# Determinants of Green Brand Trust and the Mediating Role of Green Brand Satisfaction

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## Abstract

*This research attempts to examine how perceived green brand quality and perceived performance influences customers trust in green brands through enhancing brand satisfaction. Using a sample of 108 customers in Hong Kong who were observed buying green tissue products, we investigate the relationship of perceived green brand quality and perceived performance with green brand trust, and the mediating effects of green brand satisfaction on these relationships. The results show that perceived green brand quality and perceived performance positively contribute to green brand trust directly and green brand satisfaction is an effective mechanism through which perceived green brand quality and perceived performance promote trust in a green brand.*

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## Introduction

The notion of 'becoming green' is gaining popularity, as depicted in the 2012 survey by National Geographic, where 56% of the people described themselves as green (Gershoff and Frels, 2015). As a result, green products have increased across markets in recent times (Liu et al., 2012). Green products can be defined as those products that are are more ecological than their alternatives, for example using recycled materials, (Ottman, 1998; Chowdhury and Samuel, 2014) or Kwon et al., (2016, p. 815) state "green products reduce the use of natural resources and toxic materials as well as the emissions of waste and pollutants in their use and disposal". Firms increasingly receive benefits from green products in the marketplace (Lin and Chang, 2012). Along with the surge of green products in the market, there has been a parallel focus on green marketing, as consumers have been responding to brands that promote environmental responsibility (Olsen et al., 2014; Bailey et al., 2016). Yet, some research show that consumers are still reluctant to buy green products primarily because of the perceived inferiority of these products (Olson, 2013); the premium prices of green products over traditional products (Moser, 2015); the past exaggeration of firms concerning their environmental performance (Kalafatis et al., 1999; Olson, 2013) or due to uncertainty arising from having to adopt products which might not be in congruence with their current knowledge structure (Majid and Russell, 2015).

Various brands have resorted to the use of third-party ratings and eco-seals from independent organisations (e.g. government agencies, environmental standards agencies etc.) in a bid to communicate the greenness of their brand (Ottman et al., 2006). However, since there are a number of labels and product information, consumers become confused about which ratings to trust and therefore become even more sceptical about use of brands that claim to be green (Kwon et al., 2016). Moreover, compared to traditional products customers are not always as familiar with green products, and the decision making process can be influenced heavily against green brands especially when it is a first time purchase (Schiffman et al., 2013). As a result, even the brands that communicate relevant and sufficiently detailed information regarding the benefits of green products (Hartmann and Apaolaza-Ibáñez, 2012), are finding it difficult to reach out to consumers when confronted with growing scepticism and uncertainty. Consumers are aware of greenwashing or the practice of using vague, unsubstantiated and misleading environmental claims by companies (Fernando et al., 2014), that they see eco-seals and third-party ratings with greater doubt than ever before. Some people are also highly critical about use of green products. Building green brand trust is important as it influences not only customers' buy

behaviour but also marketers who attempt to achieve the superior performance of the brand.

Environmentally conscious consumers are more likely to search for unique brands that carry their environmental values and address their green needs (Griskevicius et al., 2010). However, it is still unclear what factors play major roles in the decision-making of environmentally conscious customers (Moser, 2015). Some of the reasons outlined above (for example, green washing) might also hold true with environmentally conscious consumers. In the light of various issues, the fundamental question that remains is how can brands that sell green products gain trust from consumers?

Prior research suggested that once consumers generate a sense of benefit from using green products, they will continue to generate a sense of resistance towards such products (Luchs et al., 2010). Customers rely on brand's quality and potential benefits to infer their brand satisfaction. Moreover, brand satisfaction and brand trust are important in developing brand-customer relationships (Ha and Perks, 2005; Zboja and Voorhees, 2006). In other words, customers establish relationships with green brands by considering their brand quality, brand performance, brand satisfaction and brand trust. Therefore, it is necessary to further examine the relationships among these factors in order to address the research gap identified above.

