

Consumer Behavior towards Green Products

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Abstract—Due to the rise of environmental consciousness, consumers tend to pay more attention to the safety of personal care items and the products with an environmental benefit. Over the past years, both consumer awareness and consumer attitudes toward sustainable, or "green," brands have increased significantly. However, consumers' action isn't aligning with their intent. Furthermore, the influential factors of purchase intention for green products have rarely been discussed in prior researches. The aims of this study were to explore how brand knowledge influences consumers' perceptions and brand evaluation, and to identify the relative importance of different product features used by consumers when evaluating and choosing cosmetic brands.

A survey has been conducted and 568 validated responses were collected. This research has revealed that brand knowledge is positively related to perceived quality. As expected, the results showed that there was a connection between perceived quality and purchase intention. Perceived quality acts as a linkage between brand knowledge and purchase intention. The country of origin conditionally moderates the relationships between brand knowledge and perceived quality. The results of current research have provided an insight into consumers' perception and offer a more comprehensive understanding of the effect of brand knowledge on consumer attitudes towards green skincare products and product evaluation.

Index Terms—Brand knowledge, country of origin, green products, perceived quality, purchase intention.

I. INTRODUCTION

In recent years, consumers tend to pay more attention to safe cosmetics and the products that are environmentally and socially responsible. Many cosmetic brands have also introduced environmental friendly products, for example: American brand Aveda and British brand Body shop. Rising of environmental consciousness and green consumption trends have pointed to a critical need for consumer research for this emerging market. The studies discussed the issue of consumers' eco-friendly product consumption of have gained more attentions [1], [2]. Even as thinking "green" is increasingly at the forefront of consumers' minds, they still struggle with their role in the lifecycle of products with an environmental benefit. Moreover, consumers seem to have limited capability to verify the liability of green products. Branding enable consumers to judge product quality and trace back to the manufacturers who should be responsible for the products [3]. Therefore, environmental concern and brand knowledge are likely to be both two critical factors that influence consumers' green products purchasing intention [4].

Despite consumers have expressed their concerns for the

global environment and the continued growth of the sales of green products, the market share of green products is still very small [5]. Previous studies have suggested that the relationship between "green" attitudes and environmentally oriented behavior is rather weak [6]. Though consumers express their concern towards the environment; this does not necessarily translate into green purchases. Consumers continued to embrace sustainable alternatives to traditional consumption. There seems having a gap between consumers' attitude and their behavior toward green products. The cosmetic brands and manufactures face a challenging task to develop segmentation and targeting strategies [7]. As a result, it is critical to examine the factors that influence consumers' product evaluation and purchasing decision process [8].

In general, consumers tend to purchase their favorable and familiar brand [9]. The power and value of a brand depends on the brand knowledge that being formed and perceived in consumers' mind. Furthermore, [10] pointed out that the country of origin is an important cue for consumers to evaluate unfamiliar products. Prior studies suggested that country of origin affects consumers' product evaluation and quality perceptions [11], [12]. Parts of consumers' brand knowledge are derived from the countries where the products were manufactured, design or other brand-related characteristics. However, some studies argued that country of origin were not the main factor for consumers' evaluations [13]. In fact, in an increasingly borderless world, the country of origin is suggested as an insignificant factor to explain consumers' product evaluations [4].

Most studies in brand knowledge have been focused on brand image [14], [15] and brand awareness [16]-[18]. Brand image is related to what consumers think and feel about a brand, and brand awareness is regarding to how consumers recognize a brand [19]. In Fact, brand image and brand awareness are two different concepts of marketing, and only a few empirical studies have used both of them together to investigate consumers' perceived quality and purchasing intention. Secondly, the empirical evidences show the inconsistency between consumers' brand knowledge and their purchasing behavior of green products. The approach to quantify consumers' perceived quality of green products is not yet provided [20]. Finally, contradictory findings among prior researches concerning the influence of country image on perceived quality need to be clarified.

The purpose of this study is to determine the factors that influence consumers' attitudes and purchasing behavior toward green cosmetic products in Taiwan. The findings of this research attempt to contribute knowledge to the development of marketing studies concerning consumers' perception of green products and brand evaluations. It is also expected to help the marketers who are targeting the green market to elaborate their strategies.

Manuscript received February 15, 2017; revised April 25, 2017.

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II. LITERATURE REVIEW

A. Green Products

In general, green product is designed or manufactured in a manner as to minimize the environmental impact involved in its production, distribution and consumption [21]. This could involve the use of recyclable materials, biodegradable elements and components [22], [23].

In fact, there are several characteristics that a product must have to be regarded as a "green" product [20]. Numerous criteria are presented below:

- Easily reused
- Made using natural and/or renewable resources
- Contains recycled content
- Readily recycled
- Biodegradable
- Energy efficient
- Durable with low maintenance requirements

To conclude, green products can be described as the products with less impact on the environment and less detrimental to human health than their alternatives [24]. The growing public awareness of the environmental degradation that has resulted in the operation of green marketing or environmentally-responsible practice for the firms in some industries. Some businesses engage in green marketing because such an emphasis will enable them to make a profit.

