social acceptance, and perceived risk. These regression model results have been summarised in Table 26 below.

Table 51

Regression tests for alternative model constructs

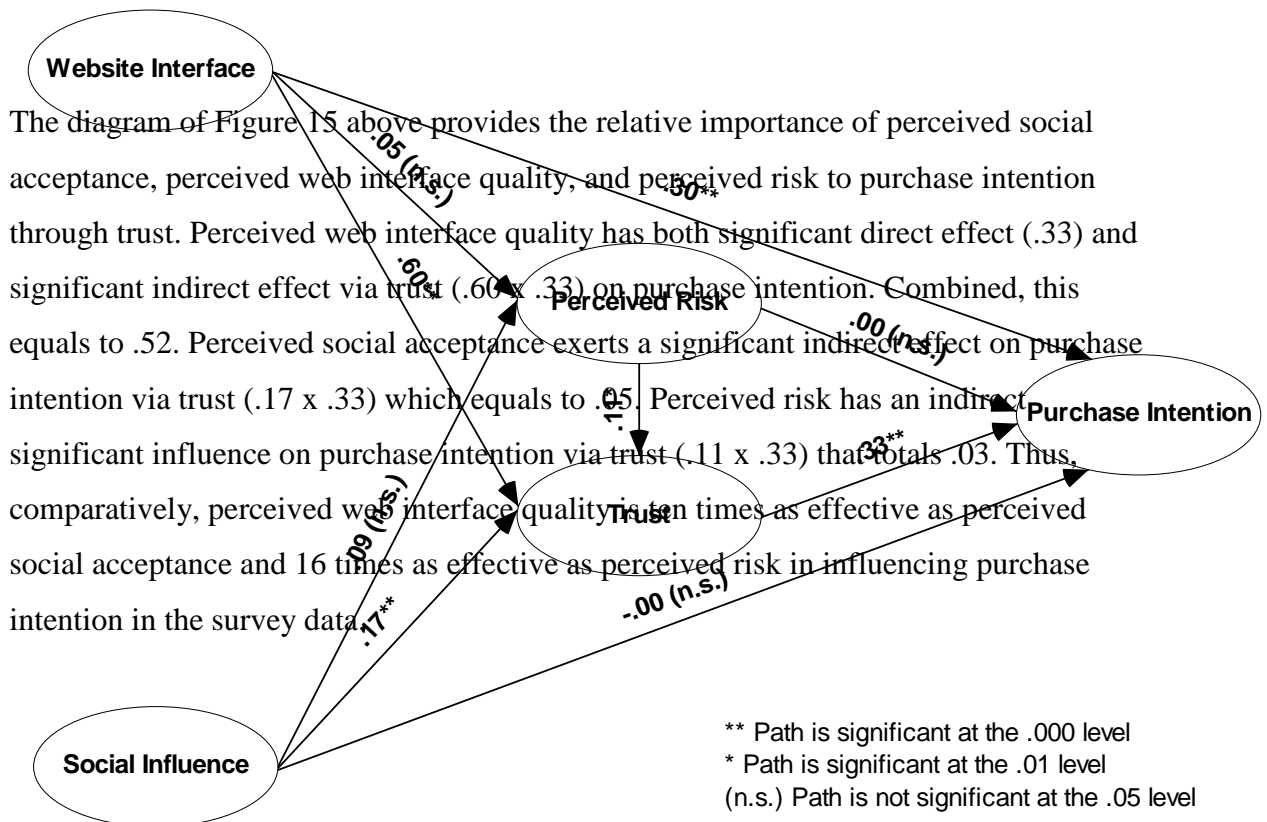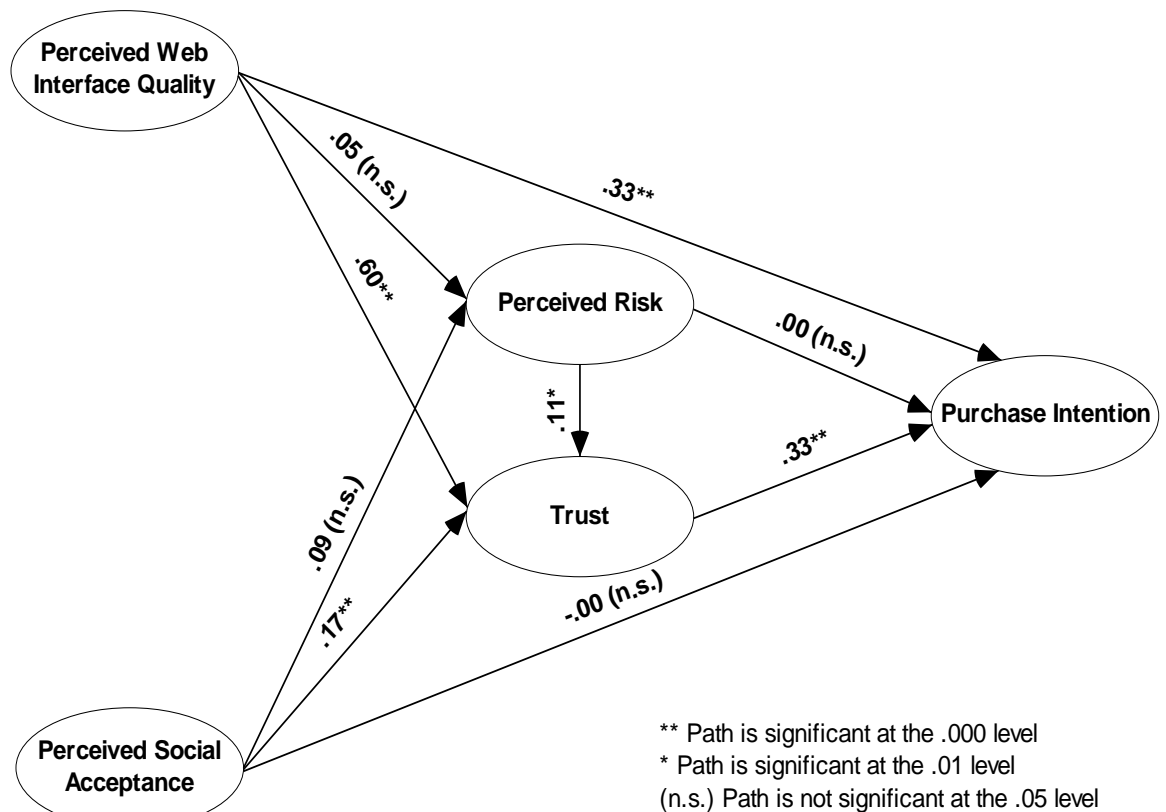| Dependent variable	R^2	Independent variable	B	Std. error	Beta	t	Significant level
Trust	.54	Constant	.61	.40		1.50	.13
		Perceived web interface quality	.05	.00	.60	11.96	.00
		Perceived social acceptance	.07	.02	.17	3.47	.00
		Perceived risk	.11	.04	.11	2.60	.01
Purchase intention	.30	Constant	.14	.54		.26	.79
		Perceived web interface quality	.05	.00	.50	8.13	.00
		Perceived social acceptance	.02	.03	.05	.79	.43
		Perceived risk	.04	.06	.04	.79	.43
Purchase intention	.34	Constant	-.08	.52		-.15	.88
		Perceived web interface quality	.03	.01	.30	4.05	.00
		Perceived social acceptance	-.00	.03	-.01	-.15	.88
		Perceived risk	.00	.05	.00	.08	.93
		Trust	.36	.08	.33	4.40	.00

Information from Table 26 above shows that trust receives a significant effect from perceived web interface quality (t = 11.96, p < .01), perceived social acceptance (t = 3.47, p < .01), and perceived risk (t = 2.60, p < .05). Perceived web interface quality has significant indirect effect on purchase intention (t = 8.40, p < .01). Perceived social

acceptance (t = .79, p > .05) and perceived risk (t = .79, p > .05) exerts no significant effect on purchase intention. Purchase intention receives less direct effect (t = .03, p < .01, B = .03) than indirect effect (t = 8.13, p < .01, B = .05) from perceived web interface quality. Thus, trust partly mediates perceived web interface quality on purchase intention and holds perfect mediation on perceived social acceptance and perceived risk to purchase intention. Table 27 below provides the estimates for the causal relationships in the model based on these regressions. The causal linkages among the variables are schematically specified in the diagram of Figure 15 below.

Table 52

Causal structure estimates and 95% confidence intervals

Causal link		Point estimate			95% Confidence interval	
Independent variable	Dependent variable	Beta	Std. error	Significant level	Lower bound	Upper bound
Perceived web interface quality	Trust	.60	.00	.00	.04	.06
Perceived social acceptance	Trust	.17	.02	.00	.03	.11
Perceived risk	Trust	.11	.04	.01	.02	.19
Perceived web interface quality	Purchase intention	.30	.00	.00	.01	.04
Perceived social acceptance	Purchase intention	-.01	.03	.88	-.06	.05
Perceived risk	Purchase intention	.00	.05	.93	-.10	.11
Trust	Purchase intention	.33	.08	.00	.20	.52
Perceived web interface quality	Perceived risk	.05	.00	.57	-.01	.02
Perceived social acceptance	Perceived risk	.09	.03	.17	-.02	.10

Figure 15

Model validation results - survey

The diagram of Figure 15 above provides the relative importance of perceived social acceptance, perceived web interface quality, and perceived risk to purchase intention through trust. Perceived web interface quality has both significant direct effect (.33) and significant indirect effect via trust (.60 x .33) on purchase intention. Combined, this equals to .52. Perceived social acceptance exerts a significant indirect effect on purchase intention via trust (.17 x .33) which equals to .05. Perceived risk has an indirect significant influence on purchase intention via trust (.11 x .33) that totals .03. Thus, comparatively, perceived web interface quality is ten times as effective as perceived social acceptance and 16 times as effective as perceived risk in influencing purchase intention in the survey data.

4.3.2 Structural equation model (SEM)

As mentioned earlier, the excessive number of indicators makes the hypothesized structural model too complicated for the SEM software packages (AMOS 6.0 in this study) to handle. Although the scale enumeration rules (Rossiter, 2002) could reduce the number of indicators, they bring two critical difficulties to SEM analysis. First, the summation or averaging of item scores that convert multi item attributes into single item attributes make the model unable to be operated within the SEM model (where the multitrait - multimethod matrix requires more than one item per attribute). Second, attributes of the same type in the model may have different hierarchical component structures; this prevents putting all the absolute total item scores on a common scale for comparison. For example, both perceived web interface quality and perceived social acceptance in the proposed model are conceptualized as formed attributes. However, perceived web interface quality is a third-order formed attribute while perceived social acceptance is a second order formed attribute (see Tables 17 & 18 above). The number of combined item scores, therefore, is different between perceived web interface quality and perceived social acceptance; it is unlikely to transform the scores of both attributes to a scale of 0 to 10 as Rossiter (2002) has suggested.

Thus, the major challenge of validating the model using SEM analysis here is to reduce the number of indicators while not distorting the original constructs. In other words, it is to reduce the number of indicators while dismissing the construct validity test (e.g., convergent validity, discriminant validity) or composite factor analysis (Diamantopoulos & Winklhofer, 2001; Rossiter, 2002, 2005). This study suggests two steps to solve the issue. The first step is to average all the items measuring each component of perceived web interface quality (e.g., ease of use, transaction support, privacy, security, graphic design, information content, E-retailer credibility) as a single indicator of the component (James, Mulaik, & Brett, 1982; Law & Wong, 1999). This has not only significantly reduced the number of indicators of perceived web interface quality construct but also balanced the hierarchical component structure between perceived web interface quality and perceived social acceptance; additionally, the original perceived web interface quality construct still remains. The second step is to add another item measuring the concrete attribute, purchase intention. PI4, one of the items measuring purchase intention (see Table 17 above) that has been ranked second after PI1 in Q-sort 02, is added as a result (Figures 16 and 17 below present

schematically the diagram of the adjusted model). Next the proposed structural model is validated, using AMOS 6.0.

Because the primary concern in testing the proposed structural model is to assess the extent to which the latent variables have valid relations, it is critical to test the validity of the measurement model before a full model evaluation (Byrne, 2001). The purpose of this step is therefore twofold. First, confirmatory factory analysis (CFA) procedures are used in testing the validity of the conversion behaviour measurement scale, which includes all the dependent and independent variables. Second, to ensure the usefulness, the causal structure of the proposed model is examined. However, since the formed attribute scales in the current research are not unidimensional (resulted from the use of the C-OAR-SE procedure for scale development), nonnormal distribution of the data is highly expected. Therefore, a normality assessment is initially conducted to check whether the data have a multivariate normal distribution.

4.3.2.1 Data normality check

A normality assessment is firstly conducted to check whether the data have a multivariate normal distribution. Mardia's (1970) normalized estimate of multivariate kurtosis value is found to be 79.47 (see Table 28 below). This significant positive value (in excess of 1.96) provides evidence that the data are definitely multivariate nonnormal. Therefore, in the next step, the CFA procedures are alternatively performed by two common estimate methods recommended in the literature: the bootstrap procedure, using a maximum likelyhood estimation (for an extensive discussion of the bootstrap procedure, readers are referred to Byrne, 2001; Bollen & Long, 1993) and the unweighted least squares method (Raykov & Marcoulides, 2006).

Table 53

Assessment of normality

Variable	min	Max	skew	c.r.	kurtosis	c.r.
PI4	2.000	7.000	-.727	-4.713	-.012	-.040
PI1	1.000	7.000	-.676	-4.382	.127	.412
T1	1.000	7.000	-.530	-3.438	-.193	-.627
T2	1.000	7.000	-.301	-1.948	-.311	-1.006
T3	2.000	7.000	-.723	-4.685	.289	.938
T4	1.000	7.000	-.769	-4.986	.209	.677
PR3	1.000	7.000	-.522	-3.383	-.431	-1.396
PR2	1.000	7.000	-.394	-2.553	-.694	-2.248
PR1	1.000	7.000	-.571	-3.700	-.658	-2.132
SI1	1.000	7.000	-1.198	-7.764	1.360	4.405
SI2	1.000	7.000	-.950	-6.154	.627	2.031
SI3	1.000	7.000	-1.349	-8.740	1.581	5.123
Ease of Use	2.000	7.000	-.922	-5.974	.621	2.014
Transaction Support	1.000	7.000	-.760	-4.927	1.221	3.955
Privacy	2.000	7.000	-.451	-2.923	-.491	-1.591
Security	2.000	7.000	-.438	-2.837	-.024	-.078
Graphic Design	1.333	7.000	-.627	-4.063	.146	.473
Information Content	1.500	7.000	-.968	-6.271	1.665	5.394
E-credibility	1.500	7.000	-.636	-4.124	.395	1.280
Multivariate					79.472	22.330

4.3.2.2 Confirmatory factor analysis

A 19 item, five factor confirmatory model (CFA) is estimated using AMOS 6.0. The bootstrap procedure and unweighted least squares estimation method are alternatively performed. The root mean square error of approximation (RMSEA), normed fit index (NFI), comparative fit index (CFI), goodness-of-fit index (GFI), and adjusted goodness-of-fit index (AGFI) have been assessed to evaluate the overall fit of the construct. RMSEA, introduced by Steiger and Lind (1980), is one of the most popular goodness-

of-fit statistics. Hu and Bentler (1999) identify a RMSEA value less than 0.06 indicates a good fit between the hypothesized model and the observed data. MacCallum et al. (1996) have suggested that those RMSEA values ranging from 0.08 to 0.10 present a mediocre fit; those ranging above 0.10 is indicative of poor fit. NFI (Bentler & Bonett, 1980) has been also a practical model fit indicator. However, Bentler (1990) has revised NFI and suggested that CFI should be the index of choice, especially for small sample data. Both NFI and CFI may have values ranging from zero to 1.00. However, a value greater than 0.90 indicates a well-fitting model. GFI is a measure that explains the correlation between the sample variance and covariance matrix and the population variance and covariance matrix. The AGFI is in fact the GFI which has been adjusted for the number of degrees of freedom in the specified model (Byrne, 2001). In fact, Hu and Bentler (1995) have classified GFI and AGFI as absolute fit indexes as they compare the hypothesized model and the independence model (in which all variables have zero correlations). Both GFI and AGFI values range from zero to 1.0; the closer the values are to 1.0, the better model fit they represent (Byrne, 2001).

Overall, the model provides a good fit to the data; fit indices of the model are reported in Table 29 below together with the recommended guidelines. The bootstrap procedure results in a Chi-square statistic of 206 with 133 degrees of freedom ($p < 0.05$); AGFI is slightly lower than 0.90. The unweighted least squares method results in a Chi-square (CMIN) of 239 while the NFI, GFI, and AGFI all increase significantly to above 0.98. Thus, given the small sample (n = 252) in relation to the complexity of the model in this research, the reported fit indices are, in general, within the criteria for goodness-of-fit indexes, indicating that the model fits the data.

Table 54

Goodness of fit statistics: recommended guidelines and AMOS output (n = 252)

Fit Index	Guidelines	Bootstrapping test values	Unweighted least squares test values
RMSEA	< 0.08	0.047	n/a
NFI	> 0.90	0.911	.982
CFI	> 0.90	0.966	n/a
GFI	> 0.90	0.918	.988
AGFI	> 0.90	0.884	.983

4.3.2.3 Test for path coefficients

Given the hypothesized model in Figure 5, there are three dependent variables (Trust, Perceived risk, and Purchase intention), identified by the single-headed arrows pointing at them. In contrast, the independent variables, Perceived web interface quality and Perceived social acceptance, are those exerting an influence on the dependent variables.

Trust was originally hypothesized to affect purchase intention through perceived risk. However, the previous mediation test has shown the opposite; that perceived risk affects purchase intention through trust. In this section, both directional relationships between trust and perceived risk are therefore validated within the SEM model.

4.3.2.3.1 SEM 1, trust affects purchase intention through perceived risk

Figure 16 below presents schematically the diagram of SEM 1 where trust affects purchase intentnion through perceived risk. The bootstrap procedure and unweighted least squares estimation methods are alternatively performed to verify the SEM 1 model fit. The selected model fit statistics RMSEA, NFI, CFI, GFI, and AGFI related to the proposed model are reported in Table 30 below. The bootstrap procedure results in a Chi-square statistic of 298 with 144 degrees of freedom ($p < 0.05$); AGFI, GFI and NFI are slightly lower than 0.90. The unweighted least squares method results in a Chi-square (CMIN) of .037 while the NFI, GFI, and AGFI all increase significantly to above 0.96. Thus, the bootstrap procedure shows the model fit indices are quite marginal to the satisfactory standard; whereas the unweighted least squares estimation method shows the reported fit indices are generally within the criteria for goodness-of-fit indexes, indicating that the model fits the data.

Table 55

Selected goodness of fit statistics for SEM 1, recommended guidelines, and AMOS output (n = 252)

Fit Index	Guidelines	Bootstrapping test values	Unweighted least squares test values
RMSEA	< 0.08	0.065	n/a
NFI	> 0.90	0.873	.968
CFI	> 0.90	0.929	n/a
GFI	> 0.90	0.892	.983
AGFI	> 0.90	0.857	.978

Figure 16

Hypothesized conversion behaviour model with averaged perceived web interface quality items, SEM 1
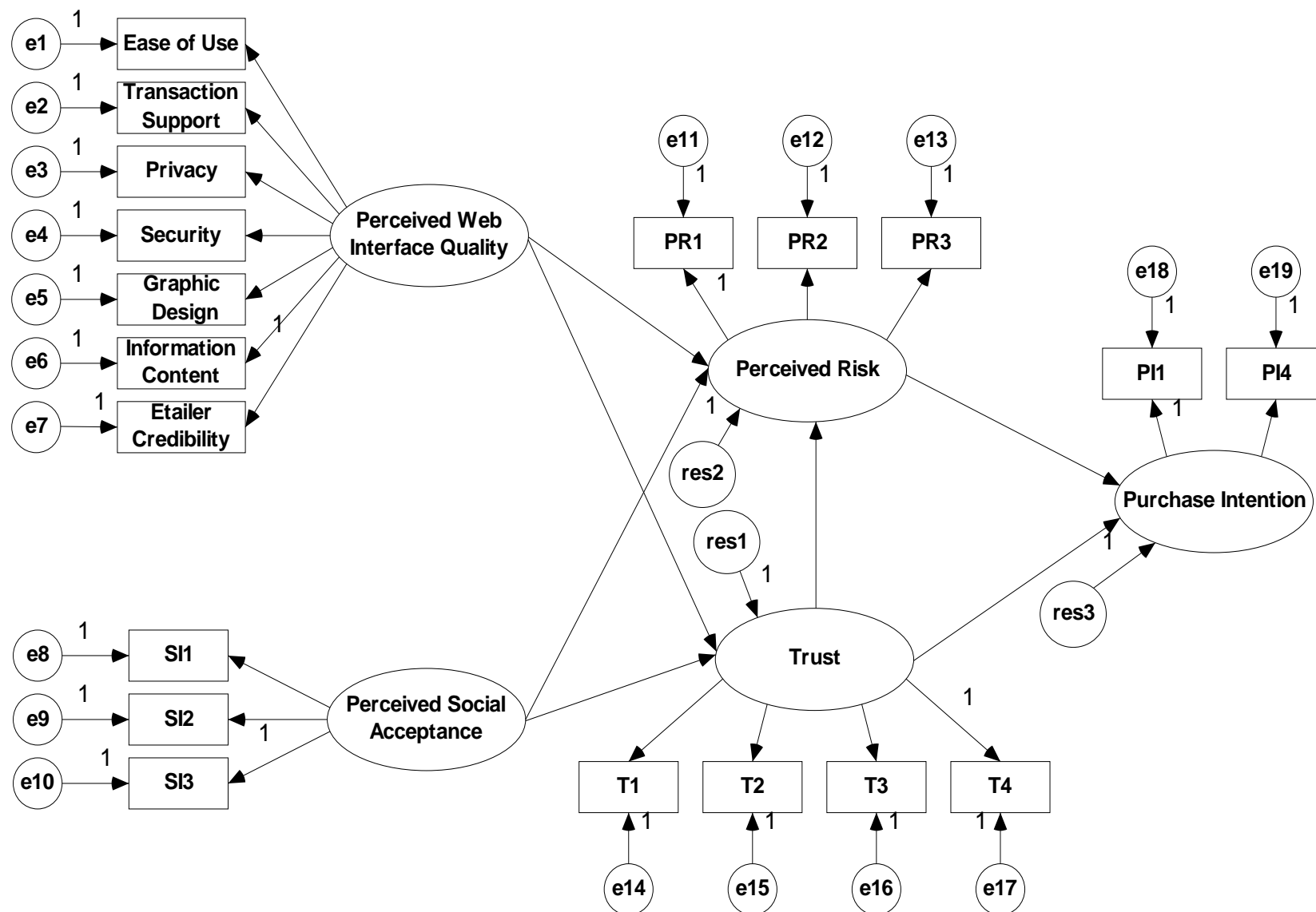
However, a review of the estimates resulted from the bootstrap procedure (see Table 31 below) shows perceived risk has no mediation effect between trust and purchase intention. In particular, trust has no significant impact on perceived risk (P =.085) and perceived risk does not affect purchase intention (P =.397). Thus, SEM 1 is not sustainable.

