Fashionability vis-à-vis rationality: Investigating factors driving users' e-tourism website stickiness

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Abstract

Understanding what drive users' website stickiness is of strategic importance for e-tourism managers. This study examines the role of a neglected construct 'perceived fashionability' in forming users' e-tourism website stickiness in comparison with four commonly studied rational factors: system quality, information quality, security and e-shopping value. Drawing upon dual-system theories and social influence theories, a conceptual model with hypotheses were developed and tested. A sample of 376 e-tourism website users in China participated in this study. The results indicate that perceived fashionability has a positive impact on user's stickiness to the website, and perceived fashionability also performs a mediating role between website security and stickiness. This study contributes to theory by explaining that website stickiness is not entirely driven by rationality but also perceived fashionability. Managerial implications for e-tourism strategies are provided.

Keywords: perceived fashionability; website stickiness; dual-system theories; e-tourism; internet; China

Introduction

Increasing numbers of travel and tourism customers are using the internet for searching information on travel and tourism destinations and for booking holidays, tickets or accommodations (Buhalis & Law, 2008; d'Angella & De Carlo, 2014; Johnson, Sieber, Magnien, & Ariwi, 2011; Law, Qi, & Buhalis, 2010). Some travel and tourism e-commerce (hereafter e-tourism) websites attract a large number of users who 'stick' to their sites, while others never reach the critical threshold to become 'fashionable' among users. Website stickiness is the key to the forming of a critical mass of users (Borenstein & Saloner, 2001; Shields & Shields, 2005; Sigala, 2003) and the probability of making a sale increases when a user stick to the e-tourism website (Bhatnagar & Ghose, 2004). Therefore, understanding what makes users stick to an e-tourism website is of great interest to both managers and academics. Although some scholars define stickiness as the ability of a website to draw and retain customers (e.g. Zott, Amit, & Donlevy, 2000), stickiness can also be defined from the user's side as the user's willingness to return to and prolong his/her duration of stay on a website (Lin, 2007) or 'repetitive visits to and use of a preferred website' (Li, Browne, & Wetherbe, 2006, p. 106). In this paper, we adopt the later definition.

Research on factors driving website stickiness is at the early stage. There are at least two gaps in the literature. First, the extant literature has largely focused on rationality and examined rational factors of e-loyalty, such as information quality, ease of use, security, interactivity, personalisation, accessibility and online shopping value (Chiu, Wang, Fang, & Huang, 2014; Law et al., 2010; Park & Gretzel, 2007 ; Wu, Chen, Chen, & Cheng, 2014). Yet, today little research has empirically tested those rational factors' relationships to website stickiness. Second, the adoption of Information and Communication Technology (ICT) in general might not be entirely driven by rationality (Kahneman, 2003, 2011) and social factors such as perceived fashionability might have a role to play in user's adoption of and stickiness

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to a website. Several studies have examined adoption of ICT such as mobile phone as fashion statement (Katz & Sugiyama, 2006), or examined consumer's fashion involvement as intrinsic motivation for adopting online shopping (Shang, Chen, & Shen, 2005; Suki, Ramayah, & Suki, 2008). Therefore, it is possible that user's stickiness to a certain e-tourism website is driven by 'fashionability', in addition to rationality. To the best of our knowledge, there has been no empirical research into the role of fashionability in forming website stickiness.

The specific aim of this study is to address the research gaps by building and testing a model of the effect of perceived fashionability on e-tourism website stickiness and the relationships between major rational factors, perceived fashionability and website stickiness. This study contributes to the literature of travel and tourism technology in three ways. First, it advances our understanding of the major drivers of e-tourism website stickiness, including both rationality and fashionability, by drawing upon dual-system theories (Dhar & Gorlin, 2013; Evans & Stanovich, 2013; Kahneman, 2003, 2011; Stanovich & West, 2000), which has not been applied to study traveller's e-tourism website choice behaviour. Second, it introduces the construct of perceived fashionability and empirically tests its effect on e-tourism website stickiness along with rational factors, by drawing upon fashion conformity theories (Bagozzi & Lee, 2002; Cho, 2011; Miller, McIntyre, & Mantrala, 1993). Third, the study findings provide e-tourism managers with greater insights into users' website stickiness behaviour, which have important implications for developing e-tourism strategies.

To test our hypotheses, we collected data by means of an online survey of a sample of 376 e-tourism users in China. China's e-tourism market is a particularly suitable field context, because of the large population of users using e-tourism websites for their travel and tourism booking. According to iResearch (2014), a leading Chinese consulting company, the online

travel and tourism transaction volume in China has reached CNY220.46 billion (the

equivalence of USD 35.47 billion) in 2013, with year-on-year growth of 29 percent. Indeed,

particularly the online purchase of flight tickets, hotels and holiday services has contributed

to the increase of the online transactions.

The paper is structured as follows. First, we provide a review of relevant theories (dual-

process theory and fashion conformity theories) and prior research on the factors influencing

online consumer behaviour to develop our research model with hypotheses. The next section

explicates the data collection method. The results of our empirical work are then presented. In

the final section, we discuss the findings and their theoretical and managerial implications.

