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Individualist and collectivist factors affecting online repurchase intentions

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Abstract

Purpose – This study aims to explore whether collectivistic and individualistic users exhibit different e-commerce loyalty and purchase intentions.

Design/methodology/approach – The paper operationalises Triandis' individuality and collectivism typology. Empirical data were gathered using face-to-face questionnaire instruments with 140 respondents, comprising undergraduate students and government employees.

Findings – Online shoppers are more individualistic than those who have not shopped online, while individualism and collectivism do not influence online loyalty.

Research limitations/implications – As firms compete for online custom, it would be useful to gain some understanding of the possible effects of individual and collective behaviour on purchasing behaviour.

Practical implications – Instead of competing for existing online users, online stores could expand their market by appealing to offline shoppers using collective techniques.

Originality/value – Online loyalty has been an important focus of prior work and, while there has been significant focus on communities, Internet use remains a very personal activity. The paper provides new evidence that offline shoppers are more collectivistic than online shoppers.

Keywords Collectivism, Customer loyalty, Purchasing, Shopping

Paper type Research paper

1. Introduction

For many consumers, the Internet has become a genuine alternative for purchasing products and services. Customers with varying requirements and backgrounds can now trade with firms around the world. However, just as there are few barriers to entry to conducting an online business, so there are low barriers to exit for customers (Clarke, 2001). Customers may easily switch between retailers, without the social censure ordinarily seen in face-to-face transactions. Loyal customers are highly prized by traditional businesses. They spend more, engage in word of mouth promotion and are less likely to be seduced by the marketing activities of competitors (Oliver, 1999; Henning-Thurau and Walsh, 2004). Developing a loyal customer base is important (Reichheld *et al.*, 2000), but this requires knowledge of what makes a consumer loyal and when a customer might show a tendency to switch to a competitor. The concept of loyalty and its antecedents has received much research attention (e.g. Day, 1969; DuWors and Haines, 1990; Oliver, 1999; Anderson and Srinivasan, 2003; Grewal *et al.*, 2003). For online environments, prior work in the area of loyalty suggests that trust (Flavián *et al.*, 2006), customer satisfaction, and value may affect loyalty in online commerce (Lin and Wang, 2006) as they do with traditional commerce (Anderson and Srinivasan, 2003).

Habit and cognitive load constraints may also discourage users from seeking alternative purchase sources, especially for repeat purchase behaviour (Tsai and Huang, 2007).

Given this rise in popularity, a significant amount of prior work has examined the social behaviour and attitudes of the users that engage in electronic commerce. On one hand, there has been much discussion of communal and collective orientations among Internet users. Technology such as weblogs (Ko *et al.*, 2008; Keng and Ting, 2009), wikis such as Wikipedia (Shao, 2009) and microblogging tools such as Twitter (Honey and Herring, 2009), in particular, have attracted attention. Proponents argue that community-building technology is useful because it improves knowledge interaction among users (Wagner and Bolloju, 2005), enhancing interpersonal relationships (Herring *et al.*, 2005).

At the same time, Internet access and activity remains a highly individual and personal experience (Hian *et al.* 2004), lacking the human warmth that conventional face to face interactors can take for granted (Hassanein and Head, 2006). Prior work on online social identity has stressed the deinidivating effect and appeal of online environments (Lee, 2007). Other work has also examined the value of personalising and individualising e-commerce tools in order to better meet user expectations (Bhattacharjee, 2001, Jenamani *et al.*, 2006). While individual users may periodically assume and externalise group norms, given appropriate strategic incentives (Douglas and McGarty, 2001), the debate between individualist and collectivist behaviours continues.

Kim *et al.* (2002) theorise a relationship between service loyalty and individualism and collectivism. The study suggests that collectivist customers expect long term relationships with vendors and, if they perceive the retailer to be a member of their in-group, will establish a stronger bond than would an individualist. Prior work has hypothesised that individualism and collectivism are related to behavioural intentions in the services context (Liu *et al.*, 2001; Mattila and Patterson, 2004). Liu suggests that when perceived service quality is high, so will the tendency to be loyal. Singelis *et al.* (1995) argue:

Among collectivists, relationships are of the greatest importance, and even if the costs of these relationships exceed the benefits, individuals tend to stay with the relationship. Among individualists, when the costs exceed the benefits, the relationship is often dropped.

Therefore, the consumption choices made by collectivists could be based on the relationship with the retailer rather than the cost or utility of the product, subsequently remaining loyal to the online retailer with whom a relationship has been established. This study aims to find out whether individualism and collectivism affect the decision to purchase online, and the subsequent continuance of that purchasing activity.

This study explores whether the population of online shoppers differs from the population of consumers that have never shopped online, in respect to individualism and collectivism. The study provides empirical evidence of the relationship between individualistic behaviour and online patronage. In undertaking this work, the study aims, in part, to address calls from several authors; Triandis and Gelfand (1998) call for further work into individualism and collectivism.

This study explores the role of individualism and collectivism in explaining the behaviour of online consumers. This leads to the main research question of this study:

Does individualism and collectivism influence customer loyalty to an online retailer? If so, how?

This paper proceeds as follows. The next section discusses loyalty in the context of consumer behaviour. This is followed by a review of individualism and collectivism, leading to the study's research hypotheses. The research method and results are presented, followed by conclusions.