B. Brand Knowledge

Branding is one of the most important aspects of any business, the process involved in creating a unique name and image for a product in consumers' mind. [25] stated the influence of brand name on consumers' perceived quality. Brand knowledge can be defined as all the descriptive and evaluative brand-related information stored in consumers' memories [26], [27] suggested that brand knowledge is composed of both brand image and brand awareness that affect consumers' response to marketing activities. [28] have conducted these two dimensions to evaluate brand knowledge. Accordingly, this study follows the two dimensions concept to investigate brand knowledge.

C. Brand Image

Brand image is defined as the subjective impression in the consumers' mind about a brand [9]. Brand image reflects consumers' perception about a brand and the manner in which a specific brand is positioned in the market [29], [30]. Prior research argued that there are three dimensions of brand image, including functional, symbolic, and experiential components [30].

A brand image can help the company to target efficiently their potential consumers in a marketplace. For example, two similar products in terms of quality and style can appeal to two completely different segments, if these two brand images are dissimilar [31], [32]. Consumers' brand preferences tend to stem unconsciously from their emotional associations such as beliefs, values and feelings that related to the brand [33]. Furthermore, limited studies have emphasized the role of brand image in consumer decision-making [23].

D. Brand Awareness

Brand awareness refers to the extent to which a brand is recognized by potential consumers, and is correctly

associated with a particular product [26]. Brand awareness can be depicted into two facets –brand recall and brand recognition [19]. In fact, brand recall is a measure of how well a brand name is connected with a product type or class of products by consumers. Brand recognition is related to how the public can identify the company through visual cues or other brand attributes—logos, symbols, characters, slogans, and packaging under different conditions [17].

Brand awareness can influence consumers' perceived risk assessment and their confidence in the purchasing decision, due to familiarity with the brand and its characteristics. Consumers show a strong tendency to use brand awareness as a heuristic for a common or repeat purchase [34]. In summary, brand awareness has an effect on consumer decision process.

E. Country of Origin

Country of origin, also known as the made-in image, identifies how consumers evaluate the country where the product was manufactured or designed. [10] suggested that country of origin is consumers' perception of products from a particular country. This is a psychological effect regarding how consumers' attitudes, perceptions and purchasing decisions are influenced by products' country of origin labeling.

Over the past few decades, companies in search of new growth opportunities expanded beyond their borders to find a world of new consumers eager to try their brands. Today consumers are exposed to a large variation of imported products more than ever before, and country of origin can be an important extrinsic cue that affects consumers' judgments [35]. The brand originated from a country with favorable image is easier to be accepted by consumers than that a country with an unfavorable image [12], [36]. Therefore, this study infers that country of origin is an important factor for consumers' evaluation of a specific brand.

F. Perceived Quality

Perceived quality plays an important role in consumers' purchasing decision and brand loyalty [25], [29]. Consequently, consumers will compare the quality of alternatives with regard to price within a category [37], [38] defined perceived quality as the consumer's judgment on the consistency of product specification. Perceived quality is related to consumer's subjective judgments about the superiority of a product [39], [40]. Overall, consumers evaluate product quality based on their previous experiences and expectation [9]. Perceived quality may have little or nothing to do with the actual overall quality or superiority of a product, and is generally based on the basis of a variety of informational cues that they associate with the product [41].

G. Purchasing Intension

Purchasing intention refers to the willingness of a customer to buy a product or a service [42]. Consumers conduct a process of information search based on their prior experience and alternative choices, and they legitimate purchase intention if the product choice reaches a certain level [43]. Purchasing intention is considered as an important indicator to explain consumer purchasing behavior [44]. Furthermore, the purchasing intention can be translated into green purchasing behavior when the consumers believe that their effort on consumption of green products do bring

positive effect [39]. Availability and green price premiums probably are two most important factors preventing a greater take-up of green merchandise in stores. Consumers' purchasing decision of green product is largely based on their environmental concerns, values, and interests [4], [24]. This study hypothesized that consumers' purchase intention of green product tend to be deliberate, rational, and sequential in the process of decision-making.

H. The Relationships among Brand Image, Perceived Quality and Purchase Intention

It is general agree that brand image has an impact on consumer trust and result in differentially perceived quality [29]. A strong brand image can enhance consumers' evaluation of a product [45], [46] described brand image is a set of brand association. Brand association is the image of the brand comes from the perception of consumers about the brand that links in the memory of consumers [47].

Moreover, prior research argued consumers are more likely to purchase eco-friendly products because of environmental and social benefits, and are willing to pay more for sustainable products [2]. Consumers who have higher environmental concerns are more interested in green products and consider the relevant brands as excellent in quality [48]. Thus, this study infers that a brand with environmental-friendly image will enhance its perceived quality of products. The hypotheses are formed as follow:

H1: Green products' brand image is positively related to perceived quality.

As consumers have become increasingly aware of environmental concerns, they have more intention to purchase green products [2], [48]. Brand image refers to consumer's general perception and feeling about a brand and has an influence on consumers' product evaluation [49]. Brand image may affect customers' perceived quality and has an impact on customers' purchasing intention [29], [50]. Consumers tend to exhibit higher purchase intention toward the products with powerful brand image [6], [43]. Accordingly, an hypotheses is developed as follow:

H2: Green products' brand image is positively related to purchase intention.

