Evaluating Perceived Quality Factor in Affecting Customer Purchasing Behaviour

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Abstract
The main model examined in this study is the Aaker model of brand equity. The model views perceived quality as the major aspect of brand equity model. This study focuses on facial beauty care brands in Klang Valley, Malaysia. The data were collected using questionnaires distributed to female consumers of facial care products who are aged 18 and above. The respondents must have experiences in using facial beauty care products. The sets of questionnaire were distributed using the intercept method. In all, 311 sets of questionnaire were deemed as valid in this study. In this regard, the result indicated that perceived quality has no significant link with the actual purchase of facial beauty care products in Malaysia.

Keywords: Perceived quality; Brand loyalty; Brand trust; Facial beauty care brand.

1. Introduction
Prior studies reported that how customers’ perceived quality, knowledge and feeling about a beauty care brand often determine a brand’s strength, especially in the beauty care industry (Yeung and Ramasamy, 2012). Meanwhile, brand equity comprises of overall quality and choice intention (Hanaysha, 2016). In this light, brand quality is measured in accordance to brand performance, reliability and durability, and at the same time, high brand quality signifies that that a particular brand is superior than rival brands in the same industry (Walangitan et al., 2015). In the Malaysian context, there is a massive skepticism about the quality of local beauty products as some products, particularly those sold online and through small kiosks, contain harmful ingredients that could impact consumer’s health (Zulkifli, 2017).

2. Literature Review and Hypothesis
2.1. Brand Equity
Brand equity is the increased value or usage based the prestige of a product’s brand name. In this regard, brand names, such as Cetaphil, Bio Essence and Nano White have given an advantage to the products (Yoo et al., 2000). Researchers have examined brand equity based on the perception of different parties such as manufacturers, investors or consumer and through social and financial domain (Cobb-Walgren et al., 1995). In this light, this study focuses on customers’ perspectives.

2.2. Actual Purchase Behaviour
Actual purchase behaviour comprises of customers’ planned or unplanned intention to pay money in exchange for a product, as well as the purchase and consumption of the particular product, (Doniyor, 2013). Previous studies reported that while intention does not guarantee actual purchase behaviour, customers with the intention to buy a product will be more likely to buy a product compared to those who do not have any intention to purchase (Wee et al., 2014). Carrington et al. (2010), reported that the purchase intention often translate to actual purchase as the customers interact with the physical and social environment prior to the sales transaction. Limited studies have investigated the actual buying behaviour of facial beauty care products. This reflects the importance of exploring the actual purchase behaviour of facial beauty care products, especially in Malaysia. There are several concepts that could be explored in this topic, as follow;

2.2.1 Perceived Quality
Quality is often measured based on how one perceives the overall quality, reputation, performance and the superiority of a service or a product (Bianchi et al., 2014). Thus, perceived quality is a concept that is grounded on customer-based brand equity. It can be categorised into two, first, the products on offer, which, in this case, beauty care products, and second, the services provided during the transaction. July et al. (2016), argued that the quality of the product is not necessarily reflected through the actual product, but most times, quality is determined by how customers perceive the product’s overall quality or superiority and how the customers’ appreciation the product’s intended purpose and function. In this light, perceived quality can increase the brand price as the perception of...
higher or premium quality motivate customers to buy products from the brand. It can also help differentiate the brand from other similar brand and provide a strong foundation for the expansion of the brand (July et al., 2016). Based on this argument, the first hypothesis states that

**H1:** There is a positive relationship between perceived quality and the actual purchase behaviour of beauty care products.

### 2.2.2. Brand Loyalty

Loyalty is reflected through customers’ tendency to make repeat purchases of the same products or products from the same brand (Mashavha, 2016). Higher customer loyalty could directly increase a company’s profit, thus, loyalty can be measured based on a customers’ intention to buy the products over and over again. Furthermore, customer loyalty can help prevent customers from choosing other brands, hence, increased loyalty can also reduce marketing costs (Alhedhaif et al., 2016). It is argued that examining customer loyalty could help researchers to better understand retention towards a brand (Jr et al., 2007). Thus, the second hypothesis states that

**H2:** There is a positive relationship between brand loyalty and the actual purchase behaviour of beauty care products.

