

The Attitude of Intention to purchase Green Condominium by Generation Y consumers

Pukkapop Kongkajaroen¹, Supeecha Panichpathom² and Atcharawan Ngarmyarn³

Abstract

In the world today, qualities of lives among humans are decreasing at a rapid stage. This is caused by our never-ending wants and needs. And in order to satisfy our greed, our mother-earth are being destroyed at a rapid stage. More natural resources have to be harvested and of course more pollutions are being created inevitably. With this rising concerns, organizations around the world are creating awareness of this phenomenon as part of their corporate social responsibilities.

The real estate industry too, is on this trends. No doubt that this industry contributed most to the environmental impacts. They can cause both direct and indirect impacts on the environment. Even the first step in planning, developing to even managing the estates cause an environmental impacts. In recent years, both developers and consumers are being aware of these negative circumstances, in response to this, they are now more concerned when buying and/or developing the real estates.

This study have emphasized on the relationships between purchasing attitudes and intentions to purchase green condominiums on Generation Y. Why Gen Y? Research conducted found that this generation of people are more aware of this environmental issues and willing to act accordingly. This research is conducted based on the quantitative method and the questionnaires used to reach the respondents will be online-administered. The target group will be between 18-35 years old and live in Bangkok. After filtering the questionnaire collected, 220 sets were used in analyzing. There are 3 steps in the process when analyzing the data. The descriptive statistic were used on the first step to obtain the demographic characteristics of the respondents. While on the second and third steps, regressions and two-way Anova tests were employed respectively.

The results obtained from this study found that "intentions to purchase" on green Condominium on generation Y has a positive relationship on "purchase attitude". While "environmental knowledge", "Perceived Benefits", "Environment Concern", "health conscious" and "subjective norms" also have a relationship with "purchase attitude" and direct effect with "intention to purchase".

Keywords: Green Building, Environmental, Real estate, Attitude, Intention, Marketing Research

1. Introduction

The Real Estate Business, such as Office buildings, condominiums, industries. These are all businesses that consume natural resources and energy consumption enormous. The energy of these may be used for air conditioning, lighting in the building or control other systems. However, the energy consumption is going to make a good of living (Wetering & Wyatt, 2011). So the energy is not necessarily required. As such, there was a group of people who are aware of environmental issues and conscious building design to control and manage energy use in buildings to achieve highest performance. The building of this type is often called the "Green Building" (Pushkar, 2013).

"Green Building" is a design that has been a particularly interesting group of real estate investors around the world to capture new markets and believe that there is sufficient demand. The people who lived in a dense residential area or in the city, is one factor that will make people be aware of the disadvantages of pollution and the importance of the environment. People in the city are environmentally conscious than the people in the rural areas. The reason is that people in the city were featured on the environment than people in rural areas, due to the two possible reasons. 1) The amount of traffic volume, congestion of the building. These are all the pollutions

¹ Graduate student of Department of Real Estate Business, Thammasat Business School, Thammasat University, Bangkok, Thailand. Email: pukkapop4877@gmail.com

² Associate Professor of Department of Real Estate Business, Thammasat Business School, Thammasat University, Bangkok, Thailand. Email: spanitdmc52@gmail.com

³ Associate Professor of Department of Management of Information System, Thammasat Business School, Thammasat University, Bangkok, Thailand. Email: a_ngarmyarn@yahoo.com

that causes significant degradation of the environment. So it is no surprise that people who live in it will turn its attention to the issues of the environment and their own lives than those who live in rural areas. 2) People who live in rural areas are often the basis of a gentle soul than anyone in town. Which rely on natural environment and friendly, so living in rural areas are less important to the conservation of the environment (Van Liere & Dunlap, 1980).

In view of the consumer People interested in green building is a group of specific people group. The study found that people in Generation Y will pay attention and attitude very good about saving the environment (Schmeltz, 2012). In the future, these groups will take part by push new policies in the society. However, some research studies have found that although people in this age group will have a very positive attitude about the environment on the other hand, they did not express the decision to buy the product for the Environment (Hume, 2010) research of Kim and Chung (2011) made you understand the reason that why Generation Y have better attitude than the previous generation. It is because the knowledge about the environment to be absorbed since childhood. However, in view of the researcher that the power of decision to buy would be the previous generation because product to the environment is often more expensive than conventional products. So why people in Generation Y have a positive attitude but no power to buy. However, in the future when these people grow up researchers expect to see people in priority housing need to be paired with a good environment.