Table 56

AMOS text output for bootstrapped samples: maximum likelihood estimates

	Covariance		Estimate	S.E.	C.R.	P
Trust	<---	Perceived Web_Interface Quality	.736	.100	7.388	***
Trust	<---	Perceived Social_Acceptance	.172	.087	1.992	.046
Perceived Risk	<---	Perceived Web_Interface Quality	-.343	.314	-1.092	.275
Perceived Risk	<---	Perceived Social Acceptance	.232	.231	1.002	.316
Perceived Risk	<---	Trust	.544	.316	1.721	.085
Purchase Intention	<---	Perceived Risk	-.040	.047	-.848	.397
Purchase Intention	<---	Trust	1.003	.119	8.399	***
E-retailer credibility	<---	Perceived Web_Interface Quality	1.000			
Information content	<---	Perceived Web_Interface Quality	.829	.061	13.594	***
Graphic Design	<---	Perceived Web_Interface Quality	1.105	.086	12.808	***
Security	<---	Perceived Web_Interface Quality	.885	.070	12.723	***
Privacy	<---	Perceived Web_Interface Quality	.821	.083	9.902	***
Transaction Support	<---	Perceived Web_Interface Quality	.933	.063	14.746	***
Ease of Use	<---	Perceived Web_Interface Quality	.736	.061	12.006	***
SI1	<---	Perceived Social_Acceptance	1.000			
SI2	<---	Perceived Social_Acceptance	.943	.155	6.093	***
SI3	<---	Perceived Social_Acceptance	.684	.132	5.178	***
PR1	<---	Perceived Risk	1.000			
PR2	<---	Perceived Risk	.981	.159	6.183	***
PR3	<---	Perceived Risk	.951	.153	6.209	***
T4	<---	Trust	1.000			
T3	<---	Trust	.887	.070	12.597	***
T2	<---	Trust	.883	.083	10.705	***
T1	<---	Trust	1.081	.089	12.202	***
PI1	<---	Purchase Intention	1.000			
PI4	<---	Purchase Intention	.964	.098	9.840	***

4.3.2.3.2 SEM 2, perceived risk affects purchase intention through trust

Figure 17 below presents schematically the diagram of SEM 2 where perceived risk affects purchase intention through trust.The bootstrap procedure and unweighted least squares estimation methods are again alternatively performed to verify the SEM 2 model fit. The selected model fit statistics RMSEA, NFI, CFI, GFI, and AGFI related to the proposed model are reported in Table 32 below. The bootstrap procedure results in a Chi-square statistic of 275 with 145 degrees of freedom ($p < 0.05$); AGFI and NFI are slightly lower than 0.90. The unweighted least squares method results in a Chi-square (CMIN) of 296.434 while the NFI, GFI, and AGFI all increase significantly to 0.98. Thus, the reported fit indices are generally within the criteria for goodness-of-fit indexes, indicating that the model fits the data marginally better than does the SEM 1 model.

Table 57

Selected goodness of fit statistics for the hypothesized model, recommended guidelines, and AMOS output (n = 252)

Fit Index	Guidelines	Bootstrapping test values	Unweighted least squares test values
RMSEA	< 0.08	0.06	n/a
NFI	> 0.90	0.88	.98
CFI	> 0.90	0.94	n/a
GFI	> 0.90	0.90	.98
AGFI	> 0.90	0.87	.98

Figure 17

Hypothesized conversion behaviour model with averaged perceived web interface quality items, SEM 2
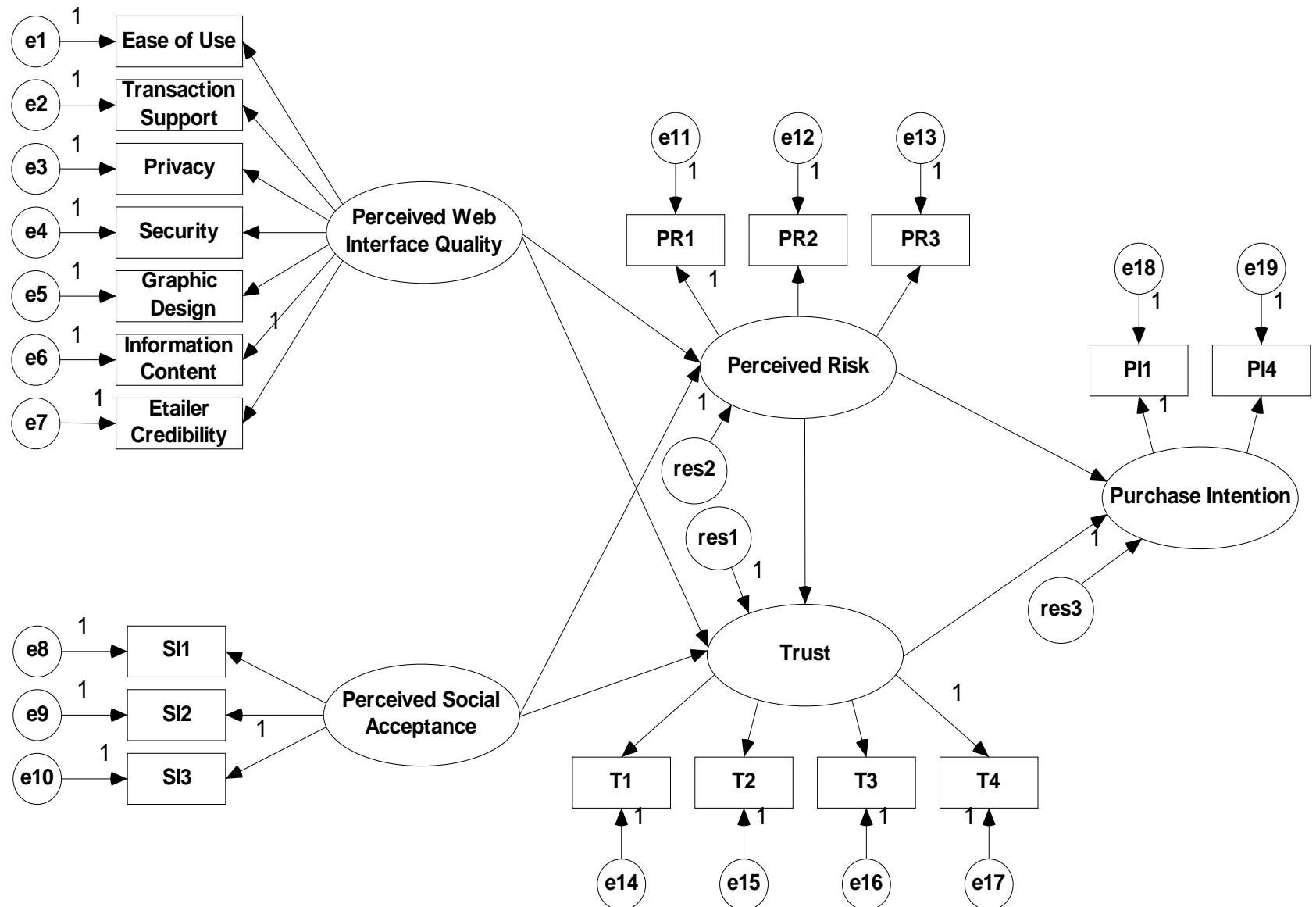
A review of the estimates (based on the maximum likelyhood estimates of bootstrapped data) in Table 33 below confirms that trust perfectly mediates perceived risk to purchase intention. In particular, perceived risk significantly affects trust (P =.02), trust exerts a significant impact on purchase intention (P =.000) and perceived risk has no significant effect on purchase intention (P= .876). Thus, SEM 2 is the superior model and confirms the prior mediation analysis. The estimates for the causal paths of the model are schematically summarised in the diagram of Figure18 below. According to Figure 18, perceived risk affects purchase intention through trust (.15 x .96) which equals to .14. Perceived web interface quality exerts a significant indirect effect on purchase intention via trust (.70 x .96) which equals to .67. The test for path coefficients also reveals significant effect of perceived social acceptance on purchase intention through trust (.26 x .964) which is .25. Thus trust perfectly mediate perceived risk

Table 58

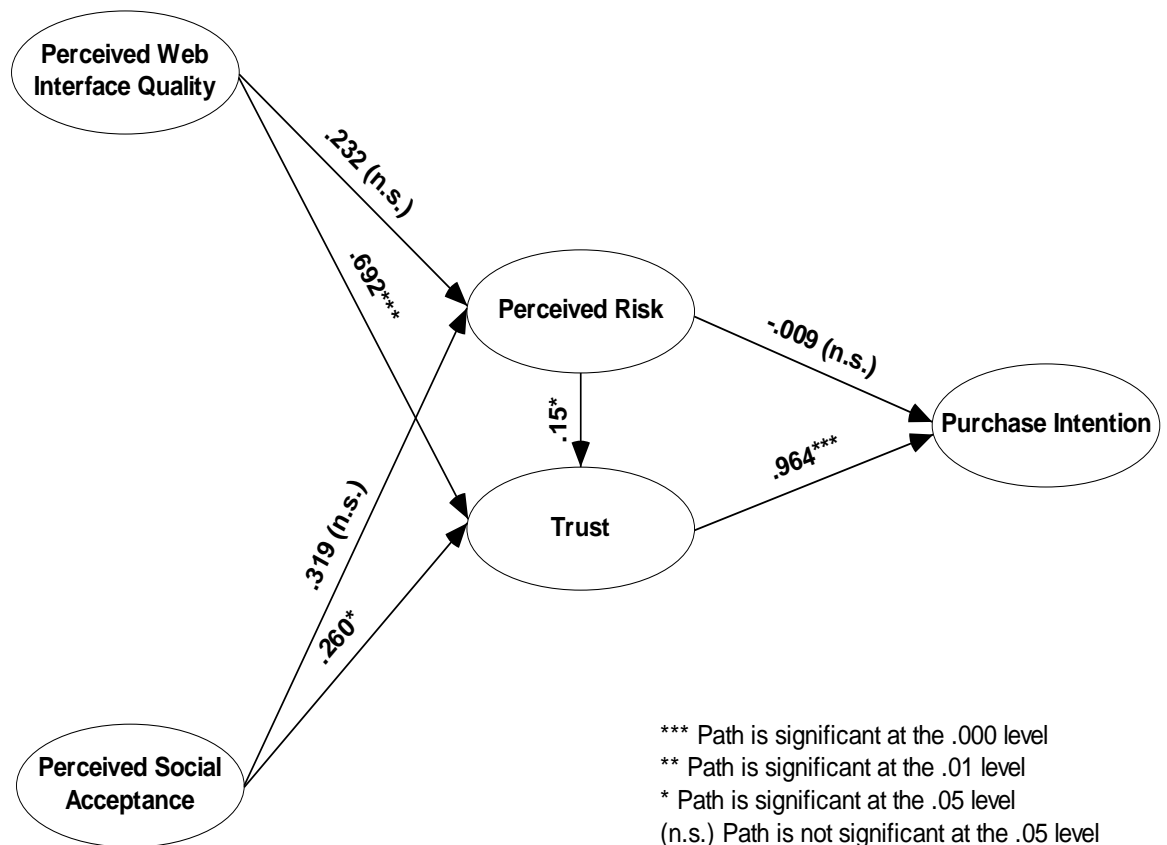AMOS text output for bootstrapped samples: maximum likelihood estimates

	Covariance		Estimate	S.E.	C.R.	P
Perceived risk	<---	Perceived web interface quality	.232	.168	1.376	.169
Perceived risk	<---	Perceived social acceptance	.319	.188	1.696	.090
Trust	<---	Perceived web interface quality	.692	.099	6.969	***
Trust	<---	Perceived social acceptance	.260	.100	2.595	.009
Trust	<---	Perceived risk	.15	.05	2.26	.02
Purchase intention	<---	Trust	.964	.106	9.093	***
Purchase intention	<---	Perceived risk	-.009	.057	-.156	.876
SI1	<---	Perceived social acceptance	.569	.125	4.571	***
SI2	<---	Perceived social acceptance	.917	.146	6.296	***
SI3	<---	Perceived social acceptance	1.00	1.09	3.82	***
Ease of use	<---	Perceived web interface quality	.790	.068	11.617	***
E-retailer credibility	<---	Perceived web interface quality	.73	.15	8.75	***
Security	<---	Perceived web interface quality	.915	.073	12.579	***
Privacy	<---	Perceived web interface quality	.875	.086	10.216	***
TS	<---	Perceived web interface quality	.947	.064	14.799	***
Information content	<---	Perceived web interface quality	.827	.063	13.126	***
Graphic design	<---	Perceived web interface quality	1.010	.081	12.517	***

Table 59. AMOS text output for bootstrapped samples: maximum likelihood estimates (continued)

		Covariance	Estimate	S.E.	C.R.	P
PR1	<---	Perceived risk	1.000			
PR2	<---	Perceived risk	1.044	.143	7.323	***
PR3	<---	Perceived risk	1.029	.141	7.319	***
T4	<---	Trust	1.000			
T3	<---	Trust	.936	.078	11.956	***
T2	<---	Trust	.978	.085	11.524	***
T1	<---	Trust	1.080	.090	11.955	***
PI4	<---	Purchase intention	1.000			
PI1	<---	Purchase intention	1.011	.091	11.054	***

Figure 18

AMOS graphic output for the hypothesized model: path coefficients (standard errors)

*** Path is significant at the .000 level
** Path is significant at the .01 level
* Path is significant at the .05 level
(n.s.) Path is not significant at the .05 level

4.4 Conclusion

Chapter 4 has demonstrated the last three steps of the proposed paradigm with respect to confirming the proposed CBM theoretical constructs. Although running split tests is not part of step 6, the descriptive information obtained from this step has shown some significant findings in relation to the effect of perceived social acceptance on purchase intention. Step 7 demonstrates what Rossiter (2002) has suggested, that is attributes of different natures require different level of internal consistency analysis. Eliciting attributes need be measured by high internal consistency items while this is unnecessary for formed attributes. Step 8 proposed two analytical methods due to the excessive number of indicator variables measuring the model constructs. The first method, test for mediation, was conducted using SPSS 7.0; the second method, structural equation model, was performed using AMOS 6.0. Results from these two methods are presented in the final chapter, Chapter 5.

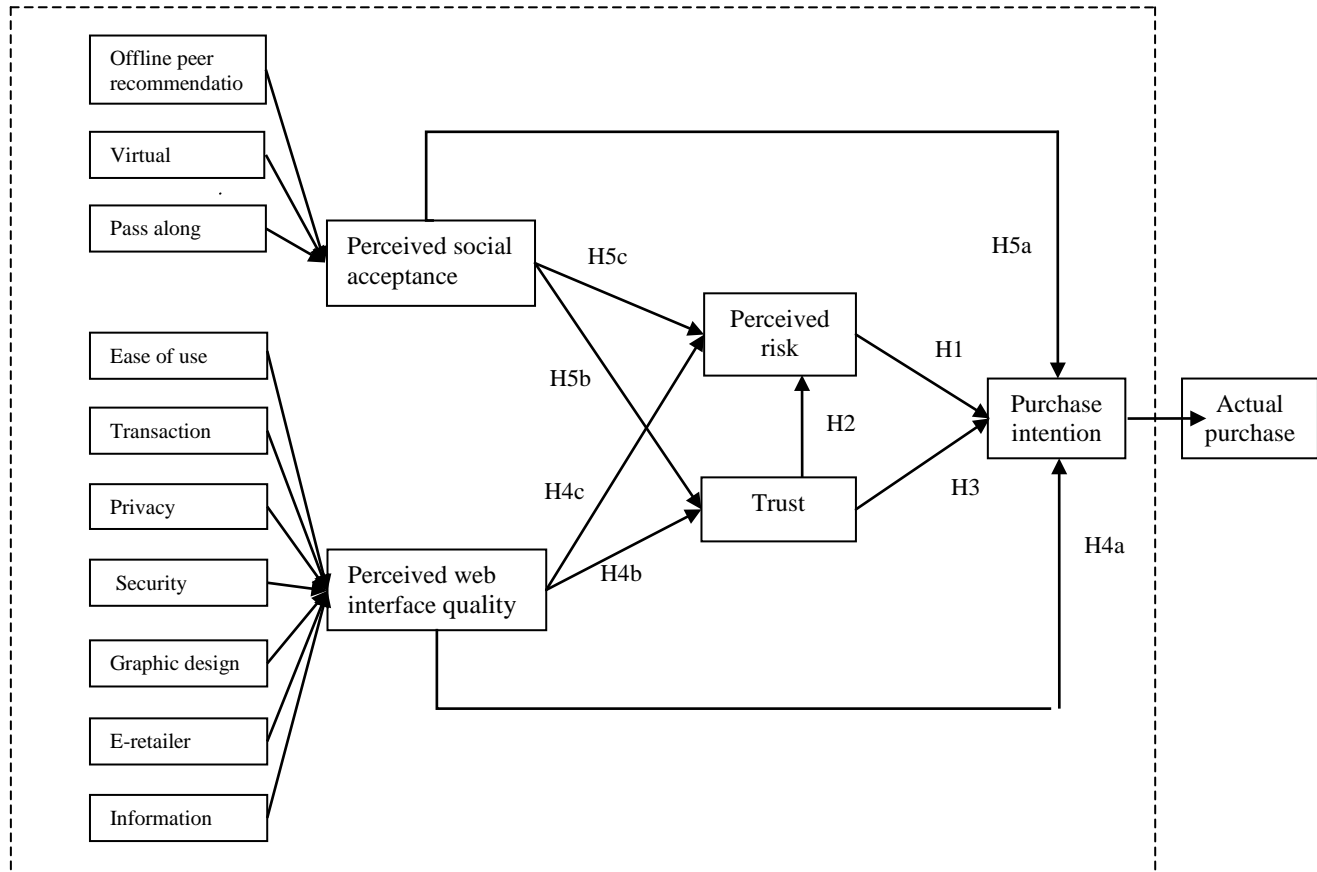# Chapter 5 Conclusions and implications

5.1 Introduction

This research has aimed at building a theoretical model of the salient factors affecting web visitors to purchase from those e-retailers without reputation. Chapter 2 starts uncovering the research problem by looking into the relevant literature and prior models of consumer behaviour online based on which critical gaps are identified. A conversion behaviour model is then proposed and specified as an effort to fulfil the gaps as well as seek answers for the first two research questions. Chapters 3 and 4 demonstrate a proposed paradigm for developing measures of the proposed model constructs. This chapter focuses on confirming the answers for research questions 1, 2 and 3 and discussing the contributions of the present research to body of knowledge. Particularly, results from the two analytical techniques proposed in Chapter 4 are firstly discussed with reference to the hypotheses developed in Chapter 2. Results of this discussion also finalise the answers for research questions 1 and 2. Implications for theory are then discussed as an effort to provide milestones for related future studies. Next, a practical procedure for improving web conversion rates is proposed in order to answer the last research question, how online vendors without reputation benefit from the present study. The last two sections of Chapter 5 present limitations of the current study and directions for further research.

5.2 Conclusions about each hypothesis

The current study has hypothesized that Perceived risk, Trust, Perceived web interface quality and Perceived social acceptance have significant effects on purchase intention in the ecommerce context. Figure 5 is presented again below in order to schematically review these proposed causal constructs.

Figure 5 Conversion Behaviour Research Model

Offline peer recommendatio

Virtual

Pass along

Perceived social acceptance

Ease of use

Transaction

Privacy

Security

Graphic design

E-retailer

Information

Perceived web interface quality

H5c

H5b

H4c

H4b

Perceived risk

H2

Trust

H1

H3

H5a

H4a

Purchase intention

Actual purchase

Accordingly, the following hypotheses have been tested:

H1: Perceived risk negatively affects online purchase intention.

H2: Trust negatively affects perceived risk in the ecommerce context.

H3: Trust positively affects online purchase intention.

H4a: High perceived web interface quality is positively associated with online purchase intention.

H4b: Positive perceived web interface quality is positively associated with trust in the ecommerce context.

H4c: Positive perceived web interface is negatively associated with perceived risk in the ecommerce context

H5a: Positive perceived social acceptance through positive social influences from offline recommendations, virtual communities, and pass-along email messages are positively associated with online purchase intention.

H5b: Positive perceived social acceptance through positive social influences from offline recommendations, virtual communities, and pass-along email messages are positively associated with trust in the ecommerce context.

H5c: Positive perceived social acceptance through positive social influences from offline recommendations, virtual communities, and pass-along email messages are negatively associated with perceived risk in the ecommerce context.

Using the same data-set, the researcher has used two different data analysis methods (mediation test and SEM model) to examine the parameter estimates and confirm the hypotheses. The results from both methods consistently produce several significant conclusions to the hypotheses (see Table 31 below). First, trust significantly mediates perceived web interface quality on purchase intention. This important finding has confirmed the important role of trust in online consumer behaviour that hypotheses H3, H4b and H5b describe. Second, unexpectedly, the findings related to perceived risk have rejected H1, H2, and H5c. In particular, perceived risk does not affect purchase intention and therefore does not mediate trust and perceived social acceptance on purchase intention. Third, trust completely mediates from perceived risk to purchase intention. Although this finding is contrary to hypothesis H2 and the proposed causal linkage between trust and perceived risk by leading research (Gefen et al., 2003; Jarvenpaa et al., 2000; Pavlou, 2003), it is consistent with the hypothesized trust-perceived risk construct that Wakefield and Whitten (2006) propose. Fourth, there is no evidence to support hypothesis H4c, that is, perceived web interface quality negatively affects perceived risk. Finally, perceived social acceptance does not have such direct significant effect on purchase intention as given by hypothesis H5a.

Different parameter estimates and conclusions to H4a are drawn based on the two data analysis methods. In particular, the mediation test results confirm that perceived web interface quality has direct positive influence on purchase intention which the SEM model provides no result to support. Table 32 below summarises the empirical test

results produced by the two analytical techniques on the proposed hypotheses. The tick symbol (√) represents a confirmed hypothesis whereas the cross symbol (x) represents a rejected hypothesis.

Table 34

Hypotheses and empirical test results

Hypothesis	Mediation test	SEM model
H1	x	x
H2	x	x
H3	√	√
H4a	√	x
H4b	√	√
H4c	x	x
H5a	x	x
H5b	√	√
H5c	x	x

In short, the results from both data analysis methods consistently confirm that perceived risk is just an independent variable rather than a mediator as hypothesized by the original model. Trust mediates perceived web interface quality, perceived social acceptance and perceived risk on purchase intention. Figure 19 below schematically presents the proposed CBM modified based on the mediation test results. The descriptive statistics (see Table 22 above) show purchase intention is higher within the group of respondents exposed to the higher web interface quality and higher social acceptance, trust seems a good explanatory factor. According to Figure 16, higher perceived web interface quality and higher social acceptance enhance trust which, in turn, results in higher purchase intention.