### 2.2.3. Brand Trust

Fayrene and Lee (2011), mentioned that a brand’s strength could often be measured through customers’ trust towards the brand and the products. Past studies described that brand trust can be defined as customers’ perception on the ability of the brand to fulfil the functions and characteristics as indicated by product’s description (Kabadayi and Alan, 2012). Brand trust also reflects customers’ confidence that the brand is reliable. In this light, higher brand trust will lead to more positive outlook and perception towards the brand. Moreover, according to Mashavha (2016), brand trust is determined by customers’ views about the company, the brand, the product and other information about products being sold. Therefore, the third hypothesis states that,

**H3:** There is a positive relationship between brand trust and beauty care for actual buying.

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3. Method

Purposive sampling was used to select the sample for this study (Cavana et al., 2001). As the Klang Valley is the most populated area in Malaysia, the study’s respondents were chosen from consumers of beauty care products in Klang Valley (Nellikunnel et al., 2015). In choosing the respondents, the study decided to set the minimum age limit to 18 based on Hellsten and Wåhlin (2017) who stated that consumers aged between 18 to 40 buy the highest number of beauty care products. Furthermore, the study only target women as compared to men, women are more inclined to buy beauty products to beautify themselves (Moslehpour et al., 2017). Hence, the sampling criteria include, the respondents must be female, and above, have experienced using facial beauty care products prior to the study. 340 sets of questionnaires were distributed to respondents who fulfilled the sampling criteria. The cross-sectional design was chosen to ensure that all respondents fulfil the sampling criteria to achieve the most accurate result.

The questionnaire was pre-tested and pilot tested before the sets of questionnaire were distributed to the target respondents ensure that the face and content validity of the questionnaire. Two lecturers and three students from Universiti Malaysia Terengganu were chosen to review the item to determine the questionnaire’s reliability and whether the items can be understood by the respondents (Hair et al., 2007). In this regard, the pilot test should involve 10% to 40% of the number of respondents for the real questionnaire (Simon, 2011). The items were
analysed using the smartPLS software. The analysis was done through multivariate modelling of equation structure (SEM), which is a powerful multivariate analysis method (Ismail, 2014).

The questionnaire was divided into 3 sections, Section A (Respondent Information), Section B (Purchase Information) and Section C (Information Review). Sections C measures all of the the independent variables and dependent variable. There are three (3) independents variables (perceived quality, brand loyalty and brand trust) and one (1) dependent variable (actual buying) in this study. In this study, there are three (3) independents variables (perceived quality, brand loyalty and brand trust) will be a measure with one (1) dependent variable (actual buying). Each variable was measured through 5 items. To avoid common method variance, 2 different Likert- scale the 5-point Likert- scale was used in items on perceived quality, brand loyalty and brand trust) and the 7-point Likert scale was used to measure actual buying.

G Power was used to determine the sample size. This approach is suitable for this study since there is no specific data on the number of beauty product consumers in the Klang Valley. According to Joseph et al. (2014) G * Power 3.1.9.2 software was used to determine the minimum number of required sample. Furthermore, it was stated that the number of respondents must range from 30 to 500 to achieve a sufficient result Sekaran and Bougie (2016). Hence, 340 were set as the sample size of this study, 340 questionnaires were distributed to respondents in the Klang Valley. All of the questionnaires were returned but 27 questionnaires were returned with incomplete missing value and 2 questionnaires (questionnaire number 47 and 218) were excluded due to the presence of outliers (Mahalanalobis Distance).

4. Discussions

| Demographic Characteristics | Frequency | Percentage % |
|-----------------------------|-----------|--------------|
| Age                         |           |              |
| Under 20 years old          | 58        | 18.6         |
| 21-30 years old             | 226       | 72.7         |
| 31-40 years old             | 17        | 5.5          |
| 41-50 years old             | 9         | 2.9          |
| More than 50 years old      | 1         | 0.3          |
| Monthly Income              |           |              |
| Less than RM1,000           | 169       | 54.3         |
| Between RM1,000-RM2,000     | 68        | 21.9         |
| Between RM2,000-RM3,000     | 47        | 15.1         |
| Between RM3,000-RM4,000     | 17        | 5.5          |
| More than RM4,000           | 10        | 3.2          |
| Ethnic                      |           |              |
| Malay                       | 290       | 93.2         |
| Chinese                     | 9         | 2.9          |
| India                       | 9         | 2.9          |
| Others                      | 3         | 1.0          |
| Religion                    |           |              |
| Islam                       | 293       | 94.2         |
| Buddha                      | 6         | 1.9          |
| Hindu                       | 5         | 1.6          |
| Kristian                    | 7         | 2.3          |
| Level of Education          |           |              |
| Primary                     | 0         | 0            |
| Secondary                   | 34        | 10.9         |
| Diploma                     | 107       | 34.4         |
| Degree                      | 160       | 51.4         |
| Master                      | 9         | 2.9          |
| PhD                         | 1         | 0.3          |
| Occupation                  |           |              |
| Public                      | 27        | 8.7          |
| Private                     | 94        | 30.2         |
| Self-employed               | 9         | 2.9          |
| Housewife                   | 2         | 0.6          |
| Student                     | 173       | 55.6         |
| Others                      | 6         | 1.9          |
| Marital Status              |           |              |
| Single                      | 275       | 88.4         |
| Married                     | 33        | 10.6         |
| Others                      | 3         | 1.0          |
Table 1: Summary of Demographic Characteristics