2. Literature Review

2.1 Theory of Reason Action :TRA

A lot of researches refer to and widely used to study about information on the actual behavior of humans. The theory of reasoned action is the fundamentals of the human mind. In theory shows the factors that affect the intention of behavior. The factors are attitudes on behavior and Subjective norm. As a measurement to determine the effect of the intention perform to actual behavior. The research, which found that the intention of the action is one of the factor that can measure up the real behavior of human. Gotschi, Vogel, Lindenthal, and Larcher (2009) spoke in their research that "Many researchers have demonstrated the actual behavior of consumers expressed usually start from the fact that consumers have a positive attitude about the behavior first" For example, past research issue which has studied about the behavior of people who consume a healthy food (Tarkiainen & Sundqvist, 2005). This research study on consumer attitudes in Finland buying an organic food and the result showing that Attitude to buy an organic food factor related directly against the purchase intention and the most of consumers also have a positive attitude about buying healthy food.

2.2 Purchase Attitude

Purchase Attitude is one of the important mental processes caused by consumers have faith to do it. If consumers believe that the results of that action is positive, They will have a positive attitude toward the action or can be said that attitudes can be analyzed to the level of the likes and dislikes of consumers (Weng & Run, 2013). On the one hands ,when the consumer has the option to buy, attitude is one of the factors that would be the best reflect way to consider about purchasing decisions of consumers (Kraus, 1995).

2.3 Subjective Norm

The influence caused by groups of people in society or people who close to consumers. Which may amplify the factors that influence on the people around them or people who're belief that he should doing behaviors. This factor will be a result in a consumer feeling wanted to do as much. Which is stimulated more if people in society believe in the same thing (Bearden, Netemeyer, & Teel, 1989).

2.4 Health Conscious

Consumers who have a positive attitude about the environment often are concerned about the environment, such as, concerns about the use of pesticides in agriculture or the amount of pollutants in air and water. Which gives consumers a penalty and issues that affect themselves and people around them. So consumers who are concerned about the environment will provide support especially for everyday use and environmentally friendly housing (Renfro, 2010). By the products could be mean the product whichever lower creating pollution and destruction of natural resources or the product may be manufactured with recycled materials (Pavan, 2010)

2.5 Environmental Concern

Concerning in the environment is a basic one to measure and determine the key of consumer attitudes and purchasing decisions. Angera (2001) indicated that if consumers are concerned in the environment. The consumers will have a positive attitude towards the environment. In addition, environmental concerns relate to the attitude of the buyer, Environmental concerns also contribute directly to the intention to purchase (Lee, 2008).

2.6 Perceived Benefit

Perceived benefits can be divided into 2 categories. First, Benefit is happens to themselves and society. Second, benefit is caused to protect environment. In terms of the perceived benefits, the recognition of the benefits accrued to themselves may mean the indoor of air quality in the building or cost of energy savings and the

benefits accrued to society may be said to save natural resources and causes lots of pollution through the use of efficient energy (Yoon, 2011).

When studying the past research of all the variables shows that People who recognize the benefits of green building they will have a positive attitude and willingness to buy it (Wang, 2013). In conclusion, if the consumers perceive benefits from using the Green Condo, they will have positive attitude and willingness to purchase a Green Condo too.

2.7 Environmental Knowledge

Consumers lack of knowledge, misunderstanding about the environment or not knowing about background information on the risks of arising human consumption natural resources limited. This is caused of degradation the environment (Aman, Harun, & Hussein, 2012). Therefore knowledge is the best way to add attitude and understanding of the green purchasing to the consumer. As such, investor need to communicate knowledge to the consumer to know the information about the importance and problems of our environment (Yu-Shan & Ching-Hsun, 2012). Consumers will happen one of two ways. First, consumers will understand the impact of the environment problems by research from the external information that access them to green products and meet the guidelines for the conservation of the environment. Second, consumers can find the products and information functions in the green products(Nexus Providence Property Consultant Services, 2013). In the end, if consumers are aware about the problems of the environment, then it would be prudent them to take the green product and it likes adding purchase attitude of consumer products (Mostafa, 2007).

2.8 Intention to Purchase

Intention to buy may be defined as the commitment to carry one (Ramayah, Lee, & Mohamad, 2010). The studies of past research found that the intention to purchase can measure the actual behavior of consumers. Consumers who are willing to buy highly would be willing to pay high (Paladino & Ng, 2012) in this context can be said in other words that the intention to purchase means Interests and not the interests of consumers against products, for instance, if consumers have good intentions to buy green products, they will have an interest in the green products rather than generic products, so this bring the results to the actual behavior of consumers or making a decision to buy (Chan & Lau, 2000).