Using the context of consumables, particularly several tissue brands, which meet the operational definition of green products and are marketed as such (i.e. they are biodegradable, made from recycled products, and are non-toxic), this paper attempts to examine (1) how perceived green brand quality and perceived performance enhance green brand satisfaction and green brand trust and (2) how green brand satisfaction plays a role to positively link perceived green brand quality and performance with green brand trust.

The remainder of this paper is organised as follows. In Section 2, we reviewed the literature pertinent to the factors which we are considering in this study and developed the research hypothesis. We then presented the methods in Section 3, and demonstrated the analysis and corresponding results in Section 4. Finally, Section 5 presents our findings, the implications of this study for managers and practitioners, the limitations of this research and the conclusion.

**Theoretical Background and Hypothesis Development**
**The effect of perceived green brand quality on green brand trust**

Brand trust can be defined as the willingness of the consumer to rely on the brand in which they have confidence in (Moorman et al., 1993). Brand trust is a culmination of psychological connection between the consumer and the manufacturer, whereby, the consumer believes in the brand's capability to communicate their identity (Xie et al., 2015). Green brand trust is the willingness of a consumer to depend on a brand based on the belief or expectation resulting from its credibility, benevolence and ability about its environmental performance (Chen, 2010). Brand trust plays an instrumental role, especially, with the marketing of green products for several reasons. First, in the relationship-marketing literature, trust has been viewed as a determinant of loyalty and brand attractiveness, especially, because trust plays a crucial role in fostering long-term relationships between customers and brands (Viktoria Rampl and Kenning, 2014; Jin et al., 2013). Green brands that secure trust from their consumers will benefit from long-term relationships as consumers will be inclined to buy their products because of the trust that they will have developed. Second, trust is consistently related to vulnerability and serves as an economising tool to reduce complexity and uncertainty (Sanchez-Franco, 2009). Compared to traditional products, customers are faced with uncertainty when it comes to accepting green products, given their novelty. If green brands are able to secure trust from their consumers, they will be able to alleviate concerns of uncertainty arising from having to adopt their relatively 'new' product compared to the traditional alternative. Third, trust in a brand can cause positive behavioural consequences (Luk and Yip, 2008; Limbu et al., 2012). Green brands that can secure trust from their customers will be rewarded with repeated purchases, which is a positive behavioural consequence.

Perceived brand quality can be defined as the customer's evaluation of the superiority or excellence of a brand with regards to its intended objectives (Parasuraman et al., 1988; Ng et al., 2014) and represents an influential driver of consumers initial identification with a brand (Lam et al., 2013). When customers perceive superior brand quality, excellent brand reputation and positive brand image are generated (Fisk et al., 2011). Perceived green brand quality also enhances green brand trust through several ways. Customers believe that green brands are less effective that traditional products and will therefore, have to consume greater quantities to obtain the same effect arising from the use of non-green products (Lin and Chang, 2012). However, if the perceived quality of green products, are similar or better than traditional products, consumers begin to form trust

in the brand and ultimately it affects their intention to purchase (Tseng and Hung, 2013; Chen and Chang, 2013b). Further, a brand which is known and linked with superior quality tends to build a positive mental image which in turn influences customer attitude towards the brand (Müge Arslan and Korkut Altuna, 2010). This positive mental image leads to a psychological relationship with the brand, and culminates in brand trust as aforementioned. Moreover, perceived quality also influences customer's willingness to pay a premium price (Pappu and Quester, 2008) for green products which are generally more expensive compared to traditional products (Gleim et al., 2013). This willingness to pay a premium price arises out of the trust that they will have built with the brand's offerings. Based on these arguments, we develop our first hypothesis.

