

## **CHAPTER IV**

### **HYPOTHESIS TESTING AND RESEARCH RESULT DISCUSSION**

The findings of hypothesis testing on the relationship between the variables studied will be discussed in this chapter. Hypothesis testing is carried out with the aim of knowing whether or not there is a relationship between the variables Brand awareness, Brand association and Perceived quality owned by Shopee and Shopee's customer satisfaction. In this study, the hypothesis testing was carried out using the SPSS (Statistical Product and Service Solution) version 25 application with the Kendall Tau\_B formula.

#### **4.1. Hypothesis Testing Between Shopee's Brand Awareness (X1), Brand Association (X2), and Perceived Quality (X3) Towards Shopee's Customers Satisfaction (Y)**

The Kendall Tau\_b Correlation Test is a non-parametric statistical test for determining the relationship between two or more ordinal variables. In this case, the Kendall Tau b Correlation test is used to determine the relationship between Shopee's brand awareness and Shopee's customer satisfaction (H1), Shopee's brand association and Shopee's customer satisfaction (H2), Shopee's perceived quality and Shopee's customer satisfaction (H3), and Shopee's brand awareness, brand association, and perceived quality towards Shopee's customer satisfaction in Indonesia (H4). The level of significance can be used to see the relationship between the three variables if:

- If the significance value is  $< 0.01$ , it means that there is a very significant relationship between the independent variables (X1), (X2) and (X3) and the dependent variable (Y). Then the research hypothesis is accepted.
- If the significance value is  $< 0.05$ , it means that there is a significant relationship between the independent variables (X1), (X2) and (X3) and the dependent variable (Y). Then the research hypothesis is accepted.
- If the significance value is  $> 0.05$ , it means that it is not significant so

that there is no relationship between the independent variables (X1), (X2) and (X3) with the dependent variable (Y). Then the research hypothesis is rejected.

One of the most commonly used and discussed statistical methods for summarizing scientific research data is correlation analysis. It's frequently useful to see if there's a connection between two different variables. If so, this method will figure out how strong or important the link between the two variables is. Correlation is defined by Webster's Online Dictionary as a reciprocal relationship between two or more objects; a statistic that represents how closely two variables co-vary; it can range from -1 (perfect negative correlation) to +1 (perfect positive correlation) (perfect positive correlation). The following requirements are used to interpret the correlation coefficient:

- If the correlation coefficient is 0.00 to 0.199, it means that the relationship between variables is very weak
- If the correlation coefficient is 0.200 to 0.399, it means that the relationship between variables is weak
- If the correlation coefficient is 0.400 to 0.599, it means that the relationship between variables is moderate
- If the value of the correlation coefficient is 0.600 to 0.799, it means that the close relationship between variables is strong
- If the correlation coefficient is 0.800 to 1.00, it means that the relationship between variables is very strong.

#### **4.1.1. Kendall Tau-b Correlation Testing between Shopee's Brand Awareness (X1) and Shopee's Customer Satisfaction (Y).**

The following is the result of the Kendall Tau\_b correlation test between Shopee's Brand Awareness (X1) and Shopee's Purchase Intention (Y). The research's first hypothesis is as follows:

- H1: There is a relationship between Shopee's brand awareness (X1) towards Shopee's customer's satisfaction (Y) in Indonesian Young-adults.

#### **Table 4.1 H1**

**Correlations**

			BRAND AWARENESS	CUSTOMER SATISFACTIO N
Kendall's tau_b	BRAND AWARENESS	Correlation Coefficient	1.000	.552**
		Sig. (2-tailed)	.	.000
		N	100	100
	CUSTOMER SATISFACTION	Correlation Coefficient	.552**	1.000
		Sig. (2-tailed)	.000	.
		N	100	100

\*\* . Correlation is significant at the 0.01 level (2-tailed).

*(Source: Data written by the author)*

Based on the results obtained from the Kendall Tau\_b Correlation Test between Shopee’s Brand Awareness (X1) and Shopee’s Customers Satisfaction

(Y) variables, a significance value of 0.000 is obtained, which means it is significant. Meanwhile, the correlation coefficient is 0.552, which means that the two variables have a moderate and positive level of relationship. So the hypothesis which states that there is a relationship between Shopee's Brand Awareness (X1) and Shopee's Customers Satisfaction (Y) is accepted.

