SOCIAL PRESENCE MODEL FOR E-COMMERCE

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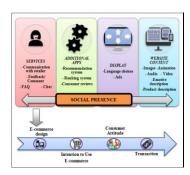[b]Multimedia Software and Usability Research Group (MURG), Software and Technology Management (SOFTAM) Research Centre, Universiti Kebangsaan Malaysia, 43000 Bangi, Selangor, Malaysia

Graphical abstract

Abstract

E-commerce is a system whereby consumers can buy goods and services from merchants who sell on the internet. E-commerce is more impersonal, anonymous and automated than traditional person-to-person commerce, and as such, typically lacks human warmth and sociability. This paper explores how human warmth and sociability can be integrated through the website interface to positively impact consumer attitude towards online shopping. In first section, website content analysis was used to investigate elements that offer many unique features to support the implementation of social presence through the e-commerce website interface. The second section seeks to determine relationships between elements of social presence, intention to use e-commerce and consumer attitude. A 5-level Likert scale questionnaire was used to determine consumer attitude towards online shopping and 50 respondents were selected. Pearson's correlation was used to assess the relationship between social presence elements, intention to use e-commerce and consumer attitude. The result shows all positive relationships. The findings showed moderate relationship between social presence and intention to use e-commerce, a moderate relationship between intention to use e-commerce and consumer attitudes, and a weak relationship between social presence and consumer attitude.

Keywords: Social presence, e-commerce, consumer attitude, intention to use, online shopping

Abstrak

E-dagang adalah satu sistem untuk membeli produk dan perkhidmatan secara atas talian. Namun, e-dagang mempunyai kekangan dalam menarik minat pembeli kerana kekurangan tarikan sosial atau kemesraan sesama manusia. E-dagang lebih bersifat peribadi, tanpa nama dan automatik. Kajian ini menerangkan bagaimana rasa kemesraan dan tarikan sosial diintegrasi pada antara muka laman e-dagang bagi memberi impak positif kepada sikap pengguna. Analisis kandungan laman web dijalankan untuk mengkaji elemen yang menyokong kehadiran sosial melalui antara muka e-dagang di Malaysia. Soal selidik pula dilaksanakan terhadap 50 pengguna e-dagang untuk mengenal pasti hubungan antara kehadiran sosial, keinginan untuk menggunakan e-dagang dan sikap pengguna. Kaedah korelasi Pearson digunakan bagi menilai hubungan ketiga-tiga pemboleh ubah. Hasil kajian menunjukkan hubungan yang sederhana antara kehadiran sosial dan keinginan untuk menggunakan e-dagang, hubungan yang sederhana antara keinginan untuk menggunakan e-dagang dan sikap pengguna serta hubungan yang lemah antara kehadiran sosial dan sikap pengguna. Kesemua hubungan tersebut adalah positif.

Kata kunci: Kehadiran sosial, e-dagang, sikap pengguna, keinginan untuk mengguna, beli-belah atas talian

1.0 INTRODUCTION

The development of information communication technology (ICT) infrastructures and applications has led to widespread growth in multiple fields including business. According to Jehangir *et al*. (2011), the Malaysian government believed that ICT is a strategic driver to support and contribute directly to the growth of the Malaysian economy. For this purpose, the government has focused on increasing the use of computerisation, internet browsing capabilities and information technology infrastructure in many governmental agencies. Currently, Malaysia would like to promote and facilitate the wider adoption and usage of ICT in everyday life, such as in e-commerce, industry, education and health in order to establish a competitive knowledge-based economy. As a result, in Malaysia, e-commerce has become a new communication channel, whereas consumers around the world have accepted it openly and there is no need for it to be seen as competing with traditional channels (Guo *et al*. 2013).

A notable difference between online and offline consumer markets that is stifling the growth of e-commerce is the decreased presence of human and social elements in the online environment (Cyr *et al*. 2009). Waszkiewicz and Jun (2013) stated that there are some researchers who believe that continuous exposure to the relationship between humans through the Internet without any form of tactile or physical presence can lead to symptoms of severe social awkwardness and social fears (Odaci and Kalkan 2010; Korkeila *et al*. 2010). However, this belief was contradicted by other researchers who advocate that the online environment is a solution that works well and does not threaten an individual's well-being (Weidman et. al., 2012). This indicates that current websites including e-commerce do not emphasise or integrate elements that evoke the sense of social presence through their Website interfaces.

