Comparative Study of Product Quality Perception between Malaysian and Non-Malaysian Electrical Appliance among Tertiary Students

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Abstract— The high quality of a product is much demanded by consumers today. However, it is difficult to understand the perceptions of consumers towards product quality. Thus, this study intends to identify the relationships between brand and nine product quality dimensions as well as to compare the difference in quality perception between Malaysian and Non-Malaysian electrical appliances amongst Universiti Tun Hussein Onn Malaysia students. This is a quantitative study. Nine research hypotheses were examined while considering the nine dimensions of product quality (performance, features, conformance, durability, reliability, serviceability, aesthetics, perceived quality, and environmentally friendly) which were believed to affect the consumers' perceptions of product quality. In this study, the respondents were students from the Faculty of Technology Management and Business, Universiti Tun Hussein Onn Malaysia. The data were analysed by using SPSS software. The result reveals that only two quality dimensions, i.e. feature and serviceability were significantly correlated with the brand. Besides that, four quality dimensions, i.e. performance, features, aesthetics, and perceived quality had a significant difference in quality perceptions between Malaysian and Non-Malaysian electrical appliances. The result of this study will help to provide guidance and information for future research in the field of electronics.

International Journal of Supply Chain Management IJSCM, ISSN: 2050-7399 (Online), 2051-3771 (Print) Copyright © ExcelingTech Pub, UK (http://excelingtech.co.uk/) **Keywords**—Comparative study, Product Quality Perception, Electrical Appliance, Tertiary Students

1. Introduction

Nowadays, quality has become a tactical target of achievement and priority of competition in this recent economy and is also an important tool in order to remain in the competitive market [1]. Quality has been identified as the competitive strategy to improve business performance in a global market [2]. For instance, Malaysia is a developing country that experiences economic growth. Therefore, there is a competitive market among local product and foreign product in Malaysia, in which there are various brands available for a product. In the case of the home electrical appliance, there are many foreign and national brands that offer choices to the customers [3]. For example, there are different television brands available in the market such as LG, Sony, Pensonic, Panasonic, and many more.

High quality product is very demanding for the customers [4]. Nevertheless, it is not easy to comprehend the consumers' perceptions towards of product quality [5]. Malaysians have their own perceptions in which they think the products made in Malaysia are low in cost because of poor quality [6]. There is a misunderstanding among Malaysians on Malaysian products, as Malaysian products are of equal quality and suitable to be exported to other

countries. Moreover, consumers are easily used to seeing the advertisement from branded companies and having their trust built on it where they think that their products are in better quality [7]. Furthermore, many of the previous studies have found that consumers are ambiguous about the meaning and understanding of quality. Thus, it is hard to satisfy the customers' expectation on quality since they are unclear and varied in its understanding.

This study utilised the nine quality dimensions as the basis to measure the product quality level of electrical appliance. The eight quality dimensions proposed by Garvin [8] are performance, features, reliability, conformance, durability, reliability, serviceability, aesthetics, and perceived quality. Meanwhile, the other one suggested by Kianpour, Jusoh and Asghari [9] is environmental friendly. Performance means the primary operating characteristic; a feature is known as the second characteristic; reliability refers to the probability of failure in the function within a specific period; conformance refers to the design of the product and process features that match the predetermined standard. Durability is the evaluation of a product's life; serviceability is defined as the speed, courteousness, competence, and ease of repair; aesthetics refers to the look, sound, taste, or smell and feeling towards a product; perceived quality refers to the consumer's perception towards the reputation of the company and brand name. The last dimension is environmentally friendly which refers to any product, service, or policy that does not harm or only has a minimal negative impact on the natural environment [8].

A lot of studies on the eight basic dimensions recommended by Garvin [8] have been carried out in western countries. However, little research has been conducted in Malaysian. In addition, there is scarcity for the studies conducted on the environmentally friendly aspect, which is a new dimension proposed by the Kianpour, Jusoh, and Asghari [9]. Moreover, many of those studies focused on the academic field. Hence, this study intends to identify the relationships between brand and the nine product quality dimensions, as well as to compare the quality perception between Malaysian and non-Malaysian electrical appliances. Therefore, this may help to explain the understanding of how the consumer perceives quality and the generalisable typology of dimensions of quality that can be utilised to a board range of consumer goods.

