IBFR
www.theIBFR.com

THE EFFECT OF KEY FACTORS ON GREEN CONSUMPTION INTENTION IN THE GREEN HOTEL INDUSTRY

Chin-Hung Liu, National Chin-Yi University of Technology
Cheng-Yih Hong, Chaoyang University of Technology
Jian-Fa Li, Chaoyang University of Technology

ABSTRACT

Band image is established to create an environment for customers living in green hotels. Customers can participate in environmental protection measures away from home. The goal is to help consumers generate a positive green perceived value, green trust, and green consumption attitude toward green hotels, thereby improving green consumption intention. The present study explores relationships between brand image, green perceived value, green trust, green consumption attitude, and green consumption intention for the green hotel industry. We find significantly positive correlations and impacts among brand image, green perceived value, green trust and green consumption attitude, and green consumption intention. These findings provide perspectives and insights into the impact on green consumption intention. The environmentally friendly hotel industry might use this information to implement environmental protection measures and make strategic suggestions to promote public green consumption.

KEYWORDS: Brand Image, Green Perceived Value, Green Trust, Green Consumption Attitude, Green Consumption Intention

JEL: Z31, Z32, Z39

INTRODUCTION

Due to the rise of environmental protection consciousness, many countries have developed the concept and policy of environmentally friendly hotel or eco-hotel. The service provider creates better brand image by marketing strategies, thereby increasing perceived value. Therefore, the good brand image of the eco-hotel promotes sentiments of popular, distinguished, or positively impressive. This kind of green hotel is regarded to be valuable for lodgers. Environmental protection consciousness of consumers could affect customers' green perceived values, and consequently the attitudes and intentions of purchasing green products (Yu, 2009). Monroe and Krishnan (1985) proposed customer's perceived value of the product or service could affect his purchase intention. In other words, good products and services combine with the brand image to retain key consumers and acquire sales performance. Therefore, it is important for consumers to perceive the value of green products and to cause green hotels to provide better services to them.

A hotel enterprise could increase customer's trust and establish a good relationship with the customer by creating a good physical environment and training outstanding sales staff. Trust has positive direct impacts on future commitments of the customer and the enterprise as well as customer voluntary behaviors. However, the symbolic and experiential benefits of the enterprise could be maintained. This implies it could prompt enhanced customer trust to generate participation, cooperation and loyalty behaviors through the promotion of social status, value identity and pleasure service experience. Trust is regarded as the basis of continuing to maintain relations between enterprises and customers. Therefore, green hotels must establish long-term, interactive and trustful relationships with customers to increase

customer consumption intention and retain customers.

The objectives of this study are to construct dimensions to measure brand image of green hotels, green perceived value, green trust, green consumption attitude, and green consumption intention. We explore the relations and effects between brand image of green hotel, green perceived value, green trust, green consumption attitude, and green consumption intention, and examine whether there are significant perceptions on brand image of green hotel, green perceived value, green trust, green consumption attitude, and green consumption intention.

LIERATURE REVIEW

Brand image can be viewed as the image or position of the brand in the mind of consumers and also as a source of information for them. It can influence consumers to perceive higher and more persistent stability of a brand. A successful brand depends on a good brand image and a fit between the brand and its extension category (Hagtvedt and Patrick, 2008). According to Mariola and Elena (2005), brand image can be created through sales promotions. Brand image is a bundle of associations with the brand within the mind of consumers. Brand image consists of brand beliefs, which consumers develop on various attributes of the brand. It can help differentiate the product or service of a brand from that of its competitors (Kotler, 1996). Porter and Claycomb (1997) measured brand image by functional qualities and symbolic attributes. Functional attributes refer to the physical properties of the brand, such as utility. Symbolic attributes include status, reputation, and recognition. User characteristics are usually described by adjectives such as simple, romantic, successful, ordinary, compliant and elegant. Brand image is a perception created by marketers based on consumer needs and benefits. Three concept benefits which are functional benefits, symbolic benefits and experiential benefits are usually employed for creating brand image (Park et al., 1986; Bhat and Reddy, 1998; Putrevu and Lord, 1994; Belen et al., 2001).

Green products are referred to as environmentally friendly products or environment conscious products. Green product is a newly coined term. Since the scope and diversity of green products are wide, a globally consistent definition for this term has not been established. Currently, most nations have their own definitions and development of green products. According to Environmental Protection Agency, Executive Yuan (2010, 2013), green product refers to any product which, from its manufacture to use and disposal, conforms to the general requirements of environment protection. These characteristics include being recyclable or energy saving, low pollution or low carbon emission. Perceived value is the difference between the perceived benefits and costs of a product or service (Chen, 2004). Cheng (2010) indicated that significant differences exist between innovation-oriented, utility-oriented, and price-oriented consumers in their perception of functional value, social value, time risk, functional risk of green products, and in attitude and intention toward buying green products.

Morgan and Hunt (1994) described trust as the perception of confidence in the exchange partner's reliability, customer orientation, re-patronage intention, and integrity. Trust reduces customers' perceived risk of being loyal to a product, brand or business. Customers with more trust in a business are more willing to maintain their relationship with the business and less likely to switch to other businesses. Trust mitigates customer anxiety and can be a predictor of customer behavioral intention. Deng et al. (2010) stated that trust can be regarded as a belief or an intention.

