

*Full Length Research Paper*

# Intention to shop online: A study of Malaysian baby boomers

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**Using the theory of planned behavior as the theoretical framework, this study aimed to examine the relationships between attitude towards online shopping, subjective norm, perceived behavioral control, and intention to shop online. Based on a sample of 146 baby boomers who are Internet users but not online shoppers, the study found that two of the three determinants--attitude towards online shopping and subjective norm--were significantly related to intention to shop online. Implications of the research findings and recommendations for future research were discussed.**

**Key words:** Online shopping, intention to shop online, attitude towards online shopping, theory of planned behavior.

## INTRODUCTION

The use of the Internet has gained a rapid growth since its introduction in the early 1980s. Such a growth is mainly due to its unique characteristics of flexibility, interactivity, and personalization. In particular, the Internet has been a very useful tool for communication, entertainment, education, and electronic trade (Ko, Jung, Kim, and Shim, 2004; Koyuncu and Lien, 2003). From a business perspective, the Internet has transformed the way business is done. This is due to the fact that it enables retailers to offer unlimited range of products and services to all consumers from around the world at any point in time. It is also considered to be the most significant direct marketing channel for the global marketplace. From a consumer perspective, the Internet has provided consumers more control in accessing information on products and services. Consumers pull for online content - they decide whether, when, where, what, and how much commercial content they wish to view. The Internet also allows consumers to access an

unlimited range of products and services from companies around the world, and it has reduced the time and effort consumers spend on shopping (Ko et al., 2004).

According to Internet World Stats, worldwide Internet user growth rate for the period 2000-2008 was 342.2%. As of March 2009, there are 49 countries, out of the 271 countries and territories listed by Internet World Stats, have an Internet penetration rate of higher than 50% (<http://www.internetworldstats.com>). Internet penetration rate refers to the percentage of a population using the Internet. It is the number of Internet users over the total population in percentage. In addition, online retail sales are growing strong and are expected to increase in the future. For example, US online retail sales are estimated to grow \$144 billion in 2004 to \$316 billion in 2010, according to Forrester Research, a technology research firm.

As of March 2009, Malaysia is one of the 49 highly penetrated countries with a penetration rate of 62.8%. Besides, the Malaysian government has been promoting the development of information technology (IT) within the country for economic advancement. For example, a state government has planned to embark an "E-mail 4 All" project under its IT movement. The project will push parents into the IT age and aims to achieve a 40% e-mail

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usage in the rural areas by 2010 ("E-mail Soon for Perak newborns," 2005). Other state governments have set up plans to get some rural areas with full Internet access and super-wireless connections ("Full Internet access to rural planning," 2006; "SuperWifi for homes in Sarawak," 2008). In addition, Malaysian people are also urged to be more IT-savvy in order to start their own business using IT. Housewives are encouraged to use IT to do business by marketing their home-made products online and making home deliveries ("Use IT to get ahead, housewives urges," 2005). Farmers and fishermen will also be selling their fresh produce online once their website is up, under the program "Community Media for Local Socio-Economic Development" jointly organized by a local entrepreneurs club and Balik Pulau Internet Center, a division of the Energy, Water and Communications Ministry ("Balik Pulau's online marketing bid, website to offer fresh produce in a click," 2009).

Given the increasing usage of the Internet in the country and the significant growth and optimistic outlook for the future of online shopping, it is timely to examine the intention to shop online among the Malaysian population. Specifically, the present author attempts to examine the factors that help explain intention to shop online based on the theory of planned behavior proposed by Icek Aizen. The target respondents of the present study are baby boomers of the Chinese ethnic group.

## Literature review

### *Theory of Planned Behavior (TPB)*

TPB attempts to explain what predicts behavioral intention, which in turn, predicts the actual behavior. In its most basic form, the theory postulates that there are three conceptually independent determinants of behavioral intention—attitude, subjective norm, and perceived behavioral control. The first determinant is the attitude toward the behavior, which is an individual's favorable or unfavorable evaluation of the behavior in question. It is composed of the individual's salient belief about the perceived consequences of performing the behavior. The second determinant of behavioral intention is subjective norm. It reflects an individual's belief about significant others' approval or disapproval of performing the behavior, or about social pressure of performing or not performing the behavior. The last determinant of behavioral intention is perceived behavioral control, which reflects an individual's belief about the ease or difficulty of performing the behavior (Ajzen, 1991).