Figure 19

Conversion behaviour modification model
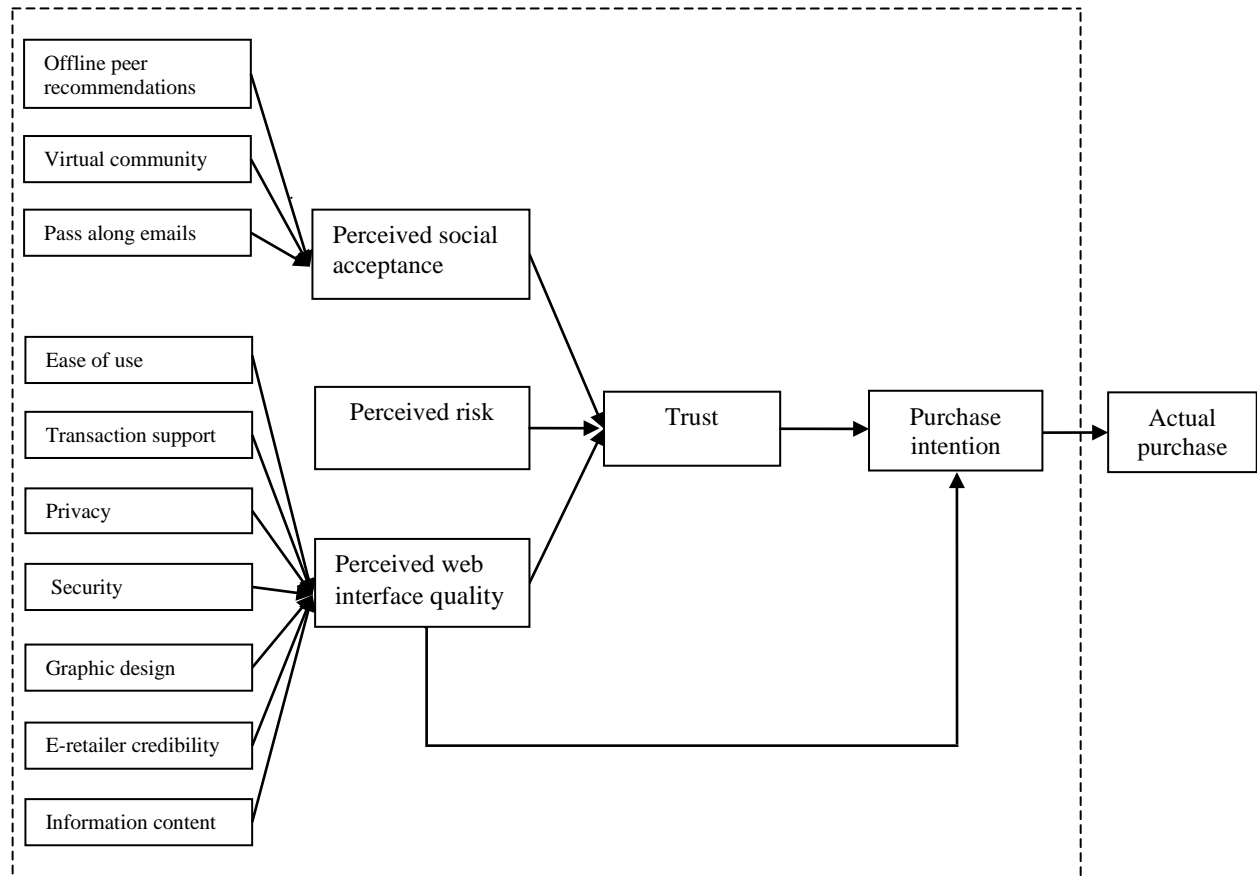
5.3 Implications for theory

5.3.1 Future conversion behaviour models

The results of this current study suggest that future models of online conversion behaviour should pay great attention to the role of trust in the Internet. Especially, in an immature ecommerce market as Viet Nam where financial constitution for e-transactions has not been in place, trust and its antecedents appear to be the primary predictors of online consumer purchase intention.

Inconsistent with the results of some leading studies (Gefen et al., 2003; Jarvenpaa et al., 2000; Pavlou, 2003), where perceived risk mediates trust on purchase intention, the current results show perceived risk is an independent variable that affects purchase intention through trust. Given that perceived risk represents perceived financial insecurity in this study; such unexpected findings raise two interesting issues for future research. First, the current literature of perceived risk and trust in ecommerce provides

incomplete mechanisms by which perceived web interface quality and perceived social acceptance affect online purchase intention. Second, the perceived financial insecurity in e-transactions could be an affective risk in the Internet that requires further conceptual and empirical research. Are there indeed cognitive factors that contribute to perceived risk or is this variable merely an affective impression?

Results of the current study reveal the significant effect of perceived social acceptance on trust. Furthermore, the groups of respondents that are exposed to high social acceptance have higher purchase intention than the groups of respondents that are exposed to low social acceptance. Future online conversion behaviour models, therefore, should include perceived social acceptance and consider running split tests on the components of this attribute (influences from such distinct activities as virtual communities, pass-along messages, and offline peer recommendations) to explore to what extent each component affects the causal linkages within the online conversion behaviour model.

Since Javenpaa et al. (2000) propose one of the first models of trust in the Internet many researchers have tried to explore the trust-inducing website attributes. However, most of them provide either a limited number of specific website features or no empirical test. For instance, Ribbink et al. (2004), in a study involving 350 students who have experience of buying books and CDs online, identify five website attributes that positively affect e-trust and e-loyalty: assurance, ease of use, e-scape, responsiveness, and customization. The items measuring each of these website attributes, however, do not include any specific website feature. The study, therefore, is not able to provide any specific belief related to the web interface quality. Similarly, much research (e.g., Gefen et al., 2003; Pavlou & Gefen, 2004; Wakefield & Whitten, 2006) only focuses on one or two special website features that effectively build trust-based connection to customers. Wang and Emurian (2005) suggest a framework of trust-inducing website attributes; the framework includes a comprehensive list of website features. Unfortunately, the researchers provide no empirical evidence that may support their proposed framework. The present results, therefore, suggests future models of online trust or online conversion behaviour should consider involving more comprehensive constructs of perceived web interface quality and measuring the predictive validity regarding which website features result in higher perceived web interface quality, greater trust or stronger purchase intention.

5.3.2 Scale development and result analysis

Rossiter (2002) recommends that researchers should establish content validity of the scale before the precise scores can be taken. Unfortunately, most research regarding consumer trust in the Internet, due to relying on factor analysis and high coefficient alpha, has produced scales of suspicious validity. For instance, Rattanawicha and Esichaikul (2005a), in their exploratory research regarding trust-inducing website features, propose a scale of 11 attributes and 59 components. However, due to following the factor analysis procedure, the researchers then alter the initial scale into a scale of nine attributes and 46 components. Ribbink et al. (2004) conceptualize trust-inducing website quality as a set of five components (ease of use, website design, customization, responsiveness, and assurance). The researchers then use factor analysis and coefficient alpha to have each component measured by multiple items. Since these components are not eliciting, such procedure is unnecessary and produces lower validity. In line with Rossiter (2002), results from the current study suggests future research of online consumer behaviour should not only focus on high coefficient alpha but also consider the nature of attributes. The current results also show Q-sort is useful in improving scales without incurring high data collection costs. Future research using C-OAR-SE, therefore, should consider using Q-sort as a cognitive interviewing method for pretesting scale items.

Compared to SEM, the current study shows the mediation test produces more significant causal relationships among the variables within the hypothesized model. Such results raise two theoretical suggestions. First, future researchers using the C-OAR-SE procedure for scale development should not average the item scores of the formed attributes for the sake of reducing the excessive number of indicators. If the SEM software is unable to handle the model just because of the excessive number of indicators, it would be more helpful to use the mediation test that the current research has described or to gather sufficient responses to compensate for the poor distributions and many variables. Second, since a couple of empirical studies (James et al., 1982; Law & Wong, 1999) recommend the possibility of averaging all the facets of a multidimensional construct as a single indicator, using SEM model to analyse C-OAR-SE based constructs should be subject to future conceptual and methodological development.

5.4 Implications for practice

An important question emerging from the research results is how useful the consumer conversion rate model could be for those online vendors with little established reputation. Figure 18 below schematically describes a potential generic "website conversion rate improvement" procedure based on the current research findings regarding perceived web interface quality and perceived social acceptance, the two factors which online vendors can control or affect. The procedure overall consists of three distinct sub-procedures: website conversion rate measurement, website features screening, and WOM sources screening. What follows is the procedure description.

Figure 20

Generic website conversion rate improvement procedure
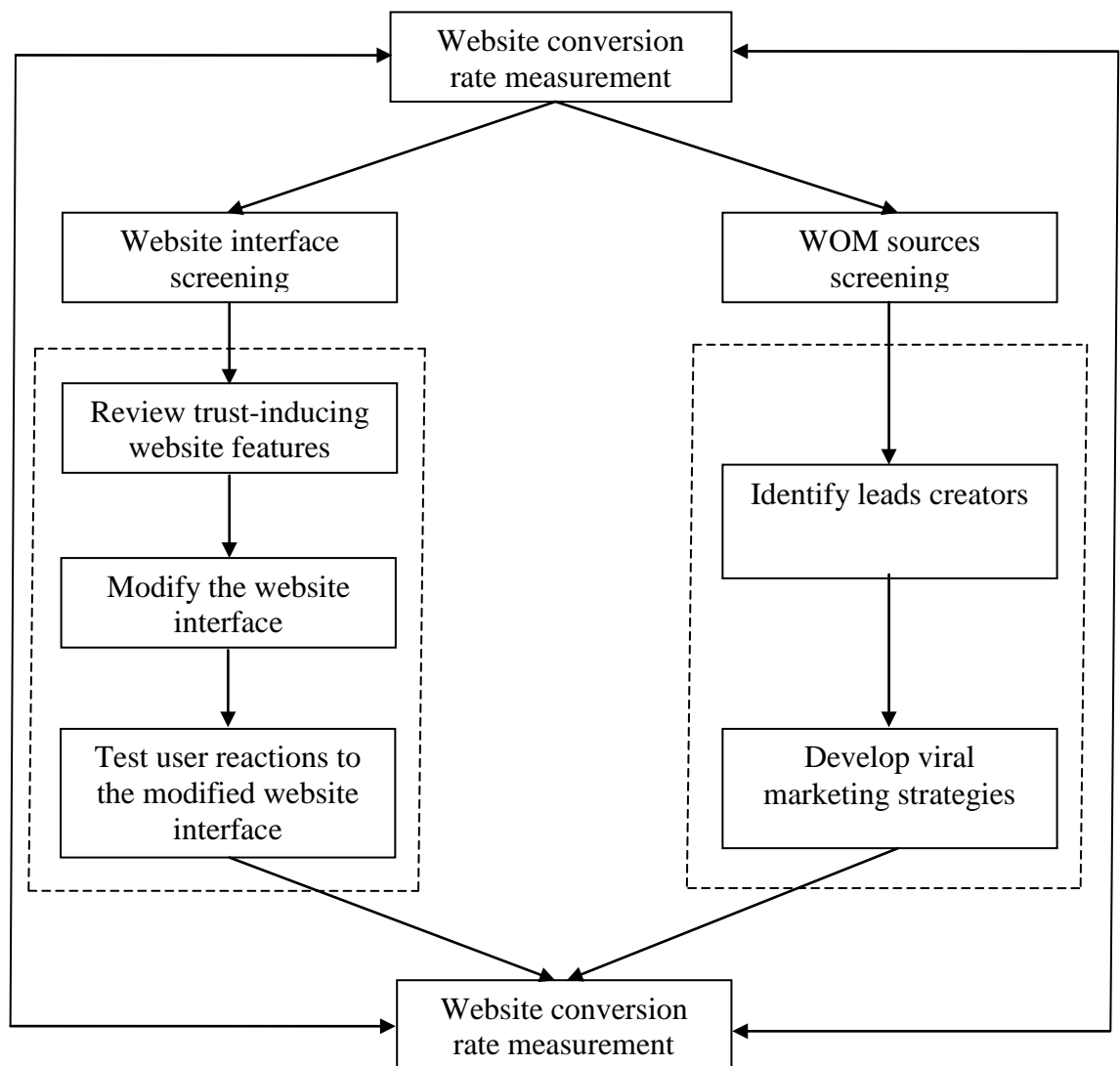
5.4.1 Website conversion rate measurement

The objective of website conversion rate measurement is to provide an up-to-date report of the probability web visitors make purchases during a visit to the online vendor. Ecommerce managers, based on an observed history of visits and purchases, can calculate website conversion rates by simply having the number of buyers divided by the number of visitors. Another way to calculate conversion rates is to divide the number of purchases by the number of visits (Moe & Fader, 2004b). However, the current research recommends the former as it focuses on increasing the number of customers rather than the number of purchases on an ecommerce website. The click-stream panel data (see Table 32 below) provided by Media Metrix, Inc., showing consumers' shopping behaviour on Amazon.com from March 1, 1998 through October 31, 1998, is an example. According to the information in Table 33, the conversion rate of each different sales period is the ratio between number of buyers and number of visitors.

Table 605

Summary of Visiting and Purchasing at Amazon.com

	All 8 months	Months 1-4	Months 5-8
Number of visitors	4.379	2.645	2.756
Number of buyers	851	459	544
Number of visits	11.301	5.238	6.025
Number of purchases	1.573	689	885
Conversion rate (%)	19	17	19
Visits/visitor	2.58	1.98	2.19
Purchases/buyer	1.85	1.50	1.63
Purchases/visitor	0.36	0.26	0.32

Source: Media Metrix, 2000

5.4.2 Website interface screening

Website interface screening aims to improve the web interface quality as an effort to gain trust from web visitors which in turn result in higher conversion rates. This process, according to the suggested procedure in Figure 18 above involves two primary steps. First, ecommerce managers or website developers use the guideline given in

Table 15 above to review the existing website interface for the trust inducing features. In fact, more attention should be given to the features in Table 16 above as they are, according to the survey, the salient trust-inducing web features. Second, based on the review results, ecommerce managers or website developers would consider modifying the existing website interface (i.e., adding new trust inducing web features or revising the existing ones). Since there seem to be inconsistent findings regarding website design leading to trust across cultures (Cyr, 2008; Cyr et al., 2005; Davis, Wang, & Lindridge, 2008), ecommerce managers or website developers need also take cultural preferences into account during the website modification process.

The final step of the proposed website conversion rate improvement procedure is to test user reactions to the modified website interface. Ecommerce managers use the scales (see Table 19 above) developed by the current study to conduct a questionnaire survey; the scenarios and the items measuring perceived social acceptance are unnecessary in this case. Based on the survey results, website developers or ecommerce managers review the website features screening process if the modified website interface, compared to the original website interface, produces lower effects on trust or purchase intention.

5.4.3 WOM sources screening

WOM sources screening can be conducted in parallel with or apart from website features screening. Ecommerce managers or website developers first add a short survey with respect to how customers know about their website to the check-out system of the website. The results may show the potential WOM sources (e.g., virtual communities, offline peer recommenders, pass-along message creators) that may bring traffic and sales to the website. Ecommerce managers then plan viral marketing strategies toward the identified WOM sources. Bush (2000), Godin (2000), Modzeiewski (2000), and Shirky (2000) provide many excellent examples regarding how online businesses can motivate consumer purchase intention through the influence of friends, family, and colleagues. Dye (2000) and Emanuel (2000) detail many helpful viral marketing strategies that may affect consumer attitudes and behaviours, which may result in higher web conversion rates.

5.5 Limitations

This study is one of the first addressing online consumer conversion behaviour in Viet Nam. It is expected that subjects in this immature market are not familiar with online surveys; their answers might be subjective to validity issues. The timeframe within which the researcher collected data in Viet Nam is not long enough for a large scale survey; the obtained data, therefore, is insufficient for running split tests on several important variables such as perceived web interface quality, perceived social acceptance, and situation. Additionally, measures and response emerge during the course of this study as the two critical issues that may affect the research results.

The current study has developed many of the scale items on previous online consumer behaviour studies. However, these studies conventionally favour Likert format scales which, according to Rossiter and Percy (1987), cannot provide the unambiguous and precise score items. Although the current study has tried to remove the intensity from the item stems so that the answers provide singular meanings, future research should use degree ratings where intensity is integrated into the response alternatives.

The use of incentives in mail surveys has a long history. A great number of empirical studies have confirmed that monetary incentives significantly increase response rates in mail surveys (Scott Armstrong, Spring 1975b; Scott Armstrong & Yokum, 1994; James & Bolstein, 1992; Jobber, Saunders, & Mitchell, 2004; Singer, Hoewyk, Gebler, Raghunathan, & McGonagle, 1999). Such studies also provide important findings about the relationship between size of incentives and reduction in response rates. For instance, Armstrong (Spring 1975b) reviews eighteen empirical studies and generalize that increasing prepaid incentives up to 40% reduce nonresponse rates significantly. James and Bolstein (1992) run a between-groups experiment to examine the effect of various monetary incentives ($1 cash, $5 cash, $5 check, $10 check, $20 check, $40 check, and a promise of $50 check once the questionnaire is returned) on survey response rates. The response rate increase significantly when the monetary incentive increases from $1 to $20. However, the promise of $50 check does not produce higher response rate than the control group that receive no without incentives. Consistent with these results, Singer et al. (1999) find that surveys providing promising incentives do not produce higher response rates than those offering no incentive at all. Singer et al. (1999) also identify that monetary incentives are more effective than gifts to increase the response

rates. The current study, under a short data collection timeframe, offers the respondents promising high value gifts. Although the response rates are high in the first few days of the survey, they decrease significantly in the second week and remain low until the end of the survey. Furthermore, many respondents provide invalid answers (incomplete returned questionnaires or single score ratings) for the sake of being in the draw to win the valuable gifts; among 326 responses, only 252 responses were retained as a result. Future online data collection procedures should therefore offer monetary incentives of not too high value and reserve a generous timeframe to collect data.

5.6 Directions for future research

The theoretical implications and research limitations presented thus far provide some important directions for future research. In this final section specific suggestions for research flowing from the limitations are made. These concern both technical issues and opportunities for developmental studies.

With regard to the technical issues, there are several opportunities. First, future related research could run split tests on specific website features and influential networks to test the affect upon trust and purchase intention.

Second, although there seems much debate on C-OAR-SE theory (Diamantopoulos, 2005; Finn & Kayande, 2005; Rossiter, 2005), results of the current study offer encouragement to future scale development attempts for measuring online conversion behaviour to rely less on the conventional scale development paradigm (see Churchill, 1979), and pay more attention to the scale validity and nature of attributes. Especially, the multivariate generalizability theory (Cronbach, Gleer, Nanda, & Rajatatnam, 1972) could be used to measure the proposed constructs (Finn & Kayande, 2005).

Third, the current research utilized the three-step mediation test (Baron & Kenny, 1986) on the proposed conversion behaviour model. However, Zhao, Lynch, and Chen (2010) suggest the bootstrap test is more helpful to verify the discriminant validity of the mediator from the proposed construct (Preacher & Hayes, 2004). Future research, therefore, should attempt to apply the bootstrap test in SEM and other techniques to provide validation for the scales that this study has developed.

With regard to developmental studies, the current model focuses on cognition-based trust and financial risk. However, unexpected results from the survey in Viet Nam prompt interesting questions regarding the possible causal linkages between trust and perceived risk; including the potential effect of affective risk on online conversion behaviour. Empirical studies in other Asian contexts (e.g., China, Hong Kong, Malaysia or Thailand) could offer insights to this fascinating and critical topic.

Bibliography

24h.com.vn. (2009). Mua Hàng online và Thanh Toán Qua nganluong.vn. *24h.com.vn*. Retrieved June 15, 2009, from http://test.24h.com.vn/news/detail/55/231374/Mua-hang-online-va-thanh-toan-quanganluongvn.24h

Adelaar, T., Chang, S., Lancendorfer, K. M., Lee, B., & Morimoto, M. (2003). Effects of Media Formats on Emotions and Impulse Buying Intent. *Journal of Information Technology, 18*, 247–266.

Aganwal, R., & Karahanna, E. (2000). Time Flies When You're Having Fun: Cognitive Absorption and Beliefs About Information Technology Usage. *MIS Quarterly, 24*(4), 665-694.

Aggarwal, P., & Vaidyanathan , R. (2005). The Perceived Effectiveness of Virtual Shopping Agents for Search vs. Experience Goods. *International Journal of Internet Marketing and Advertising, 2*(1/2).

Ahuja, M., Gupta, B., & Raman, P. (2003). An Empirical Investigation of Online Consumer Purchasing Behavior. *Communications of the ACM, 46*(12), 145-151.

Ajenz, I. (1985). From Intentions to Actions: A Theory of Planned Bebavior. In J. a. J. B. Kuhl (Ed.), *Action Control: From Cognition to Behavior* (pp. 11-39). New York: Springer-Verlag.

Ajenz, I. (1991). The Theory of Planned Behaviour. *Organizational Behavior and Human Decision Processes, 50*, 179-211.

Ajzen, I. (1988). *Attitudes, Personality and Behavior*. Chicago: Dorsey.

Ajzen, I., & Fishbein, M. (1980). *Understanding Attitudes and Predicting Social Behavior* Prentice-Hall Inc.

Akaah, I. A., & Korgaonkar, P. K. (1988). A Conjoint Investigation of the Relative Importance of Risk Relievers in Direct Marketing. *Journal of Advertising Research in Organizational Behavior*, 38-44.

Akhter, F., Hobbs, D., & Maamar, Z. (2004). *Determining the Factors which Engender Customer Trust in Business-to-Consumer (B2C) Electronic Commerce.* Paper presented at the the IEEE International Conference on E-Commerce Technology, Zayed Univ., United Arab Emirates.

Alaszewski, A. (2005). Risk Communication: Identifying the Importance of Social Context. *Health, risk, & society, 7*(2), 101 – 105.

Alba, J., Lynch, J., Weitz, B., Janiszewski, C., Lutz, R., Sawyer, A., et al. (1997). Interactive Home Shopping: Consumer, Retailer, and Manufacturer Incentives to Participate in Electronic Marketplaces. *Journal of Marketing, 61*(4), 38-53.

Alon, A. T., Brunel, F. d. r. F., & Siegal, W. L. S. (2005). Ritual Behavior and Community Change: Exploring the Social-Psychological Roles of Net Rituals in the Developmental Processes of Online Consumption Communities. In C. P. Haugtvedt, K. A. Machleit & R. F. Yalch (Eds.), *Online Consumer Psychology: Understanding and Influencing Consumer Behavior in the Virtual World* (pp. 7-33). Mahwah, New Jersey: Lawrence Erlbaum Associates, Inc.

Ambrose, P. J., & Johnson, G. J. (1998). *A Trust Based Model of Buying Behavior in Electronic Retailing.* Paper presented at the AMCIS. http://aisel.aisnet.org/amcis1998/91

An, C. (2010). Hội chợ thời trang online lớn nhất ở VN. *VnExpress*. Retrieved March 05th, 2010, from http://vnexpress.net/GL/Vi-tinh/2010/03/3BA19439/

Anh, N. (2009). Sinh Viên Rao Bán Ma Túy Trên Mạng. *VnExpress*. Retrieved March 05th, 2010, from http://vnexpress.net/GL/Phap-luat/2009/12/3BA1701B/

Anh, N. (2010). Trộm 1.000 Viên Long Châu Trong Game Thế Giới Hoàn Mỹ. *VnExpress*. Retrieved March 05th 2010, from http://vnexpress.net/GL/Phap-luat/2010/03/3BA19592/

Archetype/Sapient, C. R. a. S. (1999). *eCommerce Trust Study*. Retrieved November 05th, 2008, from http://www.cheskin.com/p/ar.asp?mlid=7&arid=40&art=0&isu=1

Ariely, D., & Levav, J. (2000). Sequential Choice in Group Settings: Taking the Road Less Traveled and Less Enjoyed. *Journal of Consumer Research, 27*, 279-290.

Armstrong, A., & Hagel , J. (1996). The Real Value of On-Line Communities. Harvard Business Review. *Harvard Business Review,, 74*(3), 134–141.

Armstrong, J. S. (1978). *Long-Range Forecasting: From Crystal Ball to Computer*. NY: John Wiley & Sons.

Armstrong, J. S. (Spring 1975b). Monetary Incentive in Mail Surveys. *Public Opinion Quarterly, 39*, 111-116.

Armstrong, J. S., & Yokum, J. T. (1994). Effectiveness of Monetary Incentives: Mail Surveys to Members of Multinational Professional Groups. *Industrial Marketing Management, 23*, 133-136.

Arnold, M. J., & Reynolds , K. E. (2003). Hedonic Shopping Motivations. *Journal of Retailing, 79*(2), 77-95.