Thus, Shen (2012) has emphasised the importance of social support in online shopping. While current e-commerce technology tends to focus on supporting the transactional and informational aspects of shopping, emerging technologies are expected to be adopted by online consumers. They provide specific support for social interaction among shoppers and the sense of an online community. Based on the study by Hajli (2012), today's customer is participating in a business process with an active behaviour. As a result, e-commerce without social commerce can be considered dated and conventional. For example, if an online shopping website fails to apply any advancement in e-commerce, it will no longer be able to compete in the online marketplace. Therefore, the implementation of social presence aspects in e-commerce displays the development in e-commerce and encourages smooth business transactions between online retailers and consumers.

Social presence elements offer many unique features to facilitate online social interactions while shopping. Some researchers focus on the close relationship of social presence to information richness (Rice *et al*. 1989; Straub 1994; Straub and Karahanna 1998), which centres on the interactivity of the media (Sproull and Kiesler 1986). This means that if a website uses text to provide adequate information and also contains interactive media such as audio and video, then the website has integrated with elements of social presence. Moreover, in the online environment, social presence also has a profound impact as it gives a feeling of warmth and the ability to socialise through a website (Gefen and Straub 2003). Thabet and Zghal (2013) explain that the feeling of being socially surrounded or being accompanied by another person is reassuring for consumers and comforting to them in the absence of physical contact. By integrating social presence elements through the e-commerce interface, consumers will be able to experience convenient and enjoyable online shopping. They can also communicate easily with the online retailer.

However, research shows that online shopping has significant limitations in terms of attracting consumers to buy products and services. Based on the study by Shen (2012), this problem arises because retail websites frequently lack the social appeal or human warmth of a face-to-face shopping experience. Online shopping is primarily geared towards reducing the user's cognitive burden, and is characterised as impersonal, anonymous and automated compared to traditional face-to-face commerce. Some researchers have indicated that the lack of social presence may impede the growth of B2C e-commerce because of the lack of human interaction and therefore trust (Gefen and Straub, 2003).

Furthermore, according to Xiao and Benbasat (2011), the unique characteristics of the Internet, such as digital environment, low entry barriers, spatial/temporal separation and anonymity, have made it a fertile ground for deception. The various innovative technologies supporting e-commerce have also given rise to novel forms of deceptive practices. These lead to the manipulation of information content, information presentation and information generation which include direct alteration of the content of product information provided at an e-commerce website, manipulation of the design of how product information is presented to consumers and manipulation of the dynamic production of product information, based on consumer interests, needs and/or preferences obtained explicitly or implicitly. Therefore, the integration of social presence in e-commerce is crucial in order to regain consumers' trust and make e-commerce more interactive. It is also expected to be a key contributor to consumers' positive emotions and attitudes.

Consumer attitude towards the use of e-commerce has an impact on the actual use of the website. When consumers are deeply engaged in online interactions, their cognitive processes will be influenced by the virtual environment. This allows them to become mentally removed from their physical environment. This experience creates a sense of time distortion and enhances the flow state, which encourages them to spend more time when browsing the Website. In

addition, the shopping experience that involves positive emotions leads to continuous transactions (Cho and Kim, 2012). For example, when a user is browsing an e-commerce website that is user-friendly and contains all the required information such as images and detailed product descriptions, they will be interested in making a purchase. If the purchasing process runs smoothly and the virtual retailers are hospitable, it will be a pleasant experience for the consumers. It also motivates them to continue online shopping on a regular basis.

In the context of consumers' acceptance of e-commerce, most researchers have found an explicit and positive impact in terms of their intention to use it. Consumers are free to shop at any time, wherever they want and are comfortable abandoning a site and products placed in a shopping cart because they can return to the website with ease and make the purchase later if they wish. They use the words 'freedom' and 'control' in explaining the value of online shopping (Wolfinbarger and Gilly, 2001). In offline shopping, consumers will make the decision to buy an item after being influenced by a friend or family member. A similar situation also occurs in online shopping. Consumers' decisions are influenced by reading reviews from friends, chat, group messaging and social ties online. This service has given online consumers an interesting, informative and useful experience. This also makes them feel socially involved with other consumers (Rad and Benyoucef, 2011).

