



Research Article

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When Brand Image, Perceived Price, and Perceived Quality Interplay in Predicting Purchase Intention: Developing a Rhombus Model

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Abstract

Rhombus model is a theoretical framework to measure consumers' particular behaviour. It consists of three predictor variables that can swap places. This study employs a brand image, perceived price, and perceived quality as predictor variables, and purchase intention as a predicted variable. The study cohort was the consumers of mobile phones with a water proof feature and they were chosen using a convenient sampling technique. In total, 238 participants completed a survey. Data were analysed using exploratory and confirmatory factor analyses to validate data and structural equation model to test hypotheses. We calculated three models with variables that exchange positions. This study provides a new option for presenting data.

Keywords: Rhombus model, brand image, perceived price, perceived quality, purchase intention, water proof smart phone

1. Introduction

"When there is a price, there is a good". This expression is common among Indonesian consumers. Consumers perceive an expensive product as having good quality. However, this expression is not necessarily true. Consumers can find products that are expensive but of poor quality or vice versa. The iPhone strategy in selling products always uses a single pricing strategy wherever it is. However, cellular brands other than iPhone issued various series for different consumer segments. Differences

in product series impact the choice of varying segment markets because each series' prices are different. The features carry by a smartphone determine the level of quality. Manufacturers continue to innovate and tailor new features for each target market.

According to Tan et al. (2012), important features of a smartphone include price, price plan, operating system, transmission, screen, body design, e-Wallet, applications, brand, and fashion. These features might influence consumer purchase decision (Rahim et al., 2016). According to Vistro et al. (2020), customers demand for smartphones with waterproof features continues to increase. Therefore, several manufacturers offer smartphones with a waterproof feature. For some customers, certain kind of feature will be attractive because they are associated with their lifestyle and creativity in creating social media content (Cho et al., 2020; Yang et al., 2020).

Scholars have considered consumer behaviour relating to smart phone purchase intention (Lau et al., 2016; Mao et al., 2020; Sawaftah et al., 2020; Shahrinaz et al., 2016). However, consumer behaviour related to purchasing a smartphone with a special feature, such as waterproof, has received less scholarly attention. To measure this behavioural intention, in this current study the authors apply brand image, perceived price, and perceived quality. Therefore, this study aims to examine the impact of price, and perceived product quality, brand image on young consumers' intention to purchase a waterproof smartphone. However, this study examines the effect of one variable on other variables and tests a rhombus model consisting of three predictor variables and one predicted variable. These three variables then change places. Previously, Suhud and Willson (2019) predicted consumers' intention to purchase a green car using a rhombus model. Another rhombus model tested by Suhud et al. (2020) employing service quality, perceived product quality, perceived price, and satisfaction. The idea of the two studies is to create a rhombus model, after which each variable is made to replace the other variables in the other two rhombus models.

2. Literature Review

2.1 Theoretical Background and Hypotheses Development

2.1.1 Brand image

A brand is a collection of identities relating to a product consisting of a brand name, logo, shape, font, colour, aroma, texture, packaging design, texture, sound, pronunciation of the brand name, slogan, jingle, façade of a point-of-service, and interior design. These aspects stimulate persons to perceive a brand becoming an image. Brand image is defined by Keller (1993, p. 3) as "perceptions about a brand reflected as associations existing in the memory of the consumer".

Scholars have shaped brand image into dimensions, including cognitive, affective, and/or sensory considerations (Chang & Chieng, 2006). Prior studies explored the impact of brand image on other variables including perceived product quality, perceived price, service quality, brand relationship, attitudinal brand loyalty, customer satisfaction, brand equity, and love mark (Chang & Chieng, 2006; Cho et al., 2015; Cretu & Brodie, 2007; Faircloth et al., 2001; Park, 2009). In this study, brand image is linked to perceived price, perceived quality, and purchase intention.

Research that raises the effect of brand image on perceived prices is still rarely found (Lien et al., 2015; Suhud & Willson, 2019). For example, Lien et al. (2015) examine the factors that influence consumer intentions to book hotels online. They claim that there is a significant effect of brand image on perceived price.