**H1a: Perceived green brand quality is positively associated with green brand trust.**
**The effects of perceived performance on green brand trust**
Perceived performance can be defined as the customer's predictions of the nature and level of performance that they will received from a product (Woodruff et al., 1983; Churchill Jr and Surprenant, 1982). The expectation of persistently competent performance from an exchange partner in a buyer-seller relationship has been established as an antecedent to development of trust in existing literature (Sirdeshmukh et al., 2002; Smith and Barclay, 1997; Mayer et al., 1995; Dowell et al., 2015; Ha et al., 2016). Perceived performance of a product enhances brand trust due to various reasons. First, a product that performs at the level or above the expected level of performance will result in positive confidence in the brand whilst performance below expectations will result in negative confidence (Selnes, 1993; Fernandes and Neves, 2014). A positive confidence in the brand's offerings leads to establishment of trust in the brand and trust in a brand can lead to repeated purchase of that brand (Chumpitaz Caceres and Paparoidamis, 2007; Badrinarayanan et al., 2012).Second, improved environmental performance and process innovations that increase material efficiency will increase customer demand, whereas, innovations that do not increase efficiency will face reduced customer demand (Pekovic et al., 2016). Consumers who perceive greater environmental performance from a green brand will form a psychological relationship with that brand as that particular brand will not only fulfil their existing demand but also reduce their uncertainty which results in formation of brand trust. Third, the performance of green products has been inferior compared to non-green products in the past (Ottman, 1992; Pickett-Baker and Ozaki, 2008). In the past, brands have also been accused of greenwashing, or marketing through use of "vague, unsubstantiated and potentially misleading environmental claims" (Fernando et al., 2014,

p. 167). These greenwashing claims have caused people to become more conscious about the performance of green products. Consumers switch to non-green alternatives because of the trade-offs that green products force on their users in terms of higher prices, lower quality and/or reduced performance (Olson, 2013). Focusing on the performance of products will help brands combat greenwashing claims, as they will build trust over time from the customers once they start meeting their performance expectations. Based on these arguments, we build our second hypothesis:

**H1b: Perceived performance is positively associated with green brand trust.**
**The mediating effect of green brand satisfaction**

Brand satisfaction is a complex concept which comes about from the psychological and emotional result of individual experiences (Lin, 2015). In other words, it refers to the customer's affective state resulting from an overall appraisal of their experience (Verhoef et al., 2002). Brand trust is defined as "a confident, positive and reliable experience regarding a particular brand" (Han and Sung, 2008, p. 809). It also refers to confidence in an exchange partner's reliability and integrity (Crosby et al., 1990; Wulf et al., 2001; Tracey and Timothy, 2010). Trust encapsulates the belief that a seller will stand by their word and fulfil their promised role obligations (Dwyer et al., 1987; Anderson and Narus, 1990; Tracey and Timothy, 2010). Trust is a prerequisite for brands that seek to maintain a longer-term relationship with their consumers, and enhance their competitive advantage simultaneously (Delgado-Ballester and Luis Munuera-Alemán, 2005). The ultimate goal of marketing is to generate an intense bond between consumer and the brand of which trust is a key factor (Hegner and Jevons, 2016).

As environmental consciousness is more prevalent nowadays (Yu-Shan and Ching-Hsun, 2012), the notion of green marketing has been widely accepted by scholars and practitioners alike (Chen and Chang, 2013a). Consumers develop their willingness to depend on the brand based on the belief or expectation resulting from its credibility, benevolence and ability about its environmental performance (Chen, 2010). When a customer's environmental desires, sustainable expectations and green needs are fulfilled, its leads to a pleasurable level of consumption-related fulfilment (Chen, 2010) or pleasurable psychological and emotional result. Consistent with the definition, as aforementioned, brand satisfaction is then the ultimate result arising out of such experience. Improving customer satisfaction has become a top priority for many brands today and has been a key issue especially in relationship marketing literature (Burger and Cann, 1995; Rese, 2003).