Previous studies (Gefen and Straub, 1997, 2003; Karahanna and Straub, 1999; Kumar and Benbasat, 2002; Straub, 1994) have suggested that in online environments, the perception of social presence can influence consumers' trust and their intention to use applications such as e-mail and e-services in a positive way. However, to date, no systematic research has been conducted to examine how features of the website interface can be manipulated to instil a feeling of social presence (Hassanein and Head, 2007). Furthermore, Ling *et al.* (2010) stated that considering that online shopping is still in the development stage in Malaysia, not much is known about consumer attitude towards online shopping and the factors that affect consumer online purchase intention in the online shopping environment. Therefore, it is crucial to identify the determinants of consumer online purchase intention in the online shopping environment in the Malaysia context.

Therefore, the objective of this paper is to investigate the relationships between social presence, consumer intention to use and consumer attitude. We also developed a social presence model (SPM) for e-commerce to address social presence elements and the relationships that influence online purchases using e-commerce in Malaysia.

2.0 RELATED STUDY

With the extensive use of computer-mediated communication (CMC) technology online, thousands of e-commerce websites can be accessed with ease by consumers from all over the world. The fast growth of e-commerce has dramatically changed the traditional business environment to improve user access and business service delivery. However, with the increasing demands for services and applications from both customers and business organisations, e-commerce is facing new challenges. One of them is how to better engage customer participation and support business development (Huang *et al.*, 2012). Hajli (2013) stated that today's customer is displaying active behaviour while participating in a business process. Consumers also have social relationships with other friends, members of other communities and e-vendors. They communicate, rate other products, review others' opinions, participate in forums, share their experiences and recommend products and services. Hence they are supporting each other, in both an informational and an emotional context.

A main characteristic of a mediated communication is the feeling an individual has of being with another person (Thabet and Zghal, 2013; Biocca *et al.*, 2003). A sense of human presence emerges from a set of pixels in the shape of a smiling face, a voice coming through a speaker or a text from an online discussion displayed on the screen (Thabet and Zghal, 2013). Therefore, social presence can be defined as a unique feeling that is experienced when being with other people or when being aware of the presence of another person through a medium.

In the context of e-commerce, the concept of social presence has been developed extensively from the original context of telecommunications and now, mediation of communications has been redefined depending on various situations. This is because today, it is no longer sufficient for customers to shop online in the traditional way. Indeed, they expect a more social, interactive and collaborative online experience, where collective intelligence can be aggregated and used to support the process of solving problems and making decisions. Moreover, consumer's product and service preferences are constantly changing depends on different stages (San and Yazdanifard, 2014). Business organisations, on the other hand, are looking for new strategies to strengthen business relationships, identify new business opportunities and support the development of product and brand (Breslauer *et al.*, 2009).

The integration of social features through website interfaces stands out not only by making online shopping more enjoyable, but also by serving additional purposes such as making new discoveries of products online (Shen, 2012). Moreover, social presence may also influence the formation of trust towards e-commerce websites. Thabet and Zghal (2013) have demonstrated a positive relationship combining trust in a commercial website and social presence perceived by the user through the website.

Indeed, it is clear that the human sense of presence felt by the consumer through a mediated communication has a specific importance in the formation of trust in a commercial website.

Thabet and Zghal (2013) discussed nine elements of social presence in their research. The elements include website data, human photos, personalised welcome, animation, virtual agents, frequently asked questions (FAQs), instant messaging, number of entries, discussion forums and social networks. In addition, Ali and Lee (2010) explained that social presence may be enhanced by the insertion of graphic elements, animation, video and audio. These elements will increase the velocity of interactions, support collaboration and sustain online connections. In Table 1 we therefore list a summary of past studies regarding social presence elements and features that can be integrated through website interface.

Social presence can also have an impact on consumer attitude. The consumer emotion generated from social influence can be positive, negative or one of mixed emotions. The consumer's happiness at quick and pleasant service can lead to positive emotion while the cause of negative emotion may be a long wait for feedback from an online retailer (Aral and Walker, 2011). Lee *et al*. (2009) provided a perspective on online satisfaction formation by exploring website information satisfaction, system satisfaction and overall online service quality. Moreover, Shen (2012) reinforces the relationship between social interactions and the sense of enjoyment in online shopping activities. Social presence conveyed through the website affected perceived enjoyment and perceived usefulness. The enjoyment perceived by the consumers affected their behavioural intention. This suggests the importance of designing a website that integrates elements of social presence in an attempt to engage consumers and provide an enjoyable shopping experience.

