

FACTORS DISCRIMINATING FLAGSHIP SMARTPHONE PURCHASE INTENTION BETWEEN MALE AND FEMALE CONSUMERS

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Abstract

Flagship smartphone is the most complete feature and high-end specification of smartphone with the highest selling price for a particular brand. There are four factors that affecting consumers purchase intentions of flagship smartphone, brand reputation, price fairness, newness of Features, and social pressures. The aims of this research to explain what factors have discriminate role of flagship smartphone purchase intention between male and female, and indicate which factor has the greatest discriminant power. The research is a comparative study. Data collected by survey method through questionnaire, then analyzed with discriminant analysis. The results, peer pressures and price fairness significantly differentiate the purchase intentions of male and female consumers while brand reputation and newest features do not significantly discriminate purchase intentions between male and female in Denpasar. Based on the power of discriminant, social pressure has the greatest power, and followed by prices fairness factor.

Keywords: Flagship brand, smartphone, brand reputation, price fairness, features, social pressure, purchase intention

INTRODUCTION

The smartphone industry continues to innovate and grows rapidly, including in produce smartphone flagship. Flagship smartphone is the flagship product of a particular brand that has the best specs, with the most expensive selling price. According to Karjaluoto et al. (2005) factors affecting youth in buying new smartphones are price, brand, display (user interface), and feature is the most influential factor in determining the choice. In addition, social pressure can affect a person to buy a smartphone (Bukhari et al., 2013).

In deciding to buy a product, consumers are influenced by individual characteristics, one of them is gender. According to Nielsen (2014), in deciding to buy a new smartphone, male and female consumers have different viewpoints over the newness of features they see from a smartphone, as well as the price and operating system factor. Knowledge of a smartphone brand, and the influence of the social environment can differentiate how male and female consumers decide to buy a smartphone.

This study aims to explain the factors that have a role in discriminating the intention of purchasing flagship smartphones between male and female consumers, as well as identifying the most powerful factor in discriminating flagship smartphones purchase intention between male and female consumers in Denpasar.

Brand Reputation

A number of studies have resulted in the finding that brand familiarity is one of the factors that male and female consumers consider when deciding to buy a smartphone. Martines and Pina (2010) find that a brand can signify a level of quality and consistency of a product. According to Chow et al. (2012) brand reputation affects consumers in buying smartphone products, consumers choose a product with a brand that is known for its good quality.

The study from Bukhari et al. (2013) states that brand reputation has a vital influence for consumers in deciding their choice in buying a smartphone. According to Lay-Yee et al. (2013) a brand has a more significant influence on female than male on buying intentions. Based on Quintal et al. (2009) male consumers more familiar brand of electronic products than female consumers. The hypothesis being tested is

H1: Brand reputation can significantly discriminating flagship smartphone purchase intentions between male and female consumers.

Price Fairness

In Bukhari et al. (2013) price fairness has a significant influence in determining the intention to buy smartphone products. Prices significantly influence the intention of buying smartphones

among adult youth (Lay-Yee et al., 2013). Consumers tend to interpret higher prices with higher quality, and low prices are considered a low quality indication (Steiner, 2004).

Studies by Kunal and Yoo (2010) and Chow et al. (2012) states that consumers will look for the lowest price of available brand choices or look for substitutes to get the best value. According to Quintal et al. (2009), in buying Apple iPod products and other brand MP3 players male consumers pay more attention to the price of goods purchased against the quality and benefits from the product than female consumers. The hypotheses tested are:

H2: Price fairness can significantly discriminating flagship smartphone purchase intention between male and female consumers.

Newness of Features

In previous studies, the newness of Features, is one factor that is highly considered by consumers before deciding to buy a smartphone. Bhukari et al. (2013) states that most consumers buy a new smartphone because the features in the smartphone that it has nowadays has been outdated. The development of hardware and software followed by various new features may affect consumers buying intentions to buy new smartphones (O'Keefe, 2004; Chow et al., 2012).