Expectancy/disconfirmation paradigm in process theory (Oliver, 1977; Oliver, 1980), provides the foundation for a majority of satisfaction studies and encompasses four major constructs namely expectations, performance, disconfirmation and satisfaction. A disconfirmation arises when the perceived expectations are not met by the actual product or when there is a discrepancy between prior expectations and actual performance (Tse and Wilton, 1988). When prior expectations of customers are met by the actual performance of the product, this results in satisfaction. Scholars have established that satisfaction has a positive effect on trust based on the rationale that previous satisfying experience becomes a source of trust (for example see Johnson and Grayson, 2005; Selnes, 1998; Román, 2003; Dodds et al., 1991). Consumers are willing to pay for a specific brand as they perceive some unique value in the brand where the uniqueness is derived from greater trust in the reliability or from favourable effects arising from use of the brand (Chaudhuri and Holbrook, 2001). Extant literature echoes the notion that previous brand experiences contribute to customer's brand satisfaction (for example see Brakus et al., 2009; Iglesias et al., 2011).

Based on the idea that customer satisfaction represents a function of expectations and perceived product attributes (Marinkovic et al., 2014) and since perceived performance and perceived brand quality both contribute to brand experiences according to extant literature, we hypothesise that brand satisfaction will mediate the relationship between perceived performance, perceived brand quality and trust. We develop our second hypothesis accordingly and present a conceptual model as follows:

H2: Green brand satisfaction mediates the relationship of (a) perceived green brand quality and (b) perceived brand performance with green brand trust

## Figure 1: A conceptual model showing paths to achieving green brand trust.
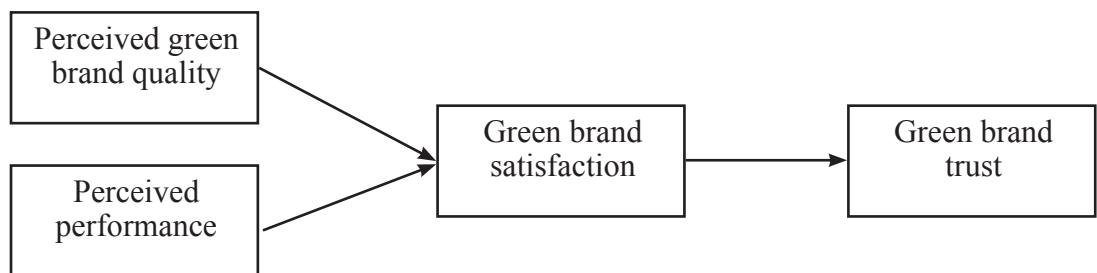
## Methods

### Sample and data collection

To test our hypotheses, we collected data by a questionnaire survey with customers who were randomly observed buying green tissue products in shopping centres in Hong Kong. We selected tissue products because they meet the criteria of green product as they are biodegradable and are not harmful to the people and the planet (SCPA, 2016; Cronin et al., 2011). The questionnaires were developed and refined on the basis of several steps which included pretesting and testing (Gerbing and Anderson, 1988). The questionnaire was drafted in English based on the literature review. This was then translated into Chinese for pre-tests. We then conducted interviews with 16 customers. Based on the results of interviews, we revised the questionnaire and carried out a back-translation procedure to ensure the conceptual equivalence of the English and the Chines versions. Data was collected by personally administrating to potential participants in shopping centres in Hong Kong.  The individuals were given a brief introduction of the research purpose. Above 60% of contacted individuals agreed to participate in the survey. The final usable sample was 108 customers. Table 1 shows the demographics of our respondents.