According to Kotler (2003), attitude is a general and rather persistent evaluation about a person, an article, an advertisement or an issue. Chen (2004) defined green consumption attitude as the consumer's consistent perception of a green behavior. Such perception can be positive or negative. It consists of three elements, including cognition, affection and behavioral intention. Cognition is an individual's belief or knowledge about a specific person or object. Affection refers to an individual's feelings, emotions or overall evaluation about a specific person or object. Behavioral intention is one's propensity to take a specific action toward a specific person or object. It is more persistent and general in nature (Ajzen and Fishbein, 1980; Taylor and Todd, 1995).

Hawkins et al. (1992) also identified three components of attitude, including cognitive, affective, and intentional. Based on semantic differential method, Taylor and Todd (1995) measured green consumption attitude on a seven-point scale. Yang (2011) found that green consumption information was influential to students. Shim and Eastlick (1998) proposed that people with power orientation tend to hold an opposing or doubtful attitude toward green appeals. Those with no particular orientation tend to have no special preference. Those with a self-actualizing or social affiliation orientation tend to hold a positive attitude toward green consumption (Peng, 2003).

Green consumption intention refers to the consumer's likelihood of engaging in green consumption. Intention, such as repurchase intention or intention to recommend, can be a predictor of a specific behavior. For example, customer's post-purchase intention is an important index for businesses. For any business, increasing the buying intention of consumers is an important goal. The stronger their buying intention is, the more likely they are to stay with the business. Chen (2003) mentioned that green consumption covers a wide range of activities from pre-purchase to post-activities activities. These activities include evaluating the necessity of buying, recyclability or waste classification of the product to buy, and providing green needs to the manufacturer. All of these activities are intended to help protect the environment. Wei and Ko(2008) found a positive relationship between green consumption attitude and green consumption behavior among 464 adults.

RESEARCH METHODOLOGY

The present study investigated the green hotel industry in Taiwan from a customer perspective. Based on previous literature, this study attempted to explore the impacts among brand image, green perceived value, green trust, green consumption attitude, and green consumption intention in the context of green hotels. The research structure was developed based on variables discussed in the literature review. This study also explores the differences in each of these variables across demographic variables.

Hypothesis Development

Juhl et al. (2002) stated that customer expectation and perceived quality positively affect perceived value through brand image. Higher perceived value results in higher customer satisfaction. Brand image is the sum of information about a product or service. It consists of various associations in consumers' mind. Hence, brand image is an important element of brand equity. A positive brand image can enhance perceived product quality and further affects consumers' purchase intention (Biel, 1992; Romaniuk and Sharp, 2003). Accordingly, we propose the following hypothesis.

H11: Brand image is significantly and positively related to green perceived value.

Chen (2009) empirically showed that green brand image has a positive effect on green trust. He suggested that businesses should invest more resources in green brand image, green satisfaction, and green trust, because green brand image, green satisfaction, and green trust are positively related to green brand equity. Hsieh (2002) mentioned that brand image helps consumers differentiate a specific brand from its competitors. Consumers tend to have a better attitude toward, or more trust in, products or services which they are familiar with and have a better brand quality. Brand image and trust are positively related mainly because brand image can reduce perceived risk and further increase purchase intention (Flavia´n et al., 2005). It can be inferred from the above findings that a better brand image can contribute to higher green trust. Therefore, we propose the following hypothesis:

$H_1{}^2$: Brand image is significantly and positively related to green trust.

According to Hoeffler and Keller (2003), the marketing activities of strong brands, such as advertising,

promotion, and philanthropic events, contributed to higher customer loyalty and buying intention. In other words, brand image has a positive relationship with advertisement, sales, consumption attitude and behavior. Zeithaml and Bitner (1996) pointed out that brand image affects perceived value, consumption attitude, and consumption behavior. Yu (2006) also found a positive relationship between brand image and consumption attitude. It can be inferred from the above findings that brand image affects green consumption attitude positively. A better brand image helps create a better green consumption attitude. Therefore, we propose the following hypothesis:

H13: Brand image is significantly and positively related to green consumption attitude.

Li (2009) examined green consumption behavior among Taiwanese consumers. He empirically showed that green perceived value is positively related to green consumption intention. In other words, consumers have higher green consumption intention when they perceive a higher value of green products. Lien et al. (2011) found a significant relationship among online service quality, perceived value, satisfaction, and behavioral intention in an online shopping context. They suggested that better online service quality helps enhance customer perceived value, which in turn will positively affect behavioral intention. Therefore, we propose the following hypothesis:

H_1^4: Green perceived value is significantly and positively related to green consumption intention.

Kai (2004) noted that consumers are willing to accept unknown risks when shopping in an online store they trust. Trust has a significant and positive effect on behavioral intention. Behavioral intention increases with the increase of trust. Swan et al. (1999) found, in a review of empirical literature, that trust can lead to higher behavioral intention and further stimulate buying behavior. Therefore, we propose the following hypothesis:

H_1^5: Green trust is significantly and positively related to green consumption intention.