In terms of function, Oulasvirta et al. (2011) states that the features that a smartphone relies on are network connectivity, application compatibility, multimedia devices, camera capabilities, display space and resolution, and data storage capacity. The use of the latest operating system into other considerations by smartphone users, is expected to accommodate the needs of the applications used everyday (Gowind, 2010). In Quintal et al. (2009) male consumers pay more attention to better Features between Apple iPod and MP3 player than female consumers. The hypotheses tested are:

H3: Newness of Features significantly discriminating flagship smartphone purchase intentions between male and female consumers.

Social pressure

Consumers buy a certain smartphone to pursue social status, in this case friends and family have important in it. Consumers are satisfied with a brand, they will spread word of mouth, and it will make others interested and choose the brand in question (Azad and Safaei, 2012). In the Chow et al. (2012) and Bukhari et al. (2013) states that social pressures have a great influence on individuals. In a survey of teenagers, both male and female reported that they always seek advice and opinions from their friends for fashion products and tend to buy the same fashion brand as their friends (Nelson and McLeod, 2005).

For innovative products (such as smartphones), information sources such as past experience, advice from family and friends, can have an important role in purchasing decisions (Deeb, 2012). According to Johnston and White (2003), social pressure has no significant effect on foreign jeans between male and female consumers. The hypotheses tested are:

H4: Social pressures are significantly able to discriminating flagship smartphone purchase intention between male and female consumers.

RESEARCH METHOD

This study is a comparative study, which attempts to compare and see differences in male and female consumer behavior in Denpasar. This study was designed to test the ability of several variables of brand reputation, price fairness, newness of features, and social pressure factors in discriminating the purchase intention of flagship smartphones.

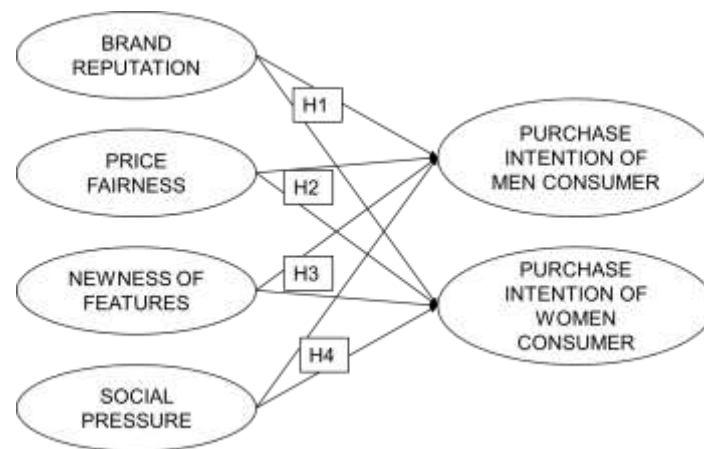


Figure 1. Proposed model

The population observed in this study is the population in the City of Denpasar with sample size used is 80 people with the same composition of each 50 percent for male and female. The sample is determined using non-random sampling method (purposive sampling). Data collection using research instrument in the form of questionnaire. Validity and reliability tests are performed to test the accuracy of the data. The analytical technique used to test the hypothesis is discriminant analysis with SPSS program.

RESULTS AND DISCUSSION

For the purposes of data analysis, 40 samples will be use or 50 percent of total of 80, while the remaining 40 samples will be used in the holdout analysis. The holdout analysis serves to test the validation in this sample analysis. The results of this sample analysis show that all data is

valid or 100 percent data can be used for analysis. Descriptive statistics describing the mean score, standard deviation, and test results for the four independent variables are presented in Table 1.

Table 1. The Result of Difference Test Between Two Group of Sample
Group Average for each independent variable

Group	X_1	X_2	X_3	X_4	Total
Male	15,55	8,20	15,85	7,05	20
Female	16,10	10,85	17,00	10,60	20
Total	15,83	9,53	16,43	8,83	40
Standard deviation for each independent variable					
Male	2,704	1,609	3,703	1,877	
Female	3,007	2,013	3,404	2,669	
Similarity test for group average					
<i>Wilk's lambda</i>	0,990	0,555	0,971	0,546	
F ratio	0,370	30,411	1,146	31,558	
Signification	0,547	0,000	0,291	0,000	

Table 1 shows that of the four independent variables, the female group has a higher average score than the male group. When viewed based on Wilk's lambda coefficients and F ratios, only two variables show significant differences. The social pressure variable (X_4) and the price fairness (X_2) are two significantly different independent variables, which are indicated by the largest coefficient of F ratio and the lowest Wilk's lambda coefficient. Brand reputation (X_1) and newness of features (X_3) do not show significant difference due to $F > 0.01$ test.