Ayanso, A., & Yoogalingam, R. (2009). Profiling Retail Web Site Functionalities and Conversion Rates: A Cluster Analysis. *International Journal of Electronic Commerce, 14*(1), 79-113.

Ba, S., & Pavlou, P. A. (2002). Evidence of The Effect of Trust Building Technology in Electronic Markets: Price Premium and Buyer Behavior. *MIS Quarterly, 26*(3), 243–268.

Babin, B. J., Darden , W. R., & Griffin , M. (1994). Work and/or Fun: Measuring Hedonic and Utilitarian Shopping Value. *Journal of Consumer Research, 20*(4), 644–656.

Babina, B. J., Hardestyb, D. M., & Suter, T. A. (2003). Color and Shopping Intentions: The Intervening Effect of Price Fairness and Perceived Affect. *Journal of Business Research, 56*, 541-551.

Bagozzi, R. P. (1980). *Causal Methods in Marketing*. New York: John Wiley and Sons.

Bagozzi, R. P., & Dholakia, U. M. (2002). Intentional Social Action in Virtual Communities. *Journal of Interactive Marketing, 16*(2), 2-21.

Bagozzi, R. P., & Phillips, L. W. (1982). Representing and Testing Organizational Theories: A Holistic Construal. *Administrative Science Quarterly, 27*(3), 459–489.

Bagozzi, R. P., & Yi, Y. (1989). On the Use of Structural Equation Models in Experimental Designs. *Journal of Marketing Research, 26*, 271-284.

Baker, J. (1986). The Role of Environment in Marketing Services: the Consumer Perspective. In J. A. Czpeil, C. Congram & J. Shanaham (Eds.), *The Services Marketing Challenge: Integrated for Competitive Advantage* (pp. 79– 84). Chicago: American Marketing Association.

Bakos , J. Y. (1997). Reducing Buyer Search Costs: Implications for Electronic Marketplaces. *Management Science, 43*(12), 1676–1692.

Balabanis, G., & Reynolds, N. (2001). *Factors Influencing online Shopping and E-store Benefits Sought.* Paper presented at the the 30th EMAC Conference, Bergen, Norway.

Bandalos, D. L. (2002). The Effects of Item Parceling on Goodness-of-Fit and Parameter Estimate Bias in Structural Equation Modeling. *Structural Equation Modeling, 9*(1).

Baron, R. M., & Kenny, D. A. (1986). The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations. *Journal of Pe~nality and Social Psychology, 51*(6), 1173-1182.

Bauer, C., & Scharl, A. (2000). Quantitive Evaluation of Web site Content and Structure. *Internet Research: Electronic Networking Applications and Policy, 10*(1), 31-43.

Bauer, R. A. (1960). Consumer Behavior as Risk Taking. In R. S. Hancock (Ed.), *Dynamic Marketing for a Changing World* (pp. 389–398). Chicago: American Marketing Association.

Bauer, R. A. (1967). Consumer Behavior as Risk Taking. In D. F. Cox (Ed.), *Risk Taking and Information Handling in Consumer Behavior*. Boston: Harvard University Press.

Bearden, W. O., & Etzel, M. J. (1982). Reference Group Influence on Product and Brand Purchase Decisions. *The Journal of Consumer Research, 9*(2), 183-194.

Bearden, W. O., & Woodside, A. G. (1978). Consumption Occasion Influence on Consumer Brand Choice. *Decision Sciences, 9*, 273.

Bearden, W. O. N., Richard, G., & Teel, J. E. (1989). Measurement of Consumer Susceptibility to Interpersonal Influence. *Journal of Consumer Research, 15*(4), 473–488.

Bechwati, N. N., & Xia, L. (2003). Do Computers Sweat? The Impact of Perceived Effort of Online Decision Aids on Consumers' Satisfaction With the Decision Process. *Journal of Consumer Psychology, 13*(1&2), 139-148.

Beldonaa, S., Morrisonb, A. M., & O'Leary, J. (2005). Online Shopping Motivations and Pleasure Travel Products: a Correspondence Analysis. *Tourism Management, 26* 561–570.

Belk, R. (1974a). An Exploratory Assessment of Situational Effects in Buyer Behavior. *Journal of Marketing Research, 11* 156-163.

Belk, R. (1975). Situational Variables and Consumer Behaviour. *Journal of Consumer Research, 2*, 157-164.

Bem, D. J., & Allen, A. (1974). On Predicting Some of the People Some of the Time: the Search for Cross-Situational Consistencies in Behavior *Psychological Review, 81*, 506-520.

Bensaou, M., & Venkataman, N. (1996). Inter-organizational Relationships and Information Technology: A Conceptual Synthesis and a Research Framework. *European Journal of Information Systems, 5*, 84-91.

Bentler, P. M. (1990). Comparative Fit Indexes in Structural Models. *Psychological Bulletin, 107*(2), 238-246.

Bentler, P. M., & Bonett, D. G. (1980). Significance Tests and Goodness of Fit in the Analysis of Covariance Structures. *Psychological Bulletin, 88*(3), 588-606.

Berthon, P., Pitt, L. E., & Watson, R. T. (1996). The World Wide Web as an Advertising Medium: Toward an Understanding of Conversion Efficiency. *Journal of Advertising Research, 36*(1).

Bettman, J. R. (1973). Perceived Risk and Its Coponents: a Mdel and Epirical Test. *Journal of Marketing, 10*(2), 184–190.

Bettman, J. R., & Sujan, M. (1987). Effects of Framing on Evaluation of Comparable and Noncomparable Alternatives by Expert and Novice Consumers. *Journal of Consumer Research*, 141-154.

Bhattacherjee, A. (2000). Acceptance of E-commerce Services: the Case of Electronic Brokerages. *IEEE Transactions on Systems, Man and Cybernetics, 30*(4), 411-420.

Bhattacherjee, A. (2001a). An Empirical Analysis of the Antecedents of Electronic Commerce Service Continuance. *Decision Support Systems, 32*(2), 201-214.

Bhattacherjee, A. (2001b). Understanding Information Systems Continuance: An Expectation Confirmation Model. *MIS Quarterly, 25*(3), 351-370.

Bhattacherjee, A. (2002). Individual Trust in Online Firms:Scale Development and Initial Test. *Journal of Management Information, 19*(1), 211-241.

Bhuian, S. N. (2001). Factors Determining Consumer Interest in Catalogs: an Examination in an Emerging Market. *Journal of Marketing Channels, 8*(3-4), 65–83.

Bickart, B., & Schindler, R. M. (2001). Internet Forums as Influential Sources of Consumer Information. *Journal of Interactive Marketing, 15*(3), 31.

Bigley, G. A., & Pearce, J. L. (1998). Straining for Shared Meaning in Organization Science: Problems of Trust and Distrust. *Academy of Management Review, 23*(3), 405–421.

Bitner, M. J. (1992). Servicescapes: the Impact of Physical Surroundings on Customers and Employees. *56, Journal of Marketing*, 57– 71.

Bloch, P. H., Ridgway, N. M., & Sherrell , D. L. (1989). Extending the Concept of Shopping: An Investigation of Browsing Activity *Journal of the Academy of Marketing Science, 17*(1), 13-21.

Bloch , P. H., Sherrell, D. L., & Ridgway, N. M. (1986). Consumer Search: An Extended Framework. *Journal of Consumer Research, 13*, 119-127.

Bollen, K. A., & Long, J. S. (1993). *Testing Structural Equation Models*. Newbury Park: CA: Sage.

Bolton, R. N., & Drew, J. H. (1991). A Multistage Model of Customers' Assessments of Service Quality and Value. *Journal of Consumer Research, 17*(4), 375–384.

Bone, P. F. (1995). Word-of-mouth Effects on Short-term and Long-term Product Judgments. *Journal of Business Research, 32*, 213–223.

Boss, R. W. (1978). Trust and Managerial Problem Solving Revisited. *Group and Organization Studies, 3*, 331-342.

Boudreau, M., Gefen, D., & Straub, D. W. (2001). Validation in IS Research: A State-of-the-art Assessment. *MIS Quarterly, 25*(1), 1–16.

Boush, D. M., & Kahle, L. (2005). What, and How, We Can Learn from online Consumer Discussion Groups. In C. P. Haugtvedt, K. A. Machleit & R. F. Yalch (Eds.), *Online Consumer Psychology: Understanding and Influencing Consumer Behavior in the Virtual World* (pp. 101-121). Mahwah, New Jersey: Lawrence Erlbaum Associates, Inc.

Bowers , K. S. (1973). Situationalism in Psychology: An Analysis and Critique. *Psychological Review, 80*, 307-336.

Boyer, K. K., Hallowell, R., & Roth, A. V. (2002). E-services: Operating Strategy—a Case Study and a Method for Analyzing Operational Benefits. *Journal of Operations Management, 20*, 175-188.

Breckler, S. J., & Wiggins, E. C. (1989). Affect Versus Evaluation in the Structure of Attitudes. *Journal of Experimental Social Psychology, 25*, 253-271.

Bridges, E., & Florsheim, R. (2008). Hedonic and Utilitarian Shopping Goals: The online Experience. *Journal of Business Research, 61*, 309-314.

Briley, D. A., & Wyer, R. S. (2002). The Effect of Membership Salience on the Avoidance of Negative Outcomes: Implications for Social and Consumer Decisions. *Journal of Consumer Research, 29*, 400-415.

Brown, J. J., & Reingen, P. H. (1987). Social Ties and Word of Mouth Referral Behavior. *Journal of Consumer Research, 14*(3), 350-362.

Brynjolfsson, E., & Smith, M. (2000). Frictionless Commerce? A Comparison of Internet and Conventional Retailers. . *Management Science, 46*(4), 563–585.

Brynjolfsson , E., & Smith, M. D. (2000). The Great Equalizer? Consumer Choice Behavior at Internet Shopbots. MIT Sloan School of Management.

Burke, R. R. (1998). Do You See What I See? The Future of Virtual Shopping. *Journal of the Academy of Marketing Science, 25*, 352-360.

Burke, R. R., Harlam, B. A., Kahn, B. E., & Lodish, L. M. (1992). Comparing Dynamic Consumer Choice in Real and Computer-simulated Environments. *Journal of Consumer Research, 19*(4), 71-82.

Bush , M. (2000, August 21). "Grinch" Effort Hopes to Steal Movigoers. *Direct Marketing News*.

Bussiere, D. (2000). Evidence and Implications of Electronic Word-of-mouth. *Developments in marketing science, 23*, 321-322.

Byrne, B. M. (2001). *Structural Equation Modeling with AMOS: Basic Concepts, Applications, and Programming*. NJ: Lawrence Erlbaum Associates.

Cao, M., Zhang, Q., & Seydel, J. (2005). B2C E-commerce Website Quality: an Empirical Examination. *Industrial Management and Data Systems, 105*(5/6).

Cases, A.-S. (2002). Perceived Risk and Riskreduction Strategies in Internet Shopping. *The International Review of Retail, Distribution and Consumer Research, 12*(4), 375–394.

Castillo, F. J. M., & Nicolas, C. L. (2007). Innovative Products on the Internet: the Role of Trust and Perceived Risk. *Int. J. Internet Marketing and Advertising, 4*(1).

Celsi, R. L., & Olson , J. C. (1988). The Role of Involvement in Attention and Comprehension Processes. *The Journal of Consumer Research, 15*(2), 210 –224.

Chanaka, J. (2004). Personal Values' Influence on E-shopping Attitude and Behaviour. *Internet Research, 14*(2), 127-138.

Chang, J. E., Simpson, T. W., Rangaswamy, A., & Tekchadaney, J. (2002). *A Good website Can Convey the Wrong Brand Image! A Preliminary Report.* (working paper): Pennsylvania State University.

Chang, M. K., Cheung, W., & Lai, V. S. (2005). Literature Derived Reference Models for the Adoption of Online Shopping. *Information & Management, 42*(4), 543-559.

Chatterjee, P. (2001). Online Reviews: Do Consumers Use Them? *Advances in consumer research, 28*, 129-133.

Chau, P. Y., Au, G., & Tam, K. Y. (2000). Impact of Information Presentation Modes on Online Shopping: An Empirical Evaluation of a Broadband Interactive Shopping Service. *Journal of Organizational Computing and Electronic Commerce, 10*(1), 1-22.

Chau, P. Y. K., Cole, M., Massey, A. P., Montoya-Weiss, M., & O'Keefe, R. M. (2002). Cultural Differences in the Online Behaviour of Consumers. *Communications of the ACM, 45*(10).

Chen, C. C., & Chang, S. C. (2005). Discussion on the Behavior Intention Model of Consumer Online Shopping. *Journal of Business and Management, 11*.

Chen, W. J., & Lee, C. (2005). The Impact of Website Image and Consumer Personality on Consumer Behavior. *International Journal of Management, 22*(3).

Chen, Y., & Xie, J. (2004). Online Consumer Review: A new Element of Marketing Communications Mix. Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=618782#

Cheung, C. M. K., Chan, G. W. W., & Limayem, M. (2005). A Critical Review of Online Consumer Behavior: Empirical Research. *Journal of Electronic Commerce in Organizations, 3*(4), 1-19.

Cheung, C. M. K., & Lee, M. K. O. (2005). Research Framework for Consumer Satisfaction with Internet Shopping. Unpublished Working paper. City University of Hong Kong, China.

Cheung, C. M. K., Zhu, L., Kwong, T., Chan, G. W. W., & Limayem, M. (2003, June 9-11). *Online Consumer Behavior: A Review and Agenda for Future Research.* Paper presented at the 16th Bled eCommerce Conference eTransformation, Bled, Slovenia.

Chiang, K.-P. (2001). *Effects of Price, Product Type and Convenience on Consumer Intention to Shop Online.* Paper presented at the AMA Winter Educators' Conference, Chicago.

Chiang, K.-P., & Dholakia, R. R. (2003). Factors Driving Consumer Intention to Shop Online: An Empirical Investigation. *Journal of Consumer Psychology, 13*(1&2), 177-183.

Childers, T. L., Carr, C. L., Peck, J., & Carson, S. (2001). Hedonic and Utilitarian Motivations for Online Retail Shopping Behavior. *Journal of Retailing, 77*(4), 511-535.

Chiles , T. H., & McMackin, J. F. (1996). Integrating Variable Risk Preferences, Trust, and Transaction Cost Economics. *Academy of Management Review, 21*(1), 73–99.

Chiou, J. S., & Cheng, C. (2003). Should a Company Have Message Boards on Its Web Sites? *Journal of Interactive Marketing, 17*(3), 50-61.

Choi, J., & Bell, D. R. (March 17, 2010). Preference Minorities and the Internet:Why Online Demand is Greater in Areas where Target Consumers are in the Minority. *Knowledge@Wharton*. Retrieved Jan 12, 2010, from http://marketing.wharton.upenn.edu/documents/research/28_Choi%20Bell%20(2009).pdf

Choi, J., Bell, D. R., & Lodish, L. M. (March 17, 2010). Traditional and IS-enabled Customer Acquisition for an Internet Retailer: Why New Buyer Acquisition Varies over Geographies and by Method. *Knowledge@Wharton*. Retrieved January 12, 2010, from http://marketing.wharton.upenn.edu/documents/research/Choi%20Bell%20Lodish%202010.pdf

Chow , S., & Holden, R. (Fall, 1997). Toward an Understanding of Loyalty: the Moderating Role of Trust. *Journal of Managerial Issues, 9*(3), 275–298.

Churchill , G. A. (1979). A Paradigm for Developing Better Measures of Marketing Constructs. *Journal of Marketing Research, 16*(1).

Churchill, G. A., Jr., Ford, N. M., & Walker, O. C., Jr. (1993). *Sales Force Management* (4 ed.). Homewood, IL: Irwin.

Citrin, A. V., Sprott, D. E., Silverman, S. N., & Donald, E. S. (2000). Adoption of Internet shopping: the role of consumer innovativeness. *Industrial Management & Data Systems, 100*(7), 294-300.

Citrin, A. V., Sprott, D. E., Silverman, S. N., & Stem, D. E. J. (2000). Adoption of Internet Shopping: the Role of Consumer Innovativeness. *Industrial Management & Data Systems, 100*(7), 294-300.

Cohen, J. (2008). Spam Finally Has a Definition. *DMNews*. Retrieved March 25th 2008, from http://www.dmnews.com/Spam-finally-has-a-definition/article/107514/

Cohen, J. B., & Areni, C. S. (1991). Affect and Consumer Behavior. In T. S. Robertson & H. H. Kassarjian (Eds.), *Handbook of Consumer Behavior* (pp. 183-240). Englewood Cliffs, New Jersey Prentice-Hall.

Communications, J. (2000). *Online Shopping Report: Strategies for Driving Long-term Profitability*. Retrieved Oct 28th, 2008, from http://www.jup.com

Computerweekly. (2002). *FBI probes major credit card scam*. Retrieved 4 Dec, 2008, from http://www.computerweekly.com/Articles/2002/09/18/189728/fbi-probes-major-credit-card-scam.htm

comScore. (2009). *The State of the U.S. Online Retail Economy in Q4 2009*. Retrieved Feb 15, 2010, from http://www.comscore.com/index.php/Press_Events/Presentations_Whitepapers/2010/The_State_of_the_U.S._Online_Retail_Economy_in_Q4_2009/(language)/eng-US

comScore. (Dec 2007). *Retail Web Sites Show Growth in Europe*. Retrieved October 15, 2009, from http://www.comscore.com/Press_Events/Press_Releases/2007/12/Retail_Websites_in_Europe/(language)/eng-US

comScore. (February 2010). *The 2009 U.S. Digital Year in Review*. from http://comscore.com/Press_Events/Presentations_Whitepapers/2010/The_2009_U.S._Digital_Year_in_Review/(language)/eng-US

Constant, D., Sproull, L., & Kiesler, S. (1997). The Kindness of Strangers: On the Usefulness of Electronic Weak Ties for Technical Advice. In S. Kiesler (Ed.), *Culture of the Internet* (pp. 303-321). Mahwah, NJ: Lawrence Erlbaum Associates.

Constantinides, E. (2002). *From Physical Marketing to Web Marketing: The Web-Marketing Mix.* Paper presented at the the 35th Hawaii International Conference on System Sciences, Hawaii.

Constantinides, E. (2004). Influencing the online Consumer's Behavior: the Web Experience. *Internet Research, 4*(12), 111-126.

Corfman , K. P., & Lehmann , D. R. (1987). Models of Cooperative Group Decision-Making and Relative Influence: An Experimental Investigation of Family Purchase Decisions. *Journal of Consumer Research, 14*, 1-13.

Cox, A. D., Cox, D., & Anderson, R. D. (2005). Reassessing the Pleasures of Store Shopping. *Journal of Business Research, 58*, 250-259.

Cox, B. (1999). Surveys Find Word-of-Mouth Fueling E-Commerce. *Internetnews.com*. Retrieved May 25, 2008, from http://www.internetnews.com/ec-news/article.php/127281/Surveys+Find+WordofMouth+Fueling+ECommerce.htm

Cox, D. F., & Rich, S. U. (1964). Perceived Risk and Consumer Decision Making: The Case of Telephone Shopping. *Journal of Marketing Research*, 32-39.

Cronbach, L. (1970). *Essentials of Psychology Testing*. New York: Harper & Row.

Cronbach, L. J. (1971). Test Validation. In R. L. Thorndike (Ed.), *Educational Measurement* (2nd ed., pp. 443-507). Washington, DC: American Council on Education.

Csikszentmihalyi, M. (1975). Play and Intrinsic Rewards. *Humanistic Psychological Bulletin, 15*, 41-63.

Csikszentmihalyi, M. (1977). *Beyond Boredom and Anxiety*. San Fransisco, CA: Jossey-Bass.

Csikszentmihalyi, M., & Csikszentmihalyi, I. S. (1988). *Optimal Experience: Psychological Studies of Flow in Consciousness*. Cambridge, U.K.: Cambridge University Press.

Cunningham, S. M. (1967). The Major Dimensions of Perceived Risk. In D. F. Cox (Ed.), *Risk Taking and Information Handling in Consumer Behavior* (pp. 82-108). Boston: Harvard University Press.

Cyr, D. (2008). Modeling Website Design across Cultures: Relationships to Trust, Satisfaction and E-loyalty. *Journal of Management Information Systems*.

Cyr, D., Bonanni, C., Bowes, J., & Ilsever, J. (2005). Beyond Trust: Web Site Design Preferences Across Cultures. *Journal of Global Information Management, 13*(4), Oct-Dec.

D'Astous, A. (1990). Inquiry into the Compulsive Side of Normal Consumers. *Journal of Consumer Policy, 13*(1).

Dabholkar, P. A. (fall 2006). Factors Influencing Consumer Choice of a 'Rating Web Site': An Experimental Investigation of an Online Interactive Decision Aid. *Journal of Marketing Theory and Practice, 14*(4), 259–273.

Dabholkar, P. A., & Bagozzi, R. P. (2002). An Attitudinal Model of Technology-Based Self-Service:Moderating Effects of Consumer Traits and Situational Factors. *Journal of the Academy of Marketing Science, 30*(3), 184-201.

Dailey, L. (2004). Navigational Web Atmospherics. Explaining the Influence of Restrictive Navigation Cues. *Journal of Business Research*(5754), 1-9.

Darby, R., Michael , R., & Karni, E. (1973). Free Competition and the Optimal Amount of Fraud. *Journal of Law and Economics, 16*, 67–86.

Darley, W. K., & Lim, J. (1993). Store-Choice Behavior for Pre-Owned Merchandise. *Journal of Business Research, 27*(1), 17-31.

Davis, F. D. (1986). *A Technology Acceptance Model for Empirically Testing New End-User Information Systems : Theory and Results.* Unpublished PhD, Massachusetts Institute of Technology, Boston. http://dspace.mit.edu/handle/1721.1/15192

Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use and User Acceptance of Information Technology. *MIS Quarterly, 13*(3), 319-340.

Davis, F. D. (1993). User Acceptance of Information Technology: System Characteristics, User Perceptions and Behavioral Impacts. *International Journal of Man-Machine Studies, 38*(3), 475-487.

Davis, F. D., & Kotteman, J. E. (1994). User Perceptions of Decision Support Effectiveness: Two Production Planning Experiments. *Decision Sciences, 25*, 57-77.

Davis, L., Wang, S., & Lindridge, A. (2008). Culture Influences on Emotional Responses to On-line Store Atmospheric Cues. *Journal of Business Research, 61*, 806-812.

Day, R. F., Shyi, G. C. W., & Wang, J. C. (2006). The Effect of Flash Banners on Multiattribute Decision Making: Distractor or Source of Arousal? *Psychology & Marketing, 23*(5), 369–382.

De Figueuredo, J. M. (2000). Finding Sustainable Profitability in e-commerce. *Sloan Management Review, 41*(4), 41-52.

Degeratu, A. M., Rangaswamy , A., & Wub, J. (2000). Consumer Choice Behavior in Online and Traditional Supermarkets: The Effects of Brand Name, Price, and other Search Attributes. *International Journal of Research in Marketing, 17*, 55-78.

Dellarocas, C. (2003). The Digitization of Word of Mouth: Promise and Challenges of Online Feedback Mechanisms. *Management Science, 49*(10), 1407-1424.

Deloitte&Touche. (2008). *WebTrust Certification*. Retrieved 2nd December, 2008, from http://www.deloitte.com/dtt/section_node/0,1042,sid%253D2143,00.html

Dennis, C., Harris, L., & Sandhu, B. (2002). From Bricks to Clicks: Understanding the E-consumer. *Qualitative Market Research: An International Journal, 5*(4), 281-290.

DeVellis, R. F. (1991). *Scale Development: Theory and Applications*. Newbury Park: Sage Publications.

