Towards green loyalty: the influences of green perceived risk, green image, green trust and green satisfaction

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Abstract. The paper aims to present a comprehensive framework for the influences of green perceived risk, green image, green trust and green satisfaction to green loyalty. The paper also seeks to account explicitly for the differences in green perceived risk, green image, green trust, green satisfaction and green loyalty found among green products customers. Data were obtained from 155 green products customers. Structural equation modeling was used in order to test the proposed hypotheses. The findings show that green image, green trust and green satisfaction has positive effects to green loyalty. But green perceived risk has negative effects to green image, green trust and green satisfaction. However, green perceived risk, green image, green trust and green satisfaction also seems to be a good device to gain green products customers from competitors. The contributions of the paper are, firstly, a more complete framework of the influences of green perceived risk, green image, green trust and green satisfaction to green loyalty analyses simultaneously. Secondly, the study allows a direct comparison of the difference in green perceived risk, green image, green trust, green satisfaction and green loyalty between green products customers.

Keywords *:* green perceived risk, green image, green trust, green satisfaction, green loyalty, green products customers.

1. Introduction

This study uses a holistic approach to green marketing so it is necessary to develop conceptual frameworks of research to understand the effect of green marketing on green customer loyalty. [1], [14], [2]. This study is in line with previous research that is to test the function of green marketing in increasing brand image and its effect on brand loyalty and test the moderate effect of green perceived risk [3], [4], [5]. Hereinafter in this research use both approaches to explore consumer reaction to green product or service that is green marketing and green loyalty [1], [14],[6].

Nevertheless, this study extends previous studies on green marketing and green customer loyalty by adding green perceived risk [1], [7], [8]. There is little previous research that investigates the effect of green perceived risk on green customer loyalty either directly or indirectly [1], [17], [3]. This study shows that green perceived risk negatively affects green image, green trust and green satisfaction [1], [3]. In addition, this study provides empirical evidence that green image, green trust, and green satisfaction mediate the relationship between green perceived risk and green loyalty, which is consistent with previous research [1], [3], [9].

Increased consumer perceptions of green image, green trust, and green satisfaction can help increase customer loyalty to use green products [1], [15], [10]. These results reveal the relevance of environmental issues in the current business context and company needs in their management strategies and policies [1], [16], [11]. The findings suggest that the green issue is a key strategic tool,

given its crucial role in building customer loyalty including image, trust and customer satisfaction on green products [1], [17], [3], [6].

Green marketing refers to organizational efforts to design, promote, price and distribute products that do not have an adverse impact on the environment. Green marketing is a concept that includes all marketing activities developed to stimulate and sustain eco-friendly behavior and consumer behavior. To respond to the green needs of consumers, the idea of green marketing has been widely accepted in both practical and academic fields. In green marketing campaigns, the target customers are given information about the environmental impact of the product, which can ultimately affect their buying behavior. So green marketing is a holistic management process to address the needs of the customer and community environment in a profitable and sustainable way [1], [15], [17], [3], [10].

Companies can adopt green marketing activities to perform differentiation strategies and to satisfy customers' needs or wants. As consumers become more concerned about the environment, there are more customers who are more willing to buy green products that have less harmful effects on the environment. Companies implementing defensive green marketing to perform minimum activities in compliance with local government environmental regulations in order to avoid the punishment of fines. When assertive approaches are used, companies are more aggressive in their marketing campaigns. Companies respond not only to market regulations and trends but also to the requirements of their stakeholders [1], [15], [17], [3], [12].

Previous research has analyzed the effect of green marketing on consumers. Furthermore, previous research also confirms that companies should use green marketing strategies to identify the green needs of customers, to promote green products, to group green markets into different niches, to target one or more specialized markets, to formulate a green positioning strategy and apply Green marketing. As a result, this study bridges the gap by investigating how to develop green loyalty using green concept perceived risk, green image, green trust and green satisfaction [1], [15], [17], [3], [13].