The first independent variable in the first stepwise analysis stage is the social pressure, because variable has the smallest wilk's lambda coefficient of 0.546 and the distance mahalanobis D^2 minimum is 3,156. This decision is reinforced by the coefficient F ratio of 31.558 each. The inclusion of social pressure variables led to both groups having a difference of 31.558 at the 0,000 significance level as indicated by the pairwise comparison coefficients.

The price fairness variable entering in second stepwise stage has significance $F < 0,01$ and *Wilk's lambda* coefficient 0,439 and *Mahalanobis D²* coefficient 4,865 with equivalent F is 23,685 each. There are only two variables that have significant discriminating power between male and female consumer groups in determining the purchase intention of flagship smartphone with social pressure variables that have the most significant discriminating power with the equivalent F of 31.558 and followed by price fairness variables with equivalent F of 23.685.

Table 2.a Summary of Discriminant Analysis of Two Groups

Step	Entered Variable	<i>Wilks lambda</i>		<i>Minimum D²</i>		Between groups
		score	signf	score	signf	
1	X ₄ Social Pressure	0,546	0,000	3,156	0,000	Male and Female
2	X ₂ Price Fairness	0,439	0,000	4,865	0,000	Male and Female

Table 2.b *Canonical Discriminant Functional*

Funct	<i>Eigen Value</i>	Percent		<i>Canonical Correlation</i>	After Funct	<i>Wilk's Lambda</i>	<i>Chi-square</i>	df	Signf.
		Varian	Cumul						
1	1,280	100	100	0,749	0	0,439	30,499	2	0,000

Table 2.c The Canonical Disciplinary Functional Coefficients

Independent Variable	Standardized value	Unstandardized value
X ₂ Price Fairness	0,616	0,406
X ₄ Social Pressure	0,637	0,319
Constant		-6,674

Table 2.d Matrix Structure

Independent Variable	<i>Discriminant Loading Functional</i>
X ₄ Social Pressure	0,805
X ₂ Price Fairness	0,791
X ₃ Newness of Features*	0,443
X ₁ Brand Reputation*	0,405

Table 2.e Coefficient of Classification Function

Independent Variable	Gender	
	Male	Female
X ₂ Price Fairness	3,152	4,046
X ₄ Social Pressure	1,109	1,812
Constanta	-17,524	-32,246

Table 2.f Average Group *Centeroid* from *Canonical* Functional Discrimination

Group	Group <i>Centeroid</i> : Functional 1
Male	-1,103
Female	1,103

Table 2.c shows that based on wilk's lambda coefficients and Mahalanobis D2 coefficients, the variables X4 and X2 are significant as differentiators between male and female customer groups. Further discriminant functions can be compiled into:

$$Z = -6,674 + 0,406X2 + 0,319X4$$

The multivariate aspect of the model can be seen in Table 2.b, it appears that the discriminant function has a very high significance of 0,000 with a canonical correlation of 0.749. This means that as many as 74.9 percent of the variants in the dependent table are explained by the model with two independent variables. In wilk's lambda coefficient of 0.439 with a chi-square coefficient of 30.499 with a significance of 0,000 which means that there is a very significant difference between the two consumer groups in the discriminant model.

Assessment of Group Differences

This assessment is comparing the centeroid of the two groups, the male group centeroid is -1,103, while the centeroid of the female group is 1,103. These two numbers if multiplied by each number of cases in each consumer group will result in a value of zero $\{(-1,103 \times 20) + (1,103 \times 20) = 0\}$ which interprets the result of the discriminant function from the overall perspective.