TPB is a popular approach used to examine various types of intentions and behaviors in specific contexts. Psychological behaviors studied under the framework of TPB include playing video games, losing weight, cheating, shoplifting, and lying (as reported in Ajzen, 1991). TPB has also been used as a theoretical

foundation in studying information technology (IT) adoption. For examples, Taylor and Todd (1995a and 1995b) have used TPB to assess IT usage; Barnett and Presley (2004) have examined Internet technology adoption behavior among university professors; and Jaruwachirathanakul and Fink (2006) have studied Internet banking adoption among the Thai consumers.

In the area of online consumer behavior, a few studies have examined consumers' intention and actual Internet purchases using TPB as the theoretical base. Using two variations of TPB (pure TPB and decomposed TPB models), Lin (2007) examined 297 undergraduate students' intention to buy textbooks online. The author found that in both pure and decomposed TPB models, both attitude towards online shopping and perceived behavioral control were positively and significantly related to intention to shop online. The third antecedent, subjective norms, was not a significant predictor of behavioral intention. The results of Kim and Park's (2005) study also indicated support for the direct relationship between attitude toward the online store and perceived behavioral control and purchase intention via the online store. The subjects of their studies were 262 undergraduate students in a large US Midwestern university.

In their study of 201 college students in Taiwan, Hsu, Yen, Chiu, and Chang (2006) used TPB to predict continuance intention to shop online. Their study showed that users' attitude toward continuance, perceived control behavior, and perceived internal social influences were significantly associated with their continuance intention.

George (2004) argued for a direct path from attitudes toward Internet purchasing, subjective norm, and perceived behavioral control to actual online purchasing behavior (intention to make online purchases was omitted from the research model.) The author's argument was that it was not possible to include both intention and actual behavior in the model as intention reflects future behavior, and all the data of the study were collected at one point in time. Similar to Lin's (2007) findings, George (2004) found that both attitudes toward Internet purchasing and perceived behavioral control were positively and significantly related to online purchasing behavior, but subjective norms were not. Again, the respondents of his study were undergraduate students, with a sample size of 193.

From the brief review of the studies on TPB in the area of online shopping above, all of the studies used students as the research subjects. These researchers believe that students are the typical Internet users and are the primary potential customers in online shopping (Hsu, et al., 2006; Lin, 2007). They believe that students represent online consumers population who are generally younger and better educated. However, how about the older age groups—the baby boomers in particular—the grey market that has been large ignored (Reisenwitz and Iyer, 2007; Vuori and Holmlund-Rytkönen, 2005)?

## Baby Boomers

Baby boomers are 45-63 years old in 2009; they were born between 1946 and 1964 (Littrell, Ma, and Halepete, 2005; Norum, 2003; Reisenwitz and Iyer, 2007; Roberts and Manolis, 2000; Weingarten, 2008). The baby boomer generation is "...considerably better off than preceding generations and distinctly different in terms of values, attitudes, outlook, self-perceptions and financial positions." (Vuori and Holmlund-Rytkönen, 2005, p. 58) Baby boomers are an affluent group and they are in their peak earning years. They are sophisticated consumers and are willing to spend money on products and services. They spend a lot, exhibit a brand loyalty, are advertising literate, and respond to changing trends (Haynes, 2004; Norum, 2003; Reisenwitz and Iyer, 2007). The cutting-edge boomers buy houses, home appliances, televisions, cars, and personal toys. They remodel, redecorate, and replace many things they own. They also spend on entertainment, leisure activities, and travel. They do not see themselves as getting old and they do not want to be left behind. They want to build their own identity and expect to be the players in the new economy. They even have a sense of being trendsetters and innovative in their own way (Reisenwitz and Iyer, 2007).

