



# Role of Shopping Value on Green Image and Store Loyalty Relationship

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## Abstract

This study aims at examining the role of shopping value in green image and store loyalty relationship. Convenience sampling using quota sampling was used to collect data of a sample of 565 consumers. Using structural equation modeling, it was found that shopping value mediates the relationship between green image of retailers and store loyalty. The result provides valuable insights to researchers and practitioners, and implications for future research directions and management of the retail industry are discussed.

**Keywords:** Green Image ; Shopping Value ; Store Loyalty ; Consumer Behavior

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## 1.0 Introduction

In view of the intense competition in retailing industry, the implementation of new ways of doing business is often required. Whilst, store image based on functional attributes of the store has become a common strategy among retailers, they continue to seek for a new strategy for a point of differentiation. A differentiation strategy that began to gain popularity among retailers is the environmental issue.

While there is unrelenting interest on the green environment aspect in both academicians and practitioners, there has been little attention directed toward understanding this concept that relates with store loyalty and shopping value. Against this backdrop, this study seeks to explain the role of shopping value with regards to the green image and its effect on store loyalty. In addition, this study also attempts to assess the influence of green image of retailers on store loyalty and shopping value. The influence of shopping value on store loyalty is also examined. By proposing and subsequently testing the structural relationships among the three constructs in the conceptual framework, this study is intended to achieve the following research objectives: (1) to examine the influence of green image of a retail store on shopping value, (2) to investigate the effects of green image on store loyalty, (3) to assess the influence of shopping value on store loyalty, (4) to investigate the role of shopping value in the green image and store loyalty relationship.

## 2.0 Literature Review

### 2.1 The proposed hypothetical model

Figure 1 illustrates the proposed hypothetical causal model for the current study. Previous studies reveal that factors like satisfaction, image and green image of retailers can influence store loyalty (Yusof, Musa, & Rahman, 2011). The model for the current study examines the structural, causal relationships between green image of retailers, shopping value and store loyalty.

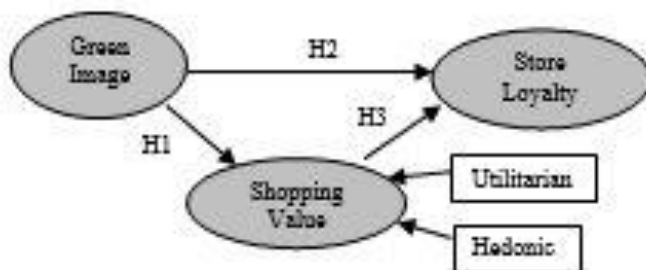


Fig 1: Proposed Hypothetical Model

## 2.2 Theoretical view of constructs

- Green Image

Stem from the increase in green consumerism and also regulations by the government, retailers are encouraged to incorporate the environmental agenda in their strategy. It is found that organizations that embrace the concept of green product and packaging can increase their sales as well as their differentiation advantages of their products (Chen, 2008). Similarly, green image of retailers was found to influence customer store loyalty (Yusof, Musa, & Rahman, 2011).

- Shopping value

Past research has shown that shopping value was derived from consumers' shopping experience and from the product they purchased (Levy, 1959). Consumers seek two types of shopping value within their shopping experiences: hedonic value and utilitarian value (Carpenter, Moore, Fairhurst, 2005). Hedonic is referred to as the value that is derived from pleasurable experience such as joy, enjoyable and fun. In contrast, utilitarian is referred to as the value, which is derived from efficient experience from the functional aspect. Previous research has found that both of these shopping value play equal roles in predicting consumer behavioral outcome such as satisfaction, word-of-mouth and re-patronage intention (Jones, Reynold, Arnold, 2006).

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- Store loyalty

Loyalty has been broadly studied in the marketing literature and is an important concept in strategic marketing. Many researchers have accepted the notion that loyalty or loyal customers are the lifeblood of an organization regardless of its scale and business scope (Chen & Quester, 2006). Keeping loyal customers is critical for business to maximize their profit (Oliver, 1999). On the basis of preceding theories and empirical findings, the following hypotheses were postulate:

Hypothesis 1: Green image has a significant positive influence on shopping value

Hypothesis 2: Green image of retailers has a significant positive effect on store loyalty

Hypothesis 3: Shopping value has a significant positive relationship with store loyalty.

## 3.0 Methodology

### 3.1 Research design

The data were collected using a survey methodology with questionnaires distributed to consumers of apparel of over 18 years old. Adult consumers of over 18 years old represent an appropriate frame for this study because it is often the target group by retailers.

Furthermore, it is the cut-off age where the Malaysians have finished their tertiary education and some are already in the workforce.

### **3.2 Sampling method and procedure**

700 questionnaires were distributed based on the quota sampling of the shopping population of four major cities in the Klang Valley. Gender, age and ethnicity were used as the controlled variables for the quota sampling. For a period of over four months, 598 questionnaires were collected and finally 565 usable questionnaires were identified to be included in the actual data analysis.

