

FACTORS AFFECTING CONSUMER PARTICIPATION IN ONLINE SHOPPING IN MALAYSIA: THE CASE OF UNIVERSITY STUDENTS

MOHAMMED SHAMSUL CHOWDHURY, NADIAH AHMAD

University Utara Malaysia, Kedah, Malaysia

ABSTRACT

Since lack of trust has remained one of the barriers to online shopping, this study is intended to explore the factors that affect the perceptions of trust for students' intent to participate in online shopping. We used non-probability procedure to select respondents since we do not know how many students have access to the internet and are engaged in online shopping. Pearson correlation, multiple regression were used to test the hypotheses. The regression analysis in this study clearly supported trust and integrity, which had significance influence towards consumer participation. The study also found the trust variable had the highest correlation with the dependent variable followed by integrity. The study provided a useful insight on the significant role of trust in students' online shopping. The study implies that trust is a key factor that indicates the effect of the Internet vendor trust on students' online shopping behaviour. Recommendations for future research are suggested.

JEL CLASSIFICATION & KEYWORDS

■ M31 ■ Online shopping ■ Participation ■ Trust ■ Integrity ■ Ability ■ Benevolence

INTRODUCTION

Since the inception of the World Wide Web (www) and users' response to this technology, businesses ranging from small to large corporations, including financial institutions have opened up opportunities for consumers to purchase their products online. Online shopping has, however, remained debatable among the students and the educated public. Some people argue that online shopping on the internet is not safe, not practical and would lead to fraud, but also quite a lot of people think online shopping is now safer, more flexible in time and can be done anywhere and anytime. Robinson (2000) reported that half of the people that have tried online banking services will not become active users. Highly publicized cases involving major security failures might have contributed to the public's concern and lack of confidence and acceptance of Internet banking. However, any business relationship including e-commerce relationships depends on trust. Lack of trust has remained one of the causes for consumers not purchasing online (Lee and Turban, 2001). People are still not inclined to do online shopping because of the lack of trust towards this online environment. Trust plays a predominant role for facilitating and enhancing e-transactions between consumers and e-vendors.

Because of rapid growth of internet users in Malaysia since 2000 (see table1) and Malaysian's government efforts to promote itself heavily as an information technology hub in the Asia region since 1990, e-business in this country has become more and more attractive than before, giving online shopping more bright and promising look ((Louis and Leon, 1999 cited in Narges et al, 2009) and students in this country enjoy purchasing books/journals/magazines through the internet (Suki et al. 2006). Despite there is not enough evidence of its acceptance amongst customers, especially the students. Though a number of studies explored the factors that affected the consumers' intention to trust, little is known about students intent to trust for online vendors.

Table1: Growth of Internet Users and population statistics in Malaysia

Year	Users	Population	% of population	Usage Source
2000	3, 700,000	24, 645,000	15%	ITU
2005	10, 040,000	26, 500,699	37.9%	C.I.A Almanac
2006	11, 016,000	28, 294,120	38.9%	ITU
2008	15, 868,000	25, 274,133	62.8%	MCMC
2009	16, 902,600	25, 715, 819	65.7%	ITU
2010	16, 902, 600	26,160, 256	64.6%	ITU

Source: United National Department of Economic and Social Affairs

Objectives of the study

Accordingly, the objectives of the paper are as follows:

- To identify key variables that affect perceptions of trust for students' intent to engage in online business.
- To examine the extent to which trusts affect the intent of students to engage in online business
- To examine which of these factors have stronger influence on e-commerce participation than others?

Related theories

This study examines the antecedents of trust in influencing students intent to participate in e-commerce. Theory of Reasoned Action (Fishbein and Ajzen (1975) and Theory of Planned Behaviour (TPB) are among other theories that explain online shopping behaviour. Following the theory of planned behaviour we can define intention as participation to engage in an electronic transaction relationship with a web retailer. Participation is the involvement of a person in a particular activity in the context of e-commerce. The involvement is measured by the number of consumer participation in the transactions (Kim et al., 2003). Participation is determined by the confidence of partners, media, or others engaged in an activity. Participation in e-commerce will grow well if the sellers are able to maintain the trust since consumption intention (participation in e-commerce) depends on trust. In other words, trust influences online shopping behaviour (Kimery and McCord, 2002, Pavlou, 2002,).