3. Methodology and Model

This study's main objective of analyzing the impact of green marketing strategies on intention of consumer purchasing green condo in Bangkok. This study was adopted the theory of reason action as an appropriate theory to study intention to purchase. The questionnaire relate to the influence of Subjective norm , Purchase attitude ,Environmental knowledge, Health conscious ,Environmental concern, Perceived benefit and intention to purchase. The items were measured on a five point likert scale (1= strongly disagree to 5 =strongly agree) and the last part of the questionnaire has focused on the demographic characteristics of respondent. Statistical techniques were used to process the data using correlation and factor analysis with the statistical programs SPSS16. Finally, this case are focused at consumers who're generation y and living in Bangkok only. The sample size on the basis of Maholtra(2010) to be 220 observations; however the collected data for this study is 180 samples, using Google Survey to collect and 40 samples, using face to face interviews.

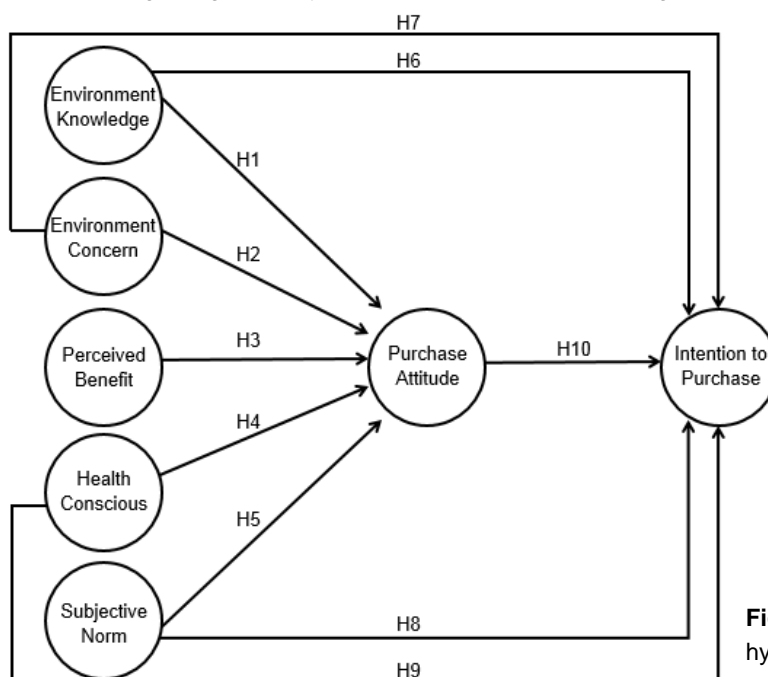


Figure 1. The proposed model and hypotheses (Additional sub dimension from

4. Findings

4.1 Analysis of descriptive statistics

The resulting total of 220 respondents is male, 60%, and female, 40% of respondents, mainly aged between 26-30 years up to 58% with an education at undergraduate degree, the highest proportion of 65%. Most of the respondents are officers, 60%, the maximum monthly income of the respondents is 25,001-35,000 THB, 42%.

4.2 Exploratory Factor Analysis (EFA)

Before the analysis of intention to purchase, purchase attitude, subjective norm, health conscious, environmental concern and environment knowledge, exploratory factor analysis with the use of principal components analysis and varimax rotation was conducted for each construct separately to verify the construct validity and to determine the structure of items. In the analyses items with have communalities < 0.4 and are separated more than one factor were deleted. As a result some items that measure

Table I. Factor loadings, %Variance, Cumulative% Variance and Cronbach's Alpha

	Factor Loading	% Variance	Cumulative Variance	Cronbach Alpha
1. Subjective Norm		4.757	17.618	17.618
People influence you often think that buying Green Condo is a good idea.	.881			
People influence you think that you should buy a Green Condo.	.881			
Your family often think that buying Green Condo is a good idea.	.858			
Your family think that you should buy a Green Condo.	.827			
Your friends or colleagues often think that buying Green Condo is a good idea.	.820			
Your friends or colleagues think that you should buy a Green Condo.	.786			
2. Environmental Knowledge		3.932	14.563	32.181
You know how to save energy as well.	.780			
You know very well how to Recycle.	.774			
You know how to choose products that minimize environmental impact as well.	.692			
You know how to choose products that can help you save water and electricity as well.	.682			
You know about the dangers of environmental degradation as well.	.678			
You know the causes of current environmental problems as well.	.653			
You know the meaning of the symbols about environmental on product.	.632			
3. Health Conscious		3.377	12.508	44.688
You will do everything to keep healthy.	.705			
You are very conscious of your own health.	.825			
Health is an important part of your life.	.737			
You always think "What do You do? Do to keep yourself healthy".	.741			
You are always concerned about your health.	.705			
4. Perceived Benefit		2.810	10.408	55.096
Green Condo can help You save on energy costs significantly.	.809			
Green Condo can help You reduce the use of natural resources.	.854			
Green Condo can help you reduce the impact on the environment.	.772			
Green Condo can help you healthy.	.527			
5. Environmental Concern		2.757	10.211	65.307
You will feel bad when You knowing that you used product that damage the environment.	.553			
Everyone should take responsibility for environment is destroyed.	.729			
You feel bad when you know that environment is worse	.770			
You always take into account the quality of the environment in the country.	.649			
You are willing to reduce for protecting the environment.	.593			