Han et al. (2010) showed that attitude, subjective norm, and perceived behavioral control are determinants of behavioral intention. That is to say, consumers' green consumption attitude and concern for the environment are positively related to their green consumption intention (Chan, 1999; Straughan and Roberts, 1999). Mostafa (2007) showed a strong and positive relationship between consumers' attitude toward green purchase and actual green purchase behavior. Li (2009) empirically found that green consumption attitude has a positive effect on green consumption intention. For businesses of green products or services, it is important to monitor whether consumers continue to hold a positive attitude toward green consumption so as to avoid and quickly react to any decline in their green consumption. Accordingly, we propose the following hypothesis:

H16: Green consumption attitude is significantly and positively related to green consumption intention.

Demographic differences exist in Brand Image, Green Perceived Value, Green Trust, Green Consumption Attitude, and Green Consumption Intention. Ou (2007) pointed out consumers' perception of brand image and repurchase behavior would significantly vary across some demographic variables, including gender, age, education, and income. Both Chang (2005) and Chen (2009) also note that perception of brand image would vary across background variables. In Van Liere and Dunlap (1981), environmental attitude varied from one region to another. Therefore, we propose the following hypothesis.

H_1^7: Demographic differences exist in perception of brand image, green perceived value, green trust, green consumption attitude, and green consumption intention.

Sampling Design and Survey

The questionnaire was administered in two stages. In the first stage, a pretest of the questionnaire was conducted. The questionnaire was distributed on site during June, 2013~ July, 2013. A total of 30 acceptable responses were obtained. This pretest was intended to evaluate the accuracy, appropriateness, and necessity of each questionnaire item. The pretest results were the basis for modification of the questionnaire. After reliability analysis, we deleted inappropriate items to obtain a formal questionnaire for the second stage of questionnaire administration. Participants were selected from consumers living in northern, central, southern, and eastern Taiwan based on the convenience sampling method. The sampling period spanned from August, 2013 to October, 2013. Because a heterogeneous sample would be more favorable, we used a close-ended questionnaire to get answers evaluated on a specific scale.

DATA ANALYSIS

Data were collected using the survey producing a total of 537 usable questionnaires. The sample comprised of 43.5% males and 56.5% females, most aged between 21-30 (41.6%) or above 41 (25.2%). The majority of the respondents were unmarried (53.1%) and had a college degree (74.4%). In terms of occupation, those working in the commercial/banking/service industries (43.2%) represented the largest share, followed by students (24.1%). Respondents living in northern areas of Taiwan (43.5%) and those having a monthly income of $30,001~40,000 (31.3%) constituted the majority.

Reliability

Internal consistency of the questionnaire was tested using Cronbach's α and correlation coefficient. The higher the two coefficients, the more consistent and reliable the measurement results are. Before proceeding to the subsequent analysis, we first analyzed the overall reliability of the questionnaire. The result showed a Cronbach's α coefficient of 0.915, which met the 0.7 requirement recommended by Devellis (1991). In other words, the questionnaire was developed with high reliability. The reliability of each dimension of the questionnaire is explained as follows. All these coefficients conformed to the 0.7 requirement suggested by Devellis (1991), meaning that all the dimensions were developed with high reliability. Besides, all the item-to-total correlation coefficients were above the 0.3 requirement suggested by Kerlinger (1999), indicating all the items were important and adequately correlated. Table 1 presents the reliability analysis of this study.

Table 1: Reliability Analysis

Dimensions	Cronbach's α	
Brand image	0.865	0.915
Green perceived value	0.887	
Green trust	0.764	
Green consumption attitude	0.718	
Green consumption intention	0.747	

This table indicates the reliability analysis. Column 2 shows Cronbach's α *for different dimensions.*

T Test

The null hypothesis of $H_0: \mu \leqq 3$ and the alternative hypothesis of $H_1: \mu > 3$ were used to test and show there were almost significantly higher agreement levels on brand image, green perceived value, green trust, green consumption attitude, and green consumption intention.

Factor Analysis

Based on the dimensions introduced by Park et al. (1986), Bhat and Reddy (1998), Putrevu and Lord (1994) and Belen et al. (2001), we performed principal component analysis to extract three dimensions of brand image, respectively named "experiential benefits", "symbolic benefits" and "functional benefits". According to the dimensions proposed by Sweeney and Soutar (2001) and Li (2009), principal component analysis is conducted to extract four dimensions of green perceived value, respectively named "monetary value", "emotional value", "quality value", and "social value". On the basis of the dimension developed by Morgan and Hunt (1994) and Chen (2009), we performed principal component analysis to extract one dimension of green trust, named "green trust". Based on the dimension proposed by Ajzenand Fishbein (1980) and Taylor and Todd (1995), principal component analysis is performed to extract one dimension of green consumption attitude, named "green consumption attitude". Based on the dimension developed by Lai (2006), Mostafa (2007), Fraj and Martinez (2006), we performed principal component analysis to extract one dimension of green consumption intention, named "green consumption intention".