Trust is typically viewed as a vital condition to successful commercial exchange, aimed at identifying the components of trust that affect potential buyers decision to buy the products from the vendors online. The trust is critical in research in online shopping (Hoffman et al 1999). Corbit et al (2003) identified three key variables that affect perception of trust and risks of consumers engaged in online business. These are: (a) e-commerce reputation, (b) the consumer, and (c) the specific web-site. Tung et al. (2001) in their study of trust and participation used variables that included involvement in a virtual community, trust the between members, trusts for vendors, perceived benefits in the virtual community, perceived risks in e-commerce and participation in e-commerce. Ridings et al. (2002) found that the trust had a significant influence on the desires of members of virtual communities to share with and obtain information from each other. Trust is the most important aspect of virtual

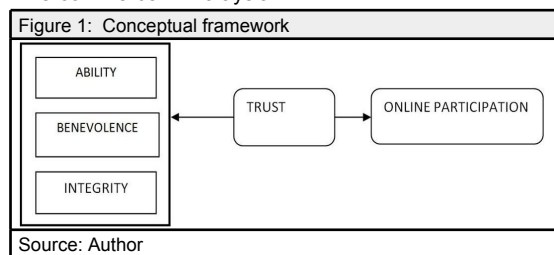
communities. Trust among the members of virtual communities will be even greater if they know each other individually.

Kim et al (2003) identified ability, benevolence, and integrity as three principal components of trust. The results of their study indicate the experience and recommendation from virtual community were influential in reducing the feeling of risk in online purchase. This study was in consonance with Mayer et al (1995), suggesting that ability, benevolence, and integrity are the principal factors affecting trust. The research suggests that trust affect e-commerce participation by consumers. Several research (for example Batty and lee, 1995; Liu et al, 2001) found shopping experience as a mixture of lifestyle compatibility, fun, and playfulness).

Based on the above discussion we have developed our conceptual framework (see figure 1) for this study that depicts that ability, benevolence, integrity, and trust would encourage students' participation in e-commerce.

Therefore, our study is guided by the following research questions:

- To what extent ability, benevolence and integrity influence students' participation in e-commerce in Malaysia?
- To what extent does the trust influence participation of e-commerce in Malaysia?



Conceptual framework and hypotheses development

Following the Theory of Planned Behaviour our research model is adhered to trust factor affecting online shopping intention. The model posits that intention to perform an act is a function of trust, ability, benevolence and integrity of the e-vendors. Hope is that a better understanding of these key variables will advance our current understanding of students' trust in e-commerce. From managerial point of view, the study is a useful tool to help managers design internet marketing strategies that will initiate and develop confidence in students to participate in e-commerce. Related studies for each of the components of trust are described below:

Ability

We define ability as the competencies and characteristics of vendor that allows a seller to have influence within specific area. Consumers' perceptions of sellers ability is guided by two related beliefs: (a) the sellers' competencies to perform an act, and (b) sellers' knowledge needed to perform that act (Bhattacharjee, 2002). Ability has been measured as a factor of trust in online shopping, as evidenced from numerous researches (e.g., Gefen and Straub, 2004; McKnight et al 2002). If the vendor is not capable of delivering up to customer' expectations, then customers lose trust in vendor (Gifen and Straub, 2004). Therefore, the trust directly depends on the characteristics of the seller and significantly reduces the perceived risks in online shopping (Doonlin et al 2005).