2. Loyalty and consumer repurchase behaviour online

The intention to purchase and repurchase online has received much research attention, for a variety of shopping environments, including mobile stores (Lin and Wang, 2006) and online auctions (Yen and Lu, 2008). A significant amount of attention has been given to store interface design methods that enhance online loyalty and repurchase intention (Chang and Chen, 2008) and satisfaction (Flavián *et al.*, 2006). The initial focus of loyalty theory was on behavioural aspects, though later work argued that behavioural measures alone do not adequately distinguish between truly loyal and spuriously loyal consumers. Dick and Basu (1994) argue that there can be different degrees of loyalty, specifying four different types of loyalty: no loyalty (where both attitude and repeat patronage are low), latent loyalty (where attitude is high, but repeat patronage is low), spurious loyalty (where attitude is low, but repeat patronage is high), and loyalty or true loyalty (where both attitude and repeat patronage are high). Dick and Basu (1994) suggest that loyalty comprises the two dimensions, relative attitude and repeat patronage, moderated by situational influences and social norms. Dick also draws from attitude theory to suggest several antecedents of loyalty, placing these into three categories: Cognitive, affective, and conative.

Yim and Kannan (1999) suggests that markets can be segmented into hard-core loyalists and reinforcing loyalists. Alternatively, Oliver (1999) suggested that loyalty is a continuum with four identifiable stages: Cognitive loyalty, affective loyalty, conative loyalty, and action loyalty. Cognitive loyalty is the lowest point with consumers being easily attracted to another brand. Action loyalty is the highest point, where consumers develop a strong affection towards a brand, engage in repeat patronage and aim to overcome obstacles that might otherwise impede repeat patronage.

Several studies have investigated the drivers of customer loyalty to online retailers. Barry *et al.* (2007) examined relationship strength in business-to-business e-commerce. Lynch *et al.* (2001) examined shopping behaviour, instructing participants to browse various websites and vendors for approximately twenty minutes. They were then asked to decide on the website from which they were most likely to buy. These steps were carried out for two different products: a CD player and a t-shirt. The researchers concluded that site quality, trust, and positive affect are critical in explaining the loyalty of visitors to a site, and that the impact of these factors varies across regions. Srinivasan *et al.* (2002) investigated the antecedents of customer loyalty in e-commerce, by conducting an online survey of twelve hundred consumers. The survey measured eight separate hypothesised antecedents: customisation, contact interactivity, cultivation, care, community, choice, character, and convenience. Results suggested that all were the antecedents of loyalty with the exception of convenience.

This study adopts the behavioural and attitudinal perspective on loyalty, based on its theoretical justification (Day, 1969; Jacoby, 1973; Oliver, 1999; Gommans *et al.*, 2001) and empirical support (Srinivasan *et al.*, 2002; Baloglu, 2002).

3. Individualism and collectivism

Individualism and collectivism are seen as core explanatory factors for social differences (Triandis and Suh, 2002). An individualistic actor demonstrates independence from social interaction, placing the focus on rights above duties (Hofstede, 2001). Individualists are oriented toward achieving the path to social status (Oyserman *et al.*, 2002), such that individualists will rationalise relationships and balance them on a cost versus benefit basis (Singelis *et al.*, 1995). Individualists will enter a relationship if they perceive a net benefit and exit a relationship when the costs of participation exceed the benefits. Individualist relationships may be impermanent and nonintensive (Kim *et al.*, 1994). Individualists are likely to be more competitive and goal-oriented (Triandis and Gelfand, 1998). Collectivism implies interdependency between individuals and groups. The individual is ascribed social status and is expected to adhere to their obligations to the group (Triandis, 1995). In-groups are stable and impermeable (Oyserman *et al.*, 2002) and, consequently, collectivists establish strong bonds with in-group members. Personal values emphasise the importance of maintaining harmonious close relationships with others (Triandis, 1995), and making sacrifices for the common good (Kim *et al.*, 1994). The key discriminating factors of individualism are separation from in-groups and self-reliance, while the key aspects of collectivism are family integrity, interdependence and sociability (Triandis *et al.*, 1986; Triandis *et al.*, 1998).

Individualism and collectivism are constructed to explain patterns of events; they represent abstract psychological concepts (Kim *et al.*, 1994). Numerous instruments have been developed based on varying conceptualisations of the constructs (e.g. Hui, 1988; Singelis *et al.*, 1995; Matsumoto *et al.*, 1997). One method of measuring individualism and collectivism is to relate the constructs to social groups, such as friends, neighbours and co-workers (Hui, 1988). Based on Hui's concept of reference groups, Matsumoto *et al.* (1997) explored individualism and collectivism with respect to family, friends, colleagues, and strangers. Freeman and Bordia (2001) found that the reference-group-specific structure strongly explains within social groups for an Australian sample, providing further support for this conceptualisation of the construct.

Triandis *et al.* (1986) suggest that the individualism and collectivism constructs can be quantified through measures of self-reliance, separation from in-groups family integrity, and interdependence and sociability. Triandis (1995) proposes that by conceptualising individualism and collectivism along horizontal and vertical dimensions would be appropriate: horizontal individualism (HI), horizontal collectivism (HC), vertical individualism (VI), and vertical collectivism (VC). Singelis *et al.* (1995) provided the following descriptions:

- *Vertical collectivism (VC)*. The individual sees themselves as an aspect of an in-group, but the members of the in-group are different, some having more status than others. The self is interdependent and different from others.
- *Horizontal collectivism (HC)*. The individual sees themselves as an aspect of an in-group. The self is interdependent and the same as others.
- *Vertical individualism (VI)*. The individual is autonomous, but individuals see each other as different and inequality is expected. The self is independent and different from others.