Dholakia, V., & Bagozzi, R. E. (2001). Consumer Behavior in Digital Environments. In J. Wind & V. J. Mohajan (Eds.), *Digital Marketing* (pp. 163-200). New York: John Wiley & Sons.

Diamantopoulos, A. (2005). The C-OAR-SE Procedure for Scale Development in Marketing: A Comment. *International Journal of Research in Marketing, 22*, 1-9.

Diamantopoulos, A., & Winklhofer, H. M. (2001). Index Construction with Formative Indicators: An Alternative to Scale Development. *Journal of Marketing Research, 38*, 269-277.

Dinlersoz, E. M., & Pereira, P. (2005). Patterns of Diffusion of Electronic Commerce in Retail Industries: Theory and Evidence. *CEinfo Economic Studies, 51*(2-3), 261-294.

Doherty, N. F., & Ellis-Chadwick, F. (2009). Exploring the Drivers, Scope and Perceived Success of E-commerce Strategies in the UK Retail Sector. *European Journal of Marketing, 43*(9/10), 1246-1262.

Doney, P. M., & Cannon, J. P. (1997). An Examination of the Nature of Trust in Buyer–Seller Relationships. *Journal of Marketing, 61*, 35–51.

Donnovan, R. J., & Rossiter, J. R. (1982). Store Atmostphere: An environmental Psychology Approach. *Journal of Retailing, 58*, 34-57.

Donthu, N., & Garcia, A. (1999). The Internet Shopper. *Journal of Advertising Research, 39*(3), 52-58.

Doolin, B., McLeod, L., McQueen, B., & Watton, M. (2003). Internet Strategies for Established Retailers: Four New Zealand Case Studies. *Journal of Information Technology Cases and Applications, 5*(4).

Duncan, O. D. (1975). *Introduction to Structural Equation Models*. New York: Academic Press.

Dutoit, T. (1997). *An Introduction to Text-to-Speech Synthesis* Dordrecht, the Netherlands: Kluwer Academic.

Dye, R. (2000). The Buzz on Buzz. *Harvard Business Review*, 139-146.

Economist.com. (2005, April 27). The online Ad Attack. *The Economist,* p.1.

Edwards, J. R., & Bagozzi, R. P. (2000). On the Nature and Direction of Relationships Between Constructs and Measures. *Journal of Personality and Social Psychology, 5*(2), 155–174.

Egger, F. N. (2001). *Affective Design of E-commerce User Interface: How to Maximize Perceived Trustworthiness.* Paper presented at the the International Conference on Affective Human Factors Design, London.

Eisenberg, B. (2008). *Top 10 Online Retailers by Conversion Rate: An Analysis.* 25/02/2010, from http://www.grokdotcom.com/2008/02/03/top-10-online-retailers-by-conversion-rate-january-2008-analysis/

Elliot, M. T., & Speck, P. S. (2005). Factors that Affect Attitude toward a Retail Web Site. *Journal of Marketing Theory and Practice, 13*(1).

Emanuel, R. (2000). *The Anatomy of Buzz: How to Create Word-of-Mouth Marketing.* New York: Doubleday.

Emarketer. (July, 1999). *The eGlobal Report*. Retrieved Oct 14th, 2008, from http://www.emarketer.com

Endler, N. S., & Magnusson, D. (1974). *Interactionism, Trait Psychology, Psycho-dynamics, and Situationalism. Reports from the Psychological Laboratories* (Report No. 418): University of Stockholm.

Engel, J. F., Blackwell, R. D., & Miniard, P. W. (1990). *Consumer Behavior*. Chicago: The Dryden Press.

Erikson, E. H. (1968). *Identity: Youth and Crisis*. New York: Norton.

Eroglu, S. A., Machleit, K. A., & Davis, L. M. (2001). Atmospheric Qualities of online Retailing A Conceptual Model and Implications. *Journal of Business Research, 54*, 177– 184.

Etzioni, A., & Etzioni, O. (1999). Face-to-Face and Computer-Mediated Communities, A Comparative Analysis. *The Information Society, 15*(4), 241-248.

Farber, D. (1995, November 13). Gold Rush in Cyberspace. *US News and World Report*.

Fasolo, B., Misuraca, R., McClelland, G. H., & Cardaci, M. (2006). Animation Attracts: The Attraction Effect in an On-line Shopping Environment. *Psychology & Marketing, 23*(10), 799–811.

Festinger, L. A. (1957). *Theory of Cognitice Dissonance*. Evanston, Ill: Row, Peterson.

Fink, A. (2003). *Asking Survey Questions* (2nd ed.). Thousand Oaks: Sage Publications.

Finn, A., & Kayande, U. (2005). How Fine is C-OAR-SE? A Generalizability Theory Perspective on Rossiter's Procedure. *International Journal of Research in Marketing, 22*, 11-21.

Fischer, E., Brislor, J., & Gainer, B. (1996). Creating or Escaping Community?: An Exploratory Study of Internet Consumers' Behaviors. *Advances in consumer research, 23*, 178-182.

Fishbein, M., & Ajzen, I. (1975). *Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research*. Reading, MA: Addison-Wesiey.

Fitzgerald, B. P. (1995). Word-of-Mouth Effects on Short-Term and Long-Term Product Judgments. *Journal of Business Research, 32*(3), 213–223.

Flavián, C., Guinalíu, M., & Gurrea, R. (2005). The Role Placed by Perceived Usability, Satisfaction and Consumer Trust on Website Loyalty

 (Publication., from Information and Management: www.elsevier.com/locate/dsw.

Fong, J., & Burton, S. (2006). Electronic Word-of-Mouth: A Comparison of Stated and Revealed Behavior on Electronic Discussion Boards. *Journal of Interactive Advertising, 6*(2), 61-70.

Ford, B., Gary, B., Smith, B., Darlene , B., Swasy, L., & John, L. (1988). An Empirical Test of the Search, Experience and Credence Attributes Framework. In M. J. Houston (Ed.), *Advances in consumer research* (Vol. 15, pp. 239–243). Provo, UT: Association for Consumer Research.

Fornell, C. (1982). *A Second Generation of Multivariate Analysis Methods*. New York: Praeger.

Fornell, C., & Bookstein, F. L. (1982). Two Structural Equation Models: LISREL and PLS Applied to Consumer Exit-Voice Theory. *Journal of Marketing Research, 19*, 440-452.

Fornell, C., & Cha, J. (1994). *Partial Least Squares*. Oxford: Blackwell Publishers.

Forsythe, S., Liu, H., Shannon, D., & Gardner, L. C. (2006). Development of a Scale to Measure the Perceived Benefits and Risks of online Shopping. *Journal of Interactive Marketing, 20*(2).

Fortune. (December 2000). Web Design – Design Matters. *Fortune*. Retrieved 25/08/08, from
<http://www.fortune.com/indexw.jhtml?channel=artcol.jhtml&doc_id=00000071>

Frenzen, J. K., & Davis, H. L. (1990). Purchasing Behavior in Embedded Markets. *The Journal of Consumer Research, 17*(1), 1-12.

Frewer, L. J., & Miles, S. (2003). Temporal Stability of the Psychological Determinants of Trust: Implications for Communication about Food Risks. *Health, risk, & society, 5*(3).

Friedkin , N. E. (1982). Information Flow through Strong and Weak Ties in Intraorganizational Social Networks. *social networks, 3*(4), 273-285

Ganassali, S. e. (2008). The Influence of the Design of Web Survey Questionnaires on the Quality of Responses. *Survey Research Methods, 2*(1), 21-32.

Garbarino, E., & Johnson , M. S. (1999). The Different Roles of Satisfaction, Trust, and Commitment in Customer Relationships. *Journal of Marketing, 63*, 70-87.

Gardner , M. P. (1985). Does Attitude Toward the Ad Affect Brand Attitude Under a Brand Evaluation 'Set'? *Journal of Marketing Research, 22*, 192-198.

Gefen, D. (2000). E-Commerce: The Role of Familiarity and Trust Omega. *The International Journal of Management Science, 28*(6), 725-737.

Gefen, D. (2002). Reflections on the Dimensions of Trust and Trustworthiness among Online Consumers. *ACM SIGMIS Database, 33*(3), 38-53.

Gefen, D., Benbasat, I., & Pavlou, P. A. (Spring 2008). A Research Agenda for Trust in Online Environments. *Journal of Management Information Systems, 24*(4), 275 – 286.

Gefen, D., Karahanna, E., & Straub, D. W. (2003). Trust and TAM in online Shoping: an Integrated Model. *MIS Quarterly, 27*(1), 51-90.

Gefen, D., & Straub, D. (2000). The Relative Importance of Perceived Ease of Use in IS Adoption: A Study of E-Commerce Adoption. *Journal of the Association for Information Systems, 1*(8).

Gefen, D., Straub, D. W., & Boudreau, M. C. (2000). Structural Equation Modeling and Regression: Guidelines for Research Practice. *Communications of the Association for Information Systems, 4*(7), 2-77.

Gehrt, K. C., Ingram, T. N., & Howe, V. (1991). Nonstore versus Store Retailing: a Situationally based Market Structure Assessment. *Journal of Direct Marketing, 5*(2), 44-53.

Gehrt, K. C., & Yan, R. N. (2004). Situational, Consumer, and Retailer Factors Affecting Internet, Catalogue, and Store Shopping. *International Journal of Retail & Distribution Management, 32*(1).

Geissler, G. (2001). Building Customer Relationships online: the Website Designers' Perspective. *Journal of Consumer Marketing, 18*(6), 488-502.

Geissler, G., Zinkhan, G., & Watson, R. T. (2001). Web Home Page Complexity and Communication Effectiveness. *Journal of the Association for Information Systems, 2*, 1-46.

George, C. J., & Swap, W. (1982). Measurement of Specific Interpersonal Trust: Construction and Validation of a Scale to Access Trust in a Specific Other. *Journal of Personality and Social Psychology, 43*, 1306-1317.

Gerbing, D. W., & Anderson, J. C. (1988). An Updated Paradigm for Scale Development Incorporating Unidimensionality and Its Assessment. *Journal of Marketing Research, 25*, 186-192.

Ghani, J. A., & Deshpande, S. P. (1994). Task Characteristics and the Experience of Optimal Flow in Human-Computer Interaction. *The Journal of Psychology, 128*(4), 381–391.

Giang, H. (2009). Cổng Thương Mại ĐiệnTử Xuyên Biên Giới Đầu Tiên Tại Đông Nam Á. *Diễn Đàn Doanh Nghiệp*. Retrieved 15 June 2009, from http://dddn.com.vn/20090428102416825cat83/cong-thuong-mai-dien-tu-xuyen-bien-gioi-dau-tien-tai-dong-nam-a.htm

Gilly, M. C., Graham, J. L., Wolfinbarger, M. F., & Yale, L. J. (1998). A Dyadic Study of Interpersonal Information Search. *Journal of the Academy of Marketing Sciences, 2*, 83-100.

Goby, V. P. (2006). Personality and Online/Offline Choices: MBTI Profiles and Favored Communication Modes in a Singapore Study. *Cyberpsychology & Behaviour, 9*(1).

Godin, S. (2000). *Unleashing the Ideavirus*. New York: Do You Zoom, Inc.

Goersch, D. (2002). Multi-Channel Integration and its Implications for Retail Websites. *Electronic computer Information System*, 748-758.

Goldsborough, R. (2002). The Influence of Active online Users. *Black Issues in Higher Education, 19*(5), 30.

Gopal, A., Bostrom, R., & Chin, W. (1992-1993). Applying Adaptive Structuration Theory to Investigate the Process of Group Support System Use. *Journal of Management Information Systems, 9*(3), 45-69.

Grabner, K. S. (2002). The Role of Consumers' Trust in Online Shopping. *Journal of Business Ethics, 39*(1/2), 43-51.

Grabner, K. S., & Kalusha, E. A. (2003). Empirical Research in Online Trust: A Review and Critical Assessment. *International Journal of Human-Computer Studies, 58*(6), 783-812.

Granitz, N. A., & Ward, J. C. (1996). Virtual Community: A Sociocognitive Analysis. *Advances in consumer research, 23*, 163-166.

Granovetter, M. (1973). The Strength of Weak Ties. *American Journal of Sociology, 78*(6), 1360-1380.

Gretzel, U., & Yoo, K. H. (2008). Use and Impact of online Travel Reviews. In P. O'Connor, W. Höpken & U. Gretzel (Eds.), *Information and Communication Technologies in Tourism 2008* (pp. 35-46). New York: Springer Wien.

Grewal, D., Gopalkrishnan, R. I., Krishnan, R., & Sharma, A. (2003). The Internet and the Price Value Loyalty Chain. *Journal of Business Research, 56*(5), 391-398.

Gribbins, M., & King, R. (2004). Electronic Retailing Strategies:A Case Study of Small Businesses in the Gifts and Collectibles Industry. *Electronic Markets, 14*(2), 138-152.

Griffith, D. A. (2005). An Examination of the Influences of Store Layout in online Retailing. *Journal of Business Research, 58*, 1391– 1396.

Griffith, D. A., Krampf, R. F., & Palmer, J. W. (2001). The Role of Interface in Electronic Commerce: Consumer Involvement with Print Versus On-Line Catalogue. *International Journal of Electronic Commerce, 5*(4), 135-153.

Grover, V., & Ramanlal, P. (1999). Six Myths of Information and Markets: Information Technology Networks, Electronic Commerce, and the Battle for Consumer Surplus. *MIS Quarterly, 23*(4), 465–495.

Guarino, A. J., Shannon, D. M., & Ross, M. (2001). Making Sense of Fit Indices in Structural Equation Modeling

(SEM). *Journal of Research in Education, 11*(1), 130-134.

Gupta, A., Su, B.-c., & Walter, Z. (Spring 2004). An Empirical Study of Consumer Switching from Traditional to Electronic Channels: A Purchase-Decision Process Perspective. *International Journal of Electronic Commerce, 8*(3), 131-161.

Gupta, S., & Kim, H.-W. (2004, August). *Virtual Community: Concepts, Implications, and Future Research Directions.* Paper presented at the Tenth Americas Conference on Information Systems, New York.

Hagel, J. (1999). Net Gain: Expanding Markets Through Virtual Communities *Journal of Interactive Marketing, 13*(1).

Hagel , J., & Armstrong , A. G. (1997). *Net Gain: Expanding Markets through Virtual Communities*. Boston, Massachusetts: McKinsey & Company, Inc.

Hair, J. F. J., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998). *Multivariate Data Analysis with Readings*. Englewood Cliffs, NJ: Prentice Hall.

Hammond, K., McWilliam, G., & Narholz, A. (1998). Fun and Work on the web: Differences in Attitudes between Novices and Experienced Users. *Advances in consumer research, 25*, 372–378.

Harmon, A. (February 14, 2004). Amazon Glitch Unmasks War of Reviewers. *New York Times*. Retrieved from www.nytimes.com/2004/02/14/technology/14AMAZ.html?ei=5007&en=183dc1d16a0c7b4c&ex=1392094800&partner=USERLAND&pagewanted=all&position=

Harrison, R. T., Dibben, M. R., & Mason, C. M. (1997). The Role of Trust in the Informal Investor's Investment Decision: an Exploratory Analysis. *Entrepreneurship Theory and Practice, 21*, 63–81.

Hart, P., & Saunders, C. (1997). Power and Trust: Critical Factors in the Adoption and Use of Electronic Data Interchange. *Organization Science, 8*(1), 23-42.

Hassan, A. M., Kunz, M. B., Pearson, A. W., & Mohamed, F. A. (2006). Conceptualization and Measurement of Perceived Risk in Online Shopping. *Marketing Management Journal, 16*(1), 138-147.

Hassanein, K., & Head, M. (2004). *The Influence of Product Type on Online Trust.* Paper presented at the 17th Bled Electronic Commerce Conference, Bled, Slovenia.

Hassanein, K., & Head, M. (2006). The Impact of Infusing Social Presence in the Web Interface: An Investigation Across Different Products. *International Journal of Electronic Commerce, 10*(2), 31–55.

Haubl, G., & Figueroa, P. (2001). *Interactive Animated Presentations and Buyer Behavior.* Paper presented at the Conference on Experimental E-commerce, Michigan State University.

Häubl, G., & Murray , K. B. (2003). Preference Construction and Persistence in Digital Marketplaces: The Role of Electronic Recommendation Agents. *Journal of Consumer Psychology, 13*(1&2), 75–92.

Häubl, G., & Trifts, V. (2000). Consumer Decision Making in Online Environments: The Effects of Interactive Decision Aids. *Marketing Science, 1*, 4-21.

Haugtvedt, C. P., Machleit, K. A., & Yalch, R. F. (2005). *Online Consumer Psychology: Understanding and Influencing Consumer Behavior in the Virtual World*. Mahwah, New Jersey: Lawrence Erlbaum Associates, Inc.

Heeler, R., Francis, J., Okechuku, C., & Reid, S. (1979). Gift versus Personal Use Brand Selection. *Advances in consumer research*, 6(1), 325-328.

Heider, F. (1958). *The Psychology of Interpersonal Relations*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Helson, H. (1964). Current Trends and Issues in Adaptation-Level Theory. American Psychologist, 19, 26-38.

Hemphill, T. A. (2002). Electronic Commerce and Consumer Privacy: Establishing online Trust in the US Digital Economy. *Business and Society Review, 107*(2), 221–239.

Hennig-Thurau, T., Gwinner, K. P., Walsh, G., & Gremler, D. D. (2004). Electronic Word-of-Mouth via Consumer-Opinion Platforms: What Motivates Consumers to Articulate Themselves on the Internet? *Journal of Interactive Marketing, 18*(1), 38-52.

Hennig-Thurau, T., & Walsh, G. (2004). Electronic Word-of-Mouth: Motives for and Consequences of Reading Customer Articulations on the Internet. *International Journal of Electronic Commerce, 8*(2), 51-74.

Hernandez, J. M. C., & Vargas, F. G. (2002). Brand Trust and Online Consumer Behavior. *Advances in consumer research, 29*.

Hesseldahl, A. (2000). *Ten O'Clock Tech: Take a Whiff of the Internet*. Retrieved August 15th, 2008, from http://www.forbes.com/2000/10/23/1023techam.html

Ho, S. Y. (2006). The Attraction of Internet Personalization to Web Users. *Electronic Markets, 16*(1), 41-50.

Hoffman, D., & Novak, T. (1996). Marketing in Hypermedia Computer-Mediated Environments: Conceptual Foundations. *Journal of Marketing, 60*(3), 50-68.

Hoffman, D., & Novak, T. (1997). A New Paradigm for Electronic Commerce. *The Information Society, 13*.

Hoffman, D. L., Novak, T. P., & Peralta, M. (1999). Building Consumer Trust online. *Communications of the ACM, 42*(4), 80-85.

Holbrook, M. B. (1994). The Nature of Customer Value: An Axiology of Service in the Consumption Experience. In O. Richard & R. Roland (Eds.), *Service Quality: New Directions in Theory and Practice* (pp. 21-71). London: Sage Publications.

Homer, P. M., & Kahle, L. R. (1990). Source Expertise, Time of Source Identification, and Involvement in Persuasion: An Elaborative Processing Perspective. *Journal of Advertising, 19*(1).

Hong, W., Thong, J. Y. L., & Tam, K. Y. (2004). Designing Product Listing Pages on E-commerce Websites: An Examination of Presentation Mode and Information Format. *International Journal of Human-Computer Studies, 61*, 481–503.

Hong, W., Thong, J. Y. L., & Yan, K. (2004). Does Animation Attract Virtual Users' Attention? The Effects of Flash on Information Search Performance and Perceptions. *Information Systems Research, 15*(1), 60-86.

Hornik , J. (1982). Situational Effects on the Consumption of Time. *Journal of Marketing, 46*, 44–55.

Hsu, M.-H., Yen, C.-H., Chiu, C.-M., & Chang, C.-M. (2006). A Longitudinal Investigation of Continued online Shopping Behavior: An Extension of the Theory of Planned Behavior. *International Journal of Human-Computer Studies, 64*, 889-904.

Hsua, M.-H. H., Jub, T. L., Yenc, C.-H., & Changa, C.-M. (2006). Knowledge Sharing Behavior in Virtual Communities: The Relationship between Trust, Self-

Efficacy, and Outcome Expectations. *International Journal of Human-Computer Studies, 65*(2), 153-169.

Hu, L., & Bentler, P. M. (1995). Evaluating Model Fit. Structural Equation Modeling: Concepts, Issues, and Applications. In R. H. Hoyle (Ed.), *Structural Equation Modeling: Concepts, Issues, and Applications* (pp. 76-99). Thousand Oaks, CA, US: Sage Publications, Inc.

Hu, L., & Bentler, P. M. (1999). Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria Versus New Alternatives. *Structural Equation Modeling, 6*(1), 1-55.

Hu, X., Lin, Z., & Zhang, H. (2003). Trust Promoting Seals in Electronic Markets: an Exploratory Study of Their Effectiveness for Online Sales Promotion. *Journal of Promotion Management, 9*(1-2), 163-180.

Huang, W., Le, T., Li, X., & Gandha, S. (2006). Categorizing Web Features and Functions to Evaluate Commercial Websites: An assessment Framework and an Empirical Investigation of Australian Companies. *Industrial Management & Data Systems, 106*(4), 523-539.

Huber, J., Payne, J. W., & Puto, C. P. (1982). Adding Asymmetrically Dominated Alternatives:Violations of Regularity and the Similarity Hypothesis. *Journal of Consumer Research, 9*, 90–98.

Hung, S.-Y., Ku , C.-Y., & Chang, C.-M. (2003). Critical Factors of WAP Services Adoption: an Empirical Study *Electronic Commerce Research and Applications, 2*(1), 42-60.

Hupfer, M., & Detlor, B. (2007). Sex, Gender and Self-Concept: Predicting Web Shopping Site Design Preferences (Publication no. 0-7695-2820-1). Retrieved 11-13 July, from IEEE: http://ieeexplore.ieee.org/xpls/abs_all.jsp?arnumber=4285306

Hwang, Y., & Kim, D. J. (2006). Customer Self-Service Systems: The Effects of Perceived Web Quality with Service Contents on Enjoyment, Anxiety, and E-trust. *Decision Support Systems, 43*, 746–760.

I-Ways. (2005). Internet Use Rising Among Developing Country Firms, But E-Business Lags. *Digest of Electronic Commerce Policy and Regulation, 28*, 24–26.

Jacoby, J., & Kaplan, L. B. (1972). *The Components of Perceived Risk.* Paper presented at the Third Annual Conference for Consumer Research, College Park, MD.

Jacoby, J., Szybillo, G. J., & Berning, C. K. (1976). Time and Consumer Behavior: an Interdisciplinary Overview. *Journal of Consumer Research, 2*, 320-339.

Jain , S. P., & Posavac , S. S. (2001). Prepurchase Attribute Verifiability, Source Credibility and Persuasion. *Journal of Consum Psychology, 11*(3), 169–180.

James , J. M., & Bolstein, R. (1992). Large Monetary Incentives and Their Effect on Mail Survey Response Rates. *The Public Opinion Quarterly, 56*(4), 442-453.

James, L. R., Mulaik, S. S., & Brett, J. M. (1982). *Causal Analysis*. Beverly Hills, CA: Sage.

Janiszewski, C. (1998). The Influence of Display Characteristics on Visual Exploratory Search Behavior. *Journal of Consumer Research, 25*(3), 290-301.

Jarboe, G. R., & McDaniel, C. D. (1987). A Profile of Browsers in Regional Shopping Malls. *Journal of the Academy of Marketing Science, 15*(1).

Jarvenpaa , S. L. (1989). The Effect of Task Demands and Graphical Format on Information Processing Strategies. *Management Science, 35*(3), 285–303.