Benevolence

Benevolence is consumer's beliefs about the sincerity of the vendor. The customers always look for quality service from

the vendors. Service quality increases consumers' satisfaction and retention (Gefen, 2002). Mayer et al (1995) defines benevolence as the perceived intention of online sellers to serve the consumers to their best interest beyond its profit motive. If the consumers perceive that the seller does not have sincerity in doing any good to them, trust is not likely to develop. Needless to mention that benevolence breeds trust and altruism in a buyer-sellers transaction that reduces uncertainty.

Integrity

Integrity means some one's good faith agreement, speaking the truth, acting ethically and fulfilling promises (Bromiley, 1995). Integrity, therefore, refers to vendors' attitude and habit in running their business. Integrity consists of the characteristics of sellers such as honesty, fulfilment, fairness, loyalty, dependability (Kim et al, 2003). This reflects the belief that an Internet vendor will fulfil its promises and ethical obligations such as delivering goods and services and keeping information secured. McKnight (2001) contended that integrity is more about the character of the trustee rather than about trustor-trustee relationship.

The foregoing literature review reveals that when consumers feel that the seller has been maintaining trust that is given, the consumers will be happy to continue to increase their participation. Even in certain situations, consumers will invite or notify colleagues to participate in these activities. Studies (for example, Ridings et al., 2002; Kim et al., 2003; Gefen and Straub, 2004) show that ability, benevolence, and integrity are all principal components of trust and people participate in e-commerce mainly because each transaction involves trust that the vendor has to guarantee to the consumers. Once the trust is grown in their minds, they become a savvy expert and eager to participate in online shopping rather than the brick and mortar marketplaces, thereby increasing the growth of internet business.

Hypotheses

Based on foregoing discussion and our research framework we propose the following hypotheses:

H1: There is a significant relationship between trust and students participation in online shopping

H1a: There is a significant impact of ability on online shopping participation

H1b: There is a significant impact of benevolence on online shopping participation

H1c: There is a significant impact of integrity on online shopping intention participation

Methodology

Since university students have been found to be frequent users of technology and likely to buy products online, they are chosen as the target sample. In addition, today's university students represent a significant part of the online buying consumers and a long-term potential market (Bruin and Lawrence, 2000). The research was conducted on internet users who are students from University Utara Malaysia. Research timing scope is made within five months, from July 2011 to November 2011.

We used non-probability procedure to select respondents since we do not know how many students have access to the internet and are engaged in online shopping. This is in consonance with several studies (Sekaran, 1992, Cooper and Schindler, 2003). Questionnaire was distributed to 260 students who have access to Internet and were voluntarily recruited. Responses were obtained from 140 students (response rate 54%).

Measurement of variables

The main instrument in this study is the questionnaire to capture the information relating to research objectives. The measurement of variables is performed by using 5-point Likert scale ranging from "strongly disagree" = 1 to "strongly agree" = 5. Respondents were also asked to answer general questions that will be used as the basis for knowing whether the respondents are included in the criteria.

The construction of the items of dependent variable (participation) and independent variables (trust, ability, benevolence, and integrity) is based on Corbeit et al (2003), Kim et al (2003), Tung et al (2001) and Gefen and Straub (2004), as is evidenced from the operational definition of research variable (see table 2).

Variable	Indicator	Code	Source
Ability	Competency	X1	Ridings et al., 2002; Kim et al., 2003; Gefen and Straub, 2004
	Experience	X2	Kim et al., 2003; Gefen and Straub, 2004
	Extensive Knowledge	X3	Kim et al., 2003; Gefen and Straub, 2004
	Institutional Endorsement	X4	Ridings et al., 2002; Kim et al., 2003; Gefen and Straub, 2004
Benevolence	Concerned	X5	Kim et al., 2003; Gefen and Straub, 2004
	Willingness to Share	X6	Kim et al., 2003; Gefen and Straub, 2004
	Dependable	X7	Kim et al., 2003; Gefen and Straub, 2004
Integrity	Fulfilling	X8	Kim et al., 2003; Gefen and Straub, 2004
	Honesty	X9	Kim et al., 2003
	Good Will	X10	Kim et al., 2003; Gefen and Straub, 2004
Trust	Handling in Comfort	X11	Kim et al., 2003
	Satisfaction	X12	Kim et al., 2003
	Responsibility	X13	Kim et al., 2003; Gefen and Straub, 2004
Participation	Sustainability	Y1	Corbit et al., 2003
	Frequency	Y2	Tung et al., 2001; Corbit et al., 2003
	Recommendation	Y3	Tung et al., 2001