Some scholars (Chiang & Jang, 2007; Cretu & Brodie, 2007; Suhud & Willson, 2019) have researched the role of brand image in improving the perceived quality of a product. For example, Cretu and Brodi (2007) studied customer loyalty in a setting of business-to-business. In this study, brand image was linked to product quality. They found brand image has a significant impact on perceived quality. Suhud and Willson (2019) measure the impact of brand image on perceived price and perceived quality relating to a low-cost green car (LCGC). They demonstrate that brand image

has a significant influence on the perceived price and perceived quality.

In several studies (Agmeka et al., 2019; Lee & Lee, 2018; Lien et al., 2015), brand image affects consumer intentions to buy a product significantly. For example, Lee and Lee (2018) measure the impact of the company's multi-brand CSR activities on purchase intention. They found that brand image has a significant influence on consumer intentions to buy products from this company.

The following three hypotheses are formulated based on the discussion of the previous studies.

H₁ – Brand image will have a significant impact on perceived price

H₂ – Brand image will have a significant impact on perceived quality

H₃ – Brand image will have a significant impact on purchase intention.

2.1.2 Perceived price

The price is the selling value set by a seller of an item paid by the customer. The price set by the seller will be influenced by many factors, such as the base price of the article, the place of sale, profits, promotional costs, taxes, and postage (if any). Price can negatively affect the perceived price, perceived value, trust, perceived quality, brand image, and purchase decision (Aufegger et al., 2021; Calvo-Porral & Lévy-Mangin, 2017; Esmaili et al., 2017; Suhaily & Darmoyo, 2017). However, perceived price is differed from price. Perceived price is the price that consumers perceive based on their knowledge and experience. The perceived price has a significant effect on brand image, perceived quality, and purchase intention from previous studies.

We found gaps in the literature measuring the effect of perceived price on brand image. In Yi et al. (2018)'s study, perceived price and brand image are categorized as perception. Perception is formed on the knowledge that a person gets from his/her environment (Efron, 1969). In both stimulus-organism-response (Mehrabian & Russell, 1974) and input-process-output (Schiffman & Wisenblit, 2015) theories, stimulus or input affects the organism or process. Furthermore, the organism or process affects the response or output. In many studies, a perception variable can influence another perception variable. For example, perceived price influences perceived value (Zietsman et al., 2019), and brand image affects perceived quality (Chiang & Jang, 2007).

Scholars (Beneke & Zimmerman, 2014; Chang & Wildt, 1994; Chiang & Jang, 2007; Lee & Lin, 2014) have examined the impact of perceived price on perceived quality. For example, brand prestige from a private label is the main focus of Beneke and Zimmerman (2014)'s study. Their study was carried out in Cape Town, South Africa. They claim that perceived price affects perceived quality.

Perceived price – purchase intention (Chiang & Jang, 2007; Li, 2017; Lien et al., 2015; Suhud & Willson, 2019; Zahid & Dastane, 2016). For example, Ramadhan and Muthohar (2019) examine factors to influence customers' intention to purchase products of a hypermart private label. One of the findings documented is that perceived price has a significant impact on purchase intention. Further, Chiang and Jang (2007) measure the factors that can influence the intention to book hotels online. One of their results is that the perceived price significantly affects the purchase intention. Elsewhere, Kim, Xu, and Gupta (2012) analyse the factors that influence purchase intention. They postulate that the importance of perceived price in strengthening the intention of customers to buy a book.

In the light of the previous studies, three hypotheses have been formulated as follows:

H₄ – Perceived price will have a significant impact on brand image

H₅ – Perceived price will have a significant impact on perceived quality

H₆ – Perceived price will have a significant impact on purchase intention

2.1.3 Perceived quality

A product's quality is measured by an objective instrument designed by experts, association, scholars, or a mix of them. However, perceived quality is a subjective feeling based on knowledge and experience by consumers. Perceived quality is affected by internal factors, including demographics, psychographics, cognitive, and affective factors. Besides, perceived quality could also be affected by

external factors, including marketing activities and social influence.

Prior studies (Cretu & Brodie, 2007; Iglesias & Guillén, 2004; Snoj et al., 2004) indicate perceived quality as one of the variables to improve satisfaction, customer value, perceived risks, perceived value, and purchase intention. In this current study, perceived quality is linked to brand image, perceived price, and purchase intention.