2. Literature Review

Quality is the entire features and characteristics of a product or service that can fulfil the customers' need and expectation [10]. According to the Juran & De feo [11], product quality is defined as the life-support of quality control and it ensures that the client can purchase high quality products or services with long-lasting consistency. Thus, the companies ought to ensure the quality of the product is good before selling it to the customers [12]. Jakpar et al. [13] stated that product quality is a product characteristic that is matched with the eight dimensions, namely performance, features, conformance, reliability, durability, serviceability, aesthetics, and consumer-perceived quality. Other than that, Kianpour, Jusoh, and Asghari [9] defined product quality, which includes the existing eight different dimensions and a new dimension which is environmental friendly. This is because the current existing eight dimensions only emphasise on the quality of products for consumer usage; hence there is a lack of attention to their side-effects that can harm the environment.

Performance refers to how good the product will perform what it is supposed to do Brucks, Zeithaml, & Naylor [5]. According to the Shaharudin et al. [14], performance means the primary operating characteristic of a product. Since this dimension of quality involves measurable attributes, brands are usually graded objectively on a specific aspect of performance [15]. Besides that, Garvin [15] defined features as the second characteristic of product quality. Features such as automatic tuners on a colour television are that supplement their characteristics basic functioning. Sebastianelle and Tamimi [16] defined reliability as the product probability of failure-free performance over a specified period of time. Additionally, reliability refers to the probability of failure in the function of a product, or not meeting the requirement within a specific period of time. Furthermore, the degree in which the design of the product and the process features that match the predetermined standard are shown by the conformance dimension [14]. The incidence of service calls and defecting rate in the factory or once a product is in the hands of a customer are the two common measures of failure in conformance. However, these measures will neglect other deviations from the standard, such as misspelt labels or shoddy structures that do not lead to services or repair [15].

The durability of a product is defined as a

measure of product's life usage [17]. Besides that, Brucks, Zeithaml, & Naylor [5] also highlighted that durability is how well the product will perform under bad conditions, such as weather, heavy use, or misuse. According to Garvin [15], durability can be classified as an economic and technical dimension. Technically, durability has been defined as the amount of use that one gets from a product before it deteriorates. For example, after a longtime period of use, the filament of a light bulb burns up and the bulb must be replaced, but repairing it is impossible. For this situation, economists call such product as "one -hoss shays". On the other hand, serviceability has been defined as the speed, courteousness, competence, and ease of repair. Garvin [15] claimed that the consumers are not just worried about a product breakdown, but also about the time before the service is reestablished, the timeliness of the service arrangement, being faced with the nature of service personnel, and the frequency of services calls or maintenance to the right problem failures. If the problems in those cases are not instantly solved as well as having complaints recorded, complainthandling staff in companies are also willing to influence the consumer's evaluation of product and service quality. Next, aesthetics is defined as a one of the most subjective dimension of quality instead of perceived quality dimension. Aesthetics is also determined as how a product appeals to our five senses [14]. How a product looks, sounds, tastes, or smells, and one's feeling towards a product are a matter of personal judgment and a reflection of individual preference [15].

A consumer might not have full information about the feature of the product and service at all times. Comparing the product brand is only the source for the consumer to evaluate the product. Although the product's durability is rarely being observed directly, it often must be inferred from many tangible and intangible features of the product. In addition, image, advertising and brand names are critical in that condition. This is because inferences on quality are more than the realism itself [15]. Any product, service, or policy that does not damage or only has a minimal negative impact on the natural environment is environmentalfriendly [9]. Albino et al. [18] stated that each product designed to minimise harm to the natural environment during its lifecycle is called a green product. In specific, it is important to avoid using the non-renewable resources as well as toxic materials.

According to the Jacoby, Olson, & Haddock [19], brand name appears to provide some information about the product's quality. Aaker [20] defined brand name as an image that is relevant and can be easily remembered. Besides that, brand image is also the perception of consumers for the product based on experience [21]. Normally, brand image will create a positive image for that company and can benefit the company in the long term [22]. Shehzad [23] stated that brand name plays a significant role to improve business performance. Other than that, brand name is one of the tools which can positively influence the consumer's buying behaviour. follows:

3. Methodology

3.1 Research Design

A quantitative method was carried out on this research to collect numerical data from the targeted population. Basic statistics such as percentages, frequency, mean, and standard deviation were analysed to explain a particular phenomenon. Creswell [24] stated that quantitative research includes the collection of data that can be quantified and subjected to statistical analysis to provide the information needed. Besides that, a quantitative research is also a method that analyses numerical data mathematically to clarify phenomena [25]. This study adopted the quantitative research because it is a suitable method to achieve the objective in this research. The data collected were analysed quantitatively by using the SPSS software.