- *Horizontal individualism (HI)*. An autonomous self is postulated, but the individual is more or less equal in status with others. The self is independent and the same as others.

The empirical foundation of the horizontal/vertical distinction rests with Singelis *et al.* (1995) who developed an instrument to measure the four components of the horizontal distinction, using five different methods for measuring the construct. Each method addressed various aspects of individualism, including horizontal/vertical, interdependence/independence, and the reliability and validity of different questionnaire styles such as forced choice or scaled responses.

The horizontal conceptualisation of individualism has been applied in many different research settings. Practical applications of the distinction have been made by Chen *et al.* (1997), Nelson and Shavitt (2002), Soh and Leong (2002), and Kemmelmeier and Burnstein (2003), among others. Triandis *et al.* (1998) developed a scenario-based measurement approach of the constructs designed to complement these factors in survey instruments. Tan *et al.* (2003) investigate, in the context of software projects, how individualism and collectivism might moderate the impact of organisational climate on human predisposition to report bad news.

This study employs the horizontal and vertical typology to examine online shopping behaviour. The first research question explores if the population of online shoppers differs from the population of consumers that have never shopped online before in respect to individualism and collectivism:

- H1.* Online shoppers will exhibit stronger tendencies towards horizontal and vertical individualism than will those that have not shopped online before.

Individualism is operationalised as Triandis' horizontal and vertical individualism and collectivism typology. Loyalty is operationalised as the attitudes and behavioural intentions of the consumer:

- H2a.* In B2C e-commerce, horizontal collectivism and vertical collectivism will be positively correlated with loyalty to the online retailer.

- H2b.* In B2C e-commerce horizontal and vertical individualism will be negatively correlated with loyalty to the online retailer.

4. Research method

Based on previous research, the study was administered through a face-to-face questionnaire, comprising Likert scale and open-ended questions. This section discusses instrument development, sample selection and administration.

4.1 Survey instrument

The survey instrument comprised four sections. Part A captured demographics, Part B captured individualism and collectivism based upon Triandis' horizontal typology, Part D measured loyalty to an online retailer and website and Part E measured loyalty intentions through a hypothetical scenario and also included an open-ended question.

Where possible, items from previous studies were used. All items used five-point Likert scales with two anchor points, after Emory (1985). The wording of the anchors was "agree/disagree" or "likely/unlikely" depending on the question. Income, age, and

educational qualification items were based on government census categories. All other items were developed specifically for this instrument and underwent the thorough pre-testing described below.

4.1.1 Design of the individualism component. The measure of horizontal and vertical individualism and collectivism used in this study is adapted from Triandis and Gelfand (1998), refining the original instrument of Singelis *et al.* (1995). From Triandis and Gelfand the four items with the highest factor loadings for each construct (horizontal individualism, vertical individualism, horizontal collectivism, and vertical collectivism) were extracted and were used in this study. This measure has undergone considerable analysis and much research has focused on assessing its convergent and discriminant validity (e.g. Triandis and Gelfand, 1998; Gouveia *et al.*, 2003; Soh and Leong, 2002).

4.1.2 Design of the loyalty component. The loyalty construct comprised several variables, adapted from Srinivasan *et al.* (2002) and Zeithaml *et al.* (1996). These include switching propensity, word of mouth promotions, purchase intentions, and attitude, with respect to both the firm and the website.

The items used to measure website loyalty were adapted from Srinivasan *et al.* (2002). Participants were only asked to complete the loyalty question if they had purchased a good or service over the Internet in the last twelve months, to ensure a degree of recency of experience with the retailer. To ensure that loyalty was being measured with respect to a single online retailer the loyalty questions were preceded by the statement:

For the following questions choose one of the online businesses (referred to here as XYZ) from whom you have made a purchase and relate each question to your experiences with that business.

Participants were also given the option of naming the retailer.

The section of the instrument measuring loyalty also measured the respondents' overall experience with the retailer with a single item. The item was based on a five-point Likert scale and had two anchors "very good" and "very bad". The question was phrased as "how would you rate your overall experience with XYZ?". This question immediately preceded the loyalty items.

A scenario was included at the end of the instrument to measure loyalty intentions. The scenario allowed the comparison of the perceptions of loyalty to online retailers between online shoppers and those that had not shopped online before. An open-ended question was included in the instrument to offer respondents the opportunity to provide more information (Emory, 1985).

4.2 Instrument pre-testing

The instrument was first reviewed by three senior academic staff, to assess structure, grammar and completeness. Improvements were made and a second version was produced for a pilot study.

The pilot study consisted of 20 subjects from a section within a Commonwealth government department. The pilot questionnaire was distributed to subjects in the workplace, with instructions for instruments to be returned to a contact once complete. Most subjects completed the questionnaire in one sitting without interruptions. After completing the survey, subjects were each asked separately for their opinions

regarding instrument content, layout, length, and question comprehension. Following this, as recommended by Willis (2005), the pilot study included an interview for ten of the participants. Several alterations to the instrument were made in relation to the instrument's spacing, layout and placement of questions.

4.3 Survey samples and administration

The sample included students and local government employees. Members of the government sample were obtained through management contacts working in various sections within the local state government departments. For the local government employee sample, questionnaires were distributed by a contact person within a local government department. Respondents asked to return the surveys to the contact person within the workplace when they had finished. Of those sections within the department approached, the survey was distributed to all persons present on the day. Only one subject refused to complete the instrument.