### **3.3 Data analysis**

A two-phase approach was used in data analysis of the current study. The first phase of data analysis involves the item screening and purification using the internal consistency and exploratory factor analysis (EFA). EFA is used to identify the underlying structure of the constructs examined. Using varimax rotation with the latent root criterion of 1.0 for factor inclusion, and a factor loading of 0.5 was used as the benchmark to include items in a factor. EFA has generated four factors with eigenvalue above 1.0 which explained about 74% of the total variance. Each factor has yielded a reliability coefficient ranging from 0.8 to 0.9.

Subsequently, the second phase involves a two-stage structural equation modeling (SEM). The confirmatory factor analysis (CFA) was conducted to examine the psychometric properties of the measures. Two iterations of the CFA were performed for an acceptable measurement model. Indices such as Chi-square ( $\chi^2$ ), ratio of Chi-square to degrees of freedom, root mean square error of approximation (RMSEA), goodness of fit index (GFI), normed fit index (NFI), and comparative fit index (CFI) were adopted for model fit criteria. After further refining the data by omitting items with high residual value, the second part, which is the structural model, was performed.

The scale was also tested for its reliability and validity. Alpha coefficient was used as the measurement for reliability with cronbach alpha value greater than 0.7. Alpha coefficient value which is greater than 0.7 is acceptable and deemed to be adequate for reliability test (Nunnally & Bernstein, 1994). Validity of the scale was measured on convergent and discriminant. Convergent validity is measured using the AVE value and has to be greater than 0.5 (Bagozzi and Yi, 1988). Additionally, validity was measured with discriminant validity is established when the estimated correlations between factors is below 0.85 (Kline, 2005).

## **4.0 Findings and Analysis**

### **4.1 Sample characteristics**

With two demographic variables used as the control variables of quota sampling, results show that majority of the respondents are in the 20-29 years of age category. The major ethnic groups of the respondents were the Malays and Chinese with 49% and 36% of the total population respectively. In terms of marital status, the result shows that the respondents were mainly single. It is reflected with 46.4% of the respondents. The respondents with

STPM/HSC/Certificate/Diploma were equal in number with those having Bachelor's Degree. These two education levels represent the major group of the respondents. In terms of income level, 31.9% were having an income of between RM2001 – RM4000, which is the major income level. The next significant group is the one that has an income level of between RM1000 – RM2000. It consists of 16% of the respondents.

## **4.2 Exploratory factor analysis (EFA)**

Exploratory factor analysis was also conducted on all the three constructs. Two iterations of the exploratory factor analysis have resulted in four factors, which accounted for 72.85% of total variance explained. The KMO value was 0.94, which exceeds the recommended value of 0.8 as suggested by Sharma (1996). In addition, Bartlett's test of sphericity was statistically significant which indicates that the factorability of the correlation matrix was supported.

## **4.3 Confirmatory factor analysis (CFA)**

Two iterations of the CFA were performed to qualify for acceptable measurement model. The results of the overall fit indices are as follows: Chi-square = 940,  $df = 132$ , ( $\chi^2/df = 7.12$ ),  $p < 0.001$ , root mean square error of approximation (RMSEA = 0.1), goodness of fit index (GFI = 0.83), normed fit index (NFI = 0.89), and comparative fit index (CFI = 0.9). The results indicated a moderately model fit.  $\chi^2$  statistics has appeared to be significant and thus did not achieve the adequate level for model fit.  $\chi^2$  statistic was not used as the measurement of model fit because of its sensitivity to a relatively large sample size (Bagozzi & Yi, 1988). To improve the model, standardized residual was examined for values greater than 2.58 (Joreskog & Sorbom, 1988). As a result, three items of the green image and two items of store loyalty were dropped from further analysis. The final CFA achieved an acceptable fit of the data, Chi-square = 411,  $df = 74$ , ( $\chi^2/df = 5.55$ ),  $p < 0.001$ , root mean square error of approximation (RMSEA = 0.09), goodness of fit index (GFI = .91), normed fit index (NFI = 0.94), and comparative fit index (CFI = 0.95). The result unveils that the measurement model was satisfactory and hence qualify for structural model assessment.

## **4.4 Validity**

The assessment of reliability using Cronbach alpha and the composite reliability has achieved a benchmark of 0.7, which indicates good internal consistency and reliability (Hair et al., 1998). Additionally, average variances extracted (AVE) value was used to assess convergent reliability. Results show that AVE value has exceeded the minimum recommended level of 0.50, which indicates the convergent validity is achieved. Table 1 summarizes the result of the measurement model. The reliability of the variables were also achieved when AVE value is greater than the threshold value of 0.5 (Anderson & Gerbing, 1988), composite reliability value greater than the threshold value of 0.6 (Bagozzi & Yi, 1988) and Cronbach alpha greater than the cut-off value of 0.7 (Anderson & Gerbing, 1988). To test for discriminant validity, the correlation matrix of latent variables was examined. The correlations between each latent variables were lower than 0.8, a cut-off point for discriminant validity (Yanamandram & White, 2006), which in this measurement model it implies that discriminant validity was established. In conclusion, it is reasonable to claim that all the

measures used in this study possess adequate psychometric properties. The measures of the proposed constructs have achieved satisfactory reliability, convergent, and discriminant validity.