3.2 Respondents

The number of tertiary students studying at Universiti Tun Hussein Onn Malaysia (UTHM) increases every year. Overall, there are about 15,344 students including international and local students in UTHM. Around 1,984 students are taking courses in Faculty of Technology Management and Business. In this research, the researcher only focused on the students from FPTP in UTHM. A large number of students in UTHM are playing an important role as consumers in the Batu Bahat area. Usually, students will do market survey and purchase a product based on their perception. Moreover, students always have the desire to purchase a high quality product to satisfy their needs. As it is impossible to study a whole population, sampling is required when conducting this research. For this study, the sample size was determined by using the Krejcie and Morgan's [26] table. The targeted population for this study was 1,984 students, while the sample size required was 322 respondents based on Krejcie and Morgan's [26] table.

3.3 Instrumentation

This study was carried out by using a distributing quantitative approach by а questionnaire to collect the data. This questionnaire consists of four sections. Section A describes some basic information about the philosophy of research and objectives and purpose of this study. This section helps the respondents to know the main ideas behind this research. Section B is the demographical information which is aimed to collect some general information such as respondent's age, gender, year of study, and so on. Meanwhile, Section C are questions on television information including TV brands used by the respondents, types of TV, purpose of having TV, and criteria of buying TV. Section D is a set of questions about the acceptance of quality dimension by the respondents which was adapted from the research done by Kianpour, Jusoh, and Asghari [9]. This part was designed for measuring product quality dimensions, which consists of nine measured dimensions. There are three questions for each dimension, except for conformance, which has four questions. For this part, the measurement used is a five-point Likert Scale which ranks from 1= strong disagree until 5= strong agree. When the respondents answer the questionnaire, they will specify the level of agreement or disagreement on a symmetric agree-disagree scale for a series of statements.

3.4 Data Collection Procedure

In this study, 385 questionnaires were distributed amongst tertiary students studying in the Faculty of Technology Management and Business, UTHM without restricting the courses taken and years of study. Then, we explained to them about the purpose of conducting this study. The respondents were given 15 minutes to respond to the questionnaire. Lastly, the questionnaire sheets were collected once completed and counted to ensure all the sheets were collected. Despite the total of 385 questionnaires sent out, only 322 printed questionnaires were received for this research. Some questionnaires were excluded from the research due to incomplete and missing data. The response rate has a percentage of 83%.

3.5 Data Analysis

The data obtained from the questionnaire were analysed using Statistical Package for Social Science (SPSS) version 22.0. SPSS software was used to manage and analyse large data by creating the accurate result needed to achieve the research objectives. Most of the results were illustrated in the form of tables and graphical charts. This study utilised SPSS as the calculation method for average number, percentage, mean, standard deviation, median, and variance to present the data obtained from the research. The graphic display helped in approaching this research. Descriptive statistics were used to examine the demographic data by using SPSS. Besides that, Cramer's V correlation was used as the inferential statistics to determine the relationships between brand and nine quality dimensions. The T-test was used to determine whether there was any significant difference between the two means of the independent groups. Hence, ANOVA test was also employed as the inferential statistics to determine quality perception between Malaysian and non-Malaysian electrical appliances.

4. **Results and Discussions**

4.1 Relationship between brand and nine quality perceptions

Cramer' V correlation was used to identify the relationship between brand and nine quality dimensions. The strength of the correlation coefficient value was measured according to Chepkwony et al. [27]: >0.49 ~Strong association; 0.20-0.49 ~ Moderate association; <0.20 ~ Weak association. Table 1 shows the relationship between brand and nine product quality dimensions. The result revealed that brand was associated with the quality dimensions. Nevertheless, the correlation was very weak, except for the feature, serviceability and perceived quality, which had a moderate correlation with the brand. In other words, brand is related to the consumer's perception of product quality among UTHM students. In keeping with the finding of the study of Uma & Sasikala [28], brand name was found to be the most important factor of buying a home appliance. The results revealed that there was no significant relationship between brand and performance dimension. This indicates that most of the respondents did not choose certain brands based on just the performance rather than other quality dimensions.

