European Online Journal of Natural and Social Sciences 2013;
Vol.2, No.3 Special Issue on Accounting and Management.
ISSN 1805-3602

A Comparison of Factors influencing special value in Samsung and Nokia Mobile based on customers' approach

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Abstract

This study examined the factors influencing special value of the cell phone brands: Nokia and Samsung in the consumers' views; the universe includes all students of Islamic Azad University, Malayer who had Nokia or Samsung cellphone in 2013. Considering the universe number was not clear the Kokeran formula was used to define the sample size and the sample number became 267 ones with standard of error ten percent. The sampling was simple random. By the Kolmogorov-Smirnov test it became clear that the data distribution is not normal so Mann Whitney statistic method was used to test the hypotheses (To compare two independent universes). The findings indicated the views of the consumers using Nokia and Samsung brands were significant differently concerning 'Loyalty to the brand', 'Brand association', 'Awareness of the brand' and 'Perceived quality' (The mean of four mentioned dimensions of Nokiais more than the Samsung's).

Keywords: Brand special value, Loyalty to the brand, Brand association, Awareness of the brand and Perceived quality

Introduction

It is possible to divide all the studies done regarding brand special value in three groups: consumer-based dimension, financial dimension and compound dimension (Kotler and Armstrong, 2007). By virtue of above classification some researchers have measured special value according to financial view. The defenders of financial view define the brand special value as total brand value in a way that when it is sold or added to balance sheet is considered as a separated equity (Kotler, 2000). The consumer-based dimension is based on his (her) judgment and the brand special value assessment studies based on consumer presented on the basis of conceptual substructures are founded by management pioneers. Aaker has focused the brand special value on five dimensions: awareness of brand, brand association, loyalty to brand, quality and other brand's special commercial equity (Aaker, 1991). The compound is made of both views namely consumer-based and financial views to assess and define brand special value (Khorshidi & Zabihi, 2010). Considering Aaker's model is used in this study we examine the elements of his model as follows:

Aaker believes loyalty to brand is the central kernel of brand special value. Loyalty leads consumers to less searching for information when they need a solution (Esmaeilpoor, 2010). Consumer's loyalty is of the elements focused by interconnected marketing especially today industrial market. He defines the perceived quality as general consumers' assessment concerning an operation advantage of the goods or service (Lasser, 2006). The perceived quality is, 'The consumer's perception of general quality of advantage concerning goods or service compared to other services available in the market' (Zeithaml, 1988).

Awareness of brand: The awareness factor is important because first one brand should be assessed by the consumer; such awareness includes the brand distinction and remembrance. Keller (2003) states that awareness of brand plays an important role the consumer's decision due to three advantages: learning advantage, interest and examination advantage and selective advantages

(Keller, 2003), but awareness of brand means the brand presence intensity in the consumer's mind and when the awareness increases it is more probable that the consumer take into consideration the brand and it influences more his (her) decision to buy (Randal, 2001).

Brand association: It has different definitions; it relates to the brand in the memory (Aaker, 1991). The association factor includes everything related to the brand in the memory. The brand association may prevent the consumer to search for information to buy (Gil et al.).

Conceptual design of the study

Awareness of brand→ ←Loyalty to brand

Special value

Brand association→ ←Perception quality

Source: Aaker, 1991.

Materials and Methods

This study is applicable and the data collected by descriptive – survey method. The population includes all students of Islamic Azad University, Malayer who had Nokia or Samsung cell phone in 2012-2013. Considering the universe number was not clear (When the universe includes more than subjects it is unlimited, Momeni & Ghayoomi, 2009) the Kokeran formula was used to define the sample size and the sample number became 267 ones with standard error of ten percent as follows for each group using Nokia and Samsung cell phone:

$$n = \frac{z^2 {}^{\propto}/_{2} \times p(1-p)}{\varepsilon^2} = \frac{(1.96)^2 \times 0.5 \times 0.5}{(0.06)^2} \cong 267$$

A researcher-made questionnaire according to five point Likert scale was used to collect the information; the questions were in three groups: First group included 7 questions about demography such as age, sexuality, education, etc.; second group included 17 questions about special value of Nokia and Samsung cell phones. Formal reliability was used to define the questionnaire reliability so it was confirmed by the academic adviser, consulting professor and some other professors in management and finally the reliability was confirmed by Cronbach alpha method. As you see in Table 1 the findings from all variables are higher than 0.7 so it can be said that the questionnaire has a favorable reliability.

