The Effect of Samsung Android-Based Mobile Phone Marketing Mix toward its Brand Awareness (A case study at Telkom Institute of Management in 2011)

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Abstract. This reserach is done to reveal the effect created by marketing mix of SamsungAndroid-Based Mobile Phone to consumer brand awareness. Based on our research analysis, it found that there was a simultaneous effect of Samsung Android-Based to its *product, price, place* and *promotion* variables to the consumer brand awarenss. It is shown by R Square 0,843 or 84.3% that Samsung Android-Based influenced the marketing mix. Above all X variables, promotion (X_4) has the greatest effect with the total amount of 75,3 %. That's the reason why *promotion* become the most important information to acknowledge and understanding a kind of product to get a better brand awareness.

Keyword: Marketing Mix, Price, Place, Promotion, Brand Awareness

1. Introduction

Before the booming of Android, there have been three operating mobile phone system led by three top marketing brands in the world. Those are Nokia with its Symbian, Research in Motion with its BlackBerry, and Apple with its Ipone. But on October 2008, surprisingly Google has launched an operating sytem mobile phone product called Android. Android can be used into any kind of mobile phone hardware or Open Source. Android is developed to fulfil all needs of the vendors, operator and customers as well. It wasn't monopolized by other certain vendor anymore.

Samsung Android-Based places the second mobile phone best seller. On the selling in 2010, Nokia has sold 461 million units. While Samsung, in the same year, has suceeded to sell 281 million mobile phone. It grows significantly through all the world. In the next progress, Samsung used 3 operational system on its product. Symbian uses the old operation system, until Samsung Bada appears. The latest best selling product from Samsung is Android

The selling of Samsung Android-Based is also rising significantly in Indonesia. Today, Samsung Galaxy S has already sold out. There's even no stock for it. Samsung Electronic Indonesia company changed the Galaxy S product into Galaxy Tab now. Samsung Galaxy Tab is also sold out. On its premiere launching in Jakarta 2010, Galaxy Tab was sold 1.000 unit in 3 hours. Every 1 week, 5000-10.000 Galaxy Tab will always be sold. Teguh Prasetya, the head of Indosat Marketing said that, "*Samsung Galaxy Tab would alway be the target market, whereas in fact its delivery is only 5.000 to 10.000 each week*".

Meanwhile, 3983 active students in Telkom Institute of Management have a great interest in telecommunication branding awareness. Apart from the information technology and information subject, they have the awareness from their cyber space life style. They change abundant information easily with it. By using marketing mix, they should know Samsung Android-Based well.

A company used to present marketing mix as competitive advantages to be the main point of 4 marketing system variables. Those are the quality of *product, price, location*, and *promotion*. The 4's are aimed to create the brand awareness. Therefore, the research problem is "**TO WHAT EXTENT IS THE**

EFFECT OF MARKETING MIX TO SAMSUNG ANDORID-BASED BRAND AWARENESS IN TELKOM INSTITUTE OF MANAGEMENT (2011)"

2. Research Methodology

This research uses causal method with quantitative approach. The measurement scale uses ordinal scale. The degree of scale is classified into response category. It is made to get responses connected with the object, event, or living things. The instrument scale used in this research is Likert scale.

3. Population and Sample

The population of this research is Telkom Institute of Management students in Bandung. In order to determine minimum sample, we use Slovin pattern.

By the amount of 3983 active students, we use e=10% which is 97,55 sample that rounded off to be 100. It is used to minimalize the error questionnaire filling. We use nonprobality sampling followed by convenience sampling technique.

4. Validity and Reliability Measurement

The instrument experiment, both validity and realibility, is not examined to all respondents on the progressing data, but only for the introductory sample. The total amount of pre-sample is 30 people. A measurement will be valid if a minimum measurement error is $r \geq 0,36$. This has to be the valid research, because the measurement of $r > 0,361$ has fulfilled the minimum condition.

A measurement device can be said realiable to the next process when the score of Alpha Cronbach is $\geq 0,7$. This research has reached the reliable score of $\geq 0,7$.

5. Data Analysis Technique

5.1. Value Ladder Analysis

This research uses value ladder analysis. It is a method to explain the quantitative data from questionnaire.

5.2. Methode of Successive Internal (MSI)

The data refers to ordinal scale. It means that the ordinal data from the questionnaire will be transformed to be the interval data as a minimum condition.