**4.1.2. Kendall Tau-b Correlation Testing between Shopee’s Brand Association (X2) and Shopee’s Customer Satisfaction (Y)**

The following is the result of the Kendall Tau\_b correlation test between Shopee’s Brand Awareness (X1) and Shopee's Purchase Intention (Y). The research's first hypothesis is as follows:

- H2: There is a relationship between Shopee’s brand association (X2) towards Shopee’s customer’s satisfaction (Y) in Indonesian Young-adults.

**Table 4.2 H2**

**Correlations**

			CUSTOMER SATISFACTIO N	BRAND ASSOCIATION
Kendall's tau_b	CUSTOMER SATISFACTION	Correlation Coefficient	1.000	.801**
		Sig. (2-tailed)	.	.000
		N	100	100
	BRAND ASSOCIATION	Correlation Coefficient	.801**	1.000
		Sig. (2-tailed)	.000	.
		N	100	100

\*\* . Correlation is significant at the 0.01 level (2-tailed).

*(Source: Data written by the author)*

Based on the results obtained from the Kendall Tau\_b Correlation Test between Shopee's Brand Associated (X2) and Shopee's Customers Satisfaction

(Y) variables, a significance value of 0.000 is obtained, which means it is significant. Meanwhile, the correlation coefficient is 0.801, which means that the two variables have a very strong and positive level of relationship. So the hypothesis which states that there is a relationship between Shopee's Brand Associated (X2) and Shopee's Customers Satisfaction (Y) is accepted.

#### 4.1.3. Kendall Tau-b Correlation Testing between Shopee's Perceived Quality (X3) and Shopee's Customer Satisfaction (Y)

The following is the result of the Kendall Tau\_b correlation test between Shopee's Perceived Quality (X3) and Shopee's Purchase Intention (Y). The research's first hypothesis is as follows:

- H3: There is a relationship between Shopee's Perceived Quality (X3) towards Shopee's customer's satisfaction (Y) in Indonesian Young-adults.

**Table 4.3 H3**

		<b>Correlations</b>		
			CUSTOMER SATISFACTIO N	PERCEIVED QUALITY
Kendall's tau_b	CUSTOMER SATISFACTION	Correlation Coefficient	1.000	.928**
		Sig. (2-tailed)	.	.000
		N	100	100
	PERCEIVED QUALITY	Correlation Coefficient	.928**	1.000
		Sig. (2-tailed)	.000	.
		N	100	100

\*\* . Correlation is significant at the 0.01 level (2-tailed).

*(Source: Data written by the author)*

Based on the results obtained from the Kendall Tau\_b Correlation Test between Shopee's Perceived Quality (X3) and Shopee's Customers Satisfaction (Y) variables, a significance value of 0.000 is obtained, which means it is significant. Meanwhile, the correlation coefficient is 0.928, which means that the two variables have a very strong and positive level of relationship. So the hypothesis which states that there is a relationship between Shopee's Perceived Quality (X3) and Shopee's Customers Satisfaction (Y) is accepted.

**4.1.4. Kendall Tau-b Correlation Testing between Shopees brand awareness (X1), Shopee’s brand association (X2) and Shopee’s perceived quality (X3) towards Shopee Customer satisfaction (Y).**

The following is the result of the Kendall Tau\_b correlation test between Shopees brand awareness (X1), Shopee’s brand association (X2) and Shopee’s perceived quality (X3) towards Shopee’s customer’s satisfaction (Y) The research's first hypothesis is as follows:

- H4: There is a relationship between Shopees brand awareness (X1), Shopee’s brand association (X2) and Shopee’s perceived quality (X3) towards Shopee’s customer’s satisfaction (Y) in Indonesian young-adults.