Jarvenpaa, S. L., & Todd, A. P. (1997). Is There a Future for Retailing on the Internet? In R. A. Peterson (Ed.), *Electronic Marketing and the Consumer* (pp. 139-154). Thousand Oaks, CA: Sage.

Jarvenpaa, S. L., & Todd, P. A. (1996/1997). Consumer Reactions to Electronic Shopping on the World Wide Web. *Journal of Electronic Commerce, 1*(2), 59–88.

Jarvenpaa, S. L., Tractinsky, J., & Saarinen, L. (1999). Consumer Trust in an Internet Store: A Crosscultural Validation. *Journal of Computer Mediated Communication, 5*(2).

Jarvenpaa, S. L., & Tractinsky, N. (1999). Consumer Trust in an Internet Store. *Information Technology and Management, 5*(2), 1-35.

Jarvenpaa, S. L., Tractinsky, N., & Vitale, M. (2000). Consumer Trust in an Internet store. *Information Technology and Management, 1*(1), 45-71.

Jaworski, B., & Jacz, K. (2002). Rediscovering the Customer. *Marketing Management Journal*, 22-27.

Jee, J., & Lee, W. (2002). Antecedents and Consequences of Perceived Interactivity: An Exploratory Study. *Journal of Interactive Advertising, 3*(1).

Jobber, D., Saunders, J., & Mitchell, V. W. (2004). Prepaid Monetary Incentive Effects on Mail Survey Response. *Journal of Business Research, 57*, 347– 350.

John, G., & Roedder, D. L. (1981). Reliability Assessment: Coefficients Alpha and Beta. In K. Bernhardt & W. J. Kehoe (Eds.), *The Changing Marketing Environment: New Theories and Applications* (pp. 354– 357). Chicago: American Marketing Association.

Kahneman, D., & Tversky , A. (1993). Timid Choices and Bold Forecasts: A Cognitive Perspective on Risk Taking. *Management Science, 39*, 17–31.

Kambil, A., Eselius, E. D., & Monteiro, K. A. (summer 2000). Fast Venturing: The Quick Way to Start Web Businesses. *Sloan Management Review, 41*(4), 55.

Karvonen, K. (2000). *The Beauty of Simplicity.* Paper presented at the the ACM Conference on Universal Usability, Arlington, VA.

Karvonen, K., & Parkkinen, J. (2001). *Signs of Trust.* Paper presented at the the 9th International Conference on HCI, New Orleans, LA, USA.

Katz, E., & Lazarsfeld , P. F. (1955). *Personal Influence: The Part Played by People in the Flow of Mass Communication.* Glencoe: Free Press.

Keen, C., Ruyter, K. D., Wetzels, M., & Feinberg, R. (2000). An Empirical Analysis of Consumer Preferences Regarding Alternative Service Delivery Modes in Emerging Electronic Service Markets. *Quarterly Journal of Electronic Commerce, 1*(1), 31-47.

Kehoe, C. M., & Pitkow, J. E. (1996). Surveying the Territory: GVU's Five www User Surveys. *The World Wide Web Journal, 1*(3), 77–84.

Kenhove, P. V., Wulf, K. D., & Waterschoot, W. W. (1999). The Impact of Task Definition on Store Attribute Saliences and Store Choice. *Journal of Retailing, 75*(1), 125-137.

Khakimdjanova, L., & Park, J. (2005). Online Visual Merchandising Practice of Apparel E-merchants. *Journal of Retailing and Consumer Services, 12*, 307–318.

Khalifa , M., & Liu, V. (2001). *Satisfaction with Internet-based Services: A Longitudinal Study.* Paper presented at the the International Conference of Information Systems.

Khuyên, M. (2003). 'Đi Chợ' Trên Mạng. *VnExpress*. Retrieved April 08th 2008, from http://vnexpress.net/Vietnam/Vi-tinh/2003/08/3B9CA833/

Kim, D. J., Cho, B., & Rao, H. R. (2000). *Effects Of Consumer Lifestyles On Purchasing Behavior On The Internet: A Conceptual Framework And Empirical Validation.* Paper presented at the Sixth Americas Conference on Information Systems (AMCIS).

Kim, E., & Tadisina, S. (2005). *Factors Impacting Customers' Initial Trust in E-businesses: An Empirical Study.* Paper presented at the 38th Hawaii International Conference on System Sciences, Hawaii.

Kim, J., & Moon, J. Y. (1998). Designing towards Emotional Usability in Customer Interfaces – Trustworthiness of Cyber-Banking System Interfaces. *Interacting with Computers, 10*, 1-29.

Kim, Y. H., & Kim, D. J. (2005). *A Study of Online Transaction Self-Efficacy, Consumer Trust, and Uncertainty Reduction in Electronic Commerce Transaction.* Paper presented at the 38th Hawaii International Conference on System Sciences, Hawaii.

Klein, L. R. (1998). Evaluating the Potential of Interactive Media through a New Lens: Search versus Experience Goods. *Journal of Business Research, 41*, 195–203.

Knight, C. (1999). Viral Marketing. *Board Watch Magazine*. Retrieved September 4, 2007, from vvww.boardwatch.com/mag/99/nov/bwm50.html

Knowledge@Wharton. (2009). *A World Transformed: Panelists Look Beyond the Crisis*. Retrieved January 15th, 2010, from http://knowledge.wharton.upenn.edu/article.cfm?articleid=2171

Knowledge@Wharton. (2009). *The Buzz Starts Here: Finding the First Mouth for Word-of-Mouth Marketing*. Retrieved October, 2009, from http://knowledge.wharton.upenn.edu/article.cfm?articleid=2170

Knowledge@Wharton. (March 17, 2010). Geography Lesson: Why Internet Retailers Should Pay Attention to Where Potential Customers Live. *Knowledge@Wharton*. Retrieved January 12, 2010, from http://knowledge.wharton.upenn.edu/article.cfm?articleid=2455

Koernig, S. K. (2003). E-scapes: The Electronic Physical Environment and Service Tangibility. *Psychology & Marketing, 20*(2), 151–167.

Koivumaki, T. (2001). Customer Satisfaction and Purchasing Behavior in a Web-based Shopping Environment. *Electronic Markets, 11*(3), 186-192.

Kollock, P. (1999). The Economics of Online Cooperation: Gifts and Public Goods in Cyberspace. In P. Kollock & M. A. Smith (Eds.), *Communities in Cyberspace*. London: Routledge.

Kotha, S., Rajgopal, S., & Venkatachalam, M. (2004). The Role of Online Buying Experience as a Competitive Advantage: Evidence from Third- Party Ratings for E-Commerce Firms. *Journal of Business Ethics, 77*(2).

Kotler, P. (2003). *Marketing Management* (11 ed.). New Jersey: Englewood Cliffs.

Koufaris, M. (2002). Applying the Technology Acceptance Model and Flow Theory to Online Consumer Behavior. *Information Systems Research, 13*(2), 205-223.

Koufaris, M., & Hampton-Sosa, W. (2002). Customer Trust online: Examining the Role of the Experience with the Website. Unpublished research paper. Zicklin School of Business.

Kramer, R. M. (1994). The Sinister Attribution Error: Paranoid Cognition and Collective Distrust in Organizations. *Motivation and Emotion, 18*(2), 199–230.

Kraus, S. J. (1995). Attitudes and the Prediction of Behavior: a Meta Analysis of the Empirical Literature. *Personality and Social Psychology Bulletin, 21*(1), 59–75.

Kubilus, N. J. (2002). Designing an E-commerce Site for Users. *ACM Crossroads*.

Kumar, N., & Benbasat, I. (2006). The Influence of Recommendations and Consumer Reviews on Evaluations of Websites. *Information Systems Research, 17*(4), 425–439.

Kumar, V., & Venkatesan, R. (2005). Who are the Multichannel Shoppers and How Do They Perform?: Correlates of Multichannel Shopping Behavior. *Journal of Interactive Marketing, 19*(2).

Laband, D. N. (1991). An Objective Measure of Search versus Experience Goods. *Economic Inquire, 14*, 497-509.

Langer, E. J. (1975). The Illusion of Control. *Joumal of Personaiity and Sociai Psychology, 32*, 311-328.

Laudon, K. C., & Laudon, G. C. (2004). *Travers. E-Commerce-Business, Technology and Society* (2nd ed.): Addison Wesley.

Lavie, T., & Tractinsky, N. (2004). Assessing Dimensions of Perceived Visual Aesthetics of Websites. *International Journal of Human-Computer Studies, 60* 269–298.

Lavin, M. (2002). Christmas on the Web: 1998 vs. 1999. *Journal of Retailing and Consumer Service, 9*, 87-96.

Law, K. S., & Wong, C.-S. (1999). Multidimensional Constructs in Structural Equation Analysis: An Illustration Using the Job Perception and Job Satisfaction Constructs. *Journal of Management, 25*(2), 143-160.

Law, K. S., Wong, C.-S., & Mobley, W. H. (1998). Toward a Taxonomy of Multidimensional Constructs. *The Academy of Management Review, 23*(4), 741-755.

Lee, H. J., & Huddleston, P. (2006). Effects of E-Tailer and Product Type on Risk Handling in Online Shopping. *Journal of Marketing Channels, 13*(3).

Lee, M. K. O. (1999). Comprehensive Model of Internet Consumer Satisfaction. City University of Hong Kong.

Lee, M. K. O., & Turban, E. (Fall 2001). A Trust Model for Consumer Internet Shopping. *International Journal of Electronic Commerce, 6*(1), 75-91.

Lee, S. M., & Lee, S. J. (2005). Consumers' Initial Trust toward Second-hand Products in the Electronic Market. *The Journal of Computer Information Systems*.

Lenhart, A., Purcell, K., Smith, A., & Zickuhr, K. (2010). Social Media and Young Adults (Publication. Retrieved March 15th, 2010, from Pew Research Center: http://pewinternet.org/~/media//Files/Reports/2010/PIP_Social_Media_and_Young_Adults_Report.pdf

Lewin, K. (1936). *Principles of Topological Psychology*. New York: McGraw-Hill.

Lewis, R., Mobilio, L., Phelps, J. E., & Raman, N. (2005). Understanding Pass-along Emails: Motivations and Behaviors of Viral Consumers. In C. P. Haugtvedt, K. A. Machleit & R. F. Yalch (Eds.), *Online Consumer Psychology: Understanding and Influencing Consumer Behavior in the Virtual World* (pp. 63-99). Mahwah, New Jersey: Lawrence Erlbaum Associates, Inc.

Li, D., Browne, G. J., & Wetherbe, J. C. (2006). Why Do Internet Users Stick with a Specific Web Site? A Relationship Perspective. *International Journal of Electronic Commerce, 10*(4), 105-141.

Li, H., Daugherty, T. M., & Biocca, F. (2001, March 29–April 1). *Consumer Learning from Virtual Experience: An Experiment on Interactive Advertising*. Paper presented at the American Academy of Advertising Annual Conference, Salt Lake City, UT.

Li, Z. G., & Gery, N. (2000, November-December). E-tailing - For all Products? *Business Horizons,* 49-54.

Liang , T. P., & Huang, J. S. (1998). An Empirical Study on Consumer Acceptance of Products in Electronic Markets: a Transaction Cost Model. *Decision Support Systems, 24*, 29-43.

Liang, T. P., & Lai, H. J. (2002). Effect of Store Design on Consumer Purchases: An Empirical Study of Online Bookstores. *Information & Management, 39*, 431-444.

Liao, Z., & Cheung, M. T. (2001). Internet-Based E-shopping and Consumer Attitudes: An Empirical Analysis. *Information & Management, 38*(5), 299–306.

Lightner, N. J. (2003). What Users Want in E-commerce Design: Effects of Age, Education and Income. *Ergonomics, 46*(1), 153–168.

Lim, K., Sia, C. L., Lee, M., & Benbasat, I. (2006). Do I Trust You Online, and If So, Will I Buy? An Empirical Study of Two Trust-Building Strategies. *Journal of Management Information Systems, 23*(2), 233–266.

Lim, N. (2003). Consumers' Perceived Risk: Sources versus Consequences. *Electronic Commerce Research and Applications, 2*, 216–228.

Lin, S., & Kanliang, W. (2008). An Laboratory Experiment for Comparing Effectiveness of Three Types of Online Recommendations. *Tsinghua Science and Technology, 13*(3), 293-299.

Lippman, S. A., & Rumelt, R. P. (1982). Uncertain Imitability: An Analysis of Interfirm Differences under Competition. *Bell Journal of Economics, 13*, 418–438.

Lohse, G. L., & Spiller, P. (1999). Internet Retail Store Design: How the User Interface Influences Traffic and Sales. *Journal of Computer-Mediated Communication, 5*(2).

Lorenzo, C., Gómez, M. Á., & Mollá, A. (2007). Website Design and E-consumer: Effects and Responses. *Int. J. Internet Marketing and Advertising, 4*(1).

Lynch, P. D., & Beck, J. C. (2001). Profiles of Internet Buyers in 20 Countries: Evidence for Region-Specific Strategies. *Journal of International Business Studies, 32*(4), 725.

Lyons, B., & Henderson, K. (2005). Opinion Leadership in a Computer-Mediated Environment. *Journal of Consumer Behaviour, 4*(5), 319-329.

MacCallum, R. C., Browne, M. W., & Sugawara, H. M. (1996). Power Analysis and Determination of Sample Size for Covariance Structure Modeling. *Psychological Methods, 1*(2), 130-149.

Mai, H. (2008). Đổ Xô Mua Hàng Trên Mạng Cuối Năm. *VnExpress.net*. Retrieved Feb 15th 2009, from http://www.vnexpress.net/GL/Vi-tinh/2008/12/3BA091B3/

Mai, H. (2010). Nhộn Nhịp Mua Bán Đồng 2 USD Trên Mạng Để Lì Xì Tết. *VnExpress*. Retrieved March 05th, 2010, from http://vnexpress.net/GL/Vi-tinh/2010/01/3BA18157/

Martin, B. A., Sherrard, M. J., & Wentzel, D. (2005). The Role of Sensation Seeking and Need for Cognition on Website Evaluations: a Resource-Matching Perspective. *Psychology and Marketing, 22*, 109-126.

Martínez-López, F. J., Huertas, P. L., & Martínez, F. J. (2006). Motivations for Consumption Behaviours on the Web: a Conceptual Model based on a Holistic Approach. *International Journal of Electronic Marketing and Retailing, 1*(1), 3-20.

Mathwick, K., Charla, K., Naresh, K., Malhotra, R., & Edward, R. (2001). Experiential Value: Conceptualization, Measurement and Application in the Catalog and Internet Shopping Environment. *Journal of Retailing, 77*, 39-56.

Mattson, B. E. (1982). Situational Influences on Store Choice. *Journal of Retailing, 58*(3), 46-58.

Mattson, B. E., & Dubinsky, A. J. (1987). Shopping Patterns: An Exploration of Some Situational Determinants. *Psychology and Markeing, 4*, 47-62.

Mauldin, E., & Arunachalam, V. (2002). An Experimental Examination of Alternative Forms of Web Assurance for Business-to-Consumer e-Commerce. *Journal of Information Systems, 16*, 33-54.

Mayer, R., Davis, J., & Schoorman, F. D. (1995). An Integrative Model of Organizational Trust. *Academy of Management Review, 20*, 709–734.

MccLoskey, D. (2003-2004). Evaluating Electronic Commerce Acceptance with the Technology Acceptance Model. *Journal of Computer Information Systems, 44*(2).

Mccoy, S., Everard, A., Polak, P., & Galletta, D. F. (2007). The Effects of Online Advertising. *Communications of the ACM, 50*(3).

McGann, R. (2004). *Snapshot of the 2004 Online Holiday Shopper*. Retrieved August 15th, 2008, from http://www.clickz.com/stats/sectors/retailing/article.php/3450651

McGinnes, E., & Ward, C. (1980). Better Liked than Right: Trustworthiness and Expertise in Credibility. *Personality and Social Psychology Bulletin, 6*, 467-472.

McKnight, D. H., Choudhury, V., & Kacmar, C. (2002). The Impact of Initial Consumer Trust on Intentions to Transact with a Web Site: a Trust Building Model. *Journal of Strategic Information Systems, 11*.

McKnight, D. H., Cummings, L. L., & Chervany, N. L. (1998). Initial Trust Formation in New Organizational Relationsbips. *Academy of Management Review, 23*(3), 473-490.

Means, G., & Schneider, D. (2000). *MetaCapitalism: The E-Business Revolution and the Design of 21st Century Companies and Markets*. New York: John Wiley.

Mehrabian, A., & Russel, J. A. (1974). *An Approach to Environmental Psychology*. Cambridge, MA: MIT Press.

Mendenhal, W., & Sincich, T. (1993). *A Second Course in Business Statistics*. New York: Dellen/Macmillian.

Menon, N. M., Konana, P., Browne, G. J., & Balasubramanian, S. (1999). *Understanding Trustworthiness Beliefs in Electronic Brokerage Usage.* Paper presented at the Proceedings of the 20th international conference on Information Systems, Charlotte, North Carolina, United States.

Menon , S., & Kahn, B. (2002). Cross-Category Effects of Induced Arousal and Pleasure on the Internet Shopping Experience. *Journal of Retailing, 78*, 31-40.

Meyerson, D., Weick, K. E., & Kramer, R. M. (1996). Swift Trust and Temporary Groups. In R. M. Kramer & T. R. Tyler (Eds.), *Trust in Organizations: Frontiers of Theory and Research* (pp. 166-195). Thousand Oaks, CA: Sage Publications.

Miceli, G. N., Ricotta, F., & Costabile, M. (2007). Customizing Customization: A Concept Framework for Interactive Personalization. *Journal of Interactive Marketing, 21*(2).

Michael, I. (2006). Motivators for Australian Consumers to Search and Shop Online. *The Electronic Journal of Business Research Methods, 4*(1), 47-56.

Milne, G. R., & Rohm, A. J. (2000). Consumer Privacy and Name Removal across Direct Marketing Channels: Exploring opt-in and opt-out Alternatives. *Journal of Public Policy and Marketing, 19*(2), 238-249.

Min, S., & Wolfinbarger, M. (2005). Market Share, Profit Margin and Marketing Efficiency of Early Movers, Bricks and Clicks, and Specialists in E-commerce. *Journal of Business Research, 58*, 1030-1039.

Mischel, W. (1977). Personality at the Crossroads: Current Issues in Interactional Pyschology. In D. Magnussen & N. S. Endler (Eds.), *The Interaction of Person and Situation* (pp. 333-352). Hillsdale, NJ: Lawrence Erlbaum Associates.

Mitchell, V. W. (1999). Consumer Perceived Risk: Conceptualisations and Models. *European Journal of Marketing, 33*(1/2), 163–195.

Miyazaki , A. D., & Fernandez, A. (2000). Internet Privacy and Security: An Examination of Online Retailer Disclosures. *Journal of Public Policy & Marketing, 19*, 54-61.

Miyazaki, A. D., & Fernandez, A. (2001). Consumer Perceptions of Privacy and Security Risks for Online Shopping. *Journal of Consumer Affairs, 35*(1), 27 - 44.

Modzeiewski, F. M. (2000, September 11). Finding a Cure for Viral Marketing. *Direct Marketing News*.

Moe, W. W. (2003). Buying, Searching, or Browsing: Differentiating Between Online Shoppers Using In-Store Navigational Clickstream. *Journal of Consumer Psychology, 13*(1&2).

Moe, W. W. (2006). A Field Experiment to Assess the Interuption Effect of Pop-up Promotions. *Journal of Interactive Marketing, 20*(1).

Moe, W. W., & Fader, P. S. (2000). Which Visits Lead to Purchase? Dynamic Conversion Behavior at e-commerce Sites. University of Taxas.

Moe, W. W., & Fader, P. S. (2001). Uncovering Patterns in Cybershopping. *California Management Review, 43*(4), 106-117.

Moe, W. W., & Fader, P. S. (2004). Capturing Evolving Visit Behavior in Clickstream Data. *Journal of Interactive Marketing, 18*(1).

Moe, W. W., & Fader, P. S. (2004). Dynamic Conversion Behavior at E-Commerce Sites. *Management Science, 50*(3).

Monroe, K. B. (1973). Buyers' Subjective Perceptions of Price. *Journal of Marketing, 10*, 70–80.

Monsuwe´, T. i. P. y., Dellaert, B. G. C., & Ruyter, K. d. (2004). What Drives Consumers to Shop online? A Literature Review. *International Journal of Service Industry Management, 15*(1), 102-121.

Montgomery, A. L., Li, S., Srinivasan, K., & Liechty, J. C. (2004). Modeling Online Browsing and Path Analysis Using Clickstream Data. *Marketing Science, 23*(4), 579–595.

Moore, G. C., & Benbasat, I. (1991). Development of an Instrument to Measure the Perceptions of Adopting an Information Technology Innovation. *Information Systems Research, 2*(3).

Moores, T. (2005). Do Consumers Understand the Role of Privacy Seals in e-commerce? *Communications of the ACM, 48*(3).

Moorman, C., Deshpandé, R., & Zaltman, G. (1993). Factors Affecting Trust in Market Research Relationships. *Journal of Marketing, 57*, 81–101.

Morgan, R. M., & Hunt, S. D. (1994). The Commitment-Trust Theory of Relationship Marketing. *Journal of Marketing, 58*, 20-38.

Moschis, G. P., & Churchill, G. A. (1978). Consumer Socialization: A Theoretical and Empirical Analysis. *Journal of Marketing Research, 15*(4), 599-609.

Mowen, J. C. (1990). *Consumer Behavior*. New York: MacMillan Publishing Co.

Mulhern , F. J., & Leone , R. P. (1990). Retail Promotional Advertising, Do the Number of Deal Items and Size of the Deal Discount Affect Store Performance. *Journal of Business Research, 21*, 179– 194.

Mummalaneni, V. (2005). An Empirical Investigation of Website Characteristics, Consumer Emotional States and online Shopping Behaviors. *Journal of Business Research, 58*, 526– 532.

Murphy, G. B., & Blessinger, A. A. (2003). Perceptions of No-name Recognition Business to Consumer E-commerce Trustworthiness: the Effectiveness of Potential Influence Tactics. *Journal of High Technology Management Research, 14*, 71–92.

Murphy, G. B., & Smart, D. (2000). New and Small e-commerce Ventures: the Importance of Legitimacy and Trust. *New England Journal of Entrepreneurship, 3*, 33–45.

Mutz, D. C. (2005). Social Trust and E-Commerce: Experimental Evidence for the Effects of Social Trust on Individuals' Economic Behavior. *Public Opinion Quarterly, 69*(3), 393-116.

Nam, C., Song, C., Lee, E., & Park, C. I. (2006). Consumers' Privacy Concerns and Willingness to Provide Marketing-Related Personal Information Online. *Advances in consumer research, 33*.

Narasimhan, C., Neslin, A. S., & Sen, K. S. (1996). Promotional Elasticities and Category Characteristics. *Journal of Marketing, 60*, 17–30.

Nataraj, S., & Lee, J. (2002). Dot-com companies: Are they all hype? *S.A.M. Advanced Management Journal, 67*(3), 10-14.

Neilsen, J. (2000). *Designing Web Usability: The Practice of Simplicity*. Indianapolis: New Riders Publishing.

Nelson, P. (1970). Information and Consumer Behavior. *Journal of Political Economy, 78*(2), 311–329.

Nelson, P. (1976). Economic Value of Advertising. In Y. Brozen (Ed.), *Advertising and Marketing Association* (pp. 109–141). New York: New York University Press.