The happiness felt by the user will give a very high positive effect on intention to purchase, while anxiety has a negative effect on intention to purchase (Pappas *et al*., 2013). Occasionally, consumers will also feel dissatisfied with websites or services while browsing. Dissatisfaction also has significant direct and indirect influences on consumers' purchase intentions. At the same time, dissatisfaction has a strong influence on negative emotions (Lu *et al*., 2012).

Bakshi (2012) stated that there are various factors that influence the way people behave in a particular situation and condition. Consumers vary tremendously in age, income, education, tastes and other factors. These characteristics have influenced the behaviour of consumers while engaging in a purchase decision. Consumer characteristics include four major factors and these factors are majorly responsible for the different types of behaviours depicted by consumers. However, this does not mean that people of the same age, gender or social background are similar, because the influence of psychological factors varies widely from individual to individual.

Four major factors that determine consumer behaviours are cultural, social, personal and psychological (Bakshi, 2012). Culture is the fundamental determinant of a person's needs and behaviours acquired through the process of socialisation with family and other key institutions. Consumer behaviour is also influenced by social factors such as reference groups, family, social roles and status. Personal refers to the characteristics of the user. Features such as gender, age, occupation, income and lifestyle also have a strong influence on consumer purchase decision. From the aspect of psychology, psychological factors such as motivation, perceptions, beliefs and attitudes of consumers also have a deep impact on the consumer decision.

3.0 RESEARCH METHODOLOGY

As the research methodology, this study employed two techniques, namely website content analysis and questionnaire. The website content analysis was conducted first and was followed by the questionnaire.

3.1 Analysing the Website Contents

This study aims to examine a sample of current e-commerce websites in order to draw conclusions on social features for e-commerce interface design in Malaysia. Specifically, we attempt to assess existing e-commerce websites from a user perspective, identifying the social presence elements that are implemented on these websites. Based on their key features, the identified social presence elements are grouped into categories. To that effect, 10 e-commerce websites have been selected, covering a variety of business models, from the 2013 list of top retail websites in Malaysia compiled by Alexa.com (http://www.alexa.com/topsites/countries/MY). All the selected e-commerce websites have, at some point, attempted to integrate social presence concepts into their offerings. Table 2 lists the names of the websites and their main product.

The unit analysis was the company's site. We examined sites by browsing for a specific item, beginning at the home page and navigating to a product page. In total, 100 e-commerce Website pages were examined with an average of 10 pages per site, depending on the number of pages it took to search for the social presence features.

3.2 Questionnaire

According to Nielsen (2012), when collecting usability metrics, testing at least 20 users typically offers a reasonably tight confidence interval. Meanwhile, Ozok (2008) stated that for survey implementation, as a rule of thumb the number of participants should always be bigger than the number of questions in the survey. While there are no set rules on choosing sample sizes for survey implementation, large sample sizes always improve the probability of obtaining high validity of surveys. Therefore, this questionnaire involved 50 respondents to represent the target audience.

Table 1 Summary of social presence elements

Authors (year)	Summary
Thabet and Zghal (2013)	• Nine manifestations of social presence online include website data, human photos, personalised welcome, animation, virtual agents, frequently asked questions (FAQs), instant messaging, number of entries, discussion forums and social networks.
Huang *et al.* (2012)	• There are five categories of social features which are social relationship, social community, social media marketing, social shopping and social application.
Karimov *et al.* (2011)	• Social cue design comprises social cues such as face-to-face interaction and social presence, embedded into the Website interface via different communication media.
Ali and Lee (2010)	• Increasing social presence is supplement with graphics, animation, video and sound.
Cui *et al.* (2010)	• The type of affective social presence cues should not be limited to emoticons. Pictures, videos and animations could be used as well and websites should also encourage consumers to use all kinds of nonverbal cues to communicate.
Hassanein and Head (2007)	• Website features that instil a sense of social presence through imaginary interactions include socially-rich picture and text content, personalised greetings, human audio, human video, talking-face displays and intelligent agents.