I. The Relationships among Brand Awareness, Perceived Quality and Purchase Intention

Brand awareness enables consumers to identify the product category in which a brand competes within [19]. A well-known brand name is suggested to enhance consumers' evaluation on its product reliability [34]. Moreover, a product with strong brand awareness receives higher consumer preferences by reason of its higher quality evaluation [39], [50]. The growing consumer awareness of the environmental issue has changed consumption patterns towards sustainable products and services.

Green brand awareness is defined as "the ability for a buyer to recognize and to recall that a brand is environmental friendly". When consumers are aware that a company is environmentally-and socially-conscious, they are more likely to try that company's products or services, and rated its products as higher quality [20]. Prior research argued that brand awareness has a positive influence on perceived quality [9], [50]. Over the past few years, there have been many

eco-labels launched by governments, manufacturers and retailers. In fact, consumers indicate that they are more likely to make eco-friendly purchasing decisions if the eco-labels are also widely recognized and trusted brands in of themselves [49]. This leads to the hypothesis saying that:

H3: Green product's brand awareness is positively related to perceived quality.

Brand image is the meaning behind company's name, logo, symbols and slogans. Having a unique and memorable brand helps a company to build brand awareness and create a long-term position in the marketplace. Brand awareness is a measure of how well a brand is known within its target markets.

A brand with higher brand awareness will be the first brand name being recalled, and has a distinct advantage over others competitors, as it has the first chance of evaluation for purchase by the consumers. This is because brand awareness is generally suggested to affect perceived quality. [34]. Brand awareness are being accumulated in consumers' mind and influence their purchasing decision [43]. Prior research argued that brand awareness is positively related to consumers' preferences and purchasing intention [50]. Green marketing can help companies in increasing brand awareness and building positive image in the minds of the consumers [1]. Consumers who have environmental concerns, their purchasing decision is positively affected by green product, and brand image awareness [51]. From that, the hypothesis is:

H4: Green product's brand awareness is positively related to purchasing intention

J. The Relationships among Brand Knowledge, Perceived Quality and Country of Origin

Developed nations (e.g. USA, England, and Germany) generally enjoy a favourable and positive product or brand evaluation with respect to country of origin, [52]. Many studies suggested that the country of origin cue has an affect on brand evaluation [53], [54] and perceived quality [12], [55]. Even through many consumers appear to have strong preferences about the origin of the products they buy. Some researches indicated that country of origin cue has no significant impact on product evaluations for the well-known brands [13].

The consumers are confronted with budget constraints which may lead to limit expenditure, particularly on green product consumption [49]. Consumers evaluate the quality of a product based on its country of origin when they are unfamiliar with the functions of product [11]. Therefore, for the green products with superior brand image or brand awareness, the image of country of origin should have less influenced on its perceived quality. Thus, this study suggests that country of origin would have an impact on the relationship between brand knowledge and perceived quality. Consumers would likely to refer to the cue of the country of origin only when they have limited brand knowledge. The COO effect differs across brands and varies among countries of production [56]. Accordingly, the following hypothesis is formulated:

H5: Country of origin image moderates the influence of green product's brand image on perceived quality in an inverse U shape.

H6: Country of origin image moderates the influence of green product's brand awareness on perceived quality in an inverse U shape.

K. The Relationships between Perceived Quality and Purchase Intention

Consumers tend to believe eco-friendly products to be higher quality for its lower environmental impact [41], [49]. Similarly, the growing demand for the organic food is in the belief that organic products has more of the antioxidant compounds linked to better health than regular food [53]. Moreover, the study of [57] confirmed that perceived quality positively influences consumers' purchase intention. Therefore, this study assumes that consumer show a higher purchasing intention to the products with higher perceived quality. Based on the discussion above it can be hypothesized that:

H7: Green product's perceived quality is positively related to consumers' purchase intention.

III. RESEARCH METHODS

A. Research Design

Based on the literature review, the current study develops a research framework consisting of different attributes, such as brand image, brand awareness, country of origin, perceived quality, and purchase intention. Specifically, brand image and brand awareness are both used as the independent variables, country of origin image as a moderator, perceived quality as a mediator, and purchase intention as a dependent variable. Accordingly, the research framework is shown as in Fig. 1.

In Taiwan, skincare products have occupied nearly 70% of beauty markets. The demand for skincare products made from natural ingredients has been rising over the past years [58]. The criteria required for the green skincare product is that it must contain more than 95% of the ingredients extracted from the nature. Three skincare brands, ORIGINS (origin from the U.S.), L'OCCITANE (origin from France), and DHC (origin from Japan) are top three green skincare brands in the Taiwanese market. Specifically, ORIGINS has launched a premium collection of skincare products with 100% natural essential oils and certified organic ingredients. L'OCCITANE has committed to the development of high quality skincare products and environmentally responsible production. Finally, DHC use either all-organic ingredients or a mix of natural and organic ingredients to optimize skin regeneration. Accordingly, these three brands were selected in this study.