However, the baby boomers are the forgotten generation. They have not been receiving enough attention from the marketers whom have been more aggressively targeting the younger generations. Only recently older consumers are starting to receive more attention in both the academic and business communities (Niemelä-Nyrhinen, 2007; Reisenwitz and Iyer, 2007; Vuori and Holmlund-Rytkönen, 2005). Research studies on older consumers within the marketing discipline have focused on their buying behaviors and attitudes. For examples, Littrell et al. (2005) and Norum (2003) have examined baby boomers' preferences and expenditures on apparel products, and Roberts and Manolis (2000) have investigated their attitudes toward marketing, advertising, and consumerism.

Recent studies have also explored the adoption of the Internet by the older consumers. In contrast to the stereotypes condemning aging consumers as non-innovative and reluctant to adopt new technologies, baby boomers are found to be experienced Internet users and frequent web visitors. They have a high level of Internet experience and a low level of technology anxiety (Niemelä-Nyrhinen, 2007). They are acquainted with the Internet, frequent web visitors, and users of Internet services (Vuori and Holmlund-Rytkönen, 2005). Most of them are comfortable and satisfied with their current skills in using the Internet (Reisenwitz and Iyer, 2007).

The baby boomer generation grew up with mass marketing, saw the rise of network television, and now the emergence of the Internet (Lee, 2005). Research shows that they respond favorably to the Internet, they often possess more discretionary time and income, and they comprise a growing segment of Internet users.

Hence, the baby boomers may present a substantial opportunity for Internet marketers (Trocchia and Janda, 2000). With this growing segment of online users, it is worthwhile to assess their intention to shop via the Internet to predict their online purchasing behavior.

The purpose of the present study is to examine the intention to shop online of the baby boomer Internet users in Malaysia. TPB was used as the research framework of the present study. The research model and the three hypotheses formulated based on TPB are presented below:

H<sub>1</sub>: Attitude towards online shopping is positively related to intention to shop online.

H<sub>2</sub>: Subjective norm is positively related to intention to shop online.

H<sub>3</sub>: Perceived behavioral control is positively related to intention to shop online.

## METHODOLOGY

### Sample

The data for this study were collected from 146 baby boomers from the public with age between 45 and 62 years old. Fifty-eight percent of them were males and 42% were females. They were in the Chinese ethnic group, and 44% of them were still currently employed. Their monthly disposable income ranged from RM1,000 to RM10,000 with an average of RM4,908. They had been using the Internet between 1 to 20 years with an average of 6 years of experience. On the average, they spent three hours per day on the Internet for various purposes as shown in Table 1. The main use of the Internet was information search on products and services. Seventy-two percent of the respondents indicated that they used the Internet for information search.

### Measures

The items used to measure the four variables of TPB were adapted from various relevant research studies from the literature (i.e. Hsu, et al., 2006; Vijayasathy, 2004; Vankatesh and Davis, 2000; and Lin, 2007), making minor changes in the wording of the statements to tailor these measures to the context of online shopping and the target respondents. This measurement method follows the approach by Lin (2007). Very often, a bit modification was made to the items to reflect individual target respondents and research setting. The items used to measure the four variables of TPB in the present study and their respective Cronbach's alphas, means, and standard deviations were given in Table 2. Respondents were asked to indicate their level of agreement for each item based on a 6-point scale ranging from 1 = strongly disagree to 6 = strongly agree. Multiple regression analysis was used to test the significance of the determinants of intention to shop online among the baby boomer non-Internet shoppers, i.e., hypotheses H<sub>1</sub> to H<sub>3</sub> mentioned above.