4.3 Test of the hypotheses

First to test the relationship between Subjective norm, Environmental Knowledge, Health Conscious, Perceived Benefit, Environmental Concern and Purchase Attitude (H1-H5), multiple regression analysis was performed. The regression model that predicted ATT from SN, KN, EC, and PB was statistically significant and positively influence ATT then H1, H2, H3 and H5 were supported. However, HC did not influence ATT when the effect of

the others were considered. Even though the result was also not significant ($\beta = .075, p = .266$) when using simple regression so H4 was not fully supported.

$$ATT = .325(SN)^{**} + .119(KN)^* + .075(HC) + .188(EC)^{**} + .453(PB)^{**}$$

$$(5.974)^{**} \quad (2.184)^* \quad (1.384) \quad (3.453)^{**} \quad (8.337)^{**}$$

$$R=0.604, R^2=0.365, Adj. R^2=0.351, F=24.761, Sig F=0.000$$

Second to test the relationship between Subjective Norm, Environmental Knowledge, Health Conscious, Environmental Concern, Purchase Attitude and Intention to purchase (H6-H10). Subjective norm seems to play an important construct while attitude was the least effect. Even though this result shows all significant coefficients but when applying simple regression to determine a relationship between each independent and intention to purchase(as shown in Table II) found that Purchase Attitude variable was higher effected to INT as the result of multicollinearity problems.

$$INT = .325(SN) + .205(ATT) + .318(KN) + .261(HC) + .225(EC)$$

$$(6.058)^{**} \quad (3.724)^{**} \quad (5.158)^{**} \quad (4.372)^{**} \quad (3.724)^{**}$$

$$R=0.672, R^2=0.452, Adj. R^2=0.439, F=35.422, Sig F=0.000$$

Note: **= The coefficient is statistically significant at p value ≤ 0.01 .

* = The coefficient is statistically significant at p value ≤ 0.05 .

Where

- INT = Intention to Purchase.
- ATT = Purchase Attitude.
- SN = Subjective Norm.
- KN = Environmental Knowledge
- HC = Health Conscious.
- EC = Environmental Concern
- PB = Perceived Benefit
- (...) = t-value of each independent factors.

Table II. Simple regression of relationships of each 5 independent factors influencing intention to purchase.

Model	Unstandardized Beta	Std. Error	Standardized Beta	t	sig
SN	.325	.064	.325	5.078	.000
R= .325 , R ² = .105 , Adj R ² = .101, F= 25.785, SigF=0.000					
KN	.342	.063	.342	5.389	.000
R= .342 , R ² = .117, Adj R ² = .113, F= 29.045, SigF=0.000					
HC	.277	.065	.277	4.263	.000
R= .277 , R ² = .077, Adj R ² = .072, F= 18/173, SigF=0.000					
ATT	.410	.062	.410	6.656	.000
R= .410 , R ² = .168, Adj R ² = .164, F= 44.298, SigF=0.000					
EC	.264	.065	.264	4.048	.000
R= .264 , R ² = .070 , Adj R ² = .065, F= 16.387, SigF=0.000					

5. Conclusion and Discussion

This research has analyzed the influence of the fundamental of human thinking by adapting TRA and combining the other factors from past researches to analyze. The result the studying found that every factors in TRA all supported in the paper. Moreover, the factors such Health conscious, Environmental Knowledge, Perceived benefit and Environmental concern have an effect on intention to purchase and some on purchase attitude.

The results support some implications for strategies marketing to promote green condominium. Developers could provide the useful of green condominium functions by presenting to person who around the customer or making the events shown the health benefits when living in the condominium. Environmental knowledge also one of the factors that would be concerned. The government should set up the environment knowledge into the studying programs when the future consumers were young. Finally, changing customer attitude is one of the most important part that make the opportunities to purchase the green condominiums.