5.3. Path Analysis

The reason why we use path analysis is to observe the exogeneous and endogeneous. Path Analysis is also aimed to explain the direct and indirect effect from one or more exogeneous to one ore more endogeneous. The path analysis used on this data is

$$Y = \rho yx_1 X_1 + \rho yx_2 X_2 + \rho yx_3 X_3 + \rho yx_4 X_4 + \epsilon$$

where   Y = Endogeneous (*brand awareness*)

X_1, X_2, X_3, X_4 = Exogeneous

X_1 = product $X_2 = price$ $X_3 = place$ $X_4 = promotion$

ρ = The coefficient path between endogeneous and exogeneous $\epsilon = factor\ error$
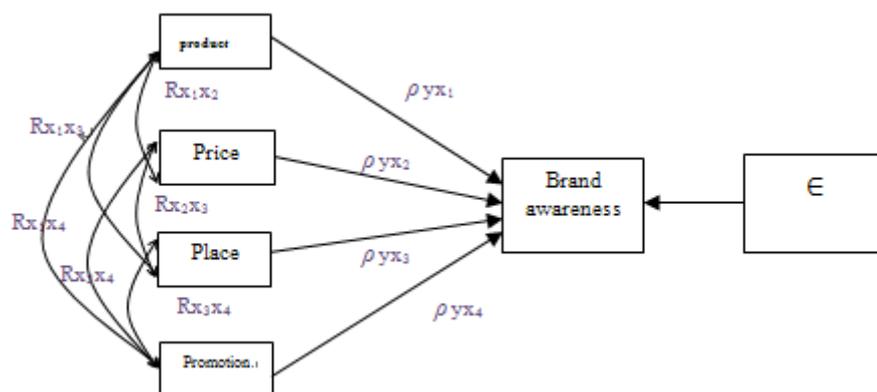
Figure 1. Path Analysis

6. Hypothesis Testing

Hypothesis is tested by using path analysis. The hypothesis is **The Marketing Mix of Samsung Android-Based Mobile Phone Effects the Brand Awareness.**

7. Findings and Discussion

The quantity of male students dominates the research with the percentage of 57%. Approximately, they spend 50.000 IDR to 100.000 IDR for the expanse of cellphone credit. Mostly, they use BlackBerry with the percentage of 45% and the rest of 33% just use it under 6 months. Other 54% of respondent use Telkomsel mobile phone.

8. Marketing Mix Analysis

8.1. Consumer Perception to the Product

Overall, the perception of 100 respondent toward Samsung Android-Based is good. The total average percentage shown 75,44% of 62,5%-81,25% product variable is good.

8.2. Consumer Perception to the Price

Overall, the perception of 100 respondent toward the price of Samsung Android-Based is pretty good. The total average percentage shown from the respondent response that 75,44% of 62,5%-81,25% clasification degree is good.

8.3. Consumer Perception to the Promotion

Overall, the perception of 100 respondent toward the promotion of Samsung Android-Based is pretty good. The total average percentage to promotion variable is 75,44% of 62,5%-81,25% clasification degree is good.

8.4. Consumer Perception to the Brand Awareness

Overall, the perception of 100 respondents toward Samsung Android-Based brand awareness is very good.   The total average percentage to two level of brand awareness; brand recall and brand recognotion, is 74,97% of 62,5%-81,25% classification degree is good. Meanwhile, Samsung Andorid-Based is the Android-based mobile phone which appeared to be the first things in most respondents mind. It becomes the top of mind in brand awareness.

9. The Effect of Marketing Mix

9.1. The Simultaneous Coefisiency of Path Analysis

Table.1 Square Test Result

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.918[a]	.843	.837	.02439

- Predictors: (Constant), X4, X3, X1, X2
- Dependant Variable : Y

Analysis:

- The R^2 number (coefficient of determination) s 0,843. It means that 84,3% of Samsung Androind-based brand awareness is effected to marketing mix variables (*product, price, place, promotion*). The effect of other factor caused by any miscellaneous items is $(1 - R^2_{(xy)}) = 1 - 0,843 = 0,157$ or 15,7%

The number in the column R (0,918) explained the correlation between all four *product, price, place,* dan *promotion* variables to its brand awareness simultaneously.

9.2. The Partial Coefisiency of Path Analysis

Table 2. The Partially of Hypothesis Testing

Nu	Hypothesis (H_0)	t_{count}	T_{table}	Statistical Inferences
1.	There is NOT any effect between the *product* and consumer *brand awareness*	- 5,801	- 1,98	H_0 rejected, means the *product* is effected to consumer *brand awareness*.
2.	There is NOT any effect between the *price* and consumer *brand awareness* decision	5,109	1,98	H_0 rejected, means the *price* is effected to consumer *brand awareness*.
3.	There is NOT any effect between the *place* and consumer *brand awareness*	0,592	1,98	H_0 accepted, means the *place* is NOT effected to consumer *brand awareness*.
4.	There is NOT any effect between the *promotion* and consumer *brand awareness*	16,770	1,98	H_0 rejected, means the *promotion* is effected to consumer *brand awareness*.