Structural Equation Model

This study tested whether there were significant causal relationships between the factors, and how many differences between the data of the theoretical model and actual observation were through structural equation mode.
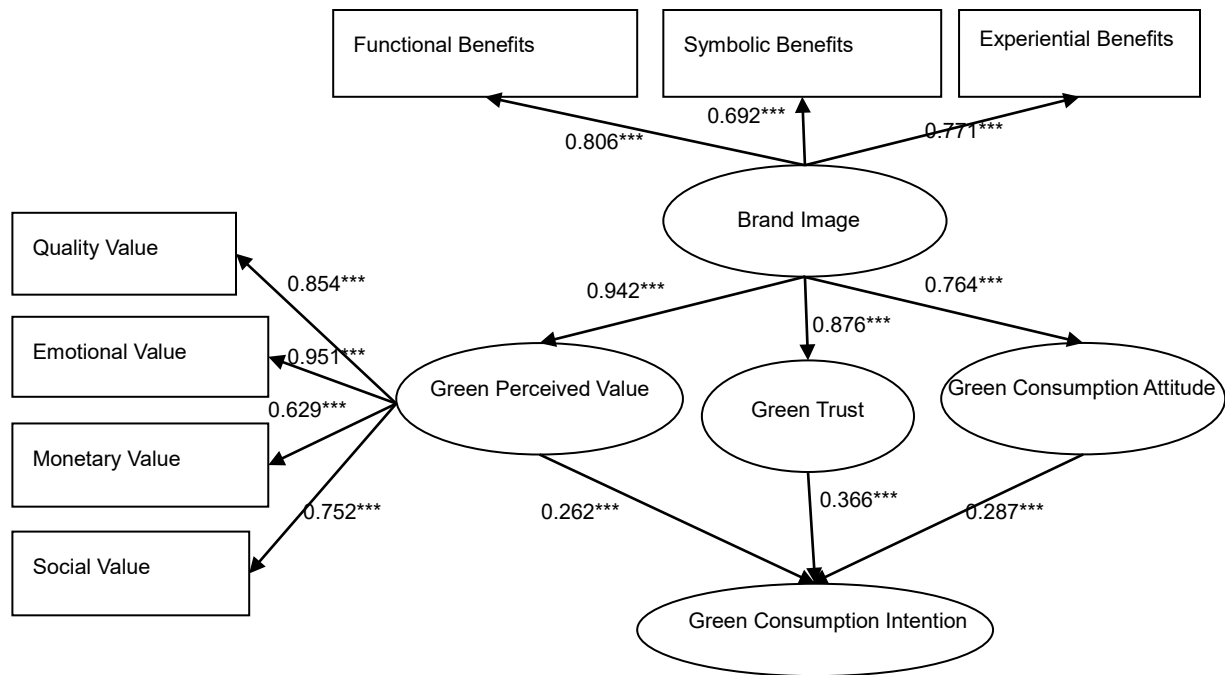
Effect Analysis

Table 2 reports the result in which brand image had a direct effect of 0.942, 0.876, and 0.764 on green perceived value, green trust, and green consumption attitude respectively, indicating that brand image had a direct and positive impact on green perceived value, green trust, and green consumption attitude. Green perceived value had a direct effect of 0.262 on green consumption intention, meaning that green perceived value would directly and positively affect green consumption intention. Green trust had a direct effect of 0.366 on green consumption intention, meaning that green trust was positively and directly related to green consumption intention. Green consumption attitude had a direct effect of 0.287 on green consumption intention, suggesting that green consumption attitude had a direct and positive effect on green consumption intention. The results of effect analysis are shown in Table 2 and Figure 2.

Table 2: Effect Analysis (Linear Structural Relation Model)

Paths (Variables)	Direct Effects	Indirect effect	Total Effects
Brand image→Green perceived value	0.942***	-----	0.942***
Brand image→Green trust	0.876***	-----	0.876***
Brand image→Green consumption attitude	0.764***	-----	0.764***
Green perceived value→Green consumption intention	0.262***	-----	0.262***
Green trust→Green consumption intention	0.366***	-----	0.366***
Green consumption attitude→Green consumption intention	0.287***	-----	0.287***

This table shows effect analysis. Column 2 shows direct effect for different paths. Column 4 shows total effects for different paths. ***indicates significance at the 1 percent levels.

Figure 2: The Effect Analysis of the Goodness-of-Fit Structure

This figure demonstrates the effect analysis of the goodness-of-fit structure of the overall model. ***indicates significance at the 1 percent levels.

Accordingly, brand image could significantly and positively affect green perceived value, green trust, and green consumption attitude. Moreover, green perceived value, green trust, and green consumption attitude could significantly and positively affect green consumption intention. Therefore, the results of this study supported hypotheses H_1^1, H_1^2, H_1^3, H_1^4, H_1^5, and H_1^6.