Theory and hypotheses

Dual system theories

Extant research on e-tourism behaviour has been dominated by the rational theories, such as the classical economic rational-agent model which assumes that human beings are rational, aiming for utility maximisation (Kahneman & Tversky, 1979). However, in reality our rationality is bounded; instead of searching for optimal choices, people make decisions that are 'satisficing' (Simon, 1955). In other words, in everyday practice most people make quick decision based on intuition without having to make a lot of cognitive efforts (Kahneman, 2003, 2011). The dual-system theories argue that there are two distinct processes that result in a decision choice: System 1, which is a fast, automatic and unconscious process, and System 2, which is a slow, serial, effortful, and deliberately controlled cognitive process (Stanovich & West, 2000). These theories include several well established dual-system frameworks, such as 'experiential and rational systems' (Epstein, 1994) and 'heuristic-systematic model'(Chaiken, Liberman, & Eagly, 1989). In the 'experiential and rational systems', the experiential system (equivalent to System 1) refers to the affective, emotionally driven and holistic process, while the rational system (the equivalence of System 2) refers to the logical, reason oriented and analytic process (Epstein, 1994). In the 'heuristic-systematic model', heuristic processing is impression-motivated and involves the selective use of heuristics or cues available in the judgmental context (System 1), while systematic processing is accuracy-motivated, and involves a relatively comprehensive and analytic scrutiny of judgment-relevant information (System 2, Chen, Duckworth, & Chaiken, 1999; Chen, Shechter, & Chaiken, 1996). According to Dhar and Gorlin (2013), the main defining features of System 1 are automaticity and minimal demands on working memory. The processing is rapid, unintentional and intuitive. System 1 operates through the workings of associative memory,

i.e. different associations spontaneously come to mind. System 1 processing may be erroneous sometimes, but it can also be powerful and accurate, for example high skill is acquired by prolonged practice, and the performance of skills is rapid and effortless (Kahneman, 2003). The main defining features of System 2 processing, on the other hand, are the capacity for hypothetical thinking and the engagement of working memory. System 2 processing is wilful and effortful. It tends to play a secondary, corrective role that engage with the mental processing effort (Evans & Stanovich, 2013).

The choice of an e-tourism website is often seen as a 'goal-directed' behaviour: searching tourism related information and conducting e-tourism transactions such as travel and hotel booking (Buhalis & Law, 2008; Shang et al., 2005). The initial adoption of a website requires cognitive efforts and deliberation. Users are likely to be engaged with an elaborate decision process, evaluating the site's design, security features and the likelihood of getting good e-shopping value from the website (Law et al., 2010). Rational, utilitarian values such as 'perceived ease of use' and 'usefulness' of an e-tourism website are some of the important determining factors for adoption (Davis, 1989). Other rational factors of an e-tourism website use include, perceived security (M.-J. Kim, Chung, Lee, & Kim, 2012; Ranganathan & Ganapathy, 2002) and the benefits of using e-tourism websites, such as convenience (Heung, 2003; W. G. Kim & Kim, 2004; Mayr & Zins, 2009), financial advantages or lower prices (D. J. Kim, Kim, & Han, 2007; W. G. Kim & Kim, 2004; W. G. Kim, Ma, & Kim, 2006), time saving (Christou & Kassianidis, 2002; Heung, 2003; Wong & Law, 2005) and tourism product variety (Jensen, 2009). The evidence so far suggests that System 2 processing is in operation when making website choice, particularly in case of initial use of an e-tourism website.

When users are satisfied with their initial use experiences they tend to visit the same website the next time they need to plan for travel and tourism activities (Bhattacherjee, 2001). As a consequence, users keep using the same website repeatedly, forming website stickiness. Sticking to a satisfactory and familiar website is likely to be guided by automated cognitive processes, rather than to be preceded by elaborate decision processes (Aarts, Verplanken, & Knippenberg, 1998). In other words, visiting the previously visited website does not require deliberation (Verplanken, 2006). The automated cognitive processes of e-tourism website stickiness can be described as a type of 'goal-directed' automaticity (Aarts & Dijksterhuis, 2000): the very activation of the goal to search travel information and do e-tourism shopping automatically evokes the visit of one's frequently used e-tourism website. This type of automaticity follows prior conscious and intentional decision-making processes, therefore it is also termed 'postconscious' automaticity (Bargh, 1989). In contrast, 'preconscious' automaticity refers to the effortless perceptual activity regarding the outside world, which serves as inputs into conscious and deliberate processes (Bargh, 1989). Fashion contagion behaviour or fashion conformity effects triggered by the perception of others' behaviour are examples of 'preconscious' automaticity (Bargh, Schwader, Hailey, Dyer, & Boothby, 2012). Regardless of its types, automaticity appears to match the description of System 1 process (Dhar & Gorlin, 2013; Evans & Stanovich, 2013).