Source: Author

Validity and reliability testing

Next we carried out the validity and reliability test. Based on the results (see table 3) no construct value for reliability was below 0.60 except for Integrity construct. However, the Integrity construct value is nearly 0.60, then all constructs in this study are feasible for use in the model and is supported by previous study (e.g., Sekeran, 1992).

Construct	Construct Reliability	Specification
Ability	0,66	Acceptable
Benevolence	0,645	Acceptable
Integrity	0,598	Acceptable
Trust	0,698	Acceptable
Participation	0,702	Acceptable

Source: Author

If the value of Cronbach's Alpha is smaller than 0.60, it is considered poor; if it is in the range of 0.60 to 0.80, it is considered acceptable, and if it is above 0.80, it is considered good (Sekeran, 1992).

Statistical techniques employed

The major focus of the study was to describe the relation between independent variables and dependent variable (entrepreneurial intention). In order to describe the relation between independent variables, the Pearson's correlation as a measure was chosen. Pearson r is the most widely used Bivariate correlation technique (Gall et al, 1996). The hypotheses were tested using regression analysis. Finally to test the model and to look at the effects of independent variables on students' intention to participate in e-commerce, controlling for background variables, the regression analysis was used.

Regression Model: $\alpha + \beta_1\chi_1 + \beta_2\chi_2 + \beta_3\chi_3 + \beta_4\chi_4 + \epsilon$

Y = dependent variable (participation)

α = constant

β_1 = beta coefficient for trust

χ_1 = trust

β_2 = beta coefficient for ability

χ_2 = ability variable

β_3 = beta coefficient for benevolence variable

χ_3 = benevolence variable

β_4 = beta coefficient for integrity variable

χ_4 = integrity variable

Summary of descriptive statistics

The data analysis is divided into two parts. The first part consists of descriptive statistics used to study the demographic characteristic. Table 1 shows the analysis of demographic factors with frequency and percentage.

Demographic		Freq	Percentage
Gender	Male	89	64
	Female	51	36
Age	Less than 18 years	0	
	19-29	95	68
	30-40	40	29
	41 and up	5	3
Education	Diploma students	15	11
	Undergraduate students	55	39
	Master students	42	30
	Doctoral students	28	20
	Home	58	41
Accessing Internet (source)	Office/campus	46	33
	Internet cafe	32	23
	Others	4	3
Average use of Internet a week	1-5 hours	73	52
	6-10 hours	59	42
	11-15 hours	8	6
	16-20 hours	0	0
	20 hours and up	0	0
Facilities used	Website	26	19
	E-mail	43	31
	Chatting	41	29
	Shopping online	30	21

Source: Author

	Participation	Ability	Benevolence	Integrity	Trust	Mean	SD
Participation	1	0.371**	0.424**	0.470**	0.616**	10,82	2,08
Ability	0.371**	1	0.362**	0.342**	0.412**	14,35	2,15
Benevolence	0.424**	0.362**	1	0.520**	0.585**	10,94	1,89
Integrity	0.470**	0.342**	0.520**	1	0.537**	10,67	1,97
Trust	0.616**	0.412**	0.585**	.0537**	1	10,83	2

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

The demographic factors reveal that 68% of the respondents are in the age group of 19-29, 41% access the internet from home and 33% from office/campus. 94% of the respondents are found to be using Internet for 1 to 10 hours a week. Only 21% the respondents reported that they do online shopping, indicating the fact that these students are still lacking confidence in online shopping.