Independent *t* Test

This study explored differences in perception of brand image, green perceived value, green trust, green consumption attitude, and green consumption intention by gender through independent-sample *t* test analysis. The test for homogeneity of population variances shows that all were greater than the level of significance of $\alpha=0.05$. In other words, the differences in population variances were not significant, and the null hypothesis of homogeneity was not rejected. The p-value of brand image, green perceived value, green trust, green consumption attitude, and green consumption intention were 0.164 (t=1.408), 0.978 (t=-0.054), 0.291 (t=-1.072), 0.924 (t=0.122), and 0.306 (t=1.055), which was greater than the level of significance of $\alpha=0.05$. The statistics indicate that despite having different genders, the respondents did not have significantly different perceptions of brand image, green perceived value, green trust, green consumption attitude, and green consumption intention. Based on the above analytical results, consumers with various genders had no significant differences on perceptions of brand image, green perceived value, green trust, green consumption attitude, and green consumption intention.

One-Way Analysis of Variance (ANOVA)

The test for homogeneity of population variances shows that the p-values of brand image and green consumption attitude were 0.402 and 0.166 respectively, which was greater than the level of significance of $\alpha=0.05$. In other words, the differences in population variances were not significant, and the null hypothesis of homogeneity was not rejected. The data were good for one-way ANOVA. The p-values of green perceived value, green trust, and green consumption intention were 0.022, 0.000, and 0.001 respectively, all of which were less than the level of significance of $\alpha=0.05$. In other words, the null

hypothesis was rejected, and the data were not good for one-way ANOVA. The p-values of brand image and green consumption attitude were 0.002 (F=4.084) and 0.017 (F=2.996) respectively, which was less than the level of significance of α=0.05. The statistics indicate that despite having different occupation, the respondents had significantly different perceptions of brand image and green consumption attitude. Consumers in the commercial/business/service industries were most agreed with brand image, followed by those in the agricultural/forestry/fishing/husbandry and information technology industries, students, housewives, retirees, military/police/public servants, those in the manufacturing/engineering industries. Consumers in the commercial/financial/service industries also showed the highest agreement level of green consumption attitude, followed by those working as housewives, retirees, military/police/public servants, those in the manufacturing/engineering industries, students, those in the agricultural/forestry/fishing/husbandry, and information technology industries.

The test for homogeneity of population variances shows the p-values of brand image, green trust, and green consumption intention were 0.258, 0.478, and 0.589 respectively, all of which were greater than the level of significance of α=0.05. The differences in population variances were not significant, and the null hypothesis of homogeneity was not rejected. The data were good for one-way ANOVA. The p-values of green perceived value and green consumption attitude were 0.002 and 0.014 The null hypothesis was rejected, and the data were not good for one-way ANOVA.

The p-values of brand image, green trust, and green consumption intention were 0.0077 (F=4.878), 0.012 (F=4.304), and 0.011 (F=4.324) respectively. The statistics indicate that despite having different education levels, the respondents had significantly different perceptions of brand image, green trust, and green consumption intention. Green consumers with education levels of Bachelor degree had higher agreement levels on brand image and green consumption intention than those with education levels of Master or Ph.D. degree under Bachelor degree. Green consumers with education levels of Master or Ph.D. degree had higher agreement levels on green trust than those with education levels of under Bachelor degree (including itself). The test for homogeneity of population variances shows that the p-values of brand image, green perceived value, green trust, green consumption attitude, and green consumption intention were 0.197,0.534, 0.993, 0.202, and 0.184 respectively. The differences in population variances were not significant, and the null hypothesis of homogeneity was not rejected. The data were good for one-way ANOVA. The p-value of brand image was 0.038 (F=3.89). This result indicates that despite having different average monthly income, the respondents had significantly different perceptions of brand image. Green consumers with average monthly income of above NT$ 45,001 had higher agreement levels on brand image than those with average monthly income of under NT$ 45,000. Moreover, the p-values of green perceived value, green trust, green consumption attitude, and green consumption intention were 0.081 (F=2.23), 0.084 (F=2.224), 0.479 (F=0.828), and 0.498 (F=0.805) respectively. These statistics indicate that despite having different average monthly income, the respondents did not have significantly different perceptions of green perceived value, green trust, green consumption attitude, and green consumption intention.

The test for homogeneity of population variances shows that the differences in population variances were not significant, and the null hypothesis of homogeneity was not rejected. The data were good for one-way ANOVA. The p-values of brand image, green perceived value, and green consumption intention were 0.000, 0.001 and 0.001 respectively. The null hypothesis was rejected, and the data were not good for one-way ANOVA. The p-values of green trust and green consumption attitude were 0.22 (F=1.431) and 0.923 (F=0.079) respectively. The statistics indicate that despite having the different marital status, the respondents did not have significantly different perceptions of green trust and green consumption attitude.