**Table 4.4. H4**

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			
						F Change	df1	df2	Sig. F Change
1	.987 <sup>a</sup>	.973	.973	.89800	.973	1172.248	3	96	.000

a. Predictors: (Constant), PERCEIVED QUALITY, BRAND AWARENESS, BRAND ASSOCIATION

*(Source: Data written by the author)*

Based on the results obtained from the Kendall Tau\_b Correlation Test between Shopees brand awareness (X1), Shopee’s brand association (X2) and Shopee’s perceived quality (X3) towards Shopee’s customer’s satisfaction (Y) variables, a significance value of 0.000 is obtained, which means it is significant. Meanwhile, the correlation coefficient is 0.973, which means that the two variables have a very strong and positive level of relationship. So the hypothesis which states that there is a relationship between Shopees brand awareness (X1), Shopee’s brand association (X2) and Shopee’s perceived quality (X3) towards Shopee’s customer’s satisfaction (Y) is accepted.

**4.2. Research Result Discussion**

**4.2.1. The Relationship Between Shopee’s Brand Awareness and Shopee’s Customers Satisfaction**

The acceptance of the hypothesis is in accordance with the *Brand Equity theory* proposed by Aaker and Keller where they defined brand awareness as the extent to which customers are able to recall or recognise a

brand. In accordance with the evidence in the hypothesis test, this research shows that the suitability of the relationship and evidence that if the brand awareness owned by Shopee is high, then the customers satisfaction in using Shopee also increases. This finding also has a moderate correlation of 0.552 with a very significant level and is also clear from the results of the significant value, which is 0.000. In line with the brand equity theory, the high level of brand awareness owned by Shopee is proven to be able to encourage Shopee's customer satisfaction.

*Brand Equity Theory* also stated that if customers create a brand awareness for

Shopee, they will acquire a feeling and a specific attitude towards Shopee, and they will have the intention to make a purchase through Shopee, which will develop a feeling of satisfaction whenever their needs are accommodated. According to the research of Petahiang et al. (2015), the more the brand awareness, the greater the brand trust and purchase intention. The more the trust and purchase intention, the greater the satisfaction. This can be proven by the results of the research where the results of the correlation test between the brand awareness variable and the customer satisfaction variable have a correlation coefficient of 0.552, which means that the two variables have a moderate and positive level of relationship.

Measuring from Aaker's pyramid indicator of brand awareness, it is mentioned that if a brand has gone through the phase of being recognized by customers, the brand will become top of mind in people's thoughts. Consumers will be unsatisfied with the goods they purchase if they do not acknowledge the goods. This is also supported by *Suaib, S.'s journal (2016). The Influence Of Brand Equity Of E- Commerce Business On Customer Satisfaction: A Study Of Makassar City Resident (Doctoral dissertation, Universitas Brawijaya)*, which is published in this journal, claims that brand awareness is the most important variable that influences customer satisfaction.

The relationship has a positive effect, indicating that as customer perception of brand awareness improves, so does customer satisfaction with

the product. In contrast, as customers' perception of brand awareness decrease, so does their satisfaction with the product. This study supports earlier findings that there is a substantial relationship between brand awareness and customer satisfaction (Bilal et al 2014). It can be inferred that customers who are fully informed of a certain brand and have all of the necessary knowledge about it will put them into a setting. motivating a higher level of satisfaction. According to Poranki (2015), a brand cannot quantify the level of consumer satisfaction until there is brand awareness about the product on the market. Furthermore, brand awareness is connected to the brand's strength in the minds of customers, giving enterprises with a value that may be used in the future to attract and market products or services (Kim and Kim, 2005). To recall Shopee as an e-commerce, the symbol, logo, and model all play a significant part in raising brand awareness. These aspects reflect Shopee to customers, allowing them to recognize it at a sight. It has also been proved that people can recognize, recall, and remember a brand, as well as develop a desire to acquire it.

If a brand can maintain brand awareness, it will benefit from it since consumers will be able to readily recognize and purchase it. Consumers want to purchase a product from a well-known and famous brand in order to preserve brand awareness. In the E-commerce industry, the logo or symbol is frequently used as an advertisement on the internet and other media. Some company employ pop-up advertisements or ad-sense to market their products and promote the visibility of their logo on every other website customer's visit. Some companies also use viral advertising on television or in print media.