## RESULTS

Table 3 is the correlation matrix of the variables in study. All of the correlation coefficients were significant at  $p < 0.01$  ranging from 0.306 to 0.666. Intention to shop online was moderately correlated with attitudes towards online

**Table 1.** Uses of the Internet by Baby Boomers.

Uses of the internet	Percentage of the respondents
Information search on products and services	72
Communications (e.g., e-mailing, chat room)	43
Work/business	40
Banking-related activities	32
Paying bills	28
Education purpose (e.g., research for knowledge)	10
Entertainment (e.g., games, music)	5

**Table 2.** Item, Alphas, means, and standard deviations of the variables in TPB.

Variable	Items	Means	Std Dev.
Attitude towards online shopping ( $\alpha = 0.90$ )	I consider online shopping a good thing. I think online shopping is an essential nowadays. I think online shopping is beneficial for consumers. I have a positive opinion in online shopping. It is a good idea to shop online. I like to shop online.	4.00	0.75
Subjective Norm ( $\alpha = 0.83$ )	People who are important to me think that I should shop online. People who influence my behavior think that I should shop online. Shopping online is common in my circle of friends. Online shopping is well accepted by the people of my community. People who are around me think that I should shop online. I have read / seen news reports which say that the Internet provide a good way to shop online. The popular press has a positive review towards online shopping. The mass media has influenced me to try online shopping.	3.88	0.58
Perceived behavioral control ( $\alpha = 0.96$ )	I think I am proficient in using the Internet for shopping. I think I feel confident in using the Internet for shopping. I think I know exactly what to do in using the Internet for shopping.	3.59	0.98
Intention to shop online ( $\alpha = 0.89$ )	I intend to shop online in the future. I will try to shop online. I plan to shop online some time in the future. It is very likely that I will shop online in the future.	3.57	0.65

shopping and subjective norm and weakly correlated with perceived behavioral control. Multiple regression analysis was used to examine the simultaneous effects of the three determinants of intention to shop online. The model was significant with  $R^2 = 0.478$  and adjusted  $R^2 = 0.467$ . Two of the three determinants were found to be significant predictors—they were attitude towards online shopping and subjective norm. Attitude towards online shopping was the more important predictor between the two. Table 4 presents the regression results.

## DISCUSSION AND CONCLUSION

The focus of the present study is to examine the intention to shop online of baby boomer Internet users whom have not purchased anything via the Internet yet. The aim of the study is to determine which factor would link to intention to shop online, which in turn, should lead to actual online purchase behavior as postulated by TPB. The results of the study show that baby boomer's favorable attitude towards online shopping and perceived

**Table 3.** Correlation Matrix of the Variables in TPB.

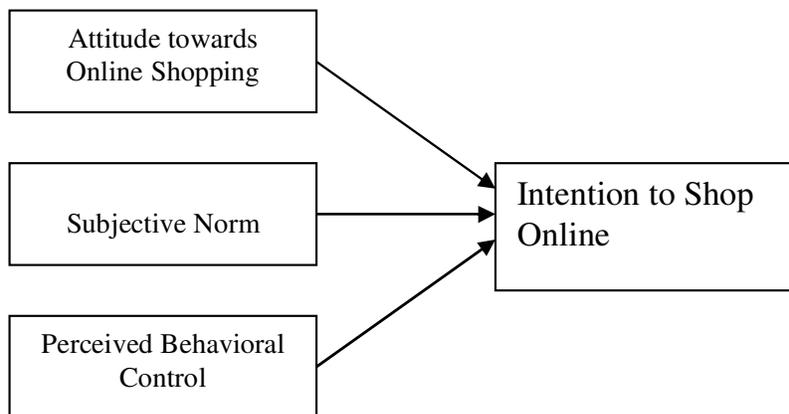
	F1	F2	F3	F4
Attitude towards Online Shopping (F1)	1.000			
Subjective Norm (F2)	0.562**	1.000		
Perceived Behavioral Control (F3)	0.467**	0.273**	1.000	
Intention to Shop Online (F4)	0.666**	0.527**	0.306**	1.000

\*\* Correlation is significant at  $p < 0.01$ .

**Table 4.** Regression analysis

	Unstandardized coefficients		Standardized coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.743	0.282		2.637	0.009
Attitude towards Internet Advertising	0.470	0.069	0.545	6.829	0.000
Perceived Behavioral Control	-0.006	0.046	-0.009	-0.130	0.897
Subjective Norm	0.251	0.082	0.223	3.043	0.003

Dependent variable: intention to shop online.



**Figure 1.** The research model.

social influences play an important role in the formation of their intention to engage in Internet shopping.