For the student sample, the questionnaire was administered to students during class at the university. Three classes, one each from economics and commerce, engineering and information technology, and science were used. The researcher was present at all times during questionnaire administration.

5. Results

In total, 157 surveys were received. Seventeen responses were discarded due to incompleteness. This resulted in 140 usable responses; 56 per cent of the total number of instruments distributed, or 89 per cent of received responses. The majority of unusable responses came from the student sample. Table I shows the breakdown of these responses.

5.1 Descriptive statistics

Demographics of the two samples are presented in Table II. The greatest variance between the two samples is in income and age. On average, students are younger and have lower income. Most students are in the 18-24 year old age bracket while public servants are reasonably evenly distributed with respect to age.

Table III presents an overview of the online purchasing behaviour of respondents. A larger proportion of public servants made online purchases in the previous twelve months than did students, possibly due to the public servants' higher level of disposable income. An interesting observation is that most purchases tended to be book, music or DVD retailers.

5.1.1 Assessing collinearity. Table IV reports the demographic correlations for students and public servants, respectively. As expected, age and income are positively correlated for both samples. Interestingly, education is not correlated with age or

Table I.
Survey response rates

	Students	Govt. employees	Total
Distributed	150	100	250
Returned	104	53	157
Response rate (%)	69.3	53.0	62.8
Usable responses	90	50	140
Usable response rate (% of distributed)	60.0	50.0	56.0

Table II.
Respondent
demographics

		Students		Govt. employees		Total sample	
		Frequency	%	Frequency	%	Frequency	%
Gender	Female	46	51.1	22	44.0	68	48.6
	Male	43	47.8	28	56.0	71	50.7
Age	18-24	81	88.9	4	8.0	85	60.0
	25-29	6	6.7	13	26.0	19	13.6
	30-39	1	1.1	13	26.0	14	10.0
	40 +	2	2.2	20	40.0	22	15.0
Education	Secondary Junior or below	0	0	2	4.0	2	1.4
	Secondary Senior	5	5.6	13	26.0	18	12.9
	Advanced Diploma or Certificate	1	1.1	16	32.0	17	12.1
	Bachelor Degree	80	88.9	9	18.0	89	63.6
	PhD, Master's Graduate Diploma	3	3.3	9	18.0	12	8.6
	Other	1	1.1	1	2.0	2	1.4
Income	Nil	10	11.1	0	0.0	10	7.1
	1-4,159	22	24.4	0	0.0	22	15.7
	4,160-8,319	19	21.1	0	0.0	19	13.6
	8,320-15,599	23	25.6	0	0.0	23	16.4
	15,600-25,999	8	8.9	0	0.0	8	5.7
	26,000-36,999	2	2.2	2	4.0	4	2.8
	37,000-51,999	4	4.4	19	38.0	23	13.5
	52,000-77,999	2	2.2	15	30.0	17	13.5
	78,000 +	0	0.0	13	26.0	13	10.7

	Student		Govt.		All	
	Frequency	%	Frequency	%	Frequency	%
<i>Purchased a product or service online in the last 12 months</i>						
Yes	44	48.9	29	58.0	73	52.4
No	46	51.1	21	42.0	67	47.9
<i>Of those who have purchased online in the last 12 months, purchases were made from</i>						
Qantas or Virgin	4	9.1	3	10.3	7	12.3
Ticketmaster or Ticketek	6	13.6	1	3.4	7	10.9
eBay	6	13.6	3	10.3	9	9.5
Amazon	1	2.2	2	6.9	3	5.4
Other *	27	61.4	17	58.6	44	67.1
<i>Shopping experience</i>						
Very good	17	38.6	11	37.9	28	38.3
Good	17	38.6	12	41.3	29	39.7
Neutral	7	15.9	5	17.2	12	16.4
Bad	2	4.6	0	0.0	2	2.7
Very bad	1	2.3	0	0.0	1	1.37

Note: *Other includes retailers that appeared only two times or less; Examples are Wotif, Lastminute.com, EzyDVD, Angus and Robertson, Danoz, Murrays, Elvis.com, Chaos Music and a variety of other retailers

Table III.
Online purchasing
behaviour

Table IV.
Spearman correlation of
student and public
servant demographics

Sample	<i>n</i>		Gender	Age	Income	Education
Students	90	Gender	1.000			
	90	Age	− 0.024	1.000		
	90	Income	− 0.096	0.288 **	1.000	
	90	Education	− 0.135	0.062	0.194	1.000
Public servants	50	Gender	1.000			
	50	Age	0.096	1.000		
	50	Income	0.075	0.421 **	1.000	
	50	Education	− 0.082	− 0.178	0.208	1.000

Notes: *Correlation is significant at the 0.05 level (two-tailed); **Correlation is significant at the 0.01 level (two-tailed)

income. Perhaps this can be explained by students not being represented in the high income or age categories, while for public servants, a large number have education below the bachelor degree level but relatively high income and age.

5.1.2 Assessing reliability and validity. Internal validity of the measures used in this study is corroborated by the various prior studies that have applied and tested the measures. Construct validity for each of the measures is partially established through factor analyses, finding consistency with prior research. The parallel forms method was first used to test the reliability of the loyalty measure. Two different loyalty subscales were administered, one labelled loyalty to the website and the other labelled loyalty to the company. Spearman correlation of the two subscales was 0.403, significant at the $p < 0.01$ level, suggesting high reliability. In addition, Alpha values for all factors are presented below.