Table 1. Summary of Result of Measurement Model

Variables	Shopping Value	Green Image	Loyalty	AVE	Composite Reliability	Cronbach alpha
Shopping Value	1			0.67	0.93	0.86
Green Image	0.60	1		0.86	0.92	0.92
Loyalty	0.64	0.67	1	0.75	0.96	0.87

#### 4.5 Structural model test

The structural model was tested to assess the hypothesized structural relationships of the three (3) constructs (Refer to Figure 1). The results revealed that the structural model has a significant  $\chi^2$  value ( $\chi^2 = 207$ ,  $df = 50$ ,  $\chi^2/df = 4.14$ ,  $p < 0.001$ ) indicating inadequate fit of the data with the hypothesized model. Based on the suggestion by Hair et al. (1998), reliance on the chi-square test as the sole measure of fit is not recommended due to its sensitivity to sample size. Hence, alternative fit indices were used as the test for model fit. Based on the result of other fit indices (RMSEA = 0.07, GFI = 0.94, NFI = 0.95, and CFI = 0.97), it was unveiled that the model fits the data satisfactorily. Hence, the study's attempt to establish a plausible model that has statistical and explanatory power, which could permit confident interpretation of results, was thus fulfilled. Therefore, the model was accepted, and the hypothesis tests were interpreted. Figure 1 illustrates in detail the results of the hypothesized model.

#### 4.6 Hypothesis test

The regression weight indicated that two hypotheses were significant in the hypothesized direction. The relationship between green image and shopping value was significant and positive (Standardized estimate = 0.46, t-value = 8.91,  $p = 0.001$ ) and thus supporting H1. However, H2, which link between green image and store loyalty was non-significant (standardized estimate = 0.03, t-value = 0.74,  $p = 0.5$ ). This result thus does not provide support for H3. Likewise, H2, which is the relationship between shopping value and store loyalty was also supported (standardized estimate = 0.80, t-value = 11.43,  $p = 0.001$ ).

Table 2. Results of the tested hypotheses

Hypotheses No. and Hypothesized Paths	Standardized Coefficient	Critical (t-value)	Ratio	Results
H1 Green Image → Shopping Value	0.46	8.91		Supported
H2 Green Image → Store Loyalty	0.03	0.74		Not Supported
H3 Shopping Value → Store Loyalty	0.8	11.43		Supported
Significant at $p < 0.001$ (t-value $> 3.29$ )				

## 5.0 Discussion and Conclusion

The findings suggest that two of the hypotheses in the study were supported by the data.

The hypothesis test results indicated that green image has no significant relationship with store loyalty. In contrast, shopping value has a significant relationship with store loyalty. In addition, green image has a significant relationship with shopping value. The result demonstrated that shopping value has the effect that mediates the relationship between green image and store loyalty. This study has contributed to the extension of knowledge in green image and store loyalty framework, specifically in the retailing context. A notable distinction was found in the green image and store loyalty relationship when integrated with shopping value. When integrated with shopping value, green image was found to have no influence on store loyalty. This is inconsistent with the findings in the study by Yusof, Musa, and Rahman (2011) where green image was found to have a link with store loyalty. Therefore, in the current study, shopping value must be present to mediate green image and store loyalty relationship.

The relationship between shopping value with store loyalty has also been tested. The hypothesis that links between shopping value and store loyalty has been supported. Hence, this new finding suggests that shopping value of customers of the retail store is an important construct in consumer behavior.

The findings of this study provide several managerial implications for green image strategy in the retailing industry. Firstly, despite the emphasis by many retailers on the green image initiatives, the shopping value of customers or shoppers cannot be undervalued. Whilst, green image of retailers has no influential effect on store loyalty, shopping value has a significant influence on store loyalty. This suggests that shopping value is critical in the customer's shopping experiences. For this reason, retailers have to provide the shopping environment that could enhance customers' experiences. Also, shopping value provides retailers with more space to create their green images by attaching unique associations to the quality of their service, their in-store atmosphere, and merchandising. These aspects are important to the retailers as they have the ability to create rich experiences to the consumers, which play a crucial role in building or develop store loyalty. Therefore, in order to develop store loyalty, retailers must gain some comprehension of consumers especially with regards to their experiences while shopping at the retail store.

### **Limitations and Future Research**

A major criticism of this study is related to external validity as the sample for this study, which solicited respondents who reside and work in the Klang Valley. It may not be a representative of all markets. Therefore, in order to validate this model, the essential next step for future research is to fit the model with other samples of data through different target sample.

Similarly, factors other than those investigated in this study for other constructs would also need to be considered. In retailing or marketing context, for example, while store loyalty included in this study was chosen specifically for their possible relevance to the retail environment, other types consumer or shopper behaviors, which have been advanced in prior literature, may also be equally pertinent. Future studies can examine the relevance of the other types of consumer behavior in a different context.

In addition, this study only focused on specific apparel item, and as a result, green image of a retail store has no influence on store loyalty, but has an influence on shopping value.

Future study should also focus on convenience goods or food and beverages, which could show a different result. Therefore, future studies involving additional products or multiple product categories to replicate to different segments between products should be conducted to enhance the generalizability of findings of this study.

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