B. Questionnaire Design

As suggested by [31], the concept of brand image includes functional component, symbolic component, and experiential component. The scale developed by [19] was served in this study to measures brand awareness, that included the two dimensions brand recall and brand recognition. The questions developed by [59] were used to measure the effect of country of origin. Moreover, the five dimensions (i.e. reliability, workmanship, quality, dependability, and durability) developed by [39] were served to measure perceived quality. Finally, purchase intention was measured by using the scale

developed by [39] and [40]. Respondents were asked to indicate the importance of each value item on a seven-point Likert-type scale. Collecting research data through the Internet has become a popular approach. This study conducts online survey through Google docs™ to the sampling targets. This study adopts the purposive sampling technique, involving respondents who have had green product purchasing experience in the last six months. Moreover, the questionnaires were distributed through the online cosmetic forum, such as the official Facebook of origins, L'occitane, DHC, UrCosme, and FashionGuide.

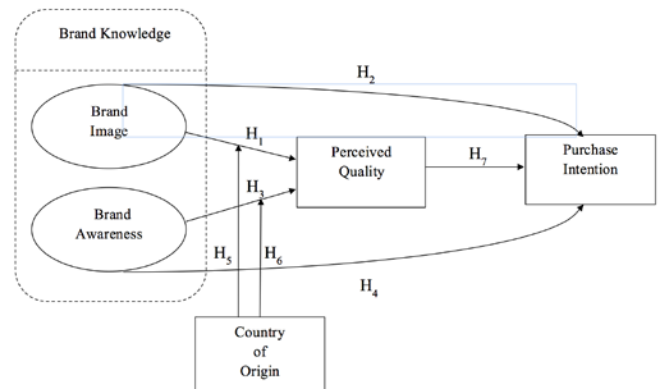


Fig. 1. Research framework.

C. Respondents Characteristics

A total of 582 questionnaires were collected, resulting in 568 complete useable responses. Of all the respondents, 394 were females (69%) and 174 were males (31%). In fact, women are considered to be the principle consumers of skincare products. Regarding the age, there were 80 respondents under 20 years old (14%), 301 respondents were between 21 and 29 years old (53%), 148 respondents were between 30 and 39 years old (26%), 34 respondents were between 40 and 49 years old (6%), and 5 respondents were aged over 50 years old (1%). Prior research assumed that young people and college students are the major consumer segments for of the skincare market, especially female students [43]. Concerning the educational level, 398 respondents have achieved undergraduate degree (70%), 80 respondents have attained graduate degree (14%), and 90 respondents have had high school diplomas or equivalent (16%). The questionnaire asked the respondents to name their favorite brand, 210 respondents declared that they most often purchase ORIGINS products (37%). The French brand L'OCCITANE came in second place (Sum = 199, 35%), followed by DHC (Sum = 159, 28%). The respondents' profile is shown in Table I.

IV. RESULTS

Self-report scale was used as the research tool to investigate consumers' purchasing intention of green products. In order to avoid common method variance (CMV), this study has adopted ex ante remedy and post hoc exam. In ex ante remedy, this study has conducted the approaches by protecting the respondents' anonymity and employing reverse-coded items. In post hoc exam, this study has used Harmon's single-factor test to check for CMV. After having

conducted factor analysis, the first factor was accounted for 46.84% in the unrotated factor solution. Thus, a single factor did not account for major variance, CMV may not be a threat [60].

TABLE I: DEMOGRAPHIC OF THE RESPONDENTS

Demographics	Frequency	Percentage (%)
Gender		
Male	174	31
Female	394	69
Age (in years)		
Under 20	80	14
21-29	301	53
30-39	148	26
40-49	34	6
Above 50	5	1
Education level		
High school degree	90	16
Undergraduate degree	398	70
Graduate degree	80	14
Brand choice		
ORIGINS	210	37
L'OCCITANE	199	35
DHC	159	28

Moreover, this study has applied Cronbach's α to measure internal consistency of the questionnaires. The results showed that Cronbach's α values varies from .864 to .967, which indicates that the questionnaires have had high reliability [61]. The factor loadings (λ) for each observation variable exceeds the cut-off value of .5, the composite reliability (CR) was larger than .6, and the average variance extracted (AVE) was greater than .5, providing the evidence of convergent validity. Moreover, Table II indicates that the square-root of AVE of variables is greater than the absolute values of the correlation coefficients among variables and diagonal elements are larger than off-diagonal elements, providing the evidence of discriminant validity. Thus, the construct validity of the scale is high.

TABLE II: DISCRIMINANT VALIDITY COEFFICIENTS

Latent variables	1 Brand image	2 Brand awareness	3 Country of origin	4 Perceived quality	5 Purchase intention
1 BI	.795				
2 BA	.719	.800			
3 COO	.591	.623	.860		
4 PQ	.701	.698	.768	.904	
5 PI	.736	.757	.703	.787	.834

In addition, the homogeneity analysis showed that there was no significant difference between ORIGINS, L'OCCITANE, and DHC in brand image ($F=1.717, p>.05$), brand awareness ($F=2.528, p>.05$), country of origin ($F=1.756, p>.05$), perceived quality ($F=.100, p>.05$), and purchase intention ($F=.248, p>.05$). These findings suggested that there was no any difference among the variables (see Table III).