Table 2 List of websites and their main product

Website	Main product
Amazon.com	Book
Lazada.com	Various
Zalora.com	Clothes
Ipmart.com	Hand phone
Dell.com	Computer
Superbuy.com	Various
Poplook.com	Clothes
HiShop.my	Cosmetic
MPHOnline .com	Books
FashionValet.com	Clothes

In this study, this sample size is sufficient in order to get statistically significant numbers and tight confidence interval. It also improves the validity of this survey. All of the respondents needed to have experience of using e-commerce websites. The purpose of this method is to identify social presence needs and requirements in e-commerce interface design from the consumer's perspective. In addition, a random sampling method will be used in this study to obtain the sample. The questionnaires were designed using the 5-point Likert scale (5) to measure the factors in order to capture subject-dependent respondents in this study. Plus, the 5-point Likert scale was used in order to ease the understanding of respondents and to lead consistent answers. The respondents were briefed on the research objectives and about their roles as consumers before the questionnaires were distributed.

The first part of the questionnaire (Section A) consists of questions regarding to demographic factors of respondents, including age, gender, nationality, hours online and average number of online purchases monthly. Table 3 illustrates the demographic characteristics of respondents. The second part (Section B) mainly focuses on the three important aspects in this study which have been categorised as social presence, interface design and consumers' attitude. The last part of the questionnaire (Section C) consists of a section that allows respondents to submit an opinion on social presence, the design of the e-commerce interface, consumers' attitude or e-commerce in general.

Of the respondents, 76% were female and the rest were male (24%). This is because women have a higher intention to use e-commerce and shop online. As a result, they will have more input in terms of offering suggestions and comments related to e-commerce. The respondents from age 26 to 30 years contributed the most, which is 50%. This percentage is high because at this age, respondents use the internet regularly for many activities such as browsing, networking and also online shopping.

Moreover, the majority of the respondents were Malay (90%) while the rest are Chinese (8%) and Indian (2%). The number of Malay respondents is highest because the most common race in Malaysia is Malay. The statistic also indicates that 38% of respondents spent six hours online. This shows that respondents spent lots of time surfing the Internet every day and also took their time to shop online. In addition, the average number of online purchases monthly is one to two (74%). Although the average number of online purchases is not high, this shows that consumers allocate time to browse the site and the product thoroughly. Consumers also want to make sure they can trust the website and carry out the transaction smoothly.

Table 3 Demographic characteristics of respondents

Measure	Items	Frequency	Percentage
Age	18–25	9	18
	26–30	25	50
	31–45	16	32
	46–50	0	0
	50 and above	0	0
Gender	Male	12	24
	Female	38	76
Race	Malay	45	90
	Chinese	4	8
	Indian	1	2
	Others	0	0
Hours online	0–2 hours	2	4
	2–4 hours	17	34
	4–6 hours	12	24
	6 hours and above	19	38
Average number of online purchases monthly	1–2 times	37	74
	3–4 times	8	16
	5–6 times	3	6
	7 times and above	2	4

4.0 FINDINGS

4.1 Findings From Website Content Analysis

Based on the analysis of the 10 websites, a wide range of social presence elements have been identified. The most common include FAQs, animations, human photos and products description. However, because of the different e-commerce requirements, some social presence elements have only been implemented on specific e-commerce websites. Figure 1 lists the percentage of social presence elements as they apply or not to the 10 target e-commerce websites (see Table 2). A total of 82% of all websites offer social support and services to consumers and 75% also display content that

contains elements of social presence. Of all the websites, 70% display manifestations of social presence and 63% applied additional applications that implement social presence on their website.
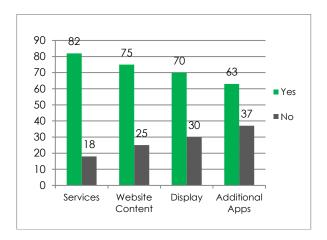

Figure 1 Percentage of social presence elements on the websites

Table 4 shows the percentage of intention to use and consumer attitude towards website interface. Based on the Table, out of 10 websites, seven enhanced high level of intention to use followed by three other websites at a medium level. Additionally, the Table also shows the percentage of consumer attitude towards website interface. Of the sites, 23% succeed in stimulating consumers and offer enjoyable browsing. Another 16% gave satisfaction to the consumers who are likely to return to the website, while 11% of the sites successfully dominated consumers and gained their trust to shop and make transactions.