The case for reliability can also be strengthened by examining the testing procedures, conditions, and other factors that may have an impact or be a source of error. In this study conditions of test administration were consistent within the two independent populations. All student participants completed the instrument in class with the researcher present to field questions and bestow a degree of authority and importance upon the study. All public servants completed the instrument at work. A representative of the researchers was present and while not all participants completed the instrument without interruption, in most cases the instrument was completed in one sitting. Additionally, the relative large sample size will tend to alleviate any individual factors such as motivation or fatigue. Based on these arguments, and the reports of internal consistency that follow, the study assumes acceptable reliability.

5.2 Loyalty subscales

A principal components factor analysis with varimax rotation was conducted on each of the loyalty subscales to determine the underlying factorial structure of the constructs. Items for the loyalty to company subscale, shown in Table V, loaded as expected and are consistent with Zeithaml *et al.* (1996), with the relevant items loading highest onto the respective factors of positive word-of-mouth promotions and purchase intentions.

Results of testing for the Loyalty to Website subscale are presented in Table VI. However, the factor analysis conducted on the loyalty to website subscale did not produce the expected results.

Factor	Item	Label	Loading	PO28	PO29	Label PO30	PO31	PO32
Positive word-of-mouth promotions	Say positive things about XYZ to other people	PO28	0.750	1.000				
	Recommend XYZ to someone who seeks your advice	PO29	0.679	0.747**	1.000			
	Encourage friends and relatives to do business with XYZ	PO30	0.901	0.552**	0.549**	1.000		
Purchase intentions	Consider XYZ your first choice to buy more of the same product/service	PO31	0.854	0.517**	0.563**	0.425**	1.000	
	Do more business with XYZ in the next few years	PO32	0.895	0.555**	0.516**	0.325**	0.588**	1.000
Loyalty – firm				0.866**	0.837**	0.715**	0.759**	0.715**

Table V.
Factor loadings and
Spearman correlations for
loyalty to the company

Table VI.
Factor loadings and
Spearman correlations for
loyalty to the website

Factor	Item	Label	Loading	S33	S34	P35	P36	P38	P39	A37
Switching propensity	I seldom consider switching to another website	S33	0.86	1.00						
	As long as the present service continues, I doubt that I would switch websites	S34	0.84	0.548**	1.00					
Purchase intentions	I try to use XYZ's website whenever I need to make a purchase	P35	0.88	0.254*	0.177	1.00				
	When I need to make a purchase, XYZ's website is my first choice	P36	0.84	0.341**	0.279*	0.738**	1.00			
	To me XYZ's website is the best to do business with	P38	0.655	0.073	0.381**	0.069	0.200	1.00		
	I believe XYZ's website is my favourite retail website	P39	0.784	0.210	0.186	0.502**	0.466**	0.297*	1.00	
Attitude		A37	0.918	0.249*	0.000	0.462**	0.490**	-0.007	0.323**	1.00
Loyalty – web	I like using XYZ's website			0.567**	0.581**	0.669**	0.787**	0.446**	0.630**	0.543**

5.3 Horizontal and vertical individualism and collectivism

A principal components factor analysis with varimax rotation was carried out on the items measuring horizontal and vertical individualism and collectivism. The factor loadings and Cronbach Alpha values are shown in Table VII. All items, except question 24, loaded as expected.

Interestingly, the result obtained here converges with Soh and Leong (2002). The item “It is important to me that I respect the decisions made by groups of which I am a member” was used to measure vertical collectivism, but this item actually loaded highest on horizontal collectivism. Soh and Leong (2002) reported that an item often used to measure vertical collectivism (VC) actually loaded highest on horizontal collectivism (HC). The finding in this study supports Soh and Leong’s argument that the current items do not sufficiently distinguish between horizontal and vertical collectivism. This suggests that Soh and Leong’s results apply to the Australian setting and is not just an artefact of the US or Singaporean sample they used. Apart from this exception, all other items loaded as expected suggesting approximate construct validity.

The Alpha values are consistent with prior research; for example Soh and Leong (2002) report Alphas between 0.65 and 0.75, and Gouveia *et al.* (2003) reported Alphas between 0.67 and 0.74.

5.4 Tests of sample differences between students and public servants

To establish whether the students and public servant groups are from identical populations, tests of the difference of means are reported for horizontal and vertical individualism and collectivism, loyalty to the website and loyalty to the company. Table VIII reports the Mann-Whitney U statistic.

As the significant values are quite large (>0.05) for the loyalty, individualism and collectivism subscales, the null hypothesis that the two samples are from identical populations cannot be rejected. An independent t-test also reported similar levels of significance and verifies the conclusion reached from the Mann-Whitney U statistic. It is concluded that the two independent samples are from identical populations for the loyalty constructs.

5.5 Hypothesis testing

To test *H2*, Mann-Whitney U test statistics explored the differences between those that have shopped online before and those that have not (termed, “offline shoppers”) with respect to HI, HC, VI, and VC. The results of the analysis are presented in Table IX.

The hypothesis is not supported, but the tests do suggest that there are differences between online and offline shoppers with respect to individualism and collectivism. As shown, online shoppers and offline shoppers reported statistically similar results for all four constructs except for vertical individualism. This was an interesting result, given the expected divergence between online and offline shoppers along vertical collectivism or horizontal individualism.