This study has used Partial Least Squares (PLS) Algorithm to examine the path coefficient (β) and correlation coefficient (R^2). The R^2 in perceived quality was .718 and purchase intention was .724. Fig. 2 presents the path analysis of purchasing intention as the dependent variable. The standardized path coefficients were all larger than .05, which indicates that each relationship between two dimensions was different from zero.

TABLE III: THE HOMOGENEITY TEST OF THE BRANDS

Variables	Mean			F value
	ORIGINS	L'OCCITANE	DHC	
Brand image	5.76	5.52	5.57	1.717
Brand awareness	5.55	5.41	5.19	2.528
Country of origin	5.59	5.73	5.87	1.756
Perceived quality	5.64	5.71	5.67	.100
Purchase intention	5.73	5.64	5.65	.248

The β coefficient between brand image and perceived quality was .819 ($t=2.226, p<.01$), indicating that brand image had a positive and statistically significant impact on perceived quality. The result supported H1. The β coefficient between brand image and purchasing intention was .224 ($t=2.586, p<.01$), indicating that brand image had a positive and statistically significant impact on purchase intention. The result supported H2. The β coefficient between brand awareness and perceived quality was .970 ($t=2.159, p<.05$), indicating that brand awareness had a positive and statistically significant impact on perceived quality. Thus, H3 was supported. The β coefficient between brand awareness and purchase intention was .305 ($t=3.208, p<.01$), indicating that brand awareness had a positive and statistically significant impact on purchasing intention. Thus, H4 was supported. The β coefficient between perceived quality and purchase intention was .417 ($t=4.406, p<.001$), indicating that perceived quality had a positive and statistically significant impact on purchasing intention. The hypothesis H7 was therefore supported.

Moreover, Hypotheses 5 and 6 predicted that the relationship between brand knowledge and perceived quality would be curvilinear, because of the effect of country of origin. To test these hypotheses, an interaction and squared term for country of origin image were added to the path analysis. The β coefficient of country of origin image on the relationship between brand image and perceived quality is .796 ($t=1.054$). However, the β coefficient of the squared term for country of origin on the relationship between brand image and perceived quality was -.235 ($t=3.025, p<.01$). In addition, the β coefficient of country of origin on the relationship between brand awareness and perceived quality was .314 ($t=1.855$). However, the β coefficient of the squared term for country of origin on the relationship between brand awareness and perceived quality was -.281 ($t=3.272, p<.01$). These findings indicated that country of origin had a quasi-inverse U moderating effect on the relationships between brand knowledge and perceived quality. Therefore, H5 and H6 were partially supported.

In addition to examine causal and direct relationships between independent variables and dependent variable, independent variables may have indirect effect on dependent variable. The direct effect of brand image on purchase intention was .224, and indirect effect was .250. The indirect effect was larger than direct effect, suggesting that perceived quality had a significant mediating effect between brand image and purchasing intention. Moreover, the direct effect of brand awareness on purchasing intention was .305 and indirect effect was .404. The finding indicates that there was a significant mediating influence between brand awareness and perceived quality (see Table IV).

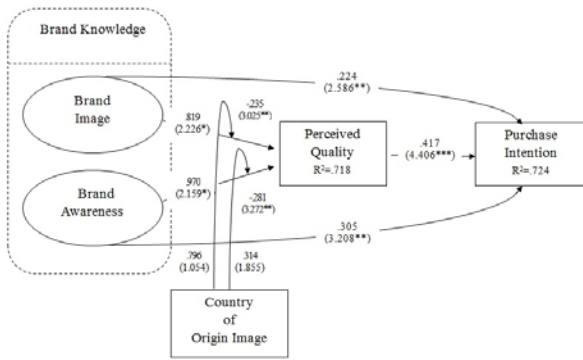


Fig. 2. Path Analysis Model and T-values.

Note: Standardised estimates with t-values in brackets

* $p < .05$, ** $p < .01$, *** $p < .001$

TABLE IV: THE MEDIATING TESTS OF PERCEIVED QUALITY

Path	Direct effect	Indirect effect	Total effects
Brand image \rightarrow Perceived quality	.119	-	.119
Brand image \rightarrow Purchase intention	.224**	.250**	.474***
Brand awareness \rightarrow Perceived quality	.970*	-	.970*
Brand awareness \rightarrow Purchase intention	.305***	.404***	.709***

* $p < .05$, ** $p < .01$, *** $p < .001$

V. DISCUSSION AND CONCLUSION

This study indicated that brand knowledge in terms of brand image and brand awareness had a positive influence on consumers' perceived quality. It was similar to the finding of [51], consumers who have adequate brand knowledge and eco friendly products are perceived as higher quality. Specifically, consumers tend to consider as higher quality when the green product is under a better-known brand name. Consumers' brand knowledge of green products had an influence on their purchasing intention. This finding was similar with the researches of [43] and [57].

This study stated that the perceived quality of green products had a positive influence on consumers' purchasing intention. This finding was similar to the prior studies [9] and [53], have suggested that the perception of product quality could enhance consumers' purchasing intention. More importantly, perceived quality was found to act as the mediating role between brand knowledge and purchasing intention. This study has presumed that brand knowledge acted as the top-down approach and perceived quality acted as the bottom-up approach. These two approaches were likely to be two complementarities that influence consumers' evaluation of green products. Specifically, the influence of brand would be significant only when the perceived quality appears to have positive effects on purchasing intention. The sufficient effect was even more significant than necessary effect to predict consumers' purchasing intention.