Perceived fashionability and website stickiness

Fashionability is the noun form of fashionable, a state of being in fashion. Common dictionary definition of fashionable is of a current popular style. Its synonyms include, namely, popular, stylish and trendy, and informally, cool, in, and hot. Once the number of users of certain website reaches a critical mass (Valente, 1996), by definition, it then becomes 'popular' and the use of the website could thus become a fashion. In a study of

fashion clothes, Dowling and Midgley (1986) indicate that dictionary definitions are congruent with everyday usage of the word, and define fashionability as a perception of what is considered appropriate for the 'fashion leader' market segment to wear. As fashion is not limited to clothes (Miller et al., 1993), we thus use the term 'perceived fashionability' to describe the degree of being in fashion of a product or behavioural practice in the current social environment. Specific to this study, the behavioural practice refers to the use of a certain e-tourism website.

The impact of perceived fashionability on website stickiness can be explained by drawing upon several fashion conformity theories, such as group identification, descriptive norm, and imitation. First, as argued by Miller et al. (1993), fashion adoption process is a prime example of social influence. Social influence may be particularly prominent in a collectively oriented society like China than individualistic society (Zhu & He, 2002). The theory of social influence (Bagozzi & Lee, 2002) implies that generally, an individual attempts to be a member of an aspired group to enhance self-esteem, and at the same time to be dissociated with a disdained group (Miller et al., 1993). The use of a certain website for obtaining travel and tourism information and booking tickets can be a fashion that is associated with symbolic meanings of 'wired' lifestyles valued by members of a desired group (Shang et al., 2005). Thus following the fashion of using certain websites helps an individual to identify with the desired social group.

Second, perceived fashionability can also be seen as a specific type of descriptive norm. Descriptive norms refer to an individual's beliefs about the prevalence of a behaviour in question (Cho, 2011). Descriptive norm offers an information-processing advantage and a convenient decisional shortcut (Cho, 2011). An individual will not go through the evaluation of all the website attributes each time when they require travel and tourism information. They

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just follow everyone else's decision: if a website is in fashion, it must be a useful, reliable and secure site. This suggests that following the fashion is a type of System 1 process (Kahneman, 2003, 2011; Stanovich & West, 2000): quick, intuitive and efficient.

Third, the theory of imitation argues imitation plays pervasive and primordial role in human life (Garrels, 2005). Consistent with group identification theory, Burns (2010) argues that imitation of fashion helps the imitator to acquire the meaning associated with the fashion, which consists of the desirable qualities possessed by the group of individuals whose fashion is being imitated. The automatic link between social perception (perceived fashionability) and behaviour (website stickiness), or the 'perception-behaviour' link has been well established in the domain of psychological research (Chartrand & Bargh, 1999; Dijksterhuis & Bargh, 2001). As previously discussed, this form of automaticity can be classified as a 'preconscious' one, and automaticity is also a type of System 1 process.

Based on the above discussion we hypothesise that:

Hypothesis 1: Perceived fashionability is positively related to website stickiness

Rational factors and website stickiness

Past research has indicated that various rational factors are the driving factors for e-tourism website use behaviour such as e-satisfaction and e-loyalty (e.g. Christou & Kassianidis, 2002; Heung, 2003; Jensen, 2009; D. J. Kim et al., 2007; M.-J. Kim et al., 2012; W. G. Kim & Kim, 2004; W. G. Kim et al., 2006; Mayr & Zins, 2009; Ranganathan & Ganapathy, 2002; Wong & Law, 2005). The meta analysis of tourism website literature by Park and Gretzel (2007)

reveal these key factors include: information quality, ease of use, security/privacy, responsiveness, customer service, interactivity, accessibility, navigation, visual appearance, personalization and others. According to DeLone and McLean Information Systems (IS) Success Model (DeLone & McLean, 1992, 2003), system quality, information quality and service quality are three major predictors of information system use, and security is included in the measurement of information quality factor in the model. We thus select four key rational factors to include in our research model: information quality, security, system quality, and e-shopping value. As perceived fashionability or the popularity of a website is the consequence of its initial adoption by a critical mass of users (Miller et al., 1993), and stickiness is a repeated behaviour following an individual's satisfying initial adoption experience (Bhattacherjee, 2001), we expect these rational factors to be positively related to both perceived fashionability and stickiness.

Information quality. Information quality is identified as a dominant factor for website success (Weber & Roehl, 1999). The value of a website perceived by users is essentially created by the information it provides (Rayport & Sviokla, 1994). Park and Gretzel (2007) reveal that 87% of tourism website studies incorporate information quality as a determinant factor. When investigating information, researchers usually measure the currency, accuracy, variety, conciseness of information, as well as the authority, reliability, uniqueness of information (Park & Gretzel, 2007). Prior empirical results have shown that information quality determines the effectiveness of web-based customer support systems (Negash, Ryan, & Igbaria, 2003) and leads to customer satisfaction and purchase intention (Bai, Law, & Wen, 2008; Jeong, 2004). Therefore, we posit that:

Hypothesis 2: Information quality is positively related to: a) perceived fashionability, and b) website stickiness

Security. On the Internet, the customer's interaction with the company shifted from traditional face-to-face contact to screen-to-face interface. This screen-to-face interaction involves disclosing personal information and making financial payment, which is highly risky for the customers. Website security which refers to the protection of the information during transmission when customers make online purchases/reservations, and subsequent storage, is another essential factor for the success of a website (Park & Gretzel, 2007). Past research has shown that security statements of the website can improve customers' beliefs about a firm's trustworthiness (Schlosser, White, & Lloyd, 2006). Ranganathan and Ganapathy (2002) reveal that security and privacy have greater effect on the purchase intent of consumers than other factors such as information and website design. Thus, we posit that:

> *Hypothesis* 3 Security is positively related to: a) perceived fashionability, and b) website stickiness

System quality. System quality refers to the accessibility, usability, interactivity, and navigation of a website (McKinney, Yoon, & Zahedi, 2002). Some scholars use similar terms such as successful web design, perceived ease of use, ease of navigation, navigational characteristics to measure the perceived quality of the web system (Essawy, 2005; Kline, Morrison, & John, 2005; Richard, 2005; Sigala, 2003). Prior studies of travel websites point out that system quality is a factor that contributes to website quality (Law & Leung, 2002), e-satisfaction , site attitudes, site involvement, exploratory behaviour, pre-purchase and purchase intentions (Richard, 2005).   Thus, we posit that:

> *Hypothesis* 4 System quality is positively related to: a) perceived fashionability, and b) website stickiness

E-shopping value. E-shopping value refers to the perceived utilitarian benefits derived from online transaction (Chiu et al., 2014; Wu et al., 2014). As the classic utility maximisation theory suggests, people behave according to their evaluations of the alternatives, by weighing possible gains or losses compared with a reference point and then choose the alternative with the highest utility (Kahneman & Tversky, 1979). Obtaining value is a fundamental goal for consumers to shop online, and e-shopping value is vital to a successful online transaction. Research has established that e-shopping value is a determinant of intention to shop online (To, Liao, & Lin, 2007) and e-satisfaction (Szymanski & Hise, 2000). More recently, Chiu et al. (2014) propose four major utilitarian benefits of online shopping, i.e. convenience, product offerings, product information and monetary savings, and empirically verify that utilitarian value is positively related to repeat online purchase intention. The study conducted by Wu et al. (2014) also indicate that when the e-shopping value is high, the consumers will remain with the same e-store. Thus, we posit that:

> *Hypothesis* 5 e-shopping value is positively related to: a) perceived fashionability, and
> b) website stickiness

Figure 1 depicts the research model with hypotheses.

[Figure 1 about here]

Methodology

Sample and procedure

Given that our study is on website usage, we collected data using an online survey, which has the advantage of avoiding social desirability bias and controls for response styles (Ayeh, Au,

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& Law, 2013). To ensure that all respondents had experience of online travel websites, respondents were required to have used at least one travel website for travel or accommodation booking purpose in the past twelve months. Respondents were requested to evaluate the website they used most recently. The survey was hosted in a commercial market research website in China (www.sojump.com), and a hyperlink to the site was forwarded to prospective respondents through the major social media platforms, such as Sina Weibo, Telnet Weibo, and online travel communities, such as www.8264.com. The survey lasted for four months, and a usable sample of 376 responses were received.

Construct measures

Given that much research has been done in the field of website evaluation, we develop most of the measurement items based on the previous studies. The specific wordings of each item were presented in Table 2. For the measurement of perceived fashionability, we followed Dowling and Midgley's (1986) approach of using the common dictionary definition, we developed 3 items to measure the construct, using the terms of 'fashionable', 'trendy' and 'popular'. Information quality was measured using 4 items adapted from DeLone and McLean (2003) and Shang, Chen, and Shen (2005). System quality was measured using 4 items adapted from DeLone and McLean (2003). The 4 items measuring e-shopping value were based on the work of DeLone and McLean (2003), Sirdeshmukh, Singh, and Sabol (2002) and Wu et al. (2014). The 4 items measuring security were based on Ranganathan and Ganapathy (2002). Finally, the scales for stickiness were adapted from Lu and Lee (2010).

To ensure content validity, we ran an expert panel of five marketing academics who were familiar with survey design to improve the wording of each item, following the principle that each question should be simple, concise, and easily and universally understandable; and we further conducted a pre-test with a sample of 20 online travel

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consumers prior to the survey. Respondents were instructed to rate their degree of agreement or disagreement with the statement of each item on a seven-point Likert-type scale.

Data analysis

We employed the partial least squares structural equation modelling (PLS-SEM) to estimate the model with the empirical data, using the SmartPLS 2.0 (Beta) M3 software application (Ringle, Wende, & Will, 2005). PLS-SEM is a suitable technique for prediction-oriented research (Henseler, Ringle, & Sinkovics, 2009), because its objective is to maximise the explained variance of the dependent constructs (Hair, Ringle, & Sarstedt, 2011). PLS-SEM has the advantage of not holding the distributional assumption of normality, making less demand on measurement scales, being able to work with much smaller as well as much larger samples (Hair et al., 2011).

Results

Descriptive data

Table 1 provides the demographic profile of the respondents. In the sample of 376 cases, 42.2% are male and 58.5% female. The majority of the respondents are young (aged between 21 and 35, 57%) and well educated (have a bachelor's degree, 77%). In comparison with the general internet user profile as reported by China Internet Network Information Centre (CNNIC, 2014), our sample matches its gender and age profile, but has a higher education level (bachelor degree and above).