2. Research Method

The conceptual framework of this research (Figure 1) has 6 hypothesis that is 1 H1: there is a negative effect of green perceived risk to green image; 2 H2: there is a negative effect of green perceived risk to green trust; 3 H3: there are negative effects of green perceived risk to green satisfaction; 4 H4: there is a positive effect of green image to green loyalty; 5 H5: there is a positive effect of green trust to green loyalty; 6 H6: there is a positive effect of green satisfaction to green loyalty [1], [3], [14], [17].
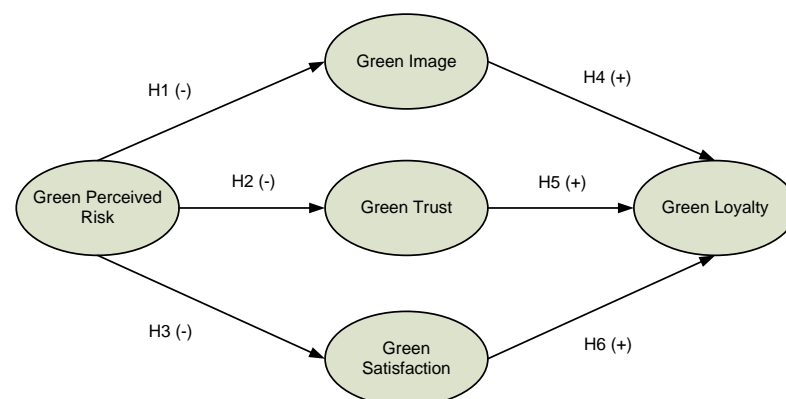

Figure 1. Conceptual framework.

Table 1 is the respondent's profile in this study consisting of mostly female respondents as many as 82 people with age mostly between 26 years to 35 years as many as 72 people. Furthermore, most of the undergraduate education as many as 109 people and most work as employees of 139 people. The frequency of respondents in buying green product between 2 times to 4 times as many as 73 people with the type of green product that many purchased is an organic egg as much as 54 people.

2.1. Sample and data collection

Table 1. Profile of respondents.

Variable	Frequency	Percentage
Gender		
Male	73	47.1
Female	82	52.9
Age years old		
18-25	38	24.5
26-35	72	46.5
36-45	28	18.1
Above 46	17	11.0
Education Level		
High School	20	12.9
Diploma	15	9.7
Undergraduate	109	70.3
Graduate	11	7.1
Occupation		
Employee	139	89.7
Entrepreneur	10	6.5
Part time	6	3.9
Frequency of green purchased		
2-4 times	73	47.1
5-7 times	38	24.5
8-10 times	20	12.9
Above 10 times	24	15.5
Types of green products purchased		
Organic egg	54	34.8
Organic vegetable	34	21.9
Organic rice	24	15.5
LED Television	43	27.7

3. Results and Discussion

All statement items in this study are valid and reliable that shown from Table 2. The average value of all statements show good results with the standard deviation value away from the number 0 which means that the answer of the questionnaires of the respondents have varying values.

Table 2. Description of the items used to measure the constructs.