Moreover, the country of origin was found to conditionally moderate the effect between brand knowledge and perceived quality. Consumers would generally use country of origin to infer product quality if the other information regarding the product is limited or unavailable. However, country of origin is likely to detract from the effect of brand knowledge on perceived quality. The results were similar to the studies of [13] and [54], they have argued country of origin had an insignificant effect on product quality evaluations. This study assumed this might because these three selected brands are all originated from the developed countries. Therefore,

consumers have pay less attention to the cues of original country and the global brand names might assert a certain level of product quality.

Though the development of green products require additional investment on technology and equipment in the short-term. The products with low environmental impact enhance consumers' product perceived quality and purchasing intention. Many people surveyed feel that they are aware of the positive and/or adverse environmental effects of products they purchase. In Future, with the rising consumer consumers' environmental awareness and interest in green products can affect skincare market share significantly. Furthermore, it is important to note the weight given to country of origin in consumers' product evaluation. The results of this research showed that a well-known brand name might be able to overcome the liability of being made in a poor image country. Therefore, it was suggested that the use of a global brand for green products has advantages that help to overcome problems associated with unfavorable country image.

Although this study has provided insights to green products marketing, there are still research limitations that can be taken into account for future studies. The first limitation is this study had confined research targets to skincare products and the relevant brands. The findings may only apply to green marketing in the cosmetics or beauty markets. Second, this study has adopted purposive sampling. The respondents are the actual green products consumers who have technical accessibility to the specific websites. Thus, the representativeness of the respondents could be limited. Last, three brands conducted in this study were all based on the developed countries. The impacts of country of origin image on brand knowledge and perceive quality could be not comprehensive.

REFERENCES

- [1] T. Ramayah, J. W. C. Lee, and O. Mohamad, "Green product purchase intention: Some insights from a developing country," *Resources, Conservation and Recycling*, vol. 54, no. 12, pp. 1419-1427, 2010.
- [2] Y. Strizhakova and R. A. Coulter, "The "green" side of materialism in emerging BRIC and developed markets: The moderating role of global cultural identity," *International Journal of Research in Marketing*, vol. 30, no. 1, pp. 69-82, 2013.
- [3] N. F. Koehn, *Brand New: How Entrepreneurs Earned Consumers' Trust*, Wedgwood to Dell: Harvard Business Press, 2001.
- [4] M. Wheeler, A. Sharp, and M. N. Thiel, "The effect of 'green' messages on brand purchase and brand rejection," *Australasian Marketing Journal*, vol. 21, no. 2, pp. 105-110, 2013.
- [5] M. R. Gleim, J. S. Smith, D. Andrews, and J. J. Cronin Jr., "Against the green: A multi-method examination of the barriers to green consumption," *Journal of Retailing*, vol. 89, no. 1, pp. 44-61, 2013.
- [6] B. Martin and A. C. Simintiras, "The impact of green product lines on the environment: Does what they know affect how they feel?" *Marketing Intelligence & Planning*, vol. 13, no. 4, pp. 16-23, 1995.
- [7] C. D'Souza, M. Taghian, and R. Khosla, "Examination of environmental beliefs and its impact on the influence of price, quality and demographic characteristics with respect to green purchase intention," *Journal of Targeting, Measurement and Analysis for Marketing*, vol. 15, no. 2, pp. 69-78, 2007.
- [8] J. P. Baker and R. Ozaki, "Pro-environmental products: Marketing influence on consumer purchase decision," *Journal of Consumer Marketing*, vol. 25, no. 5, pp. 281-293, 2008.
- [9] H. K. Chi, H. R. Yeh, and Y. T. Yang, "The impact of brand awareness on consumer purchase intention: The mediating effect of perceived quality and brand loyalty," *The Journal of International Management Studies*, vol. 4, no. 1, pp. 135-144, 2009.
- [10] J. N. H. Imenez and S. S. Martin, "The role of country-of-origin, ethnocentrism and animosity in promoting consumer trust. The