**Tebale 1**
**Demographics of the respondents**

| Demographics | Number of responses | Percentage of  responses (%) | |
|---|---|---|---|
| Gender | Male | 53 | 49.1 |
|  | Female | 55 | 50.9 |
| Age | 18-29 years old | 26 | 24.1 |
|  | 30-39 years old | 19 | 17.6 |
|  | 40-49 years old | 21 | 19.4 |
|  | 50-59 years old | 19 | 17.6 |
|  | >60 years old | 23 | 21.3 |
| Education | Primary level | 17 | 15.7 |
|  | High School level | 50 | 46.3 |
|  | Diploma/Higher Diploma level | 7 | 6.5 |
|  | Associates degree | 5 | 4.6 |
|  | Bachelor degree | 14 | 13 |
|  | Postgraduate | 15 | 13.9 |
| Occupation | Student | 28 | 25.9 |
|  | Blue collar worker | 10 | 9.3 |

| | | | |
|---|---|---:|---:|
| | White collar worker | 39 | 36.1 |
| | Managerial level | 29 | 26.9 |
| | Housewife | 1 | 0.9 |
| | Unemployed | 1 | 0.9 |
| Income | <$6333 | 37 | 34.3 |
| | $6333-$10000 | 38 | 35.2 |
| | $10000-$25000 | 15 | 13.9 |
| | $25000-$50000 | 12 | 11.1 |
| | >$50000 | 6 | 5.6 |

**Measures**

Green brand trust refers to the willingness of a customer to buy a product of a brand that they have confidence in. Drawing on prior research (Ha and Perks, 2005; Sirdeshmukh et al., 2002), as shown in Table 2, we measured green brand trust with five items on a 7-point Likert scale ranging from 1 = "strongly disagree" to 7 = "strongly agree" (α=0.90). This scale captures the extent to which the customers trust the brand of the products they are buying.

**Table 2**
**Measurement items and validity assessment**

| Construct with underlying items | Standardised Factor Loadings |
|---|---:|
| **Green brand trust (Cronbach's α= 0.90, CR=0.89, AVE=0.62, MSV=0.51, ASV=0.37)** | |
| The company of the brand I am evaluating is dependable. | 0.74 |
| The company of the brand I am evaluating is honest. | 0.68 |
| I rely on the company of the brand I am evaluating. | 0.75 |
| The company of the brand I am evaluating is a safe company with which to conduct business. | 0.90 |
| I consider the company of the brand I am evaluating to be generally trustworthy. | 0.86 |
| **Perceived green brand quality (Cronbach's α= 0.85, CR=0.84, AVE=0.57, MSV=0.38, ASV=0.27)** | |

| | |
|---|---|
| I expect certain superior performance from my favourite brand of tissue. | 0.63 |
| I expect trouble-free performance from my favourite brand. | 0.72 |
| I have positive personal feelings towards my favourite brand. | 0.82 |
| After using the brand that I like for the first time, I have grown fond of it. | 0.85 |

**Perceived performance (Cronbach's α=0.90 , CR=0.91, AVE=0.71, MSV=0.37, ASV=0.31)**

| | |
|---|---|
| I believe that the brand I like performs better than competing brands in market development. | 0.83 |
| I believe that the brand I like performs better than competing brands in attracting customers. | 0.90 |
| I believe that the brand I like performs better than competing brands in market share. | 0.91 |
| I believe that the brand I like performs better than competing brands in profitability. | 0.72 |

**Green brand satisfaction (Cronbach's α=0.85 , CR=0.87, AVE=0.67, MSV=0.51, ASV=0.41)**

| | |
|---|---|
| The brand is exactly what I need | 0.73 |
| Using the brand has been good experience | 0.85 |
| I am satisfied with my decision to buy this brand | 0.86 |

Perceived green brand quality refers to the customer's evaluation surrounding the excellence of a brand in terms of quality. We drew on prior research (Smit et al., 2007; Chaudhuri and Holbrook, 2001) and measured perceived green brand quality with four items on a 7-point Likert scale (α= 0.85), shown in Table 2. Our scale captures the extent to which the customers perceive the quality in the brand that they are buying.

Perceived performance refers to the level of performance that customers expect from a brand. We drew on prior research (O'Cass and Ngo, 2007) and measured perceived performance, as shown in Table 2, with four items on a 7 point Likert scale (α= 0.90). The scale that we use captures the extent to which the customers perceive the level of performance of the brand that they are buying.