Table 1: Results of Cramer's V Correlation

Items	Cramer 'V	Approx sig	Sig or not
Brand* Performance	0.170	0.073	Not
Brand* features	0.213	0.008	Sig
Brand*Conformance	0.196	0.087	Not
Brand* Durability	0.136	0.733	Not
Brand* Realibility	0.170	0.402	Not

Brand* Serviceability	0.270	0.000	Sig
Brand* Aesthetic	0.146	0.915	Not
Brand* Pquality	0.200	0.056	Not
Brand*Environment friendly	0.160	0.407	Not

The results of this research show that there is a significant relationship between brand and feature dimension. People consider brand and feature before purchasing home appliances [3]. This demonstrates that most of the respondents chose a certain TV brand because it has a secondary specification and features that supplement the TV performance. This indicates that the brand and feature dimension are related to each other. Besides that, there is no significant relationship between brand and conformance dimension. This proves that some of the respondents did not choose a certain brand by referring to the ISO certification or minimum local standard. Other than that, there is a no significant relationship between brand and durability dimension. Some of the respondents did not purchase a certain product based on the durability dimension. This could be due to the fact that durability is something hard to predict from product's outlook. Although certain brands of a product might be known for their durability, there is still a chance that the product may experience a breakdown before its lifecycle expires. Apart from that, there is also no significant relationship between brand and reliability dimension. This indicates that most of the respondents believe that it is hard to define which product can perform without damage before its lifecycle. However, there is a significant relationship between brand and serviceability dimension.

According to Dhal [29], service and feature are the most important dimensions in purchasing an electrical appliance. The analysis result obtained by Oko and Onuoha [30] also indicates that after-sale service provides positive impact on consumers' perception of quality loyalty. This shows that most of the respondents chose a certain TV brand because it is easily repaired in a short period of time, for instance Samsung provides fast and easy repair service to the customers. Normally the customers will lodge complaints if problems are not resolved instantly. Such situation would affect the reputation of a certain TV brand and eventually influence the sale market of that TV brand. The analysis of the results also shows that there is no significant relationship between brand and aesthetics dimension. This reveals that some of the respondents did not choose a certain brand based on the aesthetic value due to appearance and feeling. Moreover, there is also no significant relationship between brand and perceived quality dimension. Most of the respondents did not choose

a certain brand due to the advertisement or the brand. Besides that, there is no significant relationship between brand and environmental friendly dimension. This also demonstrates that most of the respondents did not choose a certain brand due to the environmental friendly factor. The result shows that the difference in owner of the brand has a different perception of the product quality.

4.2 Quality Perception between Malaysian and Non-Malaysian Electrical Appliance

The one-way analysis of variance (ANOVA) was used to determine whether there are any statistically significant differences between the means of two or more independent (unrelated) groups. In this study, it was found that the brands utilised by the UTHM students were Korean brands (Samsung and LG), Japanese brands (Sharp, Panasonic, Toshiba, and Sony), and Malaysian brands (Khind, Pensonic). Hence, three independent groups were found in this study. Table 2 demonstrates the significant difference in quality perception between Malaysian and Non-Malaysian electrical appliances. Most of the results reveal that there is no significant difference between Malaysian and non-Malaysian electrical appliances in consumers' perception of product quality dimension except for the performance, features, aesthetics, and perceived quality dimension. This indicates that there is a significant difference in these quality perceptions, i.e performance, features, aesthetics, and perceived quality dimension between Malaysian brands, Japanese brands and Korean brands. According to the Garten [31], Malaysian consumers have such perception that foreign brand products from an advanced country have better quality than the local brand. The results show that consumers usually choose a certain brand based on performance, features, aesthetics and perceived quality of quality perception. However, Malaysians consumers have a significant difference in these quality perceptions of a local brand and foreign brand.