These research findings have practical implications to the Internet marketers. Since positive attitude towards online shopping is important to the formation of online shopping intention, online marketers should cultivate a good impression on online shopping among the baby boomers non-Internet shoppers. Online marketers should educate non-shoppers on the trustworthiness, low risks, security and privacy, convenience, cost savings, product variety, compatibility, and usefulness and ease of use in online shopping. Several studies have found these factors to be associated with favorable attitudes toward Internet shopping and purchasing (George, 2002 and 2004; Lin, 2007).

With regard to social influences, online marketers may develop a persuasive communication strategy in the form

of newspaper ads, flyers, billboards, posters, banners, event campaign, and TV and radio service messages to promote that online shopping is in trend now. The value and the ease of online shopping should be heavily promoted to exert an influence on these baby boomers non-shoppers as well as those people around them.

Company websites and Internet advertising are some others tools that can be used to entice baby boomers to shop online. Company websites can be a marketing and communication tool in the Internet operations. Through the web, consumers can research information about the products or services—product attributes, pricing information, promotion, payment method, delivery arrangement, returns and exchange, and after-sales support. Detailed information about what is being offered and how to order must be clearly provided in the websites. E-marketers should design the webs in such a way that consumers

find it easy, pleasant, attractive, and efficient to browse. A website must be well-designed to facilitate browsers to find what they need and to achieve satisfaction while browsing. A clear and easy to use website would encourage potential shoppers to click through the web and this may lead to actual online purchase.

With regard to online advertising, e-marketers should place ads that appear to be interesting and attractive to create consumers' curiosity and to draw their attention. Consumers are exposed to various forms of online ads (such as banners, pop-up windows, and text-based hyperlinks) when they spend considerable amount of time online. They may click on the ads if they are stimulating visually. Generally, consumers would do aimless browsing for something interesting (Rowley, 2000), and aimless or general browsing is a variation of ongoing search which may lead to impulse buying (Bloch, Sherrell, and Ridgway, 1986).

It is interesting to find that perceived behavioral control was not a significant predictor of intention to shop online in the present study. This result was not consistent with previous empirical evidences, which supported the linkage between perceived behavioral control and behavioral intention (Kim and Park, 2005). Data showed that the baby boomers' perceived efficacy in using the Internet for shopping was relatively low at a mean of 3.59 on the 6-point scale. This may explain the insignificant relationship between perceived behavioral control and their intention to shop online.

However, the research findings of this study may only be generalized to the generation of baby boomers. It must be used with caution as the sample size is relatively small in understanding perceptions and intention of online shopping. Furthermore, the sample consisted of Chinese ethnic group, which is not representative of the general Malaysian population. Future research in the Malaysian market should include other races of Malays and Indians and other generations of X and Y for comparison purpose. Future studies may also use student samples and compare their intention to shop online with that of non-student samples. Demographics and lifestyle characteristics may also be included in future studies to produce profiles of typical Malaysian online shoppers.

Despite the limitations, the present study has contributed to our understanding of intention to shop online, which has profound implications for organizations promoting business via the Internet. It helps online retailers better address the acceptance of online shopping among their consumers and devise their online marketing strategies accordingly. Given the number of older individuals and their increasing purchasing power, marketers should be giving more attention to this older consumer group.

Finally, data on the intention to shop online are much needed in lieu of the gaining importance of online retailing in the global market. More studies on cross-cultural comparisons of baby boomer's intention to shop

online and its impact on online buying are much needed. E-commerce is going international, and the understanding of consumers' intention to shop online in various countries has profound implications for international vendors.