[Table 1 about here]

Over 20 e-tourism websites were evaluated by the respondents, including the major e-tourism websites in China such as qunar.com, ctrip.com, and elong.com. Figure 2 shows the distribution of the websites that were evaluated by more than 3 respondents.

[Figure 2 about here]

Evaluation of the measurement model

To evaluate the reliability and validity of each construct, it is necessary to conduct four sets of tests: internal consistency reliability, item reliability, convergent validity and discriminant validity (Hair et al., 2011). For internal consistency reliability, values of both Cronbach's alpha (α) and composite reliability (CR) must be greater than 0.7. The results shown in Table 2 indicate that the constructs in this study attained high α values of 0.85 and above, and CR values greater than 0.80, demonstrating good internal consistency. For item reliability, an individual item must exhibit significant standardised loadings above 0.7 ($p < .001$). The

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results show that the item loadings in this study spread between 0.849 and 0.939 (ps< .001), ensuring each item's reliability. For convergent validity, the average variance extracted (AVE) of a construct must be over 0.5. The results show that the AVE values of the constructs in this study were between 0.768 and 0.858, confirming their convergent validity.

[Table 2 about here]

The discriminant validity was tested by examining cross-loadings and using the Fornell-Larcker method (Fornell & Larcker, 1981; Hair et al., 2011). For cross-loading examination, an item's loading with its own construct must be higher than its loadings with other constructs. The results presented in Table 3 show that no item loads higher on other constructs than its own. The Fornell-Larcker criterion requires that the square root of each construct's AVE to be greater than its correlation with each of the remaining constructs (Fornell & Larcker, 1981). As shown in Table 4, our results meet this requirement too. Thus the discriminant validity of each construct can be confirmed.

[Table 3 about here]

[Table 4 about here]

Evaluation of the structural model

Following the recommendations by Henseler et al. (2009), we examined the coefficient of determination (R^2) to assess the predictive power of the model for the dependent constructs. The criterion recommended for this test varies. Hair et al. (2011) state that the R^2 value of 0.75, 0.50, or 0.25 can be described as substantial, moderate, or weak, respectively; Chin (1998) suggests the relevant points as 0.67 (substantial), 0.33 (moderate) and 0.19 (weak); and Cohen (2013) suggests those points to be 0.26 (substantial), 0.13 (moderate) and 0.02 (weak). Our data results show that the values of R^2 for the two dependent constructs in this

study, perceived fashionability and website stickiness are 0.38 and 0.42 respectively, which are above the moderate level of 0.33 based on Chin's (1998) criterion. Thus we consider the model has satisfactory predictive power.

Following the procedure suggested by Hair et al. (2011), we applied the nonparametric bootstrap analysis of 5,000 subsamples and 376 cases (the sample size of this study) to obtain the t-values for testing the significance of path coefficients. Table 5 displays the structural model test results.

Hypothesis 1, which assumes a direct positive relationship between fashionability and website stickiness, was supported. Information quality is positively related to both fashionability and website stickiness, supporting Hypotheses 2a and 2b, but its relationship with fashionability was rather weak. Security has a strong positive relationship with fashionability, supporting Hypothesis 3a, but its relationship with website stickiness is insignificant, thus Hypothesis 3b was not supported. Similar to information quality, system quality has positive relationship to both fashionability and website stickiness, supporting Hypotheses 4a and 4b, but its relationship with fashionability was somewhat weak. Finally, e-shopping value is neither related to fashionability nor website stickiness, thus Hypotheses 5a and 5b were not supported.

Given that security did not have a significant direct effect on website stickiness, and it has a strong positive effect on fashionability ($\beta= 0.311$, $t=4.892$), we examined the total effect of security on website stickiness, which reveals a significant result ($\beta= 0.17$, $t=2.63$). According to Baron and Kenny (1986), the total effect is the sum or a modified combination of the direct and mediated effects. This result indicates that the effect of security on website stickiness is fully mediated through perceived fashionability, highlighting the central role of perceived fashionability in driving website stickiness.

[Table 5 about here]

Discussion and conclusions

In this study, we conceptually and empirically advance our knowledge of perceived fashionability's role in forming e-tourism website stickiness, along with four rational factors of website usage, namely, information quality, system quality, security and e-shopping value.

Implications for theory

The implications for theory of this study are twofold. First, we verified the important role of perceived fashionability. Previous researchers usually assumed that website usage was a 'goal-directed' task (e.g. Shang et al., 2005). We found that website stickiness is not entirely driven by rationality, as our evidence reveals that the effect of utilitarian e-shopping value is not significant related to either perceived fashionability or website stickiness, which counters the utility maximisation theory. Our findings imply that using certain e-tourism websites can be a fashion, supporting the claim that communication technology is becoming part of the users symbolically as well as physically (Katz & Sugiyama, 2006). Fashionability, as a self-image and status symbol thus can capture the effects of social influence when people adopt and stick to certain e-tourism websites, in addition to the rational factors of information and system quality.