Table 2: Results of ANOVA analysis

Hypothesis	ANOVA sig	Result
H1: There is a significant difference in quality perception (Performance dimension) between Malaysian and Non-	0.031	Accepted

	I	
Malaysian electrical		
appliance.		
H2: There is a significant	0.024	Accepted
difference in quality		
perception (Features		
dimension) between		
Malaysian and Non-		
Malaysian electrical		
appliance.		
H3: There is a significant	0.458	Rejected
difference in quality		
perception (Reliability		
dimension) between		
Malaysian and Non-		
Malaysian electrical		
appliance.		
H4: There is a significant	0.588	Rejected
difference in quality		
perception (Conformance		
dimension) between		
Malaysian and Non-		
Malaysian electrical		
appliance.		
H5: There is a significant	0.228	Rejected
difference in quality		
perception (Durability		
dimension) between		
Malaysian and Non-		
Malaysian electrical		
appliance.		
H6: There is a significant	0.097	Rejected
difference in quality		
perception (Serviceability		
dimension) between		
Malaysian and Non-		
Malaysian electrical		
appliance.		
H7: There is a significant	0.045	Accepted
difference in quality		
perception (Aesthetics		
dimension) between		
Malaysian and Non-		
Malaysian electrical		
appliance.		
H8: There is a significant	0.019	Accepted
difference in quality		
perception (Perceived		
quality dimension)		
between Malaysian and		
Non-Malaysian electrical		
appliance.		
H9: There is a significant	0.353	Rejected
difference in quality		
perception		
(Environmental friendly		
dimension) between		
Malaysian and Non-		
Malaysian electrical		
appliance.		

5. Conclusion

This research has presented the result of a survey conducted in UTHM with the main purpose of identifying the relationships between brand and nine product quality dimensions and comparing the quality perception between Malaysian and non-Malaysian electrical appliances amongst tertiary students. This study reveals that only these two quality dimensions, i.e. feature and serviceability are significantly correlated with brand. However, they have moderate strength of correlation. Besides that, performance features, aesthetics, and perceived quality are significant differences in quality perception between Malaysian and non-Malaysian electrical appliances. The design of this study and its findings contribute to improved understanding of the consumer's perception of product quality and the different perceptions of Malaysian and non-Malaysian electrical appliances. In addition, since this research took place in the academic field, it will be more useful if a similar kind of research can be conducted to the public with different backgrounds and demographics.

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References

- [1] Buntak, K., Adelsberger, Z., & Nad, I. (2012). Impact of product quality in the business of the organization. *International Journal for Quality research*, 6(3), 271-283.
- [2] Gurnani, H. (1999). Pitfalls in Total Quality Management Implementation: The case of a Hong Kong Company. *Total Quality Management*, 10(2), 209-228.
- [3] Jisana, T. K., & Basheer Ahammed, P. V. (2014). Brand Preference and Consumption Pattern of Home Appliance by Consumers in Kerala. *International Journal of Marketing, Financial Service and Management Research*, 3(11), 46-54.
- [4] McDaniel, C., Lamb, C. W., & Hair, J. F. (2011). *Introduction to Marketing*. 11th Edition. South-Western, Cengage Learning, China.
- [5] Brucks, M., Zeithaml, V. A., & Naylor, G. (2000). Price and Brand Name as Indicators of Quality Dimension for Consumer Durables. *Journal of the Academy of Marketing Science*, 28(3), 359-374.
- [6] Bedi, R. S. (2009). *Save Money, Buy Malaysian*. The Star Online.
- [7] Lew, S., & Sulaiman, Z. (2014). Consumer Purchase Intention toward Product Made in Malaysia Vs. Made in China: A Conceptual Paper. *Journal of Social and Behavioral Sciences*, 130, 37-45.
- [8] Garvin, D. A. (1984). What does Product Quality really mean? *Sloan Management Review*, 25-43.