Table 1 summarises the demographic characteristics of the target respondents. As shown, most respondents are between 21 to 30 years old (72.7%), and earn monthly income of less than RM1, 000 (54.35%). Most of the respondents are single (88.4%). Furthermore, most respondents purchase beauty products once every two months (46.0%) followed by once a month (32.5%) and 2 times a month (13.5%) and 3 times a month (8.0%).

Moreover, most of the respondents have one favourite brand and usually, they will purchase facial beauty products from the same brand (27.3%), meanwhile, 21.9% of the respondents favour one facial brand but sometimes, they also purchase products from others brands. There are also some respondents who do not have any brand preference, and will only purchase a product that fits their needs.

4.1. Data Analysis

The PLS SEM technique was used to validate the underlying theory for this study. The PLS SEM technique was chosen for data analysis due to the lower model complexity and the lenient requirements of the measurement model and Hair et al. (2007). In this light, the variables in the study are reflective constructs which require construct validity evaluation. Furthermore, the convergent and discriminating validity of the constructs were determined. In the meantime, based on Fornell guideline, the factor loading factor (FL), the average variance extracted (AVE) and the composite reliability (CR) were identified to find the model’s convergence validity. Table 2 presents the FL, AVE and CR of the study’s measurement model.

Based on the result below, item BL2 and item PQ3 were eliminating due to the presence of outer loading.

| Items                          | FL   | CR   | AVE  |
|-------------------------------|------|------|------|
| Actual Buying                 |      |      |      |
| AB1 I often buy facial beauty care brands. | 0.741 | 0.883 | 0.602 |
| AB2 I often buy facial beauty care brands on regular basis. | 0.713 |      |      |
| AB3 I often buy facial beauty care brands for my appearance. | 0.842 |      |      |
| AB4 I often buy facial beauty care brands that are safety to use. | 0.768 |      |      |
| AB5 I often buy facial beauty care brands because it can improve my skin. | 0.808 |      |      |
| Perceived Quality             |      |      |      |
| PQ1 I believe my preferred facial beauty care brand has a very high quality. | 0.866 | 0.883 | 0.654 |
| PQ2 I see my preferred facial beauty care brand is better than other brands in terms of colour, shape and appearance. | 0.789 |      |      |
| PQ4 I know my preferred facial beauty care brand shows good quality. | 0.813 |      |      |
| PQ5 My preferred facial beauty care brand lasts longer than other brands. | 0.764 |      |      |
| Brand Loyalty                 |      |      |      |
| BL1 I am loyal to my preferred facial beauty care brand. | 0.712 | 0.843 | 0.574 |
| BL3 I will recommend my preferred facial beauty care brand to others. | 0.761 |      |      |
| BL4 I’ll buy my preferred facial beauty care brand even if the price goes up. | 0.769 |      |      |
I regularly buy my preferred facial beauty care brand. 0.786

My preferred facial beauty care brand has high integrity. 0.772 0.926 0.715

I feel secure with my preferred facial beauty care brand because I know it will not let me down. 0.885

I feel confident with my preferred facial beauty care brand name. 0.854

Overall, I trust my preferred facial beauty care brand. 0.884

I can rely on my preferred facial beauty care brand. 0.827

Table 2 summarises the convergent validity assessments of all variables exceed the AVE value threshold of 0.6, except for brand loyalty (0.574). The AVE value of each item ranged from 0.602 to 0.715. The results show good CR score (which range from 0.843 to 0.926). This supports that the measurement has a fair convergent validity.