Many studies include perceived quality and perceived price in their research. However, this is very surprising when we have difficulty finding previous studies discussing perceived quality's effect on perceived price. In the input-process-output theory, we can consider a product's quality and price as 'inputs' for consumers, while perception is a 'process' (Schiffman & Wisenblit, 2015). One perception with other perceptions can influence each other. For example, perceived price might affect perceived quality (Beneke & Zimmerman, 2014; Chang & Wildt, 1994; Chiang & Jang, 2007); whereas perceived quality might affect perceived value (Konuk, 2018).

Several studies demonstrate the role of perceived quality in affecting brand image (Alhaddad, 2015; Saleem et al., 2015). For example, a study undertaken by Saleem et al. (2015) examines factors to influence brand loyalty of soft drink products. Therefore, they conclude that perceived quality significantly influences brand image.

It could be argued that Perceived quality is one of the best predictors of customers' purchase intention (Li, 2017; Suhud & Willson, 2019; Zahid & Dastane, 2016). For example, Alhaddad (2015) analyses factors to influence brand loyalty with perceived quality as one of the predictors. This research involved Syrian students. They thus claim posted that there is a significant impact for perceived quality on brand image. Additionally, Naing and Chaipoopirutama (2014) study intention of shopping centre visitors in Myanmar to purchase a smartphone. They say that perceived quality significantly influences purchase intention. Further, Ranjbarian, Sanayei, Kaboli, and Hadadian (2012) examine influencing factors of the intention of Iranian customers to purchase at department stores. They prove that perceived quality significantly affects store brand image and purchase intention. Another study is conducted by Tsiotsou (2006), investigating the effect of perceived product quality on purchase intention. Accordingly, Chi, Yeh, and Yang (2009) test the impact of perceived quality on purchase intention. Both studies mention the important key of perceived quality in influencing purchase intention.

Based on the previous discussion, three hypotheses are formulated.

H₇ – Perceived quality will have a significant impact on perceived price

H₈ – Perceived quality will have a significant impact on brand image

H₉ – Perceived quality will have a significant impact on purchase intention

2.1.4 The proposed research models

Suhud and Willson (2019) initiated the rhombus model testing by applying brand image, perceived price, and perceived quality. This research continues their previous work by adding two new models, and each variable has the same opportunity to replace the other variables.

Based on the hypotheses built above, this study will examine the proposed research models as illustrated on Figure 1, Figure 2, and Figure 3. Figure 1 shows the first model to be tested. In this model, brand image is linked to perceived price (H₁) and perceived quality (H₂). Furthermore, perceived price and perceived quality are linked to purchase intention (H₆ and H₉, respectively).

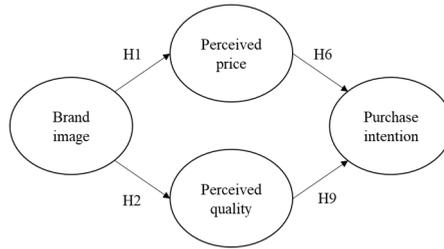


Figure 1: The first proposed model

Figure 2 is the second model. In this model, perceived price is linked to brand image (H_4) and perceived quality (H_5). Whereas brand image and perceived quality are linked to purchase intention (H_3 and H_9 respectively).

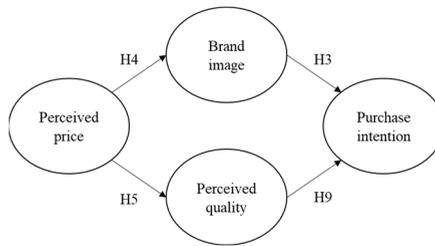


Figure 2: The second proposed model

The third model is presented as Figure 3. In this model, perceived quality is linked to perceived price (H_7) and brand image (H_8). Furthermore, perceived price and brand image is used to predict purchase intention (H_6 and H_3 respectively).

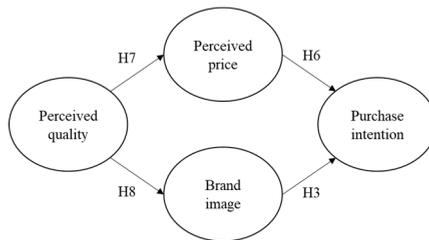


Figure 3: The third proposed model

Overall, the three previous models are based on a rhombus shape. The idea of this rhombus-shape model is, when they are tested, each variable could replace other variables with a result that all paths would be positive and significant. This approach has not been tested by prior studies.