To test *H1*, Spearman correlations were calculated between each of the latent variables. The results are presented in Table X.

There are no correlations between loyalty and any of the individualism and collectivism constructs for any of the populations. While the hypothesis is not supported, the correlations between the horizontal and vertical individualism and collectivism constructs produced interesting results.

Table VII.
Factor loadings and
Spearman correlations for
collectivism and
individualism

Factor	Alpha	Item	Label	Leading	HI9	HI10	HI12	HI21	HC11	HC16	HC19	Label HC20	VI14	VI15	VI17	VI18	VC13	VC22	VC23	VC24
Horizontal collectivism	$\alpha = 0.75$	If a co-worker gets a prize I would feel proud	HB9	0.713	1.000															
		To me, pleasure is spending time with others																		
		The wellbeing of my co-workers is important to me																		
		I feel good when I cooperate with others																		
		I rely on myself most of the time, I rarely rely on others																		
Horizontal individualism	$\alpha = 0.78$	My personal identity, independent of others, is very important to me	HC11	0.759					1.00											
		I'd rather depend on myself than others							0.211 *	1.00										
		I often do "my own thing"							0.555 **	0.338 **	1.00									
									0.453 **	0.212 *	0.571 **	1.00								
Vertical collectivism	$\alpha = 0.70$	It is my duty to take care of my family, even when I have to sacrifice what I want	VI14	0.552									1.00							
		Parents and children must stay together as much as possible											0.298 **	1.00						
		Family members should stick together, no matter what sacrifices are required											0.229 **	0.304 **	1.00					
		It is important to me that I respect the decisions made by groups of which I am a member ^a											0.314 **	0.379 **	0.196 *	1.00				
Vertical individualism	$\alpha = 0.63$	It is important that I do my job better than others	VC13	0.632													1.00 **			
		Winning is everything															0.283 *	1.00		
		Competition is the law of nature															0.329 **	0.523 **	1.00	
		When another person does better than I do, I get tense and aroused															0.306 **	0.276 **	0.378 **	1.00

Notes: ^aCorrelation is significant at the 0.05 level (two-tailed); *Correlation is significant at the 0.01 level (two-tailed); ^aThis item loaded highest on horizontal collectivism, consistent with Sch and Leong (2002)

6. Discussion

This study explored the influence of individualism and collectivism on customer loyalty in B2C e-commerce. The results, in terms of the study's hypotheses, are as follows:

- H1.* Online shoppers will exhibit stronger tendencies towards horizontal and vertical individualism than will those that have not shopped online before.

The results suggest that online shoppers are more vertically individualistic than those that have never shopped online before. This vertical individualism reflects "people who often want to become distinguished and acquire status, and they do this in individual competitions with others" (Triandis and Gelfand, 1998, p. 119). An individual who scores highly on VI items is achievement-oriented. In contrast, horizontal individualists are not especially interested in becoming distinguished or in having high status (Triandis and Gelfand, 1998). Perhaps vertical individualists are more willing to adopt new innovations in order to achieve their goals of superiority:

- H2.* In B2C e-commerce, horizontal collectivism and vertical collectivism will be positively correlated, and horizontal and vertical individualism will be negatively correlated with loyalty to the online retailer.

	Individualism and collectivism				Loyalty	
	Horizontal	HC	Vertical	VC	Loyalty – web	Loyalty – company
Mann-Whitney U	2,249.500	2,044.500	2,135.000	2,248.500	543.000	631.000
Wilcoxon W	3,524.500	3,319.500	3,410.000	6,343.500	978.000	1,066.000
Z	– 0.02	– 0.902	– 0.503	– 0.007	– 1.076	– 0.080
Asymp. Sig. (two-tailed)	0.998	0.367	0.615	0.995	0.282	0.936

Table VIII.
Mann-Whitney U Test for
individualism,
collectivism and loyalty
constructs

		Individualism and collectivism			
		Horizontal		Vertical	
		HI	HC	VI	VC
Combined sample	Mann-Whitney U	2,309.000	2,398.000	1,684.500	2,289.500
	Wilcoxon W	5,010.000	4,676.000	4,385.500	4,567.500
	Z	− 0.592	− 0.209	− 3.246	− 0.666
	Asymp. Sig. (two-tailed)	0.554	0.834	0.001	0.506
Students	Mann-Whitney U	935.500	947.500	753.000	940.000
	Wilcoxon W	1,925.500	1,937.500	1,743.000	2,021.000
	Z	− 0.640	− 0.546	− 2.141	− 0.595
	Asymp. Sig. (two-tailed)	0.522	0.585	0.032	0.552
Public servants	Mann-Whitney U	303.000	240.000	175.000	286.500
	Wilcoxon W	738.000	471.000	610.000	517.500
	Z	− 0.031	− 1.360	− 2.600	− 0.362
	Asymp. Sig. (two-tailed)	0.975	0.174	0.009	0.717

Table IX.
Mann-Whitney U test for
individualism and
collectivism constructs

Sample		HI	HC	VI	VC
Group (73)	HI	1.000			
	HC	0.217	1.000		
	VI	0.083	−0.028	1.000	
	VC	0.215	0.253 *	0.129	1.000
	Loyalty – web	0.183	0.040	0.058	0.000
	Loyalty – company	0.053	0.175	0.169	0.076
Students (44)	HI	1.000			
	HC	0.070	1.000		
	VI	0.084	0.049	1.000	
	VC	0.262	0.119	0.348 *	1.000
	Loyalty – web	0.141	−0.033	0.062	0.196
	Loyalty – company	0.001	0.178	0.312 *	0.121
Public servants (29)	HI	1.000			
	HC	0.405 *	1.000		
	VI	0.039	−0.199	1.000	
	VC	0.155	0.439 *	−0.161	1.000
	Loyalty – web	0.286	0.202	0.097	−0.275
	Loyalty – company	0.068	0.170	−0.069	0.017