Table 3 shows the cross loading of every item. It can be observed that there is a higher loading value for this respective construct compared to other constructs.

| Construct/ Item | Actual Buying | Brand Loyalty | Brand Trust | Perceived Quality |
|-----------------|---------------|---------------|-------------|-------------------|
| AB1             | 0.741         | 0.482         | 0.321       | 0.321             |
| AB2             | 0.713         | 0.362         | 0.362       | 0.330             |
| AB3             | 0.842         | 0.419         | 0.379       | 0.379             |
| AB4             | 0.768         | 0.329         | 0.463       | 0.439             |
| AB5             | 0.808         | 0.362         | 0.416       | 0.408             |
| BL1             | 0.261         | 0.712         | 0.447       | 0.485             |
| BL3             | 0.286         | 0.761         | 0.485       | 0.482             |
| BL4             | 0.262         | 0.769         | 0.500       | 0.516             |
| BL5             | 0.366         | 0.786         | 0.496       | 0.512             |
| BT1             | 0.304         | 0.503         | 0.772       | 0.639             |
| BT2             | 0.424         | 0.573         | 0.885       | 0.655             |
| BT3             | 0.368         | 0.531         | 0.854       | 0.674             |
| BT4             | 0.417         | 0.524         | 0.884       | 0.625             |
| BT5             | 0.443         | 0.561         | 0.827       | 0.668             |
| PQ1             | 0.448         | 0.607         | 0.695       | 0.866             |
| PQ2             | 0.428         | 0.519         | 0.535       | 0.789             |
| PQ4             | 0.413         | 0.499         | 0.672       | 0.813             |
| PQ5             | 0.373         | 0.488         | 0.579       | 0.764             |

The discriminant validity is obtained by ascertaining the differences the item’s loading, cross-loading value and comparing these values with the construct’s AVE value and the correlation coefficients of other constructs. In this case, items AVE square root should be higher compared to the correlation coefficients of the other items.

Table 4 illustrates the results of the Heterotrait-Monotrait (HTMT) assessment of discriminant validity. It can be observed all items score less than 0.90. The results of the tests demonstrate that the model does not achieved discriminant validity.

| Item/ Construct | Actual Buying | Brand Loyalty | Brand Trust | Perceived Quality |
|-----------------|---------------|---------------|-------------|-------------------|
| Actual Buying   |               |               |             |                   |
| Brand Loyalty   | 0.628         |               |             |                   |
| Brand Trust     | 0.576         | 0.772         |             |                   |
| Perceived Quality| 0.574       | 0.828         | 0.889       |                   |

*BOLD value is the square root of AVE

Table 5 presents the bootstrapping values calculated to check the significance result for the path-coefficient. The test was done to analyse whether the structural model relationship is significant and relevant. Table 5 shows that (brand loyalty = 0.275) is the most significant predictor, followed by (brand trust = 0.224) and (perceived quality =
0.132). It also shows that the variables on brand (T-value > 1.96), specifically brand loyalty (4.452) and brand trust (3.574) are significantly linked with actual purchases behaviour, while perceived quality (1.524) is not significantly linked with actual purchase behaviour. The confidence intervals indicate the value of the lower level and upper level of these three variables (PQ (LL) = -0.012, PQ (UL) = 0.273, (BL (LL) = 0.194, BL (UL) = 0.417) and (BT (LL) = 0.149, BT (UL) = 0.413). Thus, the hypotheses on brand loyalty and brand trust were supported while the hypotheses on perceived quality were not supported.

5. Limitation and Recommendation

The quantitative research method was used in this research. It provides sufficient information on the contextual aspects and provides further understanding and clarifies the variations in respondents’ preferences. In this light, the respondents could only provide an answer according to the quantitative value rather than providing detailed information about their experience using facial beauty care products, which could take more time and cost. This study was also administered for respondents who fulfil the characteristics of the target respondents.

To overcome the limitations of this study, it is recommended for future researchers to adopt either a mixed-method studies or qualitative research method. This will provide respondents to give their own perception and recommendation about facial beauty care brands as users of beauty products. Other than that, researchers can use online surveys to collect data in lesser cost and time. At the same time, the model can be validated using different method and setting to develop the concept of branding.

6. Conclusion

There is an on-going concern over the quality and safety of local facial beauty care products in Malaysia. It could be argued that Malaysian consumers still have limited awareness towards about quality before making the purchasing decision (Zulkiffli, 2017). At the same time, there is still a lack of studies regarding brand trust in facial beauty care industry. Brand trust is a new item that was included in the model to determine customer-based brand equity related to facial beauty care products among female consumers in Malaysia. Thus, this study investigates how brand trust and consumer perceived quality towards facial beauty care products will influence their purchasing behaviour. This research presents a novel attempt to examine the perceived quality model in the context of Malaysian facial beauty care products. The findings of this study could ensure greater understanding in the near future, despite the limitations, it is hoped that researchers and brand owners/managers can use this study’s findings as a guideline.

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