6. Limitations of the research

This paper has analyzed the result of purchasing attitude and intention to purchase in green condominium in Thailand. The study had some potential limitations as focus was only generation y customers in Bangkok but the information that could be supported for marketing strategies need to be cover more on other generations and other cities. According to result of this paper "subjective norm" has played an important role on intention to purchase that mean other generations can be part of purchase decision on green condominium. Moreover, the present of Thailand the others cities such as Chiangmai, Khonkaen are developing dramatically so only in

Bangkok not enough for analyzing the marketing and thus, the research has some conceptual limitations in the customer's age and arena.

7. References

- Aman, A. H. L., Harun, A., & Hussein, Z. (2012). The Influence of Environmental Knowledge and Concern on Green Purchase Intention the Role of Attitude as a Mediating Variable. *British Journal of Arts & Social Sciences*, 7(2), 145-167.
- Bearden, W. O., Netemeyer, R. G., & Teel, J. E. (1989). Measurement of consumer susceptibility to interpersonal influence. *Journal of Consumer Research*, 473-481.
- Chan, R. Y. K., & Lau, L. B. Y. (2000). Antecedents of green purchases: a survey in China. *Journal of Consumer Marketing*, 17(4), 338-357.
- Gotschi, E., Vogel, S., Lindenthal, T., & Larcher, M. (2009). The role of knowledge, social norms, and attitudes toward organic products and shopping behavior: Survey results from high school students in Vienna. *The Journal of Environmental Education*, 41(2), 88-100.
- Hume, M. (2010). Compassion without action: Examining the young consumers consumption and attitude to sustainable consumption. *Journal of World Business*, 45(4), 385-394.
- Kim, H. Y., & Chung, J.-E. (2011). Consumer purchase intention for organic personal care products. *Journal of Consumer Marketing*, 28(1), 40-47.
- Kraus, S. J. (1995). Attitudes and the prediction of behavior: A meta-analysis of the empirical literature. *Personality and social psychology bulletin*, 21(1), 58-75.
- Lee, K. (2008). Opportunities for green marketing: young consumers. *Marketing Intelligence & Planning*, 26(6), 573-586.
- Mostafa, M. M. (2007). Gender differences in Egyptian consumers' green purchase behaviour: the effects of environmental knowledge, concern and attitude. *International Journal of Consumer Studies*, 31(3), 220-229.
- NexusProvidencePropertyConsultantServices. (2013). เน็กซ์ซ้อออกโรงชี้ 2 ปีที่ผ่านมา ตลาดคอนโดกรุงเทพโตต่อเนื่อง คาดปีหน้าปรับราคาขึ้นอีก 3.5%. from http://www.prachachat.net/news_detail.php?newsid=1385374740
- Paladino, A., & Ng, S. (2012). An examination of the influences on 'green' mobile phone purchases among young business students: an empirical analysis. *Environmental Education Research*, 19(1), 118-145.
- Pushkar, S. (2013). Comment on: "Spatial variation among green building certification categories: Does place matter?" by Cidell and Beata. *Landscape and Urban Planning*, 112, 118-120.
- Ramayah, T., Lee, J. W. C., & Mohamad, O. (2010). Green product purchase intention: Some insights from a developing country. *Resources, Conservation and Recycling*, 54(12), 1419-1427.
- Schmeltz, L. (2012). Consumer-oriented CSR communication: focusing on ability or morality? *Corporate Communications: An International Journal*, 17(1), 29-49.
- Tarkiainen, A., & Sundqvist, S. (2005). Subjective norms, attitudes and intentions of Finnish consumers in buying organic food. *British Food Journal*, 107(11), 808-822.
- Van Liere, K. D., & Dunlap, R. E. (1980). The social bases of environmental concern: A review of hypotheses, explanations and empirical evidence. *Public opinion quarterly*, 44(2), 181-197.
- Wang, Y. (2013). Understanding the purchase intention towards remanufactured product in closed-loop supply chains: An empirical study in China. *International Journal of Physical Distribution & Logistics Management*, 43(10), 866-888.
- Weng, J. T., & Run, E. C. d. (2013). Consumers' personal values and sales promotion preferences effect on behavioural intention and purchase satisfaction for consumer product. *Asia Pacific Journal of Marketing and Logistics*, 25(1), 70-101.
- Wetering, J. v. d., & Wyatt, P. (2011). Office sustainability: occupier perceptions and implementation of policy. *Journal of European Real Estate Research*, 4(1), 29-47.
- Yoon, C. (2011). Theory of planned behavior and ethics theory in digital piracy: An integrated model. *Journal of Business Ethics*, 100(3), 405-417.
- Yu-Shan, C., & Ching-Hsun, C. (2012). Enhance green purchase intentions: the roles of green perceived value, green perceived risk, and green trust. *Management Decision*(3).