Assessment Accuracy Prediction of Group Members

The classification results for the analysis samples indicate that from 40 samples or observations there are four misclassified samples, one of which is in the male consumer group, and three of which are in the consumer group of Female. The classification accuracy shown by the hit ratio coefficient is 90 percent.

Validation of Discriminant Results

Validation of discriminant analysis result is generated with holdout method. Against the 40 samples of the holdout analysis, a similar analysis to the sample analysis is used to obtain the internal validity of the analysis results, since the holdout sample is from the same population.

Based on the results of data processing of holdout samples obtained results that are not much different from the analysis of the sample analysis. In Table 3, it is shown that of the four

independent variables, the average score for the female consumer group is higher than the male group. These results are consistent with what is obtained through the sample analysis.

Table 3 The Result of Difference Test Between Two Group of Holdout Sample
Group Average for each independent variable

Group	X ₁	X ₂	X ₃	X ₄	Total
Male	15,45	8,10	15,95	7,15	20
Female	16,20	10,80	16,45	10,55	20
Total	15,83	9,45	16,20	8,85	40
Standard deviation for each independent variable					
Male	3,804	1,774	4,395	2,412	
Female	3,122	1,576	2,982	1,731	
Similarity test for group average					
<i>Wilk's lambda</i>	0,988	0,595	0,995	0,592	
F ratio	0,465	25,890	0,177	26,226	
Signification	0,500	0,000	0,676	0,000	

Table 4 shows a summary of the results of the stepwise analysis of the holdout sample. There are four independent variables, two of which are significant in the analysis. The two variables are social pressure variable and price fairness is very significant as a differentiator between consumer groups.

Table 4.a Summary of Discriminant Analysis of Two Groups

Step	Entered Variable	Wilks lambda		Minimum D2		Between groups
		score	signf	score	signf	
1	X ₄ Social Pressure	0,592	0,000	2,623	0,000	Male and Female
2	X ₂ Price Fairness	0,448	0,000	4,690	0,000	Male and Female

Table 4.b *Canonical Discriminant Functional*

Funct	<i>Eigen Value</i>	Percent Varian	Canonical Correlation	After Funct	<i>Wilk's Lambda</i>	<i>Chi-square</i>	df	Signf.
		Funct. Cumul						
1	1,605	100 100	0,785	0	0,384	34,945	3	0,000

Table 4.c The Canonical Disciplinary Functional Coefficients

Independent Variable	Standardized	Unstandardized
X ₂ Price Fairness	0,761	0,454
X ₄ Social Pressure	0,846	0,403
Constant		-5,213

Tabel 4.d Matrix Structure

Independent Variable	<i>Discriminant Loading Functional</i>
X ₄ Social Pressure	0,656
X ₂ Price Fairness	0,652
X ₃ Newness of Features	0,254
X ₁ Brand Reputation	0,087

Based on canonical correlation coefficient with value 0,785 mean both variables that explain variance at dependent variable equal to 78,5 percent. This amount is greater than the result of sample analysis, that is equal to 74.9 percent. Validation of the sample analysis is also done by comparing the accuracy of the classification of group membership. The accuracy of the sample holdout classification is lower than the accuracy of the analysis sample, which is 85 percent by 90 percent. In the holdout sample group there were six misclassified cases, are four samples in the male consumer group and two groups in the female consumer group.

CONCLUSIONS

Based on the results of the analysis and discussion of the results of this study, obtained the following conclusions, the price fairness and social pressure is able to discriminate the purchase intention of flagship smartphone between male and female consumers. The results show that female consumers are more sensitive to price and social pressure variables in affecting the intention to buy flagship smartphone compared with male consumers. Social pressure is a factor that has the greatest discriminant power in influencing the purchase intention of flagship smartphone between male and female consumers in Denpasar.

Brand reputation and newness of features are not able to discriminate purchase intentions between male and female consumers. From the results of the two variables have the same positive influence in determining the purchase intention a flagship smartphone for male and female consumers.

Taking into account the above conclusions, and various limitations of the research can be put forward some suggestions that are expected to be useful for the parties in need in the

future, among others: for distributors and retailers in setting market segmentation especially for the smartphone flagship, and determine a suitable marketing communication strategy for the products to be able to give positive selling results.

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