Second, this is the first study to apply the dual-system theories (Kahneman, 2003, 2011) to examine the antecedent factors of website stickiness. According to Dhar and Gorlin (2013), the dual-system theories have not been advanced to explain consumer choice in general because most researchers assumed that decision making necessitates deliberate comparisons among available options and effortful processing, the process of choice is seen as an entirely deliberate process (System 2). The significant impact of perceived fashionability on stickiness behaviour as shown in this study supports the 'perception-behaviour' link of

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fashion conformity, which was guided by 'preconscious' automaticity (Chartrand & Bargh, 1999; Dijksterhuis & Bargh, 2001). As perceived fashionability is a social impression cue or heuristic, the result also be interpreted as System 1 heuristic processing is in operation (Chaiken et al., 1989). The significance of rational factors can be attributed to rational deliberation (System 2), but it can also be an outcome of 'postconscious' automaticity (System 1) resulted from the impact of previous satisfactory use experience. The significant effects of both perceived fashionability and several rational factors are consistent with our conceptualisation that website stickiness behaviour is guided by 'goal-directed' automaticity (Aarts & Dijksterhuis, 2000).

The findings show that security has no significant effect on website stickiness and e-shopping value has no significant effect on either fashionability or website stickiness. The results can be attributed to the automaticity nature of website stickiness behaviour (Aarts & Dijksterhuis, 2000), i.e. System 1 process is engaged. For e-shopping value and security to have a direct impact on website stickiness, System 2 process needs to be activated, because to assess whether an e-tourism website is secure or provides the best e-shopping value, one has to engage in deliberation. But, thanks to past satisfactory experiences which reinforce the tendency to continue using the same website (automaticity), the user ceases looking for alternatives (deliberation). In other words, if a repeatedly used website continues to provide satisfactory experiences, users tend not to consciously evaluate its e-shopping or security, thus the (direct) impact of e-shopping value and security on website stickiness appears to be 'insignificant'. Our findings show that website security has a significant impact on fashionability, which in turn has a significant impact on stickiness. This finding indicates that website security remains an important antecedent for people to adopt the e-tourism websites before their use becomes popular or fashionable.

Implications for management

This study has several implications for e-tourism service providers. First, it provides valuable insights into the antecedents of e-tourism website stickiness, which could help managers to strengthen users' website stickiness. Managers of travel and tourism e-commerce websites should first deliver the various rational factors such as information quality, security and system quality to attract a critical mass of users to inspire perceived fashionability and subsequently induce customers' stickiness to the website. However, providing discounts or low price alone is unlikely to achieve this end, as our evidence indicates that e-shopping value is not significantly related to either fashionability or website stickiness.

Second, this study reveals that fashionability plays a key role in forming website stickiness, in addition to those rational factors. Perceived fashionability is an important factor of social influence. Managers could develop marketing communication campaigns that aim at portraying a fashionable image for their website. For example, they could identify people who are fashion or trend setters, particularly those who have a strong public following to be their spokespersons, to be seen using the website and enjoying their lifestyle. Through marketing campaigns, they should also aim to create a status symbol for the use of their website by forging an impression in the target audience's mind that their websites are very well received among higher social status group, i.e. people who are young, highly educated and successful, because being fashionable and popular can serve a descriptive norm for followers to imitate the fashionable behaviour and stick to the e-commerce website. They could further link these marketing campaigns with their online social media space or online communities to encourage social interaction, so that users could spend more time on travel and websites to interact with the firm and other users by reading and contributing to various online activities such as writing travel blogs, posting photos, asking and answering questions.

Third, this paper shows that a certain website can be perceived as a fashion. As fashion keeps changing, therefore, managers should monitor users' website visit behaviour, including the visit of rival websites, to identify the changes in user interests, and constantly update their online service offerings. For example, by monitoring the trend, online travel agency managers should have an insight into what travel destinations will be 'hot' in the next season or next year, and provide background information and launch marketing campaigns to encourage discussion and generate excitement ahead of time.

Limitations and further research

This work has several limitations which open up new opportunities for further research. First, this study marks an initial step towards a new research field of applying dual-system theories in examining e-consumer behaviour. In fact, future research might generate fruitful insights by applying the dual-system theories to explain other e-consumer behaviour such as, interaction between users and websites, as well as, website switching behaviour. Second, this study focuses on only one factor of social influence, namely, perceived fashionability. Further research might include other social influence factors such as e-word of mouth, opinion leader and symbolic consumption to investigate the antecedents of e-commerce website stickiness. Third, this study only lightly touches on the imitation theory to explain fashion diffusion. Future studies of online consumer behaviour based research on imitation theory (Garrels, 2005) could generate interesting findings. Finally, there are methodological limitations of this study, which include the use of cross-sectional survey, the behavioural intention measure of website stickiness and the relatively small sample size. Finally, the results are limited to the responses from e-tourism website users in China, thence future research may replicate the conceptual model of this study in other cultural contexts.

Acknowledgements

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Table 1. Profile of Respondents.

Profile Category	This study Frequency	This study Percentage (%)	CNNIC Report 2014 (Data for the year 2013, %)
Gender			
Male	155	41.2	44
Female	221	58.8	56
Age			
Up to 20	30	8.0	26
21-35	216	57.4	(Age 21-39) 55.1
36-45	111	29.5	(Age 40-49) 12
46 and over	19	5.1	(50 and above) 7
Education			
Up to high school	22	5.9	89.2
Undergraduate degree	291	77.4	(Bachelor and above) 10.8
Postgraduate degree and above	63	16.8	

Note: CNNIC= China Internet Network Information Centre.