Items	Standardized loading	Cronbach's α	Mean	SD
Green perceived risk		0.848		
There is a chance that there will be something wrong with environmental performance of the product	0.806		2.5871	0.71883
There is a chance that the product will not work properly with respect to its environmental design	0.803		2.2645	0.65542
There is a chance that using the product will negatively affect the environment	0.756		2.3355	0.67687
Green Image		0.873		
This product is regarded as the point of reference of environmental commitments	0.859		3.4387	0.69398
This product has a strong environmental reputation	0.830		3.4839	0.68712
This product is successful about its environmental protection	0.723		3.7032	0.68542
This product is well-established about its environmental concerns	0.772		3.5226	0.68694
This product is trustworthy about its environmental promises	0.614		3.7935	0.71801
Green Trust		0.902		
The environmental commitments of this product are generally reliable	0.802		3.8645	0.66525
The environmental performance of this product is generally dependable	0.782		3.7226	0.67934
The environmental argument of this product is generally trustworthy	0.771		3.7677	0.73696
The environmental concerns of this product meet my expectations	0.850		3.7226	0.68883
This product is sincere and honest about its environmental protection	0.828		3.6387	0.72867
Green Satisfaction		0.872		
The choice of this product due to its environmental commitment makes me happy	0.899		3.6194	0.72319
I consider it is correct to buy this product because of its environmental commitment	0.828		3.5097	0.68725
I am satisfied with this product because of its environmental performance	0.775		3.7419	0.68223
Green Loyalty		0.874	3.4839	0.68712
I generally choose this product as my choice option	0.807		3.6968	0.70595
I would buy this product although other competitors had the same environmental attributes	0.676		3.5806	0.69199
I will choose this product as my choice option in the future	0.773		3.6452	0.70011
I would make positive comments about this product to family and friends	0.731		3.4839	0.68712

Table 3 presents the results of hypothesis testing from this study. All hypothesis testing results are supported data. Hypothesis 1 has a coefficient value of -0.335 and t-value of -3.542 with p-value 0.000 means there is a negative effect of green perceived risk to green image. Hypothesis 2 has a coefficient value of -0.543 and t-value of -6.258 with p-value 0.000 means there is a negative effect of green perceived risk to green trust. Hypothesis 3 has a coefficient value of -0.446 and t-value of -4.333 with p-value 0.000 means there is a negative effect of green perceived risk to green satisfaction. Hypothesis

4 has a coefficient value of 0.660 and t-value of 10,262 with p-value 0.000 means there is a positive effect of green image to green loyalty. Hypothesis 5 has a coefficient value of 0.137 and t-value of 2588 with p-value 0.000 means there is a positive effect of green trust to green loyalty. Hypothesis 6 has a coefficient value of 0.230 and t-value of 5.096 with p-value 0.000 means there is a positive effect of green satisfaction to green loyalty. The conclusion that green perceived risk has the greatest negative effect on green trust. While green image has the greatest positive influence on green loyalty.

Table 3. Structural equation model result.

Hypotheses	Structural relationships	Path coefficients	t-value	Results
H1	Green perceived risk → Green image	-0.335	-3.542*	*H1* supported
H2	Green perceived risk → Green trust	-0.543	-6.258*	*H2* supported
H3	Green perceived risk → Green satisfaction	-0.446	-4.333*	*H3* supported
H4	Green image → Green loyalty	0.660	10.262*	*H4* supported
H5	Green trust → Green loyalty	0.137	2.588*	*H5* supported
H6	Green satisfaction → Green loyalty	0.230	5.096*	*H6* supported

NFI=0.773; IFI=0.830; TLI=0.801; CFI=0.828; χ^2=542.729; df=164 $p = 0.000$

Note: *Statistically significant of $p < 0.05$

4. Conclusion

The results showed that green perceived risk had a negative and significant effect on green image, green trust, and green satisfaction. While green loyalty is influenced positively and significantly by green image, green trust, and green satisfaction. Companies should always pay attention to all risks that occur due to business processes so as not to damage the environment. In addition, the company must design a green environment by producing green products for its customers. Companies should eliminate products that would risk damaging the environment. So with the company always pay attention to the green environment then the green marketing activities will run well. Creating a green environment is not an easy thing, but it requires a great effort from the company to create the green.

Companies need to increase their commitment to keeping the green environment. In addition, the company is expected to improve the reputation of its business by running a green marketing. The image formed by creating a green environment will significantly affect customer loyalty in consuming the company's green products. Furthermore, it is necessary to increase the customer's confidence to continue to use the company's green products. Thus customer loyalty will continue to grow with the existence of these beliefs. Increased trust is followed by increased customer satisfaction. With customers satisfied with green products, it will significantly increase customer loyalty in consuming green products. Finally, the company that produces green products is a company that loves its environment.

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