The test for homogeneity of population variances shows that the p-values of brand image, green perceived value, green trust, green consumption attitude, and green consumption intention were 0.008, 0.001, 0.002, 0.000, and 0.000 respectively. The differences in population variances were significant, and the null hypothesis of homogeneity was rejected. The data were not good for one-way ANOVA. The test for homogeneity of population variances shows the p-values of brand image, green perceived value, green trust, green consumption attitude, and green consumption intention were 0.001, 0.003, 0.000, 0.000, and

0.002 respectively, all of which were less than the level of significance of $\alpha=0.05$. In other words, the differences in population variances were significant, and the null hypothesis of homogeneity was rejected. The data were not good for one-way ANOVA. Based on the above research analysis, there were significantly various perceptions of occupation on brand image and green consumption attitude. There were significantly different perceptions of education level on brand image, green trust, and green consumption intention. There was significantly the various perception of average monthly income on brand image. Finally, there were not significantly different perceptions of marital status on green trust and green consumption attitude. Therefore, hypothesis H_1^7 was partially supported.

CONCLUSIONS AND IMPLICATIONS

The results of this study indicate that brand image was positively related to green perceived value, green trust, and green consumption attitude. Green perceived value, green trust, and green consumption attitude were positively related to green consumption intention. There were significantly positive effects among brand image, green perceived value, green trust, green consumption attitude, and green consumption intention. This study also finds that green consumers had various perceptions on brand image and green consumption attitude through the occupation of demographic variables to acquire better market segmentation. It is not only good for the green hotel industry to retain the old customers, but also it can develop new market opportunities to enhance their business performance.

Green hotel management can concentrate their focus on items with lower agreement ratings for brand image, green perceived value, green trust, green consumption attitude, and green consumption intention. They should pay attention to factors such as green perceived value, green trust, and green consumption attitude affecting green consumption intentions of their consumers. The analysis of differences across demographic variables performed in this research examines differences in perception of brand image, green perceived value, green trust, green consumption attitude, and green consumption intention between different types of green consumers. Based on the results of this study, we suggest green hotels focus their attention on the last few items sorted by customer agreement.

The empirically found relations between brand image, green perceived value, green trust, green consumption attitude, and green consumption intention are meaningful. Hotel operators can use these empirical findings to develop effective marketing strategies that can not only help expand their customer base but also increase environmental consciousness among the general public. The green hotel industry should improve items with lower agreement ratings for brand image, green perceived value, green trust, green consumption attitude, and green consumption intention. The items with lower agreement ratings in each dimension are such as: "Green hotels have environmental protection measures that meet my requirements". We suggest hotel operators set up an exhibition space in their hotel to display environmental protection measures and products they are using or have implemented as well as the effectiveness of their effort. For instance, they can show the public power-saving electric appliances and water-saving devices they use, their frequency of changing bed sheets, waste classification and recycling methods. They might also include adoption of paints with low volatile organic compounds, locally produced organic vegetables, replacement of halogen light bulbs, adoption of low toxic detergents, and proper handling of kitchen waste.

Through this kind of exhibition, they can increase customers' environmental consciousness and make them believe they also make some contribution to environmental protection by staying in a green hotel. Green perceived value measurement: "The extra charges of services offered by green hotels are reasonable (e.g., SPA, oil massage)". We suggest hotel operators form cross-industry alliances to avoid customer dissatisfaction with extra costs of green services. For instance, hotel operators can offer a 200-dollar discount coupon to guests, allowing them to use the optional services at will. This way, the guests will not feel coerced to buy any additional service, and they will be less likely to have negative sentiment about extra cost incurred. Our green trust measure was: "Green hotels offer reliable services".

We suggest hotel operators invest more time and cost in some more important aspects of employee

training, such as service operation management, customer relationship management, crisis handling, and scenario simulation training. They cannot fully achieve customer-oriented management if their employees have not gone through sufficient training. Employees' understanding of customer needs is important for the hotel to provide better services and also for the customers to get most satisfactory and reliable services. The green consumption attitude measure was: "Doing green consumption in a green hotel gives me a sense of achievement".

We suggest hotel operators place a slip of paper that shows the environmental protection measures and effectiveness of the hotel at the hotel counter, room desks, and in the toilets. This piece of paper can help increase customers' understanding of and identification with the hotel. Moreover, it can give consumers involved in green consumption a sense of achievement. We suggest the government promote the concept of green hotels in school education. For instance, schools can organize green activities or environmental protection related competitions on Earth Day or World Environment Day to advocate the importance of green consumption. By providing environmental education to students in the adolescent or childhood period, we can develop a sense of responsibility for the environment and green values in them. In the future, students will have a correct attitude toward green consumption and feel proud of being involved in green consumption; green consumption intention: "I am still willing to stay in a green hotel for the sake of slowing global warming and reducing carbon emission, no matter how much it costs". We suggest hotel operators provide a price discount to guests who are willing to put some effort in environmental protection. For instance, they can offer a small discount to guests who use their own toilet articles or guests who reserve the room from green hotels that partner with a certain credit issuer. This kind of discount saves the expenditure of customers and also serves as an incentive to increase consumers' green consciousness.

REFERENCES

Ajzen, I., & Fishbein, M. (1980) Understanding Attitudes and Predicting Social Behavior. NJ: Prentice-Hall, Inc.

Belen, A., Vazquez, R., & Iglesias, V. (2001)"The Effects of Brand Associations on Consumer Response,"*The Journal of Consumer Marketing*, vol. 18(4/5), p. 410-425.