3. Research Methods

3.1 Sample

The current research involved students at a public university in Jakarta, Indonesia. To take the survey, they are required to have a smartphone. Participants were selected using the convenient

sampling method and asked if they would fill out the questionnaire. In this study, questionnaires were distributed in printed form. When filling out the questionnaire, participants were waited to anticipate if they needed help understanding each question and statement.

3.2 Measures

Items to measure each variable included in this current study were taken from existing studies. For example, items from Heriyanti and Septi (2012) were adapted to measure price perception, perceived quality, and brand image. Items from Schlosser, White, and Lloyd (2006), and Park and Lennon (2009) were adapted to measure online purchase intention. In addition, items from (Mir et al., 2012) were adapted to measure perceived price. All items were measured using a five-point Likert's scale ranging from 1 for 'strongly disagree' to 5 for 'strongly agree'. The questionnaire was written in Bahasa (language) Indonesia.

3.3 Data analysis

Data were analysed using exploratory factor analysis (EFA) as a part of data validation as well as for establishing dimensions and retaining items. The next step was conducting a reliability test. In this study, only construct with a score of 0.7 and greater was considered reliable and counted in for further analysis (Hair et al., 2019). To test the hypotheses, a structural equation model (SEM) was employed. To obtain a fit, a model should have a probability score of 0.05 (Schermelele-Engel et al., 2003) and a CMIN/DF score of ≤ 2 (Tabachnick et al., 2007). Additionally, it needs a CFI score of ≥ 0.97 (Li-tze Hu & Bentler, 1995) and a RMSEA score of ≤ 0.05 (Li-tze Hu & Bentler, 1999). Furthermore, a hypothesis is considered significant if it has a critical ration (C.R.) score of 0.05 or larger.

4. Results

4.1 Participants

Data were collected at a public university in Jakarta. Participants were selected conveniently and asked to complete a self-administered questionnaire. Participants were required to possess a smartphone. Of the 238 students surveyed at Jakarta, 64 (26.9%) were males and 174 (73.1%) were females. Participants were aged predominantly between 20-25 years old (208 participants; 87.4%) and the rest were under 20 years old (30 participants; 12.6%). Furthermore, participants were asked to indicate their hobbies. Ninety of them claimed that they loved traveling (96 participants), watching movies (55 participants), swimming (38 participants), listening to the music (31 participants), and others. When participants were asked to identify their intention to purchase a waterproof smartphone if available in the market, 118 (49.6%) of them answered that they had an intention. In the context of the mobile devices that participants use, 104 participants (43.7%) mentioned that they had a Samsung smartphone. Whilst the remaining participants indicated that they had a Huawei, HTC, Lenovo, Sony, iPhone, and other brands.

4.2 Data validation and reliability tests

Exploratory factor analysis produced ten components including purchase intention with two dimensions: purchase tendency (nine indicators) and referential intention (two indicators) with a Cronbach's alpha of 0.902 and 0.608 respectively. Additionally, brand image had no dimension (10 indicators) with a Cronbach's alpha score of 0.894. Perceived product quality had four dimensions including fit and finish (five indicators), features (three indicators), durability (three indicators), and aesthetics (two indicators) with Cronbach's alpha scores of 0.836, 0.867, 0.808, and 0.756 respectively. Furthermore, perceived price had three dimensions, including price conformity with value and benefit (six indicators), affordability (three indicators), and price competitors (three

indicators) with Cronbach's alpha scores of 0.779, 0.776, and 0.668 respectively.