Similarly, green brand satisfaction refers to the positive overall experience of the brand that the customers buy. We drew on prior literature (Bennett, Härtel, and McColl-Kennedy, 2005), and measured brand satisfaction with three measures on a 7 point Likert scale (α= 0.85). Our scale captures the extent to which customers are satisfied with the brand of the products that they are buying.

**Reliability and Validity**

We conducted reliability and validity analysis for all of the measures that were used to test our hypotheses. Reliability was assessed with Cronbach's alphas and composite reliabilities (CRs). The results in Table 2 show that the Cronbach alphas for each construct ranged from 0.85 to 0.90 and the CRs ranged from 0.84 to 0.91, indicating adequate reliability.

We tested validity with confirmatory factor analysis (CFA). The results show that the CFA of a four-construct model has a good fit with the data ($\chi^2$=117.293, $\chi^2$/df =1.197, CFI=0.982, IFI=0.983, TLI=0.978, RMSEA=0.043). Moreover, all the items load significantly ($p < 0.001$) on their corresponding construct with acceptable values of standardised factor loadings (0.63-0.91) and the average variance extracted (AVE) values (0.57-0.71) were all above the 0.5 cut-off (Fornell and Larcker, 1981). These results provide evidence for convergent validity. The results in Table 1 also show discriminant validity using MSV and AVE values, where MSV < AVE and ASV < AVE. Moreover, the square root of AVEs in Table 2 was also found to be greater than inter-constructs relations providing further evidence for discriminant validity (Fornell and Larcker, 1981).

**Results**

Table 3 presents descriptive statistics and correlations for the major variables. As expected, perceived green brand quality was found to be positively correlated with green brand satisfaction (r = 0.577, p <0.001) and green brand trust (r =0.489, p <0.001). Similarly, correlations of perceived performance with green brand satisfaction (r =0.535, p<0.001) and green brand trust (r =0.509, p<0.001) were also significantly positive.

**Table 3**

**Descriptive statistics and correlations**

|  | Mean | Std Dev | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|---|
| 1. Green brand trust | 4.522 | 0.792 | **0.787** |  |  |  |
| 2. Perceived green brand quality | 4.593 | 0.890 | 0.489*** | **0.755** |  |  |

| | | | | | |
|---|---|---|---|---|---|
| 3. Perceived performance | 4.660 | 0.851 | 0.509*** | 0.365*** | **0.843** |
| 4. Green brand satisfaction | 4.787 | 0.911 | 0.652*** | 0.577*** | 0.535*** | **0.819** |

Significance levels: † p<0.10; *p <0.05; ** p<0.01, *** p<0.001
The bold numbers on the diagonal represent the square root of AVEs.

Hypothesis 1a predicts that perceived green brand quality positively affects green brand trust. Figure 2 (a) shows the direct relationship between perceived green brand quality and green brand trust. The results show that perceived green brand quality is significantly and positively related to green brand trust ($\beta$=0.467, p<0.001). Thus, hypothesis 1a is supported.

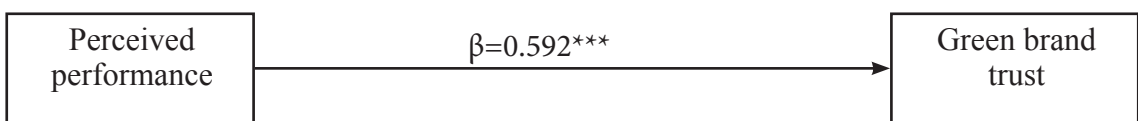## Figure 2: Results of direct and indirect effects for mediation.
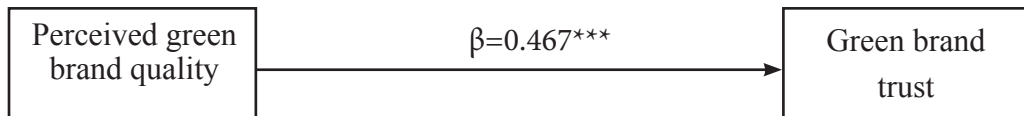