## REFERENCES

- Ajzen I (1991). The theory of planned behavior. *Organ. Behav. Hum. Decis. Process.*, 50(2): 179-211.
- Balik Pulau's online marketing bid: Website to offer fresh produce in a click. (2009,). *The Star*. March 23, p. 3.
- Barnett W, Presley A (2004). Theory of planned behavior model in electronic learning: A pilot study. *Issues Info. Syst.*, 5(1): 22-28.
- Bloch PH, Sherrell DL, Ridgway NM (1986). Consumer search: An extended framework. *J. Consum. Res.*, 13: 119-126.
- E-mail soon for Perak newborns. (2005,). *The Star*. June 1, p. 3.
- Full Internet access to rural Pahang. (2006). *The Star*. July 19, p. 26.
- George JF (2002). Influences on the intent to make Internet purchase. *Internet Research: Electron. Netw. Appl. Policy*, 12(2): 165-180.
- George JF (2004). The theory of planned behavior and Internet purchasing. *Internet Res.*, 14(3): 198-212.
- Haynes L (2004). Baby boomers. *Brand Strateg.*, 179: 31.
- Hsu MH, Yen CH, Chiu CM, Chang CM (2006). A longitudinal investigation of continued online shopping behavior: An extension of the theory of planned behavior. *Int. J. Human-Comput. Stud.*, 64: 889-904.
- Jaruwachirathanankul B, Fink D (2006). Internet banking adoption strategies fro a developing country: the case of Thailand. *Internet Res.*, 15(3), 295-311.
- Kim J, Park J (2005). A consumer shopping channel extension model: attitude shift toward the online store. *J. Fash. Mark. Manag.*, 9(1): 106-121.
- Ko H, Jung J, Kim JY, Shim SW (2004). Cross-cultural differences in perceived risk of online shopping Retrieved June 21, 2005, from <http://www.jiad.org/vol4/no2/ko>. *J. Interact. Advert.*, 4(2).
- Koyuncu C, Lien D (2003). E-commerce and consumer's purchasing behaviour. *Appl. Econ.*, 35(6): 721-726.
- Lee L (2005, October 24). Love those boomers. *Bus. Week.*, 94-102.
- Lin HF (2007). Predicting consumer intentions to shop online: An empirical test of competing theories. *Electron. Com. Res. Appl.*, 6: 433-442.
- Littrell MA, Ma YJ, Halepete J (2005). Generation X, baby boomers, and swing: Marketing fair trade apparel. *J. Fash. Mark. Manag.*, 9(4): 407-419.
- Niemelä-Nyrhinen J (2007). Baby boom consumers and technology: shooting down stereotypes. *J. Consum. Mark.*, 24(5): 305-312.
- Norum PS (2003). Examination of generational differences in household apparel expenditures. *Fam. Consum. Sci. Res. J.*, 32(1): 52-75.
- Reisenwitz T, Iyer R (2007). A comparison of younger and older baby boomers: Investigating the viability of cohort segmentation. *J. Consum. Mark.*, 24(4): 202-213.
- Roberts JA, Manolis C (2000). Baby boomers and busters: An exploratory investigation of attitudes toward marketing, advertising and consumerism. *J. Consum. Mark.*, 17(6): 481-499.
- Rowley J (2000). Product search in e-shopping: A review and research propositions. *J. Consum. Mark.*, 17: 20-35.
- SuperWiFi for homes in Sarawak. (2008). *The Star*. January 12, p.30.
- Taylor S, Todd PA (1995a). Understanding information technology usage – A test of competing models. *Info. Syst. Res.*, 6(2): 144-176.
- Taylor S, Todd PA (1995b). Assessing IT usage: The role of prior experience. *MIS Quart.*, 19(4): 561-570.
- Trocchia PJ, Janda S (2000). A phenomenological investigation of Internet usage among older individuals. *J. Consum. Mark.*, 17(7): 605-616.
- Use IT to get ahead, housewives urged. (2005). *The Star*. June 3, p. 22.
- Vankatesh V, Davis FD (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Manag. Sci.*, 46(2): 186-204.

Vijayasathya LR (2004). Predicting consumer intentions to use on-line shopping: the case for an augmented technology acceptance model. *Info. Manag.*, 41: 747-762.

Vuori S, Holmlund-Rytkönen M (2005). 55+ people as Internet users. *Mark. Intel. Plan.*, 23(1): 58-76.

Weingarten RM (2008). Four generations, one workplace: A Gen X-Y staff nurse's view of team building in the emergency department. *J. Emerg. Nurs.*, 35(1): 27-30.