Table X.
Correlations between
loyalty and individualism
and collectivism
constructs

Notes: *Correlation is significant at the 0.05 level (two-tailed); **Correlation is significant at the 0.01 level (two-tailed)

The results suggest that individualism and collectivism do not influence the loyalty of online consumers. The tentative conclusion is that individualism and collectivism does not influence the loyalty of online consumers. The lack of a relationship between individualism and collectivism and loyalty does not preclude a relationship between loyalty and individualism and collectivism. In fact, some treat customer loyalty as a risk minimisation strategy (e.g. Mitchell, 1998), and one might expect a strong correlation between risk propensity and loyalty. Online shopping environments that are more sensitive to risk might be expected to engage in more risk reduction strategies, including loyalty and patronage. This relationship might be exacerbated given the perceptions of risk (Teo and Liu, 2007; Finch, 2007) in transacting electronically.

The lack of influence of individualism and collectivism on loyalty in B2C e-commerce might also be explained by the concept of customer value, whereby customers shop at the retailer who confers the greatest value. The assessment of value will include an array of variables, including perceived service quality and atmospheric. The finding, however, does not support the application of Kim *et al.*'s (2002) theory to the online environment, whereby collectivists do not view online retailers as in-group members, treating relationships with retailers on a cost/benefit basis.

Evidence presented in this study suggests that individualism and collectivism do not influence customer loyalty in B2C e-commerce. However, individualism and collectivism can explain differences between online and offline shoppers. It is possible that online shopping attracts individualists because the activity does not depend on interaction or social cooperation with other actors (consistent with Triandis and Suh, 2002). In this regard, it may be that users of online social networks are more collectivistic, because of apparent benefits to networked interaction.

6.1 Limitations

This study may be subject to several limitations. First, individualism is measured at the individual level. The results may not be generalisable to other units of analysis without further empirical exploration. Further, while this study used a fine-grained conceptualisation of individualism and collectivism, we cannot conclude that the same results would be obtained were a bi-polar conceptualisation of the construct adopted.

The samples used are largely ones of convenience and are based in a single geographic location. While every effort was made to avoid biasing responses or leading respondents, these potential effects cannot be excluded. The study used interview methods to provide a richer survey instrument environment, across two respondent groups to attempt to mitigate these possible threats.

Further, it is difficult to gauge the representativeness of the samples, and it cannot be assumed that the samples are representative of the wider populations.

6.2 Future research directions

There are several avenues for extending the findings presented here. This study focused on individualist influences on online shopping behaviour. It would also be interesting to investigate these influences upon patterns of Internet usage, such as the degree to which collectivists use the Internet more for social interaction than for shopping, or whether individualists are more likely than collectivists to engage in communications with strangers over the Internet.

From this study's finding of significant differences between online and offline shoppers, it is conceivable that different types of loyalty building programs will have varying effectiveness depending on their individualist orientation. For example, loyalty-building programs offering social rewards may be more effective in collectivistic societies than individualistic ones. It would be interesting to investigate the effectiveness of online communities (McWilliam, 2000) as a loyalty building strategy in individualistic and collectivistic societies.

This study has focused on influences on online shopping behaviour. It would also be interesting to investigate similar influences upon patterns of Internet usage. For example, do collectivists use the Internet more for social interaction than for shopping? Or, are individualists more likely to engage in communications with strangers over then Internet than collectivists?

This study could be extended by investigating individualism at the national level or incorporating into the analysis other dimensions. One particular dimension that potentially has a strong theoretical link to loyalty is uncertainty avoidance. Similarly, there remains the opportunity to investigate the applicability of loyalty theories from other perspectives. Other abstractions, such as Hall's high versus low context communication (Hall, 1960), could also be tested in investigating influences on loyalty. It may be interesting, in this regard, to examine the particular stimuli that compel a user to behave in these ways.

7. Conclusions

In sum, this study found that individualism and collectivism can explain differences between online and non-online shoppers. Online shoppers are more vertically individualistic than those that have never shopped online before. An individual who scores highly on vertically individualism items can be achievement oriented. In

contrast, horizontal individualists are not especially interested in becoming distinguished or in garnering higher status (Triandis and Gelfand, 1998). Perhaps vertical individualists are more willing to adopt new technologies and innovations in order to achieve their goals of superiority. However, individualism and collectivism do not influence customer loyalty in B2C e-commerce.