Correlation and regression analysis

The use of statistical correlation is to evaluate the strength of the relations between independent variables (ability, benevolence, integrity and trust) with the dependent variable (consumer participation). The result shown in the table 5 shows that trust ($r = 0.62$) has the highest correlation, ability has the lowest correlation (0.37) with the students participation compared to the trust variable.

The regression analysis results from the table 6 below shows that integrity and trust factors indicate the existence of significance influence towards consumer participation ($p < 0.05$) while the ability and benevolence factors are not significant ($p > 0.05$). The result shows that trust is the major influence factor in the consumer participation as proved by the highest t and beta score. Adjusted R^2 for this model is 0.418, which indicates that 42% of the changes in the dependent variable are explained by the independent variables.

	B (unstandardized coefficients)	Beta (standardized coefficients)	t-value	Significance
(Constant)	1,81		1,65	0,101
Trust	0,481	0,465	5,28	0
Ability	0,111	0,112	1,52	0,129
Benevolence	0,025	0,023	0,269	0,788
Integrity	0,18	0,17	2,07	0,04

Dependent Variable: Participation
Source: Author

Conclusion

The regression analysis in this study clearly supports H1 and H4. It reveals that both trust ($p = 0.000$) and integrity ($p = 0.040$) variables have significance influence towards consumer participation. The study also shows that the trust variable has the highest correlation with the dependent variable compared to the other three independent variables (benevolence, integrity and ability) followed by integrity. This conforms to the results of several studies (e.g., Aubert & Kelsey, 2000; Teo and Liu, 2007).

However this study finding indicates very low relationship strength of ability towards consumer participation, and the relationship was not found to be statistically significant. Same is the case with benevolence. This is not aligned with a number of studies (e.g., Ridings et al., 2002). It is because this study is based on a relatively small sample size. However, other previous studies on consumer participation reapear similar relationship (e.g., Rofiq, 2007).

Trust will continue to play an important role in e-commerce participation since it does influence behavioural intentions. But the students' views about the ability and benevolence of the Internet vendor might not have an important influence on their intention to participate in e-commerce.

Implications, limitations, and future research of the study

The study provides a useful insight on the significant role of trust in students' online shopping. There is no denial to the fact that there has been a tremendous increase in online shopping. This implies that trust is a key factor that indicates the effect of the Internet vendor trust on students' online shopping behaviour. The limitation of this study is that it only uses four variables (ability, benevolence, integrity, and trust) in explaining the consumer participation, but did not take other important variables into account (e.g., cost switching vendors and the presence of third party seal) which are considered to be necessary in escalating projecting consumer participation. Future studies could be undertaken in this regard.

REFERENCES

- Aubert, B. , and Kelsey, B., (2000). The Illusion of Trust and Performance, Scientific Series
- of Cirano, 3: 1-13., available at www.cirano.qc.ca/pdf/publication/2000s-03.pdf, accessed on September, 17, 2011.
- Batty, J and Lee, R (1995), Intershop: enhancing the vendor/customer dialectic in electronic shopping, Journal of Management Information Systems, 11(4), 9-31
- Bhattacharjee, A (2002). Individual trust in online firms: Scale development and initial test , Journal of Management Information System, 19 (1) 211-241
- Bromiley, A (1995) . Transactions Costs in Organizations with Trust. Research on Negotiations in Organizations, 5 (1), 219-247
- Bruin M, Lawrence F (2000).Differences in spending habits and credit use of college students. J.Consum.Aff. 34(1): 113-133.
- Cooper, D. and Schindler, P., (2003).Business Research Methods. Eight Edition, McGraw-Hill/Irwin, New York, NY 10020.
- Corbit, J, Thanasankit, T and Yi, H (2003) : Trust and e-commerce: A Study of Consumers' Perceptions, Electronic Commerce Research and Applications (2), pp 203-215
- Doolin, W, Stuart, D, Fiona, T , and James, C (2005), Perceived risk, the internet shopping experience, and online purchasing behaviour: A New Zealand Perspective, Journal of Global Information Management , 13(2), 66-88
- Fishbein, M and Ajzen, I (1975). Beliefs, attitude, intention and behaviour. An empirical study, Journal of American Science 6(1), 137-147
- Gall, M, Gall, J., and Borg, W (2003): Educational research and introduction (7th ed), U.S.: Pearson Education
- Gefen, D and Straub, W (2004). Consumer trust in B2C e-commerce and the importance of social presence: Experiments in e-products and e-services, Omega, International Journal of Management Sciences, 32 (6), 407-424
- Gefen, D (2002), Reflections on the dimensions of trust and trustworthiness among online consumers, The DATABASE for Advances in Information System , 333, 38-53
- Hofman, T, Novak, P, Peralta, M (1999), Building consumer trust online. Communications of the.ACM 42(4) 80-85