Nelson, P. (1981). Consumer Information and Advertising. In M. Galatin & R. D. Leiter (Eds.), *Economics of Information* (pp. 42-77). Boston, MA: N. Nijhoff Publishers.

Nelson, P. (1974). Advertising as Information. *Journal of Political Economy, 82*(4), 729–754.

Newell, S. J., Henderson, K. V., & Wu, B. T. (2001). The Effects of Pleasure and Arousal on Recall of Ads During the Super Bowl. *Psychology & Marketing, 18*(11), 1135-1153.

Nguyễn, H. (2007). eBay VN Tạo Thách Thức và động Lực Cho TMĐT Trong Nước. *VnExpress.net*. Retrieved 28/6/2007, from http://www.vnexpress.net/Vietnam/Vi-tinh/2007/06/3B9F7832/

Nhung, H. (2008). Giới Trẻ Ngày Càng Mê Mua Hàng Trên Mạng. *VnExpress*. Retrieved April 08th 2008, from http://vnexpress.net/Vietnam/Doi-song/Mua-sam/2008/04/3BA010BD/

Nielsen. (2010). *U.S. Ad Spending Down Nine Percent in 2009*. Retrieved February 15th, 2010, from http://blog.nielsen.com/nielsenwire/wp-content/uploads/2010/02/2009-Year-End-Ad-Spend-Press-Release.pdf

Nielsen. (March 2009). *Global Faces and Networked Places: A Nielsen Report on Social Networking's New Global Footprint*. Retrieved Feb 12, 2010, from http://blog.nielsen.com/nielsenwire/wp-content/uploads/2009/03/nielsen_globalfaces_mar09.pdf

Nielsen, J. (2006). *F-shaped Pattern for Reading Web Content*. Retrieved Feb 25, 2010, from www.useit.com/alertbox/reading_pattern.html

Nielsen, J., Molich, R., Snyder, C., & Farrell, S. (2001). *E-Commerce User Experience*. Fremont, CA.

Nielsen Online, M. R. (2008). Top 10 Online Retailers by Conversion Rate - July 2008 (Publication. Retrieved 25/02/2010, from Marketing Charts: http://www.marketingcharts.com/direct/top-10-online-retailers-by-conversion-rate-july-2008-5796/

Nielsen Online, M. R. (2009). Top 10 Online Retailers by Conversion Rate - July 2009 (Publication. Retrieved 25/02/2010, from Marketing Charts: http://www.marketingcharts.com/direct/top-10-online-retailers-by-conversion-rate-july-2009-10200/

Nielsen/NetRatings, I. (2003). *Married web suffers conduct more ecommerce than single suffers*. Retrieved January 22, 2009, from nielsen-netratings.com

Noiwana, J., & Norcio, A. F. (2006). Cultural Differences on Attention and Perceived Usability: Investigating Color Combinations of Animated Graphics. *International Journal of Human-Computer Studies, 64*, 103–122.

Norton, S. W., & Norton, J. W. (1988). An Economic Perspective on the Information Content of Magazine Advertisements. *International Journal of Advertising, 7*(2), 138–148.

Nöteberg, A., Christiaanse, E., & Wallage, P. (2003). Consumer Trust in Electronic Channels. *e-Service Journal*.

Novak, T., Hoffman, D., & Yung, Y. (2000). Measuring the Customer Experience in online Environments: a Structural Modelling Approach. *Marketing Science, 19*(1), 22–42.

Novak, T. P., Hoffman, D. L., & Yung, Y.-F. (2000). Measuring the Customer Experience in Online Environments: A Structural Modeling Approach. *Marketing Science, 19*(1), 22-42.

NUA. (2002). *Badly Designed Websites Keep Surfers away*. Retrieved August 25th, 2008, from http://www.nua.ie/surveys/index.cgi?f=VS&art_id=905357977&rel=true

Nunnally, J. C. (1978). *Psychometric Theory* (2nd ed.). New York: McGraw Hill.

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric Theory*. New York: McGraw-Hill Publishers.

O'Cass, A., & Fenech, T. (2003). Web Retailing Adoption: Exploring the Nature of Internet Users' Web Retailing Behaviour. *Journal of Retailing and Consumer Services, 10*, 81-94.

Ohlson, K. (1999). e-Commerce Vendors Team to Help Better Track Web Shoppers. *Computerworld Online*. Retrieved March 10th 2008, from www.computerworld.com/home/news.nsf/cwflash/9903232andro

Olrich, S. (2007). Take Your e-mail Campaigns Cross Channel for Higher ROI. *DMNews*. Retrieved March 25th 2008, from http://www.dmnews.com/Take-your-e-mail-campaigns-cross-channel-for-higher-ROI/article/100265/

OnePay. (2008). *Online Payment Gateway for Enterprises in Vietnam*. Retrieved Feb 12nd, 2009, from http://onepay.vn/news_detail.action?news_id=17

Osgood, C. E., & Tannenbaum, P. H. (1955). The Principle of Congruity of in the Prediction of Attitude Change. *Psychological Review, 62*, 42-55.

Overby, J. W., & Lee, E.-J. (2006). The Effects of Utilitarian and Hedonic online Shopping Value on Consumer Preference and Intentions. *Journal of Business Research, 59*, 1160–1166.

Park, C., & Lee, T. M. (2008). Information direction, website reputation and eWOM effect: A moderating role of product type. *Journal of Business Research*.

Park, C. W., E., L., & D.C., S. (1989). The Effect of Sliuational Factors on In -Store Grocery Shopping Behavior: The Role of Store Envlronment and Time Available for Shopping. *Journal of Consumer Research*, 422-433.

Park, D.-H., Lee, J., & Han, I. (2007). The Effect of On-Line Consumer Reviews on Consumer Purchasing Intention: The Moderating Role of Involvement. *International Journal of Electronic Commerce, 11*(4), 125-148.

Park, D. H., Lee, J., & Han, I. (2007). The Effect of On-Line Consumer Reviews on Consumer Purchasing Intention: The Moderating Role of Involvement. *International Journal of Electronic Commerce, 11*(4), 125-148.

Parsons, A. G. (2002). Non-functional motives for online shoppers: why we click. *Journal of Consumer Marketing, 19*(5), 380–392.

Pastore, M. (2000). *The Value of Word of Mouth*. Retrieved 15, 2006, from http://adrt's.intemet.com/feature/article/0,1401,8961_395371,00.htm

Pavlou, P. A. (2002). Institution-based trust in interorganizational exchange relationships: the role of online B2B marketplaces on trust formation. *Journal of Strategic Information Systems, 11*, 215-243.

Pavlou, P. A. (2003). Consumer Acceptance of Electronic Commerce: Integrating Trust and Risk with the Technology Acceptance Model. *International Journal of Electronic Commerce, 7*(3), 101-134.

Pavlou, P. A., & Fygenson, M. (2006). Understanding and Predicting Electronic Commerce Adoption: An Extension of the Theory of Planned Bahavior. *MIS Quarterly, 30*(1).

Pavlou, P. A., & Gefen, D. (2004). Building Effective Online Marketplaces with Institution-Based Trust. *Information Systems Research, 15*(1), 37–59.

Pavlou, P. A., Liang, H., & Xue, Y. (2007). Understanding and Mitigating Uncertainty in Online Exchange Relationships: A Principle Agent Perspective. *MIS Quarterly, 31*(1), 105-136.

Peterson, R. A., Balasubramanian, S., & Bronnenberg, B. J. (1997). Exploring the Implications of the Internet for Consumer Marketing. *Journal of the Academy of Marketing Science, 25*(4), 329-346.

Phau, I., & Poon, S. M. (2000). Factors Influencing the Type of Product/Services Purchased over the Internet. *Internet Research, 10*(2), 102-103.

Phelps, J., Nowak, G., & Ferrel, E. (2000). Privacy concerns and consumer willingness to provide personal information. *Journal of Public Policy and Marketing, 19*, 27–41.

Phelps, J. E., Lewis, R., Mobilio, L., Perry, D., & Raman, N. (2004). Viral Marketing or Electronic Word-of-Mouth Advertising: Examining Consumer Responses and Motivations to Pass Along Email. *Journal of Advertising Research*, 333-348.

Phillips, E. M., & Pugh, D. S. (1987). *How to Get a PhD*. Milton Keynes: Open University Press.

Phippen, A., Sheppard, L., & Furnell, S. (2004). A practical evaluation of Web analytics. *Internet Research, 14*(4), 284-293.

Pitta, D. A., & Fowler, D. (2005). Online consumer communities and their value to new product developers. *Journal of Product & Brand Management, 14*(5), 283-291.

Pratap, J. S., & Steven, S. P. (2001). Prepurchase attribute verifiability, source credibility and persuasion. *Journal of Consumer Psychology, 11*(3), 169–180.

Pride, W., Elliot, G., Thiele, S., Waller, D., Paladino, A., & Ferrell, O. (2007). *Marketing: Core concepts and applications*. Milton: John Wiley.

Project, T. P. I. L. (2000). *Tracking Online Life: How Women Use the Internet to Cultivate Relationships with Family and Friends*. Retrieved. from http://www.pewinternet.org/pdfs/Report1.pdf.

Punj, G. N., & Stewart, D. W. (1983). An interaction framework of consumer decision making. *Journal of Consumer Research, 10*, 181– 196.

Qiu, L., & Benbasat, I. (2005). Online Consumer Trust and Live Help Interfaces: The Effects of Text-to-Speech Voice and Three-Dimensional Avatars. *International journal of human-computer interaction, 19*(1), 75-94.

Raghunathan, R., & Pham, M. T. (1999). All Negative Moods Are Not Equal: Motivational Influences of Anxiety and Sadness on Decision Making. *Organizational Behavior and Human Decision Processes, 79*(1), 56-77.

Ramaswami, S. N., Strader, T. J., & Brett, K. (Winter 2000-2001). Determinants of On-Line Channel Use for Purchasing Financial Products. *International Journal of Electronic Commerce, 5*(2), 95-118.

Raney, A. A., Arpan, L. M., Pashupati, K., & Brill, D. A. (2003). At the movies, on the Web: An investigation of the effects of entertaining and interactive web content on site and brand evaluations. *Journal of Interactive Marketing, 17*(4).

Ranganathan, C., & Ganapathy, S. (2002). Key dimensions of business-to-consumer web sites. *Information & Management, 39*(6), 457-465.

Ranganathan, C., & Jha, S. (2007). Examining Online Purchase Intentions in B2C E-Commerce: Testing an Integrated Model. *Information Resources Management Journal, 20*(4).

Ratchford, B. T., Talukdar, D., & Lee, M.-S. (2001). A Model of Consumer Choice of the Internet as an Information Source. *International Journal of Electronic Commerce, 5*(3), 7-21.

Ratneshwar, S., & Shocker, A. D. (1991). Substitution in use and the role of usage context in product category structures. *Journal of markteting research, 28*, 281-295.

Rattanawicha, P., & Esichaikul, V. (2005). What Makes Websites Trustworthy? A Two-phase Empirical Study. *Int. J. Electronic Business, 3*(2).

Raykov, T., & Marcoulides, G. A. (2006). *A First Course in Structural Equation Modelling* (2nd ed.). New Jersey: Lawrence Erlbaum.

Redmond, W. H. (2002). The potential impact of artificial shopping agents in e-commerce markets. *Journal of Interactive Marketing, 16*(1), 56-66.

Reibstein, D. J. (2002). What Attracts Customers to Online Stores, and What Keeps Them Coming Back? *Journal of the Academy of Marketing Science, 30*(4), 465-473.

Reichheld, F. F., & Schefter, P. (2000). E-Loyalty: Your Secret Weapon on the Web. *Harvad Business Review, 78*(4), 105-113.

Reynolds, J. (2000). eCommerce: a critical review. *International Journal of Retail & Distribution Management, 28*(10), 417-444.

Rheingold, H. (1991). A slice of life in my virtual community. In L. M. Harasim (Ed.), *Global Networks* (pp. 57-80). Cambridge, MA: MIT Press.

Ribbink, D., Riel, A. C. R. v., Liljander, V., & Streukens, S. (2004). Comfort Your Online Customer: Quality, Trust and Loyalty on the Internet. *Managing Service Quality, 14*(6), 446-456.

Rindfleisch, A., Burroughs, J. E., & Denton, F. (1996). Family Disruption and Consumer Attitudes and Behavior: An Exploratory Investigation. *Advances in consumer research, 23*, 83-90.

Ring, P. S., & VandeVen, A. H. (1994). Developing processes of cooperative

inter-organizational relationships. *Academy of Management Review, 19*, 90-118.

Robinson, P. J., Faris, C. W., & Wind, Y. (1967). *Industrial Buying and Creative Marketing*. Boston, MA: Allyn and Bacon.

Rogers, E. M. (1976). New Product Adoption and diffusion. *Journal of Consumer Research, 2*(4).

Rogers, T. B. (1995). *The Psychological Testing Enterprise*. Pacific Grove, CA: Brooks/Cole Publishing Company.

Rohm, A. J., & Swaminathan, V. (2004). A typology of online shoppers based on shopping motivations. *Journal of Business Research, 57*, 748-757.

Romm, C. T., Pliskin, N., & Clarke, R. J. (1997). Virtual Communities and Society: Toward an Integrative Three Phase Model. *International Journal of Information Management, 17*(4), 261-270.

Rose, G., Khoo, H., & Straub, D. W. (1999). Current Technological Impediments to Business-to-Consumer Electronic Commerce. *Communications of the AIS, 1*(16), 1-74.

Rose, G., & Straub, D. W. (1998). Predicting General IT Use: Applying TAM to the Arabic World. *Journal of Global information Management, 6*(3), 39-46.

Rosen, K., & Howard, A. (2000). E-retail: Gold rush or fool's gold? *California Management Review, 42*(3), 72–100.

Rossiter, J. R. (2002). The C-OAR-SE procedure for scale development in marketing. *International Journal of Research in Marketing, 19*, 305-335.

Rossiter, J. R. (2005). Reminder: a horse is a horse. *International Journal of Research in Marketing, 22*, 23-25.

Rossiter, J. R., & Percy, L. (1987). *Advertising and promotion management*. New York: McGraw-Hill.

Rossiter, J. R., & Percy, L. (1997). *Advertising communications and promotion management* (2nd ed. ed.). New York: McGraw-Hill.

Rotter, J. B. (1966). Generalized Expectancies for Internal versus External Control of Reinforcement. *Psychological Monographs, 80* (whole no. 609).

Rousseau, D. M., Sitkin, S. B., Burt, R. S., & Camerer, C. (1998). Not so different after all: a cross-discipline view of trust. *Academy of Management Review, 23*, 393–404.

Ryans, A. (1977). Consumer Gift Buying: an Exploratory Analysis. In B. A. Greenberg & D. N. Bellenger (Eds.), *Contemporary Marketing Thought* (pp. 99-115). Chicago American Marketing Association.

Schaupp , L. C., & Bélanger, F. (2005). A Conjoint Analysis of online Consumer Satisfaction. *Journal of Electronic Commerce Research, 6*(2), 95-111.

Scheffelmaier, G. W., & Vinsonhaler, J. F. (2002). A synthesis of research on the properties of effective internet commerce web sites. *Journal of Computer Information Systems*, 23–31.

Schindler, R. M., & Bickart, B. (2005). Published Word of Mouth: Referable, Consumer-Generated Information on the Internet. In C. P. Haugtvedt, K. A. Machleit & R. F. Yalch (Eds.), *Online consumer psychology: Understanding and Influencing Consumer Behavior in the Virtual World* (pp. 35-61). Mahwah, New Jersey: Lawrence Erlbaum Associates, Inc.

Schlosser, A. E. (2003). Come together, right now, virtually: An examination into online communities. *Advances in consumer research, 30*, 192-195.

Schlosser, A. E., White, T. B., & Lloyd, S. M. (2006). Converting Web Site Visitors into Buyers: How Web Site Investment Increases Consumer Trusting Beliefs and Online Purchase Intentions. *Journal of Marketing, 70*, 133–148.

Schoell, W. F., & Guiltinan, J. P. (1992). *Marketing* (5 ed.). Needham Heights, MA: Allyn and Bacon.

Schoenbachler, D. D., & Gordon, G. L. (2002). Multi-channel shopping: understanding what drives channel choice. *Journal of Consumer Marketing, 19*(1), 42-53.

Schwartz, B., Ward, A., Monterosso, J., Lyubomirsky, S., White, K., & Lehman, D. R. (2002). Maximizing Versus Satisficing: Happiness Is a Matter of Choice. *Journal of Personality and Social Psychology, 83*(5), 1178–1197.

Schwarz, N. (1999). Self-Reports: How Questions Shape the Answers. *American Psychologist, 54*, 93-105.

Scott, C. D. (1985). An application of environmental psychology to retail store design: the perceptual dimensions of department store entrance. *Dissertation Abstracts International, 47*.

Seepersad, S. (2004). Coping with Loneliness: Adolescent Online and Offline Behavior. *Cyberpsychology & Behaviour, 7*(1).

Seock, Y.-K., & Norton, M. J. T. (2008). College students' perceived attributes of Internet Websites and online shopping. *College Student Journal, 42*(1).

Sha, W., Davis, F., & Aloysius, J. (2009). E-commerce Design Characteristics and Intended Use: The Overlooked Mediating Roles of Affective Trust and Risk (Publication. Retrieved 18 Feb 2010, from Faculty Research, Sam M. Walton College of Business, University of Arkansas: http://itri.uark.edu/91.asp?code=&Checkout=Yes&article=ITRI-WP141-0209

Shapiro, S. P. (1987). The social control of impersonal trust. *American Journal of Sociology, 93*(3), 623–658.

Sharma, A., & Sheth, J. N. (2004). Web-based Marketing: the Coming Revolution in Marketing Thought and Strategy. *Journal of Business Research, 57*, 696-702.

Sharma, N. (2004). *Linking Site Quality, Online Shopping Resistance and Trust in Web-based Marketing*. Retrieved 04 December, 2008, from http://ausweb.scu.edu.au/aw04/papers/refereed/sharma/paper.html

Sheth, J. N. (1983). An integrative theory of patronage preference and behavior. In W. R. Darden & R. F. Lusch (Eds.), *Patronage behavior and retail management* (pp. 9–28). New York: Elsevier Science Publishing Co.

Shih, H. P. (2004). An empirical study on predicting user acceptance of e-shopping on the Web. *Information & Management, 41*, 351-368.

Shim, S., Eastlick, M. A., Lotz, S. L., & Warrington, P. (2001). An online prepurchase intention model: The role of intention to search. *Journal of Retailing, 77*, 397-416.

Shirky, C. (2000). The Toughest Virus of All. *Business, 2*.

Shona, L. B., Tilton, A., & Woodside , D. M. (2001). The Case for Online Communities. *The McKinsey Quarterly, 1*.

Shun, C., & Yunjie, X. (2006). Effects of Outcome, Process and Shopping Enjoyment on Online Consumer Behaviour. *Electronic Commerce Research and Applications, 5*, 272-281.

Singer, E., Hoewyk, J. V., Gebler, N., Raghunathan, T., & McGonagle, K. (1999). The Effect of Incentives on Response Rates in Interviewer-Mediated Surveys. *Journal of Official Statistics, 15*(2), 217-230.

Singh, N., Fassott, G., Zhao, H., & Boughton, P. (2006). A Cross-Cultural Analysis of German, Chinese and Indian Consumers' Perception of Web Site Adaptation. *Journal of Consumer Behaviour, 5*, 56-68.

Singh, S. N., Dalal, N., Mishra, S., & Patil, V. H. (2005). A Communications View of Web Page Perception. *Journal of Current Issues and Research in Advertising, 27*(1).

Sinha, I. (1994). A Conceptual Model of the Role of Situational Type on Consumer Choice Behavior and Consideration Sets. *Advances in consumer research, 21*, 477-482.

Sitkin, S. B., & Weingart, L. R. (1995). Determinants of Risky Decision-Making Behavior: A Test of the Mediating Role of Risk Perceptions Propensity. *The Academy of Management Journal, 38*(6), 1573-1592.

Smith, D. V., Menon, S., & Sivakumar, K. (2005). Online Peer and Editorial Recommendations, Trust, and Choice in Virtual Markets. *Journal of Interactive Marketing, 19*(3), 15-37.

Smith, J. B., & Barclay, D. W. (January 1997). The effects of organizational differences and trust on the effectiveness of selling partner relationships. *Journal of Marketing, 61*, 3–21.

Sohn, C. (1999). *The properties of Internet based markets and customers' behaviour.* Paper presented at the The fifth Americas Conference on Information Systems, Milwaukee, Wisconsin.

Song, J., & Zahedi, F. M. (2005). A Theoretical Approach to Web Design in E-Commerce: A Belief Reinforcement Model. *Management Science, 51*(8), 1219–1235.

Spence, H. E., Engel, J. F., & Blackwell, R. D. (1970). Perceived risk in mail-order and retail store buying. *Journal of Marketing Research, 7*, 364-369.

Spies, K., Hesse, F., & Loesch, K. (1997). Store atmosphere, mood and purchasing behavior. *International Journal of Research in Marketing, 14*, 1-17.

Spiller, P., & Lohse , G. L. (1997). A Classification of Internet Retail Stores. *International Journal of Electronic Commerce, 2*(2), 29-56.

Spiller, P., & Lohse, G. L. (1998). A Classification of Internet Retail Stores. *International Journal of Electronic Commerce, 2*(2), 29-56.

Spiteri, L. F. (2001). Information Architecture of Business-to-Consumer e-commerce Websites. Part I: The online Catalogue of Selected Video Retailers. *Journal of Information Science, 27*(4), 239-248.

Srivastava, R. K., Shocker, A. D., & Day, G. S. (1978). An Exploratory Study of the Influence of Usage Situations on Perceptions of Product Markets. In H. K. Hunt & A. Arbor (Eds.), *Advances in consumer research* (5 ed., pp. 32-38). Mich: Association for Consumer Research.

Stafford, T. F., & Gonier, D. (2004). What Americans Like about Being online. *Communications of the ACM, 47*(11), 107-112.

Stammerjohan, C., & Webster, C. (2002). Trait and Situational Antecedents to Non-consumption. *Advances in consumer research, 29*, 126-132.

Stayman, D. M., Alden, D. L., & Smith , K. H. (1992). Some Effects of Schematic Processing on Consumer Expectation. *Journal of Consumer Research, 19*, 240–255.

Stewart, K. J. (1999). *Transference as a Means of Building Trust in World Wide Websites.* Paper presented at the the Twentieth International Conference on Information Systems, Atlanta.

Stewart, K. J. (2003). Trust Transfers on the World Wide Web. *Organization Science, 14*(1), 5-17.

Stoltman, J. J., Gentry, J. W., Anglin, K. A., & Burns, A. C. (1990). Situational Influence on Consumer Decision Sequence. *Journal of Business Research, 21*, 195-207.

Straub, D. W. (1989). Validating Instruments in MIS Research. *MIS Quarterly, 13*(2), 147-169.

Sturdivant, F. D. (1970). Distribution in American Society: Some Questions of Efficiency and Relevance. In L. P. Bucklin (Ed.), *Vertical Marketing Systems*. Glenview, III: Scott Foresmen

Sundar, S. S., Xu, Q., & Oeldorf-Hirsch, A. (2009, April 4-9). *Authority vs. Peer: How Interface Cues Influence Users.* Paper presented at the 27th International Conference on Human Factors in Computing Systems Boston, Massachusetts, USA.

Sundaram, D. S., & Webster, C. T. (1999). The Role of Brand Familiarity on the Impact of Word-of-Mouth Communication on Brand Evaluations. *Advances in consumer research, 26*, 664–670.