Bhat, S., & Reddy, S. (1998)"Symbolic and Functional Positioning of Brands," *Journal of Consumer Marketing*, vol. 15(1), p. 32-44.

Biel, A. (1992)"How Brand Image Drives Brand Equity," *Journal of Advertising Research*, vol. 32(6), p. 6-12.

Byrne, B. M. (1994) *Structural Equation Modeling with EQS and EQS/Windows*, Newbury Park, Sage, CA.

Chan, R. Y. K. (1999) "Environmental Attitudes and Behavior of Consumers in China: Survey Findings and Implications," *Journal of International Consumer Marketing*,vol. 11(4), p. 25-52.

Chen, H.-H.(2004) The Analysis about Factors of Intention and Attitude toward Green Consumption. Master Thesis, Department of International Business, National Taiwan University, Taipei City, Taiwan (R.O.C.).

Chen, J.-Y.(2003). The Study of Knowledge, Attitude and Behavior of Fifth and Sixth Green Consumption. Master Thesis, Graduate Institute of Mathematics and Science Education, National Hsinchu University of Education, Hsinchu City, Taiwan (R.O.C.).

Chen, Y. S. (2009)"The Drivers of Green Brand Equity: Green Brand Image, Green Satisfaction, and Green Trust,"*Journal of Business* Ethics, vol. 93, p. 307-319.

Deng, Z., Lu, Y., Wei, K. K., & Zhang, J.(2010) "Understanding Customer Satisfaction and Loyalty: An Empirical Study of Mobile Instant Messages in China,"*International Journal of Information Management*, vol. 30(4), p. 289-300.

Devellis, R. F. (1991) "*Scale development: Theory and Application*, Newbury Park, CA: Sage.

Flavia´n, C., Guinalı´u, M., &Torres, E. (2005) "The Influence of Corporate Image on Consumer Trust: A Comparative Analysis in Traditional versus Internet Banking," *Internet Research*,vol. 15(4), p. 447-470.

Forza, C., & Filippini, R. (1998) "TQM Impact on Quality Conformance and Customer Satisfaction: A Causal Model,"*International Journal of Production Economics*, vol. 55, p. 1-20.

Hagtvedt, H., & Patrick, V., M. (2008) "Art and the Brand: The Role of Visual Art in Enhancing Brand Extendibility,"*Journal of Consumer Psychology*, vol. 18(3), p. 212-222.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006) *Multivariate Data Analtsis* (6thed.). Prentice-Hall, Englewood Cliffs.

Han, H., Hsu, L.-T., &Sheu, C. (2010) "Application of the Theory of Planned Behavior to Green Hotel Choice: Testing the Effect of Environmental Friendly Activities," *Tourism Management*, vol. 31(3), p. 325-334.

Hawkins, D. I., Best, R. J., & Coney, K. A. (1992). Consumer Behavior: Implications for Marketing Strategy, 5th ed. Homewood, IL: Irwin.

Hoeffler, S., & Keller, K. L. (2003) "The Marketing Advantages of Strong Brands," *Brand Management*, vol.10(6), p. 421-445.

Hsieh, H. M. (2002) "Identifying Brand Image Dimensionality and Measuring the Degree of Brand Globalization: A Cross-national Study," *Journal of International Marketing*, vol. 10(2), p. 46-67.

Juhl, H. J., Kristensen K., & Ostergaard, P. (2002) "Customer Satisfaction in European Food Retailing," *Journal of Retailing and Consumer Services*, vol. 9(6), p. 327-334.

Kai, H. L. (2004)"Is Ecommerce Boundary-Less? Effects of Individualism- Collectivism and Uncertainty Avoidance on Internet Shopping," *Journal of International Business Studies*, vol. 35(6), p. 547-559.

Kaiser, H. F. (1974) "An Index of Factorial Simplicity,"Psychometrika, vol. 39(1), p. 31-36.

Kerlinger, F. N. (1999) *Foundations of Behavior Research*, Harcourt College, Fort Worth, TX.

Kotler, P. (1996) Marketing Management: Analysis, Planning, Implementation and Control (9th ed.), Prentice-Hall International, Inc.

Kotler, P. (2003) *Marketing Management*, 11th ed., New Jersey: Prentice Hall.

Li, H.-H.(2009). The Study of Influence Factors of Consumers' Green Consumption Behavior in Taiwan. Master Thesis, Department of Business Administration, Chang Jung Christian University, Tainan City, Taiwan (R.O.C.).

Lien, C. H., Wen, M. J., & Wu, C. C. (2011) "Investigating the Relationships among E-Service Quality, Perceived Value, Satisfaction, and Behavioral Intentions in Taiwanese Online Shopping," *Asia Pacific Management Review*,vol. 16(3), p. 211-223.

Mariola, V. P., & Elena, B. D. (2005) "Sales Promotion Effects on Consumer Based Brand Equity," *International Journal of Market research*, vol. 47(2), p. 179-204.

Monroe, K. B., & Krishnan, R. (1985)The Effect of Price on Subjective Product Evaluations. In Perceived Quality, Jacoby, J. & Olson, J. ed. Lexington, MA: Lexington Books: 209-32.