As a conclusion, the first hypothesis (H1) written in this research, where there is a relationship between Shopee's brand awareness (X1) towards Shopee's customer's satisfaction (Y) in Indonesian Young-adults is proven true.

#### **4.2.2. The Relationship Between Shopee's Brand Association and Shopee's Customers Satisfaction**

The acceptance of the hypothesis is in accordance with the *Brand*

*Equity theory* proposed by Aaker and Keller where Aaker defined brand association as something associated in memory with just a brand. In accordance with the evidence in the hypothesis test, this research shows that the suitability of the relationship and evidence that if the brand association owned by Shopee is high, then the customers satisfaction in using Shopee also increases. This finding also has a very strong correlation of 0.801 with a very significant level and is also clear from the results of the significant value, which is 0.000. In line with the brand equity theory, the high level of brand association owned by Shopee is proven to be able to encourage Shopee's customer satisfaction.

Product attribute and consumer benefits are two of the strongly agreed types of associations in this research, according to the eleven types of associations described in chapter one (see page 22). This may be seen by the amount of consumers who strongly agree with the statements "When I see a logo with an orange shopping cart image, Shopee comes to mind" and "When I want to do online shopping, I remember Shopee." Brand association has a significant and positive impact on customer satisfaction. The impacts of the connections are positive, indicating that as the customer's perception of brand association increases, so does the customer's satisfaction with the product. In contrast, when customers' perceptions of brand association decrease, so does their satisfaction with the product. Previous study has found that a strong brand association leads to increased brand loyalty. The statistics reveal that there is a positive association between Shopee's brand recognition and Shopee's customer satisfaction, demonstrating that the stated argument is validated. This is also supported by *Suaib, S.'s journal (2016). The Influence Of Brand Equity Of E-Commerce Business On Customer Satisfaction: A Study Of Makassar City Resident (Doctoral dissertation, Universitas Brawijaya)*, which is published in this journal, claims that brand association has a positive relationship that influences customer satisfaction.

Brand association and consumer satisfaction have substantial correlations, according to Kumar (2014). Customers with high brand equity

have strong positive connections with the brand, which may contribute to consumer satisfaction (Yoo et al 2000). The image of a brand may establish a positive association in the minds of customers. E-commerce clients, in this case Shopee, may link the company with the characteristic, customer advantages, uses, and product lifestyles supplied by the company. The E-commerce association may be used to recall information and establish a point of distinction that can generate reasons to buy. Shopee is leveraging the media to identify their brand with customers, with the employment of ambassadors and appealing slogans that are widely visible in public, on the Internet, in advertisements or on television. This provides such benefits Shopee, as customers might emerge with favourable attitudes and feelings based on such expansions.

As a conclusion, the second hypothesis (H2) written in this research, where there is a relationship between Shopee's brand association (X2) towards Shopee's customer's satisfaction (Y) in Indonesian young-adults is proven true.

#### **4.2.3. The Relationship Between Shopee's Perceived Quality and Shopee's Customers Satisfaction**

The acceptance of the hypothesis is in accordance with the *Brand Equity theory* proposed by Aaker and Keller where Aaker defined perceived quality as the consumer's assessment of the overall quality or superiority of a product or service in relation to its intended purpose, relative to alternatives. In accordance with the evidence in the hypothesis test, this research shows that the suitability of the relationship and evidence that if the perceived quality owned by Shopee is high, then the customers satisfaction in using Shopee also increases. This finding also has a very strong correlation of 0.928 with a very significant level. In line with the brand equity theory, the high level of perceived quality owned by Shopee is proven to be able to encourage Shopee's customer satisfaction.