- [9] Kianpour, K., Jusoh, A. &Asghari, M. (2014).Environment Friendly as A New Dimension of Product Quality. *International Journal of Quality& Reliability Management*, 31(5), 547-565.
- [10] Alex, D., Valley P.O, R & Thomas, S. (2011). Impact of Product Quality, Service Quality and Contextual Experience on Customer Perceived Value and Future Buying Intentions. *European Journal of Business and Management*, 3(3), 307-315.
- [11] Juran, J.M., & De Feo, J. (2010). Juran Quality Handbook: The Complete Guide to Performance Excellent (6th Ed.). New York, NY: McGraw Hill.
- [12] Chan, S. W., Zaman, I., Ahmad, M. F., & Liew, C. Y. (in press). Identification of the Concept Selection Method for Product Design and Development in the Manufacturing Industry.
- [13] Jakpar, S., Goh, S. N., Johari, A., & Khin, T. M. (2012). Examining the Product Quality Attribute That Influences Customer Satisfaction Most When 74 Price Was Discounted: A Case Study in Kuching Sarawak. International Journal of Business and Social Science, 3(23), 221-236.
- [14] Shaharudin, M. R., Mansor, S. W., & Hassan, A. A., Omar, M. W., & Harun, E. H. (2011). The Relationship between Product Quality and Purchase Intention: The Case of Malaysia's National Motorcycle / Scooter Manufacturer. African Journal of Business Management, 5(20), 8163-8176.
- [15] Garvin, D.A. (1987). Competing on the Eight Dimensions of Quality. *Harvard Business Review*, 65(6), 101-109.
- [16] Sebastianelli, R., & Tamimi, N. (2002). How Product Quality Dimensions relate to Defining Quality. *International Journal of Quality and Reliability Management*, 19 (4), 442-453.
- [17] Prabhakar Murthy, D. N., & Blishke, W. R. (2006). Warranty Management and Product Manufacture. *Springer Series in Reliability Engineering*, 15-34.
- [18] Albino, V., Balice, A. R., & Dangelico. (2009). Environmental Strategies and Green Product Development: An Overview on Sustainability-driven Companies. *Business* Strategy and the Environment, 18(1), 83-96.
- [19] Jacoby, J., Olson, J. C., & Haddock, R. A. (1971). Price, Brand Name, and Product Composition Characteristics as Determinants

of Perceive Quality. *Journal of Applied Psychology*, 5(6), 570-579.

- [20] Aaker, J. L. (1997). Dimensions of Brand Personality. *Journal of Marketing Research*, 34(3), 347-356.
- [21] Keller, K. L. (1993). Conceptualizing, Measuring and Managing Customer- Based Brand Equity. *Journal of Marketing*, 57(1), 1-22.
- [22] Morgan, R.M., & Hunt, S.D.(1994). The Commitment- Trust Theory of Relationship Marketing. *Journal of Marketing*, 58(2), 20-38.
- [23] Shehzad. U., Ahmad. S., Iqbal. K., Nawaz. M., & Usman. S. (2014). Influence of Brand Name on Consumer Choice and Decision. *Journal of Business and Management*, 16(6), 72-76
- [24] Creswell, J. (2003). Research design: Qualitative, Quantitative and Mixed Methods Approaches, 2nd Edition. Thousand Oaks, CA: SAGE Publications.
- [25] Aliaga, M., & Gunderson, B. (2005). *Interactive statistics*. 3rd ed. Upper Saddle River, NJ: Pearson Education, Inc.
- [26] Krejcie, R. V., & Morgan, D. W. (1970). Determining Sample Size for Research Activities. *Education and Psychological Measurement*, 30, 607-610.
- [27] Chepkwony, S.K., Alice. O, Enose, M.W. & Werunga, R. K (2015). Influence of Secondary Education Constituency Bursary Fund Allocation Modalities on Retention of Secondary School Students from Vulnerable Background in Kenya. *Journal of Education Policy and Entrepreneurial Research*, 2(2), 60- 69.
- [28] Uma,K., & Sasikala. P. (2014). Study on consumer's perceptions and Buying Behaviour towards Selected Home Appliances Products in Madurai District. *Indian Journal of Applied Research*, 4(4), 87-88.
- [29] Dhal, S. K. (2015). A Study of Consumer Buying Behavior and Perception towards Laptops in Orrisa. *International Journal of Innovative Science and Modern Engineering*, 3(3), 1-4.
- [30] Oko, A. E., & Onuoha, A. (2013). After- Sales Services and Consumers' Perception of Quality: A Study of Refrigerator Users (Consumers) in South East Nigeria. *Journal of Business and Management*, 1(2), 56-83.
- [31] Garten, J. E. (2002). *When everything is made in China*. Bloomberg Business Week Magazine.