Table 2. Reliability and convergent validity

Construct/ Item	Loading	AVE	CR	Cronbach's Alpha
Fashionability		0.843	0.941	0.907
FASH1 Using this website is fashionable	0.910			
FASH2 It is trendy to use this website	0.939			
FASH3 This website is very popular	0.905			
Information quality		0.858	0.960	0.945
INF1 It is reliable	0.936			
INF2 It is sufficient	0.930			
INF3 It is current	0.921			
INF4 It is accurate	0.917			
System quality		0.799	0.941	0.916
SQ1 It is customisable	0.927			
SQ2 It is easy to use	0.903			
SQ3 It responds quickly	0.895			
SQ4 It is easily accessible	0.849			
e-shopping value		0.799	0.941	0.916
VAL1 It saves money	0.895			
VAL2 It saves time	0.904			
VAL3 It is convenient to shop	0.861			
VAL4 It provides a variety of offerings	0.914			
Security		0.808	0.944	0.921
SECU1 My personal information is secure	0.865			
SECU2 My payment information is secure	0.913			
SECU3 There is warranty in case of faults	0.920			
SECU4 Overall I am not worried	0.896			
Stickiness		0.768	0.909	0.85
STK1 I visit this website frequently	0.905			
STK2 I stay with this website while browsing	0.870			
STK3 I intend to prolong my stay with this website	0.854			

Note: AVE=average variance extracted ; CR=Composite Reliability; All loadings are significant at *p* <0.001; The original instrument was in Chinese;

Table 3 Cross-loading

	FASH	INF	SQ	VAL	SEC	STK
FASH1	**0.910**	0.549	0.517	0.512	0.576	0.458
FASH2	**0.939**	0.437	0.434	0.397	0.456	0.445
FASH3	**0.905**	0.431	0.353	0.381	0.486	0.447
INF1	0.490	**0.936**	0.536	0.618	0.554	0.498
INF2	0.463	**0.930**	0.536	0.557	0.547	0.469
INF3	0.484	**0.921**	0.514	0.568	0.592	0.508
INF4	0.484	**0.917**	0.542	0.601	0.573	0.546
SQ1	0.429	0.578	**0.927**	0.596	0.473	0.481
SQ2	0.430	0.546	**0.903**	0.528	0.476	0.490
SQ3	0.466	0.530	**0.895**	0.558	0.526	0.502
SQ4	0.380	0.379	**0.849**	0.470	0.402	0.370
VAL1	0.407	0.531	0.570	**0.895**	0.483	0.457
VAL2	0.403	0.549	0.581	**0.904**	0.491	0.460
VAL3	0.390	0.543	0.454	**0.861**	0.522	0.440
VAL4	0.483	0.633	0.553	**0.914**	0.552	0.514
SECU1	0.439	0.533	0.416	0.457	**0.865**	0.415
SECU2	0.546	0.541	0.451	0.528	**0.913**	0.458
SECU3	0.518	0.558	0.476	0.475	**0.920**	0.469
SECU4	0.486	0.569	0.553	0.600	**0.896**	0.481
STK1	0.465	0.548	0.531	0.473	0.508	**0.905**
STK2	0.385	0.372	0.355	0.364	0.387	**0.870**
STK3	0.431	0.492	0.455	0.524	0.425	**0.854**

Table 4. Latent construct correlations and square root of AVEs

	1	2	3	4	5	6
1 Fashionability	**0.918**					
2 Information quality	0.519	**0.926**				
3 Security	0.555	0.612	**0.899**			
4 System quality	0.479	0.574	0.528	**0.894**		
5 Stickiness	0.491	0.547	0.508	0.520	**0.876**	
6 e-shopping value	0.473	0.634	0.574	0.605	0.525	**0.894**

Notes*:* Boldface numbers on the diagonal are the square root of the average variances extracted (AVE).