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(Appendix follows on p. 26)

Appendix

Part A - Background Information

1. Are you male or female?

☐ Female☐ Male

2. How old are you?

☐ Under 18☐ 25 – 29☐ 40 – 49

☐ 18 – 24☐ 30 – 39☐ 50 +

3. In which country were you born?

4. For how long have you lived in Australia?

_____ years

_____ months

5. In which country(s) have you spent most of your life?

6. With what ethnic group do you primarily identify yourself? (tick all that apply. For example if you identify yourself as a British Japanese, tick both British and Japanese)

☐ Australian☐ Thai☐ Greek

☐ Chinese☐ Vietnamese☐ British

☐ Japanese☐ Indonesian☐ Italian

☐ North American☐ Aboriginal☐ Other: _____

7. What is your gross annual income (including pensions and allowances)?

☐ \$1 – \$4,159 per year☐ \$37,000 – \$51,999 per year

☐ \$4,160 – \$8,319 per year☐ \$52,000 – \$77,999 per year

☐ \$8,320 – \$15,599 per year☐ \$78,000 or over per year

☐ \$15,600 – \$25,999 per year☐ Nil income

☐ \$26,000 – \$36,999 per year☐ Negative income

8. What is your highest level of education? (If you are currently studying, select the level of your current studies)

☐ Primary☐ Bachelor Degree

☐ Secondary Junior☐ Graduate Diploma or Graduate Certificate

☐ Secondary Senior☐ Masters

☐ Certificate I or II☐ Doctoral

☐ Certificate III or IV☐ Other (e.g. Non award or miscellaneous)

☐ Advanced Diploma or Associate Degree

Part B

Do you agree with each of the following statements? (1 = strongly agree, 5 = strongly disagree):

9. I rely on myself most of the time; I rarely rely on others	1	2	3	4	5
10. My personal identity, independent of others, is very important to me	1	2	3	4	5
11. If a co-worker gets a prize, I would feel proud	1	2	3	4	5
12. I'd rather depend on myself than others	1	2	3	4	5
13. It is my duty to take care of my family, even when I have to sacrifice what I want	1	2	3	4	5
14. It is important that I do my job better than others	1	2	3	4	5
15. Winning is everything	1	2	3	4	5
16. To me, pleasure is spending time with others	1	2	3	4	5
17. Competition is the law of nature	1	2	3	4	5
18. When another person does better than I do, I get tense	1	2	3	4	5
19. The well-being of my co-workers is important to me	1	2	3	4	5
20. I feel good when I cooperate with others	1	2	3	4	5
21. I often do "my own thing"	1	2	3	4	5
22. Parents and children must stay together as much as possible	1	2	3	4	5
23. Family members should stick together, no matter what sacrifices are required	1	2	3	4	5
24. It is important to me that I respect the decisions made by groups of which I am a member	1	2	3	4	5

Figure A1.
Questionnaire

(continued)

25. Have you purchased a good or service over the internet in the last twelve months?

- ☐ Yes ☐ No, go to Part D

Part C

For the following questions choose *one* of the online businesses from whom you have made a purchase and relate each question to your experiences with that business.

26. What is the name of the business from which you made the purchase? _____

27. How would you rate your overall experience with this firm? (1 = very good, 5 = very bad)

1 2 3 4 5

How likely are you to (1 = not at all likely, 5 = extremely likely):

28. Say positive things about this firm to other people 1 2 3 4 5

29. Recommend this firm to someone who seeks your advice 1 2 3 4 5

30. Encourage friends and relatives to do business with this firm 1 2 3 4 5

31. Consider this firm your first choice to buy more of the same product/service 1 2 3 4 5

32. Do more business with this firm in the next few years 1 2 3 4 5

How strongly do you agree with each of the following statements:

(1 = strongly agree, 5 = strongly disagree)

33. I seldom consider switching to another website 1 2 3 4 5

34. As long as the present service continues, I doubt that I would switch websites 1 2 3 4 5

35. I try to use this firm's website whenever I need to make a purchase 1 2 3 4 5

36. When I need to make a purchase, this firm's website is my first choice 1 2 3 4 5

37. I like using this firm's website 1 2 3 4 5

38. To me this firm's website is the best to do business with 1 2 3 4 5

39. I believe this firm's website is my favourite retail website 1 2 3 4 5

Part D

40. If you were looking to purchase a product or service online would you tend to search for the best deal or go straight to a retailer with whom you had already dealt? Why?

41. Consider the following scenario:

You frequently buy music CDs from Retailer A, an online music retailer. Retailer A has a sound privacy policy and you have had no problems with payments or misuse of your details (for example, as far as you know the retailer never passes on your details to third parties). Retailer A's website is easy to navigate and offers quality service, generally delivering CD's within 3 days of purchase. At the moment Retailer A has fairly competitive prices.

Having shopped at Retailer A for about six months, a friend tells you about another online music retailer. They sell their CD's about **10% cheaper** than Retailer A. Both have exactly the same range of music and can fulfil orders for items they don't carry. Your friend tells you that the new firm also has a sound privacy policy and good service. Both businesses are Australian run and owned.

In relation to the above scenario, how likely are you to: (1 = very likely, 5 = very unlikely)

41. Look at the new retailer's website 1 2 3 4 5

(continued)

Figure A1.

42. Look at the new retailer's website, but probably not buy anything	1	2	3	4	5
43. Buy all future CD's from the new retailer	1	2	3	4	5

Suppose that you go into a chat room and see some negative comments about Retailer A. One of the comments you see is: "Retailer A has poor quality service, they don't respond to my e-mails and I sometimes have to place orders twice":

How strongly do you agree with the following statements: (1 = strongly agree, 5 = strongly disagree)

44. My attitude towards Retailer A would not change	1	2	3	4	5
45. I would rely more on my own personal experiences with Retailer A when deciding whether or not to buy more CD's from them	1	2	3	4	5
46. I would no longer shop at Retailer A	1	2	3	4	5

Thank you for your participation.

Figure A1.

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