Table 1: Result of exploratory factor analysis

Variables and indicators	Factor loading	Cronbach's alpha
Purchase intention		0.868
P3 I have a great interest to buy a waterproof smartphone in the future.	0.792	
P5 I'm willing to pay money to buy a waterproof smartphone someday.	0.762	
P4 There is a significant possibility that I would buy a waterproof smartphone.	0.752	
P1 I have a firm intention to buy a waterproof smartphone.	0.749	
P7 I would recommend a waterproof smartphone to my friends if I had bought it.	0.741	
P2 I have a desire to buy a waterproof smartphone in the future.	0.726	
P6 I have a desire to buy a kind of waterproof smartphones than others.	0.713	
Brand image		0.875
B6 I will feel proud when using a waterproof smartphone.	0.820	
B4 The brand of a waterproof smartphone that I am interested in enables me to compete with other innovating brands.	0.786	
B7 Compared to other brands, a waterproof smartphone that I am interested in being possessed would have a high quality.	0.781	
B5 A waterproof smartphone has created a different image in my mind.	0.766	
B1 Compared with other smartphone products, a waterproof smartphone will have a higher quality.	0.749	
B3 A waterproof smartphone can compete with other smartphones.	0.659	
B8 In my opinion, a waterproof smartphone product is innovative.	0.652	
B2 The promise given by a waterproof smartphone is likely to correspond to my expectations.	0.639	
Perceived price		0.678
PR5 The price of a waterproof smartphone following its brand image	0.744	
PR4 I think the price of a waterproof smartphone is very reasonable	0.689	
PR6 A waterproof smartphone delivers more benefits than I would spend	0.686	
PR3 I want to buy a waterproof smartphone, albeit at a higher price	0.626	
PR1 I think buying a waterproof smartphone can provide more significant benefit than that which would be paid.	0.521	
PR2 I think the price of a waterproof smartphone is worth to buy	0.469	
Perceived quality		0.794
Q5 A waterproof smartphone will have a benefit that suits my needs.	0.799	
Q3 I am sure of the specification of the featured products listed in the packaging of waterproof smartphone.	0.772	
Q4 A waterproof feature on waterproof smartphone suits my needs	0.731	
Q2 I am sure a warranty label will be mounted on a waterproof smartphone.	0.724	
Q1 In my opinion, a waterproof smartphone can follow the development of technology.	0.678	

4.2.1 The first model testing

Figure 4 presents the structural model of the first model testing. A fitted model was achieved with a probability score of 0.094, CMIN/DF score of 1.206, CFI score of 0.983, and RMSEA score of 0.029.

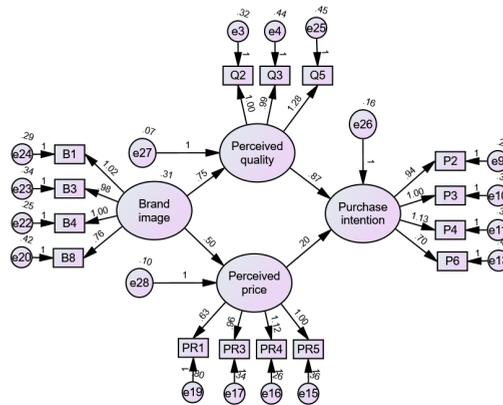


Figure 4: Structural model of the first model testing

Table 2 shows the results of the first hypotheses testing. Three of the hypotheses had C.R. scores of 7.711, 5.742, and 6.167, respectively. Unfortunately, there was a hypothesis had a C.R. score of 1.833, indicating insignificance.

Table 2: The results of the first model testing

Hypotheses	Path			C.R.	P	Results
H ₁	Brand image	→	Perceived price	5.968	***	Accepted
H ₂	Brand image	→	Perceived quality	8.125	***	Accepted
H ₃	Perceived price	→	Purchase intention	1.310	0.190	Rejected
H ₄	Perceived quality	→	Purchase intention	5.751	***	Accepted

4.2.2 The second model testing

Figure 5 is the structural model of the second model testing. The model achieved a fitness with probability, CMIN/DF, CFI, and RMSEA scores of 0.259, 1.094, 0.992, and 0.020, respectively.

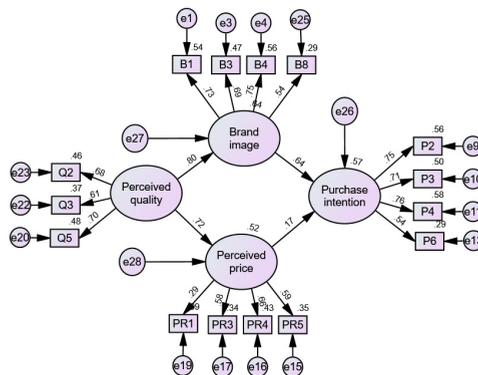


Figure 5: Structural model of the second model testing

Table 3 provides information about the results of the second model testing. Three hypotheses obtained C.R. scores of 7.201, 5.755, and 5.893, respectively, whereas a hypothesis had a C.R. score of 1.725.