Based on the several attributes used to measure perceived quality which are stated in chapter one (see page 24), Shopee's serviceability has the highest agree score among the other indicators. This can be proven by

the consumer's strongly agree answer towards the question –I feel Shopee is the online shopping application that best suits my needs. Perceived quality has a significant and positive impact on customer satisfaction. The impacts of the connections are positive, indicating that as the customer's perception of perceived quality increases, so does the customer's satisfaction with the product. In contrast, when customers' perceptions of perceived quality decrease, so does their satisfaction with the product. Previous study has found that a strong perceived quality association leads to increased brand loyalty. The statistics reveal that there is a positive association between Shopee's brand recognition and Shopee's customer satisfaction, demonstrating that the stated argument is validated. This is also supported by *Suaib, S.'s journal (2016). The Influence Of Brand Equity Of E-Commerce Business On Customer Satisfaction: A Study Of Makassar City Resident (Doctoral dissertation, Universitas Brawijaya)*, which is published in this journal, claims that perceived quality has a positive relationship that influences customer satisfaction.

Customer satisfaction is positively influenced by perceived quality. The relationship has a positive effect, indicating that as the customer's perception of perceived quality improves, so does the customer's satisfaction with the product. In contrast, as customers' perceptions of perceived quality decrease, so does their happiness with the product. Promoting positive perceived quality increases brand equity because perceived quality is an element of brand value that leads customers to choose one brand over another (Yoo et al. 2000). As a result, perceived quality is expected to have a substantial direct influence on customer satisfaction. According to Fornell et al (1996), the primary factor of overall customer satisfaction is perceived quality or performance, which is the served market's assessment of recent consuming experience and is expected to have a positive and direct impact on overall customer satisfaction. E-commerce businesses gain perceived quality by providing features and high-quality services. These elements are the most important aspects of E-commerce that may set them apart from rivals.

E-commerce markets are continuously developing and expanding, and E-commerce companies are continually offering new types of services and attempting to enhance their quality by improving the delivery or freight system service to be faster and more dependable. One of the E-commerce that sustainably develops is Shopee. Generally, the e-commerce industry has created new methods of acquiring products and services. Furthermore, it is backed by an online integrated payment system and other advanced technologies, which boosts the quality of E-commerce firms.

As a conclusion, the third hypothesis (H3) written in this research, where there is a relationship between Shopee's perceived quality (X3) towards Shopee's customers satisfaction (Y) in Indonesian young-adults is proven true.

#### **4.2.4. The Relationship Between Shopee's Brand Awareness, Brand Association, Perceived Quality and Shopee's Customers Satisfaction**

The acceptance of the hypothesis is in accordance with the *Customer Satisfaction theory* proposed by Aaker and Keller where Keller and Lehman defined customers satisfaction as the increase of willingness to pay for the product or service and also increases brand loyalty. In accordance with the evidence in the hypothesis test, this research shows that the suitability of the relationship and evidence that if brand awareness, brand association and perceived quality simultaneously owned by Shopee is high, then the customers satisfaction in using Shopee also increases. This finding also has a very strong correlation of 0.973 with a very significant level. In line with the brand equity theory, the high level of brand awareness, brand association and perceived quality simultaneously owned by Shopee is proven to be able to encourage Shopee's customer satisfaction. This study also proves that simultaneously, all the variables studied have a very close and positive relationship.

According to the above-mentioned hypothesis, if consumers acquire brand awareness for Shopee, a feeling and a specific attitude toward Shopee will grow in their minds, and they will have the intention to make a purchase

through Shopee, which will generate a feeling of satisfaction. This is supported by the research of Keller and Lehman (2006) where they stated that customer satisfaction, according to boosts desire to pay for the product or service as well as brand loyalty. According to Chen and Tseng (2010), a strong brand increases customers' confidence in acquiring a product. According to studies, there is a significant relationship between brand equity and consumer satisfaction. According to the research and analysis above, there is a simultaneous and partial significant relationship between the independent variables of brand awareness, brand associations, perceived quality, and customer satisfaction. Importantly, perceived quality is the most dominating variable that impacts customer satisfaction independently, although brand awareness and brand associations have a significant positive influence on customer satisfaction.

As a conclusion, the fourth hypothesis (H4) written in this research, where there is a relationship between Shopees brand awareness (X1), Shopee's brand association (X2) and Shopee's perceived quality (X3) towards Shopee's customer's satisfaction (Y) in Indonesian young-adults is proven true.