Table 5. Structural model results

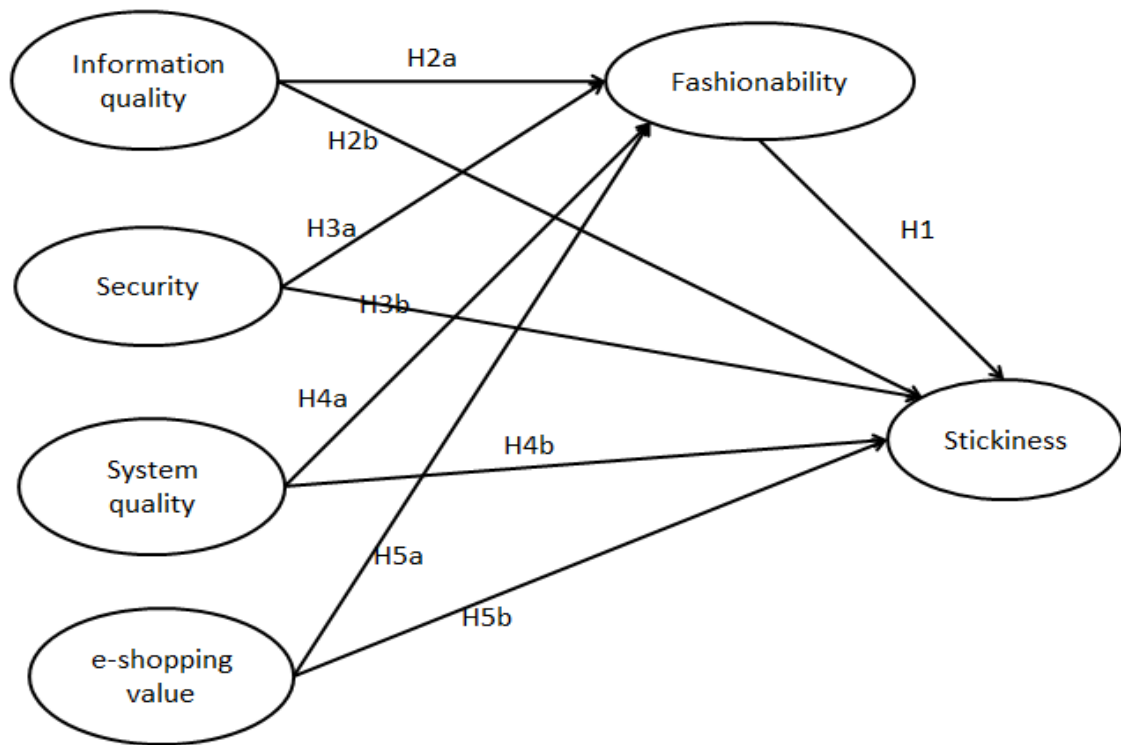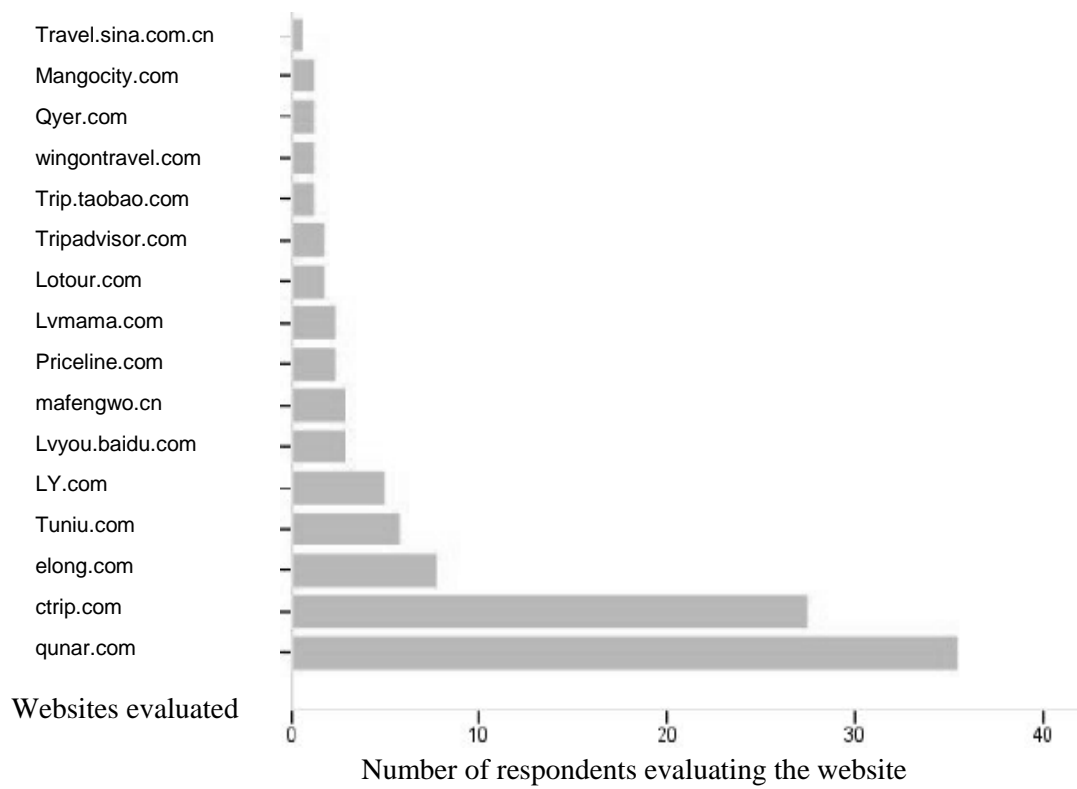| | | Direct effects | | | | |
| | | Fashionability ($R^2 = 0.384$) | | | Stickiness ($R^2 = 0.418$) | |
		β	t		β	t
Fashionability		-	-	H1	0.172	2.845**
Information quality	H2a	0.186	2.451*	H2b	0.190	2.670**
Security	H3a	0.311	4.892**	H3b	0.117	1.725
System quality	H4a	0.159	2.393*	H4b	0.176	2.732**
e-shopping value	H5a	0.081	1.268	H5b	0.150	1.893

Notes: *p<.05; **p<.01

Figure 1. Research model

Figure 2. Distribution of the e-tourism websites evaluated