15. Kim, J., Ferrin, L., and Rao, R (2003) Antecedents of Consumers' Trust in B2C Electronic Commerce, 'Customer's Initial Trust in E-Business: ', Proceedings of Ninth Americas Conference on Information Systems, pp. 157-167.
16. Kimery, K and McCord, M (2002). Third Party awareness: Mapping the road to trust in e-retailing, *Journal of Information Technology Theory and Application*, 4(2) pp 63-83
17. Lee, O and Turban, E (2001): A trust model for consumer Internet shopping, *International Journal of Electronic Commerce*, 6(2), 35-59
18. Liu, C., Marchewka, J, Lu, J and Yu, C (2002). Beyond concern-a privacy trust-behavioral intention model of electronic commerce. *Information and Management* 42(2), 289-304
19. Mayer, C, Davis, H, Schoorman, D (1995): An Integrative Model of Organizational Trust, *Academy of Management Review* 30(3), pp 709-734
20. McKnight, D, Choudhury, V, Kamcar, C (2002). Developing and Validating Trust Measures for e-commerce: An Integrative Typology, *Information System Research*, 3 (13), 334-359
21. McKnight, D, Choudhury, V & Kamcar, C (2002). What trust means in e-commerce customer-relationship: an interdisciplinary conceptual typology. *Information Journal of electronic Commerce*, 6(20), 35-53
22. Narges, D, Laily, P, Sharifa, H, Samsinar, S and Al, K (2009), Factors affecting students' attitude toward online shopping, *African Journal of Business Management*, 3(5), pp 200-209
23. Pavlou, A (2003), Consumer acceptance of electronic commerce: Integrating trust and risk with the technology acceptance model, *International Journal of Electronic Commerce*, 7(3), 101-134
24. Rofiq, A and Mula, J (2010), The effect of customer trust on e-commerce: A survey of Indonesian customer B2C transactions, icast, www.ubrawijaya.academia.edu, accessed on October 20, 2011.
25. Ridings, C. M., Gefen, D., and Arinze, B., 2002. Some Antecedents and Effect of Trust in
26. Virtual Communities, *Journal of Strategic Information Systems*, 11: 271-295.
27. Robinson, T (2000), 'Internet Banking: still not a perfect marriage', *Informationweek.com*, April 17, pp.104-106.
28. Sekaran, U., 1992. *Research Methods for Business, a Skill-Building Approach*. Second Edition John Wiley & Sons, Inc. Canada.
29. Suki, N, Ramayah, T, Suki, N (2008): Internet shopping acceptance: Examining the influence of intrinsic versus extrinsic motivations, *Direct Marketing: International Journal*, 2(2), 97-110.
30. Tung, L, Tan, J, Chia, T, Koh, L., and Yeo, L (2001), "An Empirical Investigation of Virtual Communities and Trust," Proceedings of Twent Fourth International Conference on Information Systems, pp. 549-562
31. Teo, H, and Liu, J (2007) Consumers trust in e-commerce in the United States, Singapore and China, *Omega*, 35(1), 22-38