a: The direct effect of perceived green brand quality on brand trust.
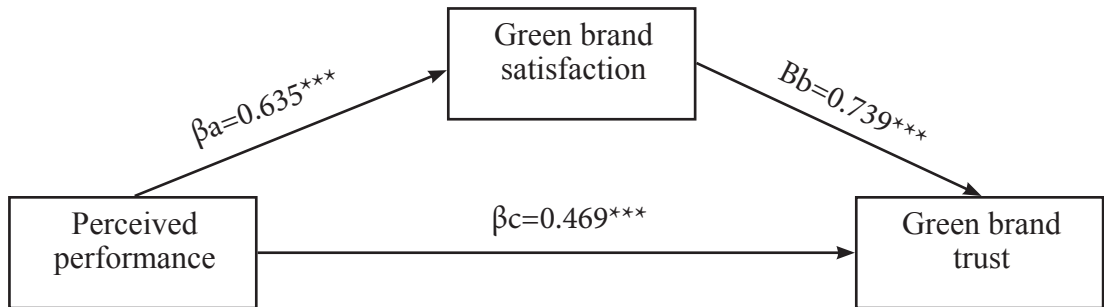Significance levels: †p<0.10; *p <0.05; ** p<0.01, *** p<0.001
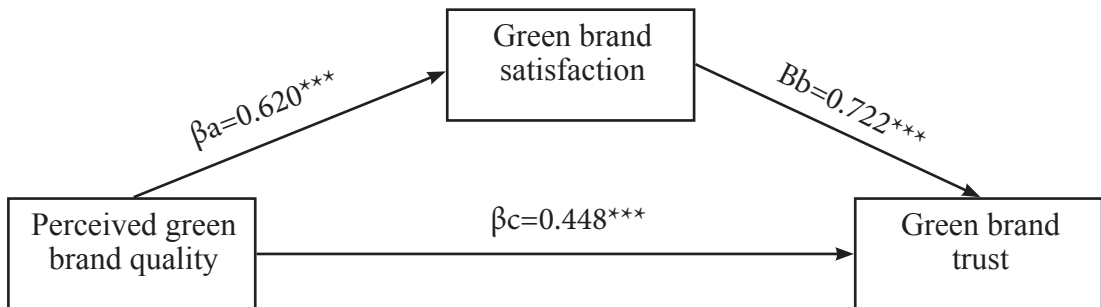


b: Path coefficients for the relationship of perceived green brand quality, green brand satisfaction and green brand trust. The mediated effect of green brand satisfaction on the relationship of perceived green brand quality with green brand trust is represented by $\beta$c.
Significance levels: †p<0.10; *p <0.05; ** p<0.01, *** p<0.001

c: The direct effect of perceived performance on green brand trust.

Significance levels: †p<0.10; *p <0.05; ** p<0.01, *** p<0.001



d: Path coefficients for the relationship of perceived performance, green brand satisfaction and green brand trust. The mediated effect of green brand satisfaction on the relationship of perceived green brand quality with green brand trust is represented by βc.

Significance levels: †p<0.10; *p <0.05; ** p<0.01, *** p<0.001

Similarly, Hypothesis 1b predicts that perceived performance positively affects green brand trust. The results in Figure 2(c) show that perceived performance is significantly and positively related to green brand trust (β=0.592, p<0.001). Thus, hypothesis 1b is supported.