Table 4 Percentage of intention to use and consumer attitude towards website interface

Variables	Items	Percentage (%)
Intention to use	High	70
	Medium	30
Consumers' attitude	Satisfaction	16
	Enjoyment	23
	Trust	11
	Stimulation	23
	Dominance	11
	Likely to return to the Website	16

4.2 Findings From Questionnaire

Figure 2 displays the percentage of respondents who provide feedback on social presence integration through e-commerce website interface. Of the respondents, 61% strongly agreed that customer services such as two-way communication are very important, 35% agreed and 4% were neutral. Regarding whether the content of the website plays an important role, 64% of respondents strongly agreed, 26% agreed and 8% were neutral. Only 2% did not agree with this statement. For the interface display, 47% of respondents strongly agreed that aspects such as display advertising are very important and lead to a sense of social presence, 33% agreed, 16% were neutral and only 4% disagreed with this statement. A total of 57% of respondents strongly agreed that additional applications such as user reviews are essential to create a sense of social presence in e-commerce, 35% agreed, while 8% were neutral.
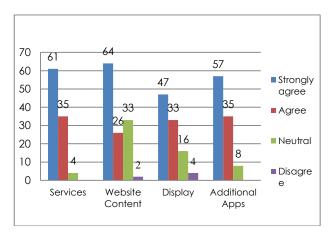

Figure 2 Respondents' percentage of social presence

Table 5 shows the percentage of respondents who gave feedback on the level of intention to use. A total of 43% of respondents strongly agreed that e-commerce interface that integrates social presence will attract and motivate their intention to shop; 53 agreed, while 4% were neutral. It also displays the percentage of respondents who provided feedback on consumer attitude, of which 51% strongly agreed that the experience of shopping through e-commerce that integrates social presence is fun and convenient, 41% agreed, 4% were neutral, 2% disagreed and 2% strongly disagreed with this statement.

Based on the findings, the comparison of the mean and standard deviation for each category, for all items of social presence, intention to use and consumers' attitude, is presented in Table 6. The result shows that the display category has the lowest scores in all items, while the services category has the highest score of all items.

Table 5 Respondents' percentage of intention to use and consumers' attitude towards website interface

Variables	Items	Percentage (%)
Intention to use	Strongly agree	43
	Agree	53
	Neutral	4
Consumers' attitude	Strongly agree	51
	Agree	41
	Neutral	4
	Disagree	2
	Strongly disagree	2

Table 6 Mean and standard deviation score for each item

Category	Item	Mean	SD
Website content	1	4.6	0.60609
	2	4.7	0.54398
	3	4.74	0.48697
	4	4.7	0.50507
	5	4.56	0.57711
	6	3.88	1.04275
Display	7	4.22	0.86402
Additional apps	8	4.48	0.64649
Services	9	4.6	0.53452
	10	4.6	0.49487
	11	4.5	0.67763
Intention to use	12	4.4	0.57142
Consumers' attitude	13	4.36	0.82709
	Comment		

Cronbach's alpha was employed and computed to indicate the reliability of the questionnaire (Ziadat et. al., 2013). Table 7 shows the reliability scores for each item of the questionnaire. The value for each item is above 0.8. According to Vegiayan *et al.* (2013), the reliability scores above 0.8 indicate that the respondents agree with the statements or questions in the questionnaire. Moreover, it proves that the questionnaire was relevant and appropriate to the

respondents' views and market needs. Thus, it can be concluded that all the items are reliable in this research.

Table 7 Reliability analysis (Cronbach's alpha)

Category	Item	Cronbach's alpha
Website content		
	1	0.9882
	2	0.9945
	3	0.9996
	4	0.9980
	5	0.9912
	6	0.9252
Display	7	0.9550
Additional apps	8	0.9838
Services	9	0.9953
	10	0.9989
	11	0.9802
Intention to use	12	0.9918
Consumers' attitude	13	0.9605

Pearson Correlation Analysis

A correlation analysis was conducted on all variables to explore the relationship between the variables (Adesina and Ayo, 2010). The purpose of the Pearson correlation analysis is to measure the strength of the relationship between social presence elements, intention to use and consumer attitude. Table 8 shows the correlation between each element of social presence, intention to use and consumer attitude. Meanwhile, the mean value of correlation between social presence, intention to use and consumer attitude is presented in Table 9. Table 10 shows the correlation of intention to use and consumer attitude.