- moderating role of familiarity," *International Business Review*, vol. 19, no. 1, pp. 34-45, 2010.
- [11] J. K. Lee, B. K. Lee, and W. N. Lee, "Country-of-origin fit's effect on consumer product evaluation in cross-border strategic brand alliance," *Journal of Business Research*, vol. 66, no. 3, pp. 354-363, 2013.
- [12] P. W. J. Verlegh, J. B. E. M. Steenkamp, and M. T. G. Meulenbergh, "Country-of-origin effects in consumer processing of advertising claims," *International Journal of Research in Marketing*, vol. 22, no. 2, pp. 127-139, 2005.
- [13] G. M. Erickson, J. K. Johansson, and P. Chao, "Image variables in multi-attribute product evaluations: Country-of-origin effects," *Journal of Consumer Research*, vol. 11, no. 2, pp. 694-699, 1984.
- [14] M. Sääksjärvi and S. Samiee, "Relationships among brand identity, brand image and brand preference: Differences between cyber and extension retail brands over time," *Journal of Interactive Marketing*, vol. 25, no. 3, pp. 169-177, 2011.
- [15] E. M. Salinas and J. M. P. Pérez, "Modeling the brand extensions' influence on brand image," *Journal of Business Research*, vol. 62, no. 1, pp. 50-60, 2009.
- [16] C. Homburg, M. Klarmann, and J. Schmitt, "Brand awareness in business markets: When is it related to firm performance?" *International Journal of Research in Marketing*, vol. 27, no. 3, pp. 201-212, 2010.
- [17] M. Mattered, V. Baena, and J. Cerviño, "Analyzing social responsibility as a driver of firm's brand awareness," *Procedia-Social and Behavioral Sciences*, vol. 58, pp. 1121-1130, 2012.
- [18] Y. Yildirim and K. Aydın, "The role of popular TV series and TV series characters in creating brand awareness," *Procedia-Social and Behavioral Sciences*, vol. 62, pp. 695-705, 2012.
- [19] K. L. Keller, *Building Customer-Based Brand Equity: A Blueprint for Creating Strong Brands*. Marketing Science Institute, MSI, Cambridge, MA, 2001.
- [20] S. C. Tseng and S. W. Hung, "A framework identifying the gaps between customers' expectations and their perceptions in green products," *Journal of Cleaner Production*, vol. 59, pp. 174-184, 2013.
- [21] L. Tomasin, G. M. Pereira, M. Borchardt, and M. A. Sellitto, "How can the sales of green products in the Brazilian supply chain be increased?" *Journal of Cleaner Production*, vol. 47, pp. 274-282, 2013.
- [22] G. A. Blengini, M. Busto, M. Fantoni, and D. Fino, "Eco-efficient waste glass recycling: Integrated waste management and green product development through LCA," *Waste Management*, vol. 32, pp. 1000-1008, 2012.
- [23] H. M. Wee, M. C. Lee, J. C. P. Yu, and C. E. Wang, "Optimal replenishment policy for a deteriorating green product: Life cycle costing analysis," *International Journal of Production Economics*, vol. 133, no. 2, pp. 603-611, 2011.
- [24] L. J. Shrum, J. A. McCarty, and T. M. Lowrey, "Buyer characteristics of the green consumer and their implications for advertising strategy," *Journal of Advertising*, vol. 24, no. 2, pp. 71-82, 1995.
- [25] C. F. Chiang and S. Jang, "The effects of perceived price and brand image on value and purchase intention: Leisure travelers' attitudes toward online hotel booking," *Journal of Hospitality and Leisure Marketing*, vol. 15, no. 3, pp. 49-69, 2006.
- [26] M. Farhana, "Brand elements lead to brand equity: Differentiate or die," *Information Management and Business Review*, vol. 4, no. 4, pp. 223-233, 2012.
- [27] K. L. Keller, "Brand synthesis: The multidimensionality of brand knowledge," *Journal of Consumer Research*, vol. 29, pp. 595-600, 2003.
- [28] F. R. Esch, T. Langner, B. H. Schmitt and P. Geus, "Are brands forever? How brand knowledge and relationships affect current and future purchases," *Journal of Product & Brand Management*, vol. 15, no. 2, pp. 98-105, 2006.
- [29] A. E. Cretu, and R. J. Brodie, "The influence of brand image and company reputation where manufacturers market to small firms: A customer value perspective," *Industrial Marketing Management*, vol. 36, no. 2, pp. 230-240, 2007.
- [30] J. Hu, X. Liu, S. Wang, and Z. Yang, "The role of brand image congruity in Chinese consumers' brand preference," *Journal of Product & Brand Management*, vol. 21, no. 1, pp. 26-34, 2012.
- [31] C. W. Park, B. J. Jaowrski, and D. J. MacInnis, "Strategic brand concept-image management," *Journal of Marketing*, vol. 50, pp. 135-145, 1986.
- [32] S. M. Mudambi, P. Doyle, and V. Wong, "An exploration of branding in industrial markets," *Industrial Marketing Management*, vol. 26, no. 5, pp. 433-446, 1997.
- [33] P. Temporal, *Branding in Asia: the Creation, Development and Management of Asian Brands for the Global Market*, New York, John Wiley & Sons, 2000.
- [34] E. McDonald and B. Sharp, "Management perceptions of the importance of brand awareness as an indication of advertising effectiveness," *Marketing Bulletin*, vol. 14, no. 2, pp. 1-15, 2003.
- [35] D. Maheswaran, *Country of Origin Effects: Consumer Perceptions of Japan in South East Asia*, Working Paper Series. Center for Japan-U.S. Business and Economic Studies, The Leonard N. Stern School of Business, New York University, 2006.