Morgan, R. M., & Hunt, S. D. (1994). The Commitment-trust Theory of Relationship Market," *Journal of Marketing*, vol. 58, p. 20-38.

Mostafa, M. (2007).A Hierarchical Analysis of the Green Consciousness of the Egyptian Consumer.*Psychology & Marketing*, vol. 24(5), p. 445-473.

National Statistics-Directorate General of Budget, Accounting and Statistics, Executive Yuan, Taiwan (R.O.C.) (2013): http://eng.stat.gov.tw/mp.asp?mp=5.

Ou, W. M. (2007) "Moderating Effects of Age, Gender, Income and Education on Consumer's Response to Corporate Reputation," *Journal of American Academy of Business,* vol.10(2), p. 190-194.

Park, C. W., Jaworski, B. J., &Maclnnis, D. J. (1986) "Strategic Brand Concept-Image Management," *Journal of Marketing*, vol. 50, p.135-145.

Peng, W.-C.(2003). The Relationships between Personal Value, Product Attributes, Green Attitude and Green Consumer Behavior. Master Thesis, Department of Business Administration, National Cheng Kung University, Tainan City, Taiwan (R.O.C.).

Porter, S. S., & Claycomb, C. (1997)"The Influence of Brand Recognition on Retail Store Image,"*Journal of Product and Brand*, vol. 6(6), p.373-387.

Putrevu, S., & Lord, K. R. (1994) "Comparative and Noncomparative Advertising: Attitudinal Effects under Cognitive and Affective Involvement Conditions," *Journal of Advertising*, vol. 23(2), p. 77-91.

Romaniuk, J. & Sharp, B. (2003)"Measuring Brand Perceptions: Testing Quantity and Quality," *Journal of Targeting, Measurement and Analysis for Marketing*, vol. 11, p. 218-229.

Scott, J. (1994) The Measurement of Information System Effectiveness: Evaluating a Measuring Instrument. *Proceedings of the Fifteenth International Conference on Information System*. Vancouver, BC.

Shim, S., & Estlick M. A. (1998) "The Hierarchical Influence of Personal Values on Mall Shopping Attitude and Behavior," *Journal of Retailing*, vol. 74(1), p. 139-160.

Straughan, R. D., & Roberts, J. A. (1999) "Environmental Segmentation Alternatives: A Look at Green Consumer Behavior in the New Millennium," *Journal of Consumer Marketing*, vol. 16(6), p. 55-57.

Swan, J. E., Bowers, M. R., & Richardson, L. D. (1999) "Customer Trust in the Salesperson: An Integrative Review and Meta-Analysis of the Empirical Literature," *Journal of Business Research*, vol. 44, p. 93-107.

Taylor, S., & Todd, O. (1995)"An Integrated Model of Waste Management Behavior: A Test of Household Recycling and Composting Intentions," *Environment and Behavior*, vol. 27(5), p. 199-220.

Van Liere, K. D. and Dunlap, R. E. (1981) "Environmental Concern: Does It Make a Difference How It's Measured?" *Environmental and behavior*, vol. 13, p. 651-676.

Wei, W.-C.&Ko, Y.-F. (2008)"An Empirical Study of the Causal Relationship between Consumption Attitude and Green Consumer Behavior," *International Journal of LISREL*, vol. 1(1), p. 23-42.

Zeithaml, V. A. & Bitner, M. J. (1996) Services Marketing, New York, NY: McGraw-Hill International Editions.

BIOGRAPHY

Chin-Hung Liu is chair and professor in the Department of Business Administration at National Chin-Yi University of Technology. He received his Ph.D. degree in industrial & manufacturing systems engineering from the University of Texas at Arlington, U.S.A., in 1996. His research areas include service management, tourism management, and management science. He can be reached in the Department of Business Administration at National Chin-Yi University of Technology, No. 57, Sec. 2, Zhongshan Rd., Taiping Dist., Taichung 41170, Taiwan, ROC, E-mail: chungl@ncut.edu.tw.

Cheng-Yih Hong is an associate professor in the Department of Finance at Chaoyang University of Technology. He received his Ph.D. degree in agriculture and resource economics from the University of Tokyo, Japan, in 1995. His research areas include industry correlation analysis, service management, tourism management, monetary finance theory, agricultural economics, and East Asian regional economics. He can be reached in the Department of Finance at Chaoyang University of Technology, Taichung, Taiwan; Address: 168 Jifong E. Rd., Wufong District, Taichung, 41349, Taiwan, E-mail: hcyih@cyut.edu.tw

Jian-Fa Li(Corresponding Author) is an associate professor in the Department of Finance at Chaoyang University of Technology. He received his Ph.D. degree in economics from West Virginia University, U.S.A., in 2003. His research areas include microeconomics, econometrics, service management, and tourism management. He can be reached in the Department of Finance at Chaoyang University of Technology, Taichung, Taiwan; Address: 168 Jifong E. Rd., Wufong District, Taichung, 41349, Taiwan, E-mail: jfli@cyut.edu.tw