In the Pearson test, only the value from 1 to -1 will be taken into account. A value of -1 represents no correlation and 1 indicates correlation between the elements tested. Thus, values close to 1 indicate that a strong relationship exists between each of elements, while values close to 0 indicate a weak relationship. If there is a value less than 0, then there is no relationship between the elements. Based on Table 8, 9 and 10, the result shows all positive figures. This suggests that correlations are positive between consumer attitude, social presence and intention to use. Variables are related to each other whether the relationship is strong or weak.

Table 8 Correlation between each element of social presence, intention to use and consumer attitude

Elements of Social Presence		INTENTION_ TO_USE	CONSUMER_ ATTITUDE
Display	Pearson Correlation	.460**	.562**
	Sig. (2-tailed)	.001	.000
Product_ description	Pearson Correlation	.563**	.247
	Sig. (2-tailed)	.000	.084
Images	Pearson Correlation	.495**	.166
	Sig. (2-tailed)	.000	.249
Emotive_ description	Pearson Correlation	.421**	.082
	Sig. (2-tailed)	.002	.571
Video_audio	Pearson Correlation	.116	.027
	Sig. (2-tailed)	.421	.850
Ads	Pearson Correlation	.397**	.115
	Sig. (2-tailed)	.004	.425
Additional_ applications	Pearson Correlation	.519**	.281*
	Sig. (2-tailed)	.000	.048
Communication	Pearson Correlation	.601**	.425**
	Sig. (2-tailed)	.000	.002
Feedback	Pearson Correlation	.433**	.359*
	Sig. (2-tailed)	.002	.010
FAQ	Pearson Correlation	.580**	.109
	Sig. (2-tailed)	.000	.450

**. Correlation is significant at the 0.01 level (2-tailed).

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

Table 9 Correlation mean value of social presence, intention to use and consumer attitude

		INTENTION_ TO_USE	CONSUMER_ ATTITUDE
SOCIAL_ PRESENCE	Pearson Correlation	.459**	.237
	Sig. (2-tailed)	.001	0.94

**. Correlation is significant at the 0.01 level (2-tailed).

Table 10 Correlation of intention to use and consumer attitude

		CONSUMER_ ATTITUDE
INTENTION_ TO_USE	Pearson correlation	.380**
	Sig. (2-tailed)	.006

**. Correlation is significant at the 0.01 level (2-tailed).

5.0 DISCUSSION AND CONCLUSION

The findings of the study suggest that elements promoting the sense of social presence during the online shopping experience are critical to the adoption of such technology. We highlighted various forms of social presence specifying each time its different forms in the context of virtual exchange. Results from the website content analysis show that over 63% of the e-commerce websites have applied social presence elements through their website interfaces.

Although this percentage may be said to be rather high, the balance of 37% representing websites that do not display any social presence elements should be taken into account in the implementation of social presence. Whereas, the questionnaire results show that over 47% of the respondents strongly agreed and more than 26% agreed with the implementation of social presence through the e-commerce website interface. This high percentage indicates that consumers are aware of the significance of social presence and support the implementation of these elements. Online retailers should improve the quality of their website and should focus on its ease of use for consumers. Therefore, online retailers need to use effective implementation of social presence as marketing tools by which intention to use the website can be motivated and subsequently, purchase intention can be enhanced.

Through Pearson correlation analysis, we have revealed that there is a moderate relationship between social presence and intention to use among respondents. The findings also demonstrated a positive relationship combining social presence elements in an e-commerce website and consumer attitude. Indeed, it is clear that the human sense of presence felt by the consumer through a mediated communication has a specific importance in the formation of positive consumer attitude towards online shopping which then will increase their intention to use e-commerce. Each element plays a different role in engaging the consumer and has unique features of its own. Online retailers need to be wise in exploiting all of these elements in a correct way. They need to know that the online shopping process through their websites should be made easy, simple and convenient. The website should also be easy to understand, easy to navigate and time saving when loading the page. This would provide online shopper comfort and increase the probability to revisit the website again. The findings are contrary to Cho and Kim (2012) who found that the success of online retailing, particularly for initial customer recruitment for new and small-scale online businesses without high brand recognition, often depends on the retailer's ability to entice consumers to spend time exploring its site after visiting it.