- [36] P. Magnusson, V. Krishnan, S. A. Westjohn, and S. Zdravkovic, "The spillover effects of prototype brand transgressions on country image and related brands," *Journal of International Marketing*, vol. 22, no. 1, pp. 21-38, 2014.
- [37] B. Jin and Y. G. Suh, "Integrating effect of consumer perception factors in predicting private brand purchase in a Korean discount store context," *Journal of Consumer Marketing*, vol. 22, no. 2, pp. 62-71, 2005.
- [38] S. N. Bhuian, "Marketing cues and perceived quality: Perceptions of Saudi consumers toward products of the U.S., Japan, Germany, Italy, U.K. and France," *Journal of Quality management*, vol. 2, no. 2, pp. 217-235, 1997.
- [39] W. B. Dodds, K. B. Monroe, and D. Grewal, "Effects of price, brand, and store information on buyers' product evaluations," *Journal of Marketing Research*, vol. 28, no. 3, pp. 307-319, 1991.
- [40] V. A. Zeithaml, "Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence," *Journal of Marketing*, vol. 52, no. 3, pp. 2-22, 1988.
- [41] L. Gatti, A. Caruana, and I. Snehota, "The role of corporate social responsibility, perceived quality and corporate reputation on purchase intention: Implications for brand management," *Journal of Brand Management*, vol. 20, no. 1, pp. 65-76, 2012.
- [42] P. C. S. Wu, G. Y. Y. Yeh, and C. R. Hsiao, "The effect of store image and service quality on brand image and purchase intention for private label brands," *Australasian Marketing Journal*, vol. 19, no. 1, pp. 30-39, 2011.
- [43] N. H. Lin and B. S. Lin, "The effect of brand image and product knowledge on purchase intention moderated by price discount," *Journal of International Management Studies*, vol. 2, no. 2, pp. 121-132, 2007.
- [44] J. C. P. Su, L. Wang, and J. C. Ho, "The impacts of technology evolution on market structure for green products," *Mathematical and Computer Modelling*, vol. 55, no. 3, pp. 1381-1400, 2012.
- [45] G. S. Low and C. W. Lamb Jr., "The measurement and dimensionality of brand associations," *Journal of Product and Brand Management*, vol. 9, no. 6, pp. 350-370, 2000.
- [46] K. L. Keller, "Conceptualizing, Measuring, and Managing Customer-Based Brand Equity," *Journal of Marketing*, vol. 57, no. 1, pp. 1-22, 1993.
- [47] C. D'Souza, M. Taghian, P. Lamb, and R. Peretiatkos, "Green products and corporate strategy: An empirical investigation," *Society and Business Review*, vol. 1, no. 2, pp. 144-157, 2006.
- [48] P. Hartmann and V. Apaolaza-Ibáñez, "Consumer attitude and purchase intention toward green energy brands: The roles of psychological benefits and environmental concern," *Journal of Business Research*, vol. 65, no. 9, pp. 1254-1263, 2012.
- [49] D. Brécard, B. Hlaimi, S. Lucas, Y. Perraudau, and F. Salladarré, "Determinants of demand for green products: An application to eco-label demand for fish in Europe," *Ecological Economics*, vol. 69, no. 1, pp. 115-125, 2009.
- [50] H. Oh, "The effect of brand class, brand awareness, and price on customer value and behavioral intentions," *Journal of Hospitality and Tourism Research*, vol. 24, no. 2, pp. 136-162, 2000.
- [51] S. McDonald, C. J. Oates, P. J. Alevizou, C. W. Young, and K. Hwang, "Individual strategies for sustainable consumption," *Journal of Marketing Management*, vol. 28, no. 3, 4, pp. 445-468, 2012.
- [52] L. H. Essoussi, D. Merunka, and B. Bartikowski, "Brand origin and country of manufacture influences on brand equity and the moderating role of brand typicality," *Journal of Business Research*, vol. 64, no. 9, pp. 973-978, 2011.
- [53] B. Godey, D. Pederzoli, G. Aiello, R. Donvito, P. Chan, H. Oh, and B. Weitz, "Brand and country-of-origin effect on consumers' decision to purchase luxury products," *Journal of Business Research*, vol. 65, no. 10, pp. 1461-1470, 2012.
- [54] N. Srinivasan, S. C. Jain, and K. Sikand, "An experimental study of two dimensions of country-of-origin: Using intrinsic and extrinsic cues," *International Business Review*, vol. 13, no. 1, pp. 66-82, 2004.
- [55] G. S. Insch and J. B. McBride, "The impact of country-of-origin cues on consumer perceptions of product quality: A binational test of the decomposed country-of-origin construct," *Journal of Business Research*, vol. 57, no. 3, pp. 256-265, 2004.

- [56] Y. Koubaa, "Country of origin, brand image perception, and brand image structure," *Asia Pacific Journal of Marketing and Logistics*, vol.20, no. 2, pp. 139 – 155, 2008.
- [57] B. Ranjbarian, A. Sanayei, and M. R. Kaboli, "An analysis of brand image, perceived quality, customer satisfaction and re-purchase intention in Iranian department stores," *International Journal of Business and Management*, vol. 7, no. 6, pp. 40-48, 2012.
- [58] S. Wang, "Taiwan: Natural products market update," *The U.S. Commercial Service*, 2011.
- [59] R. K. Teas and S. Agarwal, "The effects of extrinsic product cues on consumers' perceptions of quality, sacrifice, and value," *Journal of the Academy of Marketing Science*, vol. 28, no. 2, pp. 278-290, 2000.
- [60] P. M. Podsakoff, S. B. McKenzie, J. Y.Lee, and N. P. Podsakoff, "Common method biases in behavioral research: A critical review of the literature and recommended remedies," *Journal of Applied Psychology*, vol. 88, no. 5, pp. 879-903, 2003.



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