Hypothesis 2 predicts that green brand satisfaction mediates the relationship of perceived green brand quality and perceived performance with green brand trust.. The results in Table 4 show that the indirect effects of perceived green brand quality and perceived performance on green brand trust are 0.580 and 0.566 respectively.  Moreover, the results of Sobel, (1982)'s z-test suggest that the indirect effects of both perceived green brand quality (z=2.654, p<0.01) and perceived performance(z=3.070, p<0.01) with green brand trust are significant and the 95% bootstrapped confidence intervals for these two indirect effects also did not contain zero(for perceived green brand quality: LCI=0.298, UCI= 0.977; for perceived performance: LCI=0.282, UCI=0.809). These results confirm that green brand satisfaction is a mediator on the relationships of perceived green brand quality and perceived performance with green brand trust. On the other hand, the results in Figure 2b and 2d demonstrate that the direct relationships of perceived green brand quality (β=0.467, p<0.001) and perceived performance (β=0.592, p<0.001) with green brand trust are still significant when controlling for grand brand satisfaction suggesting that green brand satisfaction is a partial mediator in the relationships of perceived green brand quality and perceived performance with green brand trust. Thus, Hypothesis 2 is supported.

**Table 4**
**Results of Sobel and Bootstrapping for mediation effect**

|  |  | Unstandardized value | LCI 95% | UCI 95% | Z |
|---|---|---|---|---|---|
| Indirect effect | Perceived green brand quality | 0.580 | 0.298 | 0.977 | 2.654** |
|  | Perceived Performance | 0.566 | 0.282 | 0.809 | 3.070** |

LCI = Lower confidence interval. UCI=Upper confidence Interval
Significance levels: †p<0.10; *p <0.05; ** p<0.01, *** p<0.001

**Discussion and Conclusion**

Green marketing is becoming one of the trends for companies. The main challenge for green brands is to raise green trust while huge scepticism surrounding their environmental performance still exists. The purpose of this research is to investigate how brand trust can be built for green products. While a body of research has examined branding issues, there has been a lack of research in the context of green products. This research developed a conceptual framework to fill this research gap by investigating the direct and indirect effects of perceived green brand quality, perceived performance and green brand satisfaction on green brand trust.

Our findings suggest that both perceived green brand quality and performance positively contribute to green brand trust. In other words, our findings provide evidence that if customers perceive a green brand as high quality and better performance; they lead to trust in the green brand. Based on the findings, firms should develop necessary capabilities to increase green brand's quality and performance to establish green brand trust. Furthermore, our results also show that grand brand satisfaction partially mediates the relationships of perceived green brand quality and performance with green brand trust. This interesting finding suggests that perceived green brand quality and performance and green brand satisfaction are complementary in building green brand trust. While they, in and of themselves, contribute significantly to green brand trust respectively, they often work in conjunction with each other to generate a beneficial combination for building green brand trust. Therefore, firms are advised to first focus on increasing green brand quality and performance, and then increase customers' satisfaction with the green brand, which in turn builds green brand trust.

This research has some limitations that need for future research. First, our research

captured the value of green brand satisfaction in linking perceived green brand quality and performance with green brand trust. However, some other factors such as brand image are also important in green marketing, Future research should incorporate different mechanisms to examine their uniqueness and similarity when reacting to the effects of green brand quality and performance. Second, our research only investigated green tissues buyers. Future research may benefit from testing the conceptual framework developed in this research with different green products buyers. Third, the use of cross sectional data precludes the test of dynamic change of green brand quality, performance, green brand satisfaction and green brand trust. Future research could conduct longitudinal studies to further explore the causal and dynamic relationships between green brand quality, performance, satisfaction and trust. Finally, the current research is based on perception-based constructs to measure perceived green brand quality, perceived performance, green brand satisfaction and green brand trust. Although we conducted an appropriate analysis to assess the validity of these measurements, future research may incorporate alternative measures based on objective data (such as continuous measures) to examine if the findings generated by the current research still hold.

In conclusion, this research contributes to the green marketing literature by extending prior research towards investigation on mechanisms for building green brand trust. Our findings suggest that both perceived green brand quality and performance are important contributors to green brand trust. Moreover, green brand satisfaction serves as an important mechanism to effectively link green brand quality and performance with customers' trust in green brand. These findings help us better understand of how customers' trust in green brand is developed through green brand quality, performance and green brand satisfaction.

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