The result also shows that there is a positive relationship between intention to use and consumer attitude. Moreover, the strength of association between the variables is moderate because the value is close to 0 (r = 0.380). In addition, the significance (2-tailed) value is 0.006 which is less than 0.05. Therefore, we can conclude that there is a statistically significant correlation between the two variables. That means, increases or decreases in intention to use e-commerce do significantly relate to increases or decreases in consumer attitude. Online retailers should find an attractive way to promote online shopping. They need to provide information to consumers that will increase their knowledge of e-commerce and of the Website. The information should stress the fun and safety of the Internet. They can provide a video of a sales person, explaining the security measures taken by their website. They also can advertise human photos with friendly faces. As consumers learn more about online shopping, their anxiety should decrease, thus encouraging them to use e-commerce. If they have an enjoyable experience in using the website, they will consider making a purchase.

Despite the low percentage of e-commerce websites with social presence, these websites should be improved carefully. Online retailers need to have a deep understanding about social presence and improve their website quality and performance by implementing more social presence elements. In this way, they will attract online shoppers to their websites and encourage them to make a purchase decision. Several design suggestions have been made, such as the by Najjar (2011) and Purwati (2011) to make the online shopping experience more enjoyable.

As a conclusion, the results encourage professionals to focus more on the design of their websites. In fact, the primary contribution of this study is to provide a mapping and social presence model (SPM) highlighting certain elements constituting social presence through techniques of communication with online retailer, FAQs, chat, feedback/comment, images, product description, emotive description, animation, video, audio, ads, language choices, recommendation system, ranking system and consumer reviews. The variety of these techniques offers marketers high flexibility adapting both to their aims and to their budget constraints. Managers may use these tools to maximise customer satisfaction and maintain the sustainability of their activities on the Internet.

Mapping

Figure 3 shows the mapping of the relationship between social presence, intention to use and consumer attitude. Each important element is illustrated and linked in order to form a mapping.

Social Presence Model (SPM)

Based on the mapping from Figure 3, a social presence model for e-commerce has been constructed (see Figure 4). This model involves the overall concept of social presence, consumer attitude and the intention to use e-commerce. All attributes are connected and relationships between them are also established. This model can guide other researchers in developing e-commerce interfaces so that the design process will run smoothly and meet user requirement.
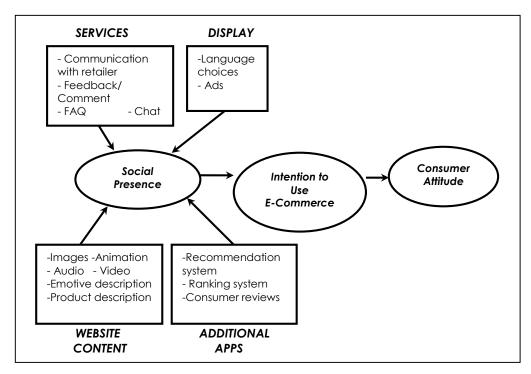
Acknowledgement

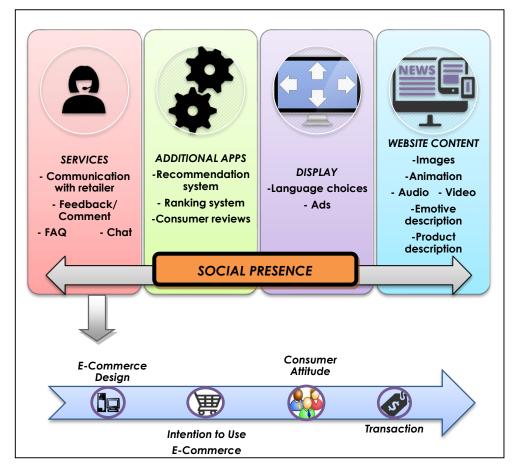**Figure 3** The relationship mapping

Figure 4 Social Presence Model (SPM) for e-commerce

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