Swaminathan, V. (2003). The Impact of Recommendation Agents on Consumer Evaluation and Choice: the Moderating Role of Category Risk, Product Complexity and Consumer Knowledge. *Journal of Consumer Psychology, 13*(1&2).

Tambyah, S. K. (1996). Life On The Net: The Reconstruction of Self And Community. *Advances in consumer research, 23*, 172-177.

Tan, G. W., & Wei, K. K. (2006). An Empirical Study of Web Browsing Behaviour: Towards an Effective Website Design. *Electronic Commerce Research and Applications, 5*, 261–271.

Tan, S. J. (1999). Strategies for Reducing Consumers' Risk Aversion in Internet Purchasing. *The journal of consumer marketing, 16*, 163-180.

Tarafdar, M., & Zhang, J. (2005). Analyzing the Influence of Web Site Design Parameters on Web Site Usability. *Information Resources Management Journal, 18*(4).

Tarafdar , M., & Zhang, J. (2005/2006). Analysis of Critical Website Characteristics: a Cross Category Study of Successful Websites. *Journal of Computer Information Systems, 46*(2), 14-24.

Taylor, S., & Todd, P. A. (1995b). Understanding Information Technology Usage: A Test of Competing Models. *Information Systems Research, 6*(2), 144-176.

Tedeschi, B. (2000, June 12). Easier-to-Use Sites Would Help E-tailers Close More Sales. *New York Times*.

Teiger, J. H., & Lind, A. (1980). *Statistically based Tests for the Number of Common Factors.* Paper presented at the Annual Meeting of the Psychometric Society, Iowa City, Iowa.

Tetlock, P. E., Skitka, L., & Boettger, R. (1989). Social and Cognitive Strategies for Coping with Accountability: Conformity, Complexity, and Bolstering. *Journal of Personality and Social Psychology, 57*, 632-640.

Thegioididong.com. (2007). *Company Profile*. Retrieved Feb 15th, 2009, from http://www.thegioididong.com/DTDD/Support/CompanyIntroduction.aspx?SupportGroup1ID=1#Intro_1

Thelen, E. M., & Woodside, A. G. (1997). What Evokes the Brand or Store? Consumer Research on Accessibility Theory Applied to Modeling Primary Choice. *International Journal of Research in Marketing Science, 14*, 125–145.

Thibaut, J. W., & Kelley, H. H. (1959). *The Social Psychology of Groups*. New York: Wiley.

Tian, K. T., Bearden, W. O., & Hunter, G. L. (2001). Consumers' Need for Uniqueness: Scale Development and Validation. *Journal of Consumer Research, 28*(1), 50–65.

Toa, P.-L., Liao, C., & Lin, T.-H. (2007). Shopping Motivations on Internet: A Study based on Utilitarian and Hedonic Value. *Technovation, 27*, 774–787.

Todd, P., & Benbasat, I. (1992). The Use of Information in Decision Making: An Experimental Investigation of the Impact of Computer-Based Decision Aids. *MIS Quarterly, 16*(3), 373–393.

Todd, P., & Benbasat, I. (1999). Evaluating the Impact of DSS, Cognitive Effort, and Incentives on Strategy Selection. *Information Systems Research, 10*(4), 356–374.

Tractinsky, N., Cokhavi, A., Kirschenbaum, M., & Sharfi, T. (2006). Evaluating the Consistency of Immediate Aesthetic Perceptions of Web Pages. *International Journal of Human-Computer Studies, 64*, 1071–1083.

Turner, V. (1974b). *Drama, Fields and Metaphors: Symbolic Action in Human Society*. Ithaca, New York: Cornell University Press.

Udo, G. J., & Marquis, G. P. (2000). Effective Commercial Web Site Design: An Empirical Study. *IEEE*, 313 - 318

Van-der-Heijden, H., Verhagen, T., & Creemers, M. (2003). Understanding online Purchase Intentions: Contributions from Technology and Trust Perspectives. *European Journal of Information Systems, 12*, 41-48.

Varadarajan, R., & Yadav, M. (2002). Marketing Strategy and the Internet. *Journal of Academy of Marketing Science, 30*, 296-312.

Venkatesh, V., & Davis, F. D. (2000). A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies. *Management Science, 46*(2), 186-204.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly, 27*(3), 425-478.

Venkatraman, N., & Henderson, J. C. (1998). Real Strategies for Virtual organizing. *Sloan Management Review, 40*, 33-48.

Verhagen, T., Meents, S., & Tan, Y. (2006). Perceived Risk and Trust Associated with Purchasing at Electronic Marketplaces (Publication. Retrieved November 5th 2008, from VU University Amsterdam, Faculty of Economics, Business Administration and Econometrics: ftp://zappa.ubvu.vu.nl/20060001.pdf

VeriSign. (March 2008). VeriSign Secured Seal Boosts Sales 31% for Virtual Sheet Music; EV SSL Increases Sales 13%. *Network Security White Papers*. Retrieved 04 December 2008, from http://whitepapers.silicon.com/0,39024759,60488761p,00.htm?r=1

Verity, J. W., & Hof, R. D. (1994, November 14). The Internet: How It Will Change the Way You Do Business. *Business Week*.

Vijayasarathy, L. R., & Jones, J. M. (2000a). Intentions to Shop Using Internet Catalogues:Exploring the Effects of Product Types, Shopping Orientations, and Attitudes towards Computers. *Electronic Markets, 10*(1), 29-38.

Volle, P. (2001). The Short-term Effect of Store-level Promotions on Store Choice, and the Moderating Role of Individual Variables. *Journal of Business Research, 53*, 63-73.

Vrechopoulos, A. P. (2002). *An Emerging Store Layout for Internet Grocery Retailing.* Paper presented at the 3rd ECR Europe Scientific Competition, Barcelona, Spain.

Wakefield, K. L., & Inman, J. J. (2003). Situational Price Sensitivity: the Role of Consumption Occasion, Social Context and Income. *Journal of Retailing, 79*, 199-212.

Wakefield, R. L., & Whitten, D. (2006). Examining User Perceptions of Third-Party Organization Credibility and Trust in an E-retailer. *Journal of Organizational and End User Computing, 18*(2), 1-19.

Wales, E. (2003). E-commerce Counts Cost of Online Card Fraud. *Elsevier, 2003*(1), 9-11.

Wallstrip. (2007). A Short History of VeriSign: sslshopper.com.

Walters, R. G. (1988). Retail Promotions and Retail Performance: a Test of Some Key Hypotheses. *Journal of Retailing, 64*, 153– 179.

Walters, R. G., & Rinne, H. K. (1986). An Empirical Investigation into the Impact of Price Promotions on Retail Store Performance. *Journal of Retailing, 62*, 237-266.

Wang, A. (2008). Consensus and Disagreement between online Peer and Expert Recommendations. *International Journal of Internet Marketing and Advertising, 4*(4).

Wang, F., Head, M., & Archer, N. (2000). A Relationship-Building Model for the Web Retail Marketplace *Internet Research, 10*(5), 297-308.

Wang, H., Lee, M. K. O., & Wang, C. (1998). Consumer Privacy Concerns about Internet Marketing *Communications of the ACM, 41*(3), 63-70.

Wang, Y., & Fesenmaier, D. R. (2003). Assessing Motivation of Contribution in Online Communities: An Empirical Investigation of an Online Travel Community. *Electronic Markets, 13*(1), 33-45.

Wang, Y. D., & Emurian, H. H. (2005). An Overview of online Trust: Concepts, Elements, and Implications. *Computers in Human Behavior, 21*.

Warrington, T. B., Abgrab, N. J., & Caldwell, H. M. (2000). Building Trust to Develop Competitive Advantage in E-business Relationships. *Competitiveness Review, 10*(2), 160.

Warshaw, P. R., & Davis, F. D. (1985). Disentangling Behavioural Intention and Behaviour Expectation. *Journal of Experimental Social Psychology, 21*, 213-228.

Weathers, D., & Makienko, I. (2006). Assessing the Relationships between E-tail Success and Product and Website Factors. *Journal of Interactive Marketing, 20*(2).

Webb, R. C. (1999). *Psychology of the Consumer and its Development: An introduction*. New York: Kluwer Academic.

Webster, J., & Watson, R. T. (2002). Analyzing the Past to Prepare for the Future: Writing a Literature Review. *MIS Quarterly, 26*(2).

Westbrook, R. A. (1987). Product/Consumption-Based Affective Responses and Postpurchase Processes. *Journal of Marketing Research, 24*(3), 258-270.

Westin, A., & Maurící, D. (1998). *E-commerce and Privacy: What Net Users Want* (survey): Louis Harris & Associates Survey.

White, E., & Wingfield, N. (2002). Online Retail Spending Gained in Fourth Period. . *Wall Street Journal, 3*, A3.

Wolfinbarger, M., & Gilly, M. (2001). Shopping online for Freedom, Control, and Fun. *California Management Review, 43*(2), 35-55.

Woodside, A. G., & Dubelaar, C. (2003). Increasing Quality in Measuring Advertising Effectiveness: A Meta-Analysis of Question Framing in Conversion Studies. *Journal of Advertising Research, 43*(01), 78-85.

Woodside, A. G., & Singer, A. E. (1994). Social Interaction Effects in the Framing of Buying Decisions. *Psychology & Marketing, 11*(1), 27-34.

Wrightsman, L. S. (1991). Interpersonal Trust and Attitudes Toward Human Nature. In P. R. Robinson, P. R. Shaver & L. S. Wrightsman (Eds.), *Measures of Personality and Social Psychological Attitudes* (Vol. 1: Measures of Social Psychological Attitudes). San-Diego: Academic Press.

Xiao, B., & Benbasat, I. (2007). E-commerce Product Recommendation Agents: Use, Characteristics, and Impact. *MIS Quarterly, 31*(1), 137-209.

Xiong, L., & Liu, L. (2004). PeerTrust: Supporting Reputation-Based Trust for Peer-to-Peer Electronic Communities. *IEEE Transactions on Knowledge and Data Engineering, 16*(7), 843-857.

Yang, X., Ahmed, Z. U., Ghingold, M., Boon, G. S., Mei, T. S., & Hwa, L. L. (2003). Consumer Preference for Website Design: an Asia Pacific Perspective. *Journal of Consumer Marketing, 20*(1), 10 - 27.

Yap, A. Y. (2002). Enabling e-commerce Growth through the Social Construction of a Virtual Community's Culture. *Journal of Electronic Commerce Research, 3*(4), 279-294.

Yoo, C. Y., & Stout, P. A. (2001). *Factors Affecting Users' Interactivity with the Website and the Consequencess of Users' Interactivity.* Paper presented at the Conference of the American Academy of Advertising, Villanova.

Zajonc, R. B. (1960). The Process of Cognitive Tuning in Communication. *Journal of Abnormal & Social Psychology, 61*, 159-167.

ZenithOptimedia. (October, 2009). *Rate of Global Adspend Decline Now Clearly Slowing, after Worse than Expected First Half of 2009*. Retrieved 25 January, 2010, from http://www.zenithoptimedia.com/gff/pdf/Adspend%20forecasts%20October%20 2009.pdf

Zhang, J., & Krishnamurthi, L. (2004). Customizing Promotions in Online Stores. *Marketing Science, 23*(4), 561–578.

Zhang, P. (2000). The Effects of Animation on Information Seeking Performance on the World Wide Web: Securing Attention or Interfering with Primary Tasks? *Journal of the Association for Information Systems, 1*, 1-28.

Zhou, L., Dai, L., & Zhang, D. (2007). Online Shopping Acceptance Model - A Critical Survey of Consumer Factors in Online Shopping. *Journal of Electronic Commerce Research, 8*(1).

Ziegler, C.-N., & Golbeck, J. (2007). Investigating Interactions of Trust and Interest Similarity. *Decision Support Systems, 43*, 460–475.

Zillmann, D. (2000). Basal Morality in Drama Appreciation. In I. Bondebjerg (Ed.), *Moving Images, Culture, and the Mind* (pp. 53-63). Luton: University of Luton Press.

Zucker, L. G. (1986). Production of Trust: Institutional Sources of Economic Structure. In B. M. Staw & L. L. Cummings (Eds.), *Research in Organizational Behavior* (Vol. 8, pp. 1840-1920). Greenwich: JAI Press.

Enlish version

Scenario 1: High social acceptance

"Imagine that you seek to purchase an MP3 player. Several friends have spoken to you about a good site to make such a purchase, and the same site has been recommended on three user-group sites you have seen and in the emails that have been passed on to you.
Please proceed to the site and check it out!
Thanks…"

Scenario 2, Low social acceptance

"Imagine that you seek to purchase an MP3 player. You have thought about the purchase and browsed the web, and come across a potentially useful site…
Please proceed to the site and check it out!
Thanks…"

Vietnamese version

Scenario 1: High social acceptance

"Hãy tưởng tượng rằng bạn tìm mua một máy nghe nhạc MP3. Một số bạn bè có nói với bạn về một trang web để thực hiện việc mua sắm này, và cùng một trang web đã được đề nghị bởi các thành viên trên ba diễn đàn điện tử mà bạn đã từng xem và trong các email đã được chuyển cho bạn.

Xin vui lòng vào trang web và kiểm tra nó!

Cảm ơn."

Scenario 2, Low social acceptance

"Hãy tưởng tượng rằng bạn tìm mua một máy nghe nhạc MP3. Bạn nghĩ về việc mua sắm và lướt qua các trang thương mại điện tử, và đi qua một trang web có tiềm năng hữu ích ...

Xin vui lòng vào trang web và kiểm tra nó!
Cảm ơn"

Appendix 2 Vietnamese survey questionnaire

Xin vui lòng chỉ ra quan điểm cá nhân của bạn về trang thương mại điện tử này bằng cách nhấp chuột vào **một** trong những tùy chọn ở cuối mỗi câu hỏi sau đây. Xin vui lòng sử dụng chỉ số đánh giá như sau:

Rất không đồng ý   Rất đồng ý

        1   2   3   4   5   6   7

1. Thông tin cung cấp trên trang web này cập nhật	IC1
2. Trang web này cung cấp giao dịch tiền bạc an toàn	S2
3. Tôi thấy trang web của công ty bán hàng này dễ sử dụng	EOU1
4. Thông tin cung cấp trên trang web này chính xác	IC3
5. Trang web này sử dụng truyền thông đa phương tiện hiệu quả (như đoạn mẫu video)	GD1
6. Tôi nhận được nhiều thông tin điện tử về các trang web bán điện thoại di động trước khi tôi quyết định mua hay không mua trên một trang thương mại điện tử	SI1
7. Ai cũng có thể mua sắm từ một trang web như thế này, không cứ phải là một người chuyên về công nghệ thông tin	EOU4
8. Ý nghĩa của thông tin trên trang web này rõ ràng	IC4
9. Khách hàng của Emega.com được bảo vệ bởi chức năng đăng nhập tài khoản trên trang web	S1
10. Tôi thấy giao diện của trang web này sáng tạo	GD3
11. Thông tin cung cấp trên trang web này chi tiết	IC2
12. Trang web này có giao diện bắt mắt	GD4
13. Trang web này cho thấy rõ năng lực của Emega.com	EC4
14. Emega.com có một quy trình đáp ứng đơn đặt hàng rõ ràng	TS1
15. Làm việc với trang web này không đòi hỏi nhiều nỗ lực trí óc	EOU3
16. Tôi cảm thấy công ty bán hàng trực tuyến này uy tín	EC1
17. Tôi đã có nhiều kinh nghiệm với những nhóm người trên mạng cùng thảo luận về điện thoại di động và trang web nào để mua chúng	SI2
18. Khả năng mất tiền cao nếu như tôi mua điện thoại di động từ Emega.com	PR1
19. Tôi tin rằng Emega.com có thiện chí đối với khách hàng	T3
20. Emega.com có những biện pháp hỗ trợ khách hàng hiệu quả	TS2
21. Thật rủi ro khi tôi phải thanh toán trực tiếp trên Emega.com món hàng mà tôi đã mua	PR2
22. Với tôi, dường như công ty bán hàng trực tuyến này sẽ giữ đúng lời hứa và cam kết với khách hàng	T2
23. Công ty bán hàng trực tuyến này tôn trọng sự riêng tư của tôi	P4
24. Tôi tin rằng Emega.com cởi mở và đón nhận những yêu cầu của khách hàng	T4
25. Tôi thường trò chuyện với bạn bè mình về điện thoại di động và những trang thương mại điện tử lớn nơi có thể mua chúng	SI3
26. Mua sắm từ công ty bán hàng trực tuyến này thật rủi ro về mặt tiền bạc	PR3
27. Không có khả năng công ty bán hàng trực tuyến này sẽ tiết lộ thông tin cá nhân của tôi	P3
28. Tôi tin cậy những hứa hẹn bởi Emega.com	T1
29. Tôi sẽ mua một chiếc điện thoại di động từ công ty bán hàng trực tuyến này	PI1

Participant Information Sheet

AUT
UNIVERSITY
TE WĀNANGA ARONUI O TAMAKI MAKAU RAU

12/08/09

An Online Survey of Online Consumers in Viet Nam

What this study is about

Thank you for considering joining our research by participating in this short online survey. This study investigates the shopping behaviour of online consumers in Viet Nam. The data gathered will contribute toward a PhD thesis from AUT University in New Zealand, and to an international publication. It will add to the global body of knowledge about online shopping behaviour.

What we are asking of you

We will be asking you a series of questions about your actual experiences with online shopping. You are on the survey web-site so have already expressed some interest; just clicking the "click to proceed" button below will confirm your willing participation and take you to the first page of the survey. The entire survey will take about 10-15 minutes.

None of the questions we ask are threatening or personal; we will merely ask your opinion about a web page containing some merchandise. There are, of course, no "correct" answers; we are simply interested in what you honestly think about the products displayed and the webpage itself.

You have been selected to participate simply because you are an online shopper – that is the only consideration we have. We are not concerned with age, ethnicity or anything similar, we just need to know that you do shop online and the fact you are reading this shows it to be true!

What costs and benefits there are if you participate

There are no costs to you whatsoever except 15 minutes (maximum) of your time. Actually, we sincerely believe that you will find the survey interesting and fun! The major benefit of your participation is that you are contributing to our scientific efforts to build knowledge, which will available to the international community. Furthermore, if you wish it, we will mail you a report when the work is finished. Our email contacts are given below; you only need write to us to be included on the report mailing list.

There is one other possible benefit. We will enter every applicant in a draw for an iPhone – two lucky contributors will win such a prize. We do need your email address, of course, to notify you if you win an iPhone; this address is collected at the end of the survey in such a way that it is not connected to your answers, so your anonymity is assured.

How your privacy will be protected

Participation is completely anonymous; we ask for no identifying information. The information you provide will be used only by David Nguyen Viet Lam and his doctoral supervisor – Dr. Roger Marshall – at Auckland University of Technology in New Zealand. The information will never be accessible in any way by any other third party. The survey data will only be published in aggregate. That is, we will add all the responses, without names or any identifying information (such as your computer IP address), to a statistical spreadsheet. Hence your identity can never be determined by anyone who has access to these records, even the researchers themselves. Indeed, we are not really interested in individual responses, it is just the just the averaged answers that will be used in our statistical model.

When should I respond and how?

We would like you to respond as soon as you can; we certainly would like to have all respondents contribute before the end of October. It is simple to start – just click on the "click to proceed" button below and follow the instructions from there. If you do decide to participate in this study, please click the button below to indicate that you understand all of the above, and that you give your consent to participate in this study as it is described.

We want to be certain that your participation in this study is completely voluntary and that you know you are completely free to choose not to participate. If you feel uncomfortable at any time, all that you need do is move to another page or close your browser and move on – it is that easy.

What do I do if I have concerns about this research?

You can contact this study's primary researcher by contacting David Nguyen Viet Lam, at dnguyen@aut.ac.nz, or telephoning him in Viet Nam 01214589607. (Please contact by email after 30/08/09.)

For questions, concerns, suggestions, or complaints that are not being addressed by the researcher, or to report any research-related harm please contact Dr. Roger Marshall, Professor and Chair of Marketing, Business and Law School, Auckland University of Technology, WU Building (level 3), 42 Wakefield Street, Auckland Central, Auckland 1010, New Zealand.
E-mail: roger.marshall@aut.ac.nz. Phone: + 64 9 921 9999 ext 5478.

Concerns regarding the conduct of the research should be notified to the Executive Secretary, AUTEC, Madeline Banda, madeline.banda@aut.ac.nz , 921 9999 ext 8044.

Approved by the Auckland University of Technology Ethics Committee on *type the date final ethics approval was granted***, AUTEC Reference number** *type the reference number***.**

Appendix 4 Banner advertisement for inviting research subjects

Banner ad displayed on the synthetic websites

Banner ad displayed on the e-markets

Snapshot of the two e-markets the banner ads were displayed

123mua.com

Tìm thấy **20983** sản phẩm   Sắp xếp theo: Mới cập nhật ▼

Tên sản phẩm	Danh hiệu	Giá	Phạm vi bán
FERARRI đã trờ lại , có áo cặp luôn nhen Hàng xịn , logo ko ngược , vải thun 4 chiều !!! Cực mịn .... Số lượng có hạn Shop: shopnina.co.cc - 1 2 Hôm nay 01:49	Xem: 536	Comments: 18		200.000 VNĐ	TP. Hồ Chí Minh
iphone 3gs 607zing coppy100%wifi tốc độ Cảm ứng trượt cực nhạy, wifi tốc độ cao chỉ có tại Thành Đạt Mobile Shop: thanhdat_mobile2007 Hôm nay 01:42	Xem: 1158	Comments: 0	Seller	2.900.000 VNĐ	TP. Hồ Chí Minh
Signature Solid Gold(HANG XT SINGAPO) Signature Solid Gold đẳng cấp cho những người sành điệu Shop: thanhdat_mobile2007 Hôm nay 01:41	Xem: 6833	Comments: 0	Seller	4.000.000 VNĐ	TP. Hồ Chí Minh
Nokia N95 hàng xách tay copy (sigapo) kieu dang doc dao sanh dieu Shop: thanhdat_mobile2007 Hôm nay 01:41	Xem: 2112	Comments: 0	Seller	1.700.000 VNĐ	TP. Hồ Chí Minh
FERRARY F101(HANG XT SINGAPO) Kiểu dáng thanh - vỏ bằng hợp kim sang trọng Shop: thanhdat_mobile2007 Hôm nay 01:40	Xem: 7096	Comments: 0	Seller	1.700.000 VNĐ	TP. Hồ Chí Minh
8800 cacbon arte fake Vỗ lên thân máy sẽ hiển thị đồng hồ , CHUYỂN NHẠC CHỈ VỚI CÁI LẮC TAY Shop: mobilehuynhtram2009 Hôm nay 01:38	Xem: 2163	Comments: 0	Seller	1.750.000 VNĐ	TP. Hồ Chí Minh

THÔNG BÁO

123 Mua

CHUẨN BỊ CHO KÊNH BÁN HÀNG MỚI

CẬP NHẬT THÔNG TIN NGAY

TỪ 08/04 ĐẾN 25/04/2010

🏅 Shop tiêu biểu

TRÀ MY MOBILE
Seller
TP. Hồ Chí Minh

SHOP QH USB
Seller
TP. Hồ Chí Minh

HoangAnh_Mobile
Seller
TP. Hồ Chí Minh

THÚYLIỄN_mobile
Seller
TP. Hồ Chí Minh

BaBu
Seller
TP. Hồ Chí Minh

KATIE'S SHOP
Seller
TP. Hồ Chí Minh

Onlineshop_tdt
Seller
TP. Hồ Chí Minh

VietnamUSA
Seller

5giay.vn