Table 3:The results of the second model testing

Hypotheses	Paths			C.R.	P	Results
H ₇	Perceived quality	→	Brand image	7.201	***	Accepted
H ₈	Perceived quality	→	Perceived price	5.755	***	Accepted
H ₃	Brand image	→	Purchase intention	5.893	***	Accepted
H ₆	Perceived price	→	Purchase intention	1.725	0.085	Rejected

4.2.3 The third model testing

The third model measured the impact of perceived price on brand image and perceived quality (Figure 6).

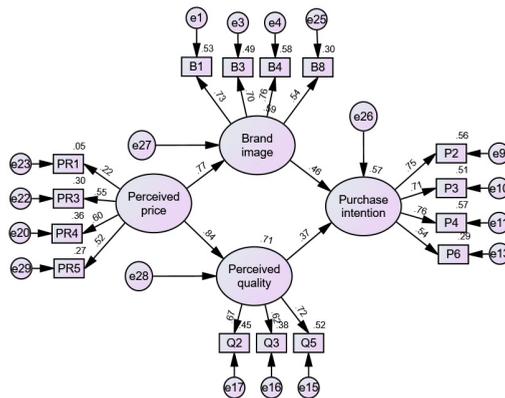


Figure 6. Structural model of the third model testing

In testing the third model, all hypotheses have one C.R. more than 2.0, which indicates that they are accepted (Table 4).

Table 4: The results of the third model testing

Hypotheses	Paths			C.R.	P	Results
H ₄	Perceived price	→	Brand image	6.300	***	Accepted
H ₅	Perceived price	→	Perceived quality	6.393	***	Accepted
H ₃	Brand image	→	Purchase intention	4.287	***	Accepted
H ₉	Perceived quality	→	Purchase intention	3.412	***	Accepted

5. Discussion

In the first model, brand image examined perceived price. Brand image is predicted by previous studies (Lien et al., 2015; Suhud & Willson, 2019) as an important variable to increase a perceived price. Some smartphone manufacturers create and maintain their brands as exclusive items and serve

only specific segments, for example, Vertu and iPhone. Several other manufacturers make various smartphone series, which then directed each series to each particular segment. Each brand and series have its segment. Thus, consumers automatically form a perception about a smartphone brand that is then reflected in their perception of the smartphone's price: the better the image of a brand, the more it will appear worthy of the predetermined selling price.

In this current study, brand image predicted perceived quality as seen on the first model. Prior studies (Chiang & Jang, 2007; Cretu & Brodie, 2007; Suhud & Willson, 2019) presented a significant influence of brand image on perceived quality. A thing that consumers nicely perceive will also make it easier for consumers to think that their product quality is good. Therefore, marketers' job is to create and maintain a brand that remains good in the minds of consumers.

According to prior studies (Agmeka et al., 2019; J. Lee & Lee, 2018; Lien et al., 2015), brand image affected purchase intention. This study tested the impact of brand image on purchase intention as presented in the second and third models. We found that brand image in the two models significantly affected purchase intention. The impact of a brand image can be devastating (Mao et al., 2020). In this case, the brand image can strengthen a consumer to intend to buy a waterproof smartphone. When a consumer thinks that Samsung is good, and when Samsung releases a series with waterproof features, it will be easy for such consumer to direct his intention to buy this item.

In this study, the path of perceived price and brand image is represented in the second model. If the better the consumer's perception of a waterproof smartphone's price, the better the image consumers perceive the smartphone's brand. Therefore, to create a good perception, consumers need adequate knowledge and experience. The second model tests the effect of perceived price on brand image. As a result, this hypothesis was accepted. Smartphones have become a necessity for the community. Every consumer has their own choice according to their needs, preferences and financial capabilities. When perceptions about the price and a waterproof smartphone brand to buy meet, transactions can happen. The knowledge and experience of the prospective buyer create the right perception of price. Sellers will quickly educate potential buyers who come to a store to understand a smartphone product can be significant unless they buy it online. For that, matching information needs to be included in every item offered in the online store.