10. The Intensity of Marketing Mix Influence

This is the path analysis formula that was tested in this survey.:

$$Y = - 0,473X_1 + 0,445X_2 + (-0,029)X_3 + 0,840X_4 + 0,157$$

The resulting from the above path analysis has given the clearest explanation as follow:

Table 3. Direct Impact, Indirect Impact, and Total Impact

Variable	Direct Impact	Indirect Impact				Total Impact
		X_1	X_2	X_3	X_4	
X_1	22,4%	0	-18,1%	0,6%	- 14,3%	- 9,4%
X_2	19.8%	- 18,1%	0	- 0,6%	17,8%	18,9%
X_3	0,1%	0,6%	- 0,6%	0	0,3%	0,4%
X_4	70,6%	- 14,3%	17,8%	0.3%	0	74,4 %
R *Square*						84,3%

11. The Simultaneous Trimming

Table 4. The Verification result of score F

No	Model	Sum of Squares	df	Mean Square	F	Sig
	Regression	.304	3	.101	171.446	.000[a]
	Residual	.057	96	.001		
	Total	.361	99			

- Predictors: (Constant), X4, X1, X2
- Dependent Variable: *Brand Awareness* (Y)

Based on the following verification data, it shows that $F_{counting}$ is 171,446 and F_{table} is 2,70 from the sig score of 0,000 and the significant taraf of $\alpha = 5\%$ (0,05). The score sig F = 0,000 < α = 0,05 has significantly shown that H_0 is rejected and H_1 accepted. It means that *product, price* and *place* had a significant influence to the *brand awareness* of *Samsung Android-Based* in Bandung, 2011.

12. The Partially Trimming

Table 5. The Partially of Hypothesis TestingVerification

No	Hypothesis (H_0)	t counting	t table	Statistical Inferences
1	There is NOT any effect between *product* and consumer *brand awareness*	-6,015	- 1,985	H_0 rejected, means (X_1) *product* is effected to *brand awareness*.
2.	There is NOT any effect between *price* and consumer *brand awareness*	5,112	1,985	H_0 rejected, means (X_2) *price* is effected to *brand awareness*.
3.	There is NOT any effect between *promotion* and consumer *brand awareness*	18,346	1,985	H_0 rejected, means (X_4) *promotion* is effected to *brand awareness*.

Table 6. The Verification Result of Marketing Mix Impact

Variable	Direct Impact	Indirect Impact			Total Impact
		X_1	X_2	X_4	
X_1	0,2%	0	- 17,9%	- 14,7%	- 9,5%
X_2	18,8%	- 17,9%	0	17,6%	18,5%
X_4	72,4%	- 14,7%	17,6%	0	75,3%
R *Square*					84,3%

13. The Application for Business Field

It can be assigned that marketing mix in creating consumer brand awareness is very important. Brand awareness is the starting point to do to get consumer loyality. The variable that determine consumer awareness is promotion variable. Businessmen should take promotion as the most important variable to build consumer brand awareness. Actually, product, price and place are also effected. But it doesn't as significant as promotion. Therefore, marketing mix has given the best role to the existence of Samsung Android-based, as the newcomer cell phone product in Indonesia.

14. Conclusion

14.1. The Characteristic of Respondents (Telkom Institute of Management Students).

We can conclude that the quantitiy of male students has dominates the research with the percentage of 57%. They have spent 5o.ooo IDR to 100.000 IDR for the expense of cellphone credit. 45% of the sample use and the rest of 33% just use it under 6 months. 54% of other respondents use Telkomsel cellular phone.

14.2. The Perception of Respondents

Consumer Perception to the product variable is 75,44%of 62,5%-81,25%. It shown that the classification is good. While the perception of price variable is 73,78% of 62,5%-81,25% which also classified as good. The consumer perception to the place variable is 73,13%, of 62,5% - 81,25% that remarked good. And the consumer perception to *promotion* is 72,38%, of 62,5% - 81,25% has a good classification too. The last one is the consumer perception ot brand awareness is 74,97% of 62,5% - 81,25% included to be classified as very good. But Samsung Andorid-based is the Android-based cell phone which appeared to be the first things in most respondents mind. It has become the top of mind in brand awareness.

14.3. The Effect of Marketing Mix to Its Brand Awareness

From the research result, we can conclude that there is a simultaneous effect between Marketing Mix to brand awareness. It shown from R Square with a value of 0,843 or 84,3% to the *brand awareness*. Based on Partially research result, *product* (X_1) is significantly effected to brand awareness with the value of -5,801 and the score table t_{tabel} = -1. *Price* (X_2) is significantly effected to brand awareness with the value of 5,109 and the score table t_{tabel} = 1,98. *Place* (X_3) doesn't significantly effected to brand awareness with the value of

0,592 and the score table t_{tabel}= -1,98. *Promotion*(X_4) is very significantly effected to brand awareness with the value of 16,770and the score table t_{tabel}= -1,98.

15.References

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