Another finding of this current study is a significant impact of perceived price on perceived quality. This finding is in line with previous studies (Beneke & Zimmerman, 2014; Chang & Wildt, 1994; Chiang & Jang, 2007; Lee & Lin, 2014). In Indonesia's smartphone markets, especially in the capital, smartphone sellers generally have extensive knowledge about the smartphones they sell. For example, they compare one series to another from a brand, the advantages and disadvantages of one good to another, including why one good is more expensive than another. Sellers educate prospective buyers, who, on average, are still young. The sellers explain the features and provide the experiences that prospective buyers deserve about how to operate and use the features available on the smartphone they are going to buy. So, it is very natural that when this study finds that price perception has a significant effect on brand image, buyers will assume that what they spend on buying a waterproof smartphone is commensurate with its quality.

Previous studies (Chiang & Jang, 2007; Lien et al., 2015; Suhud & Willson, 2019; Zahid & Dastane, 2016) have documented a significant effect of perceived price on purchase intention. In this case, the perceived price and purchase intention path were tested by the first and second models, which unfortunately failed to predict purchase intention. In the beginning, it was stated that the 'price' was not a 'perceived price'. However, in this case, the participants seemed to sense that a smartphone with unique features such as water resistance was still an expensive product that might have an unreachable price. Hence, participants thought they would not be able to buy it.

As documented by previous studies, (Alhaddad, 2015; Saleem et al., 2015), perceived quality has a significant influence on brand image. One of the findings of this current study supports them. On the one hand, brand image shapes perceived quality. On the other hand, perceived quality produces a brand image. Two causal events are possible to occur if consumers already have sufficient knowledge and experience with the products and brands used as the object of research. We consider that the

consumer's knowledge and experience are vital in this case.

According to many studies (Alhaddad, 2015; Saleem et al., 2015), perceived quality affects brand image. The current research supports this claim. In the first and second models, perceived quality is associated with the brand image, and as a result, perceived quality shows a significant effect on brand image. In 2021, some brands such as Sony, LG, Xiaomi, Samsung, Oppo, Vivo, HP Lava, Nokia, Lenovo, Apple, HTC, Asus, OnePlus, ZTE, Meizu, Mito Mobile, Advan, Polytron, Digicoop, Zyrex, Evercoss, and HiMax, are still popular in the cellular phone market in Indonesia. However, strong brands no longer exist in the Indonesian market in the past, for example, Ericsson, Sony-Ericsson, and BlackBerry. One of the reasons for the extinction of these brands was that consumers perceived that those brands had no longer good quality. Technology products should continue to have innovations from their competitors.

In many studies (Suhud & Willson, 2019; Zahid & Dastane, 2016), perceived quality shows its effect on purchase intention. If a consumer already has a good perception of the quality of an item, it will be easy for him/her to have the intention to buy such item. Particular consumers will consider a smartphone because of its primary function, while other consumers will see additional features as expected before they make a purchase. Not every smartphone owned the waterproof feature, which means that it achieves a certain quality as expected by consumers.

6. Conclusion

This study used a rhombus model consisting of three predictor variables to predict behavioural intention. The three variables are brand image, perceived quality, and perceived price. The rhombus model allows the three predictor variables to play a role in influencing each other. In the first model, brand image is the independent variable and affects the other two variables, while in the second model, perceived quality is the independent variable. Furthermore, in the third model, the perceived price is the independent variable. In this case, we have a smartphone with a waterproof feature. In theory, this rhombus model is appropriate. However, the current study is not very satisfying because it had not worked as predicted, which is indicated by one of the rejected hypotheses: the effect of perceived price on purchase intention.

Limitations in this study should be acknowledged, for example, the lack of support from previous studies. In the second model, we tested the effect of perceived price on brand image, and in the third model, the effect of perceived quality on perceived price. These two pathways do not receive relevant research. However, we use the fundamental theories of input-process-output and stimulus-organism-response to justify our study. The findings of this study ultimately fill the literature gaps between the two pathways above.

As discussed earlier, the type of product chosen may play a role in influencing respondents' perceptions. Therefore, future research should employ the product's style as the main study's object with the target respondents. In this case, students from a public university becomes a participant in predicting a smartphone's price with a waterproof feature. There was a possibility, and they perceived that this product was less affordable for them. Future research may also change the product under study. Previously, Suhud et al. (2019) employed a rhombus model concept to test visitors' revisit intention to cafe and coffee shop colonies. This work showed that the products selected for the study can be either goods or services.

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