Table 1: Cronbach alpha coefficient for the questionnaire

Variable	Number of questions	Cronbach alpha
Awareness of brand	3	0.799
Brand association	3	0.761
Perceived quality	5	0.742
Loyalty to brand	3	0.938

267 questionnaires were distributed simply and randomly among the subjects of the groups who used a type of cell phone and it became the base of the study. Descriptive statistics including abundance, mean and standard error were used to analyze the data. Kolmogorov- Smirnov test was used in inferential statistics sectionto define if the data distribution is normal. The Mann Whitney nonparametric test was used to compare the factors influencing Nokia and Samsung cell phone special value in view of variables distribution abnormality.

Research hypotheses

H1. In view of consumers. there is a significant difference between Nokia and Samsung brands' special values.

H2. In view of consumers, there is a significant difference between loyalty to Nokia and Samsung brands.

H3. In view of consumers, there is a significant difference between perceived quality of Nokia and Samsung brands.

H4. In view of consumers, there is a significant difference between awareness of Nokia and Samsung brands.

H5. In view of consumers, there is a significant difference between Nokia and Samsung brands association.

Kolmogorov- Smirnov test

Kolmogorov- Smirnov test was used to define if the variables distribution is normal; the findings of the test are shown in Table 2.

Table 2: Kolmogorov- Smirnov test findings:

Variable	Cell phone	Statistic	Significance level
Loyalty to brand	Samsung	1.558	0.016
	Nokia	2.041	0.000
Perceived quality	Samsung	1.999	0.010
	Nokia	1.595	0.012
Awareness of brand	Samsung	2.169	0.000
	Nokia	2.899	0.000
Brand association	Samsung	2.607	0.000
	Nokia	2.215	0.000

As the significance level is less than 0.05 for all elements of Samsung and Nokia brand special value namely the zero hypothesis of data distribution normality is refused so nonparametric tests should be used to test the hypotheses (MannWhitney test).

Results

Table 3: **Frequency distribution and percentage Nokia and Samsung respondents based on gender**

Gender	frequency	Percentage	Cumulative frequency
Female	251	47	47
Male	274	51.30	98.30
Non-response	9	1.70	100
Total	534	100	

As you see in Table 3, the female respondents' percent is 47, the male's is 51.30 and the without response is 1.70.

By virtue of Table 4, the most percentage belongs to the 26-45 range and the least one belongs to the range: '56 and more'.

Table 4: Frequency distribution and percentage Nokia and Samsung respondents based on age

Group	Age (Year)	Frequency	Percentage	Cumulative percentage
1	Less than 25	73	7.13	7.31
2	26-35	115	21.50	2.35
3	36-45	162	30.30	5.65
4	46-55	130	24.40	9.89
5	56 and more	54	1.10	100
Total		534	100	

Table 5: Frequency distribution and respondents' percentage based on educational level

Educational level	Frequency	Percent	Cumulative percentage
A.A. (A.S.)	70	10.13	1.13
B.A. (B.Sc.)	215	20.40	3.53
M.A. (M.S.)	220	20.41	5.94
Doctorate	29	5.50	100
Total	534	100	

Table 6: Frequency distribution and respondents' percentage based on occupational position

Occupational position	Frequency	Percent	Cumulative frequency
Housewife	59	0.11	11
Employee	104	5.19	5.30
Self-employment	95	8.17	3/48
Jobless	270	6.50	9.98
Without response	6	1.1	100
Total	534	100	

As it is clear from Table 6, the most percentage belongs to the jobless respondents and the least one belongs to the housewives; generally 3.37 % of the respondents were employed.

Table 7: Frequency distribution and respondents' percentage based on the time to use cell phone

Use time	Frequency	Percent	Cumulative percentage
Less than 1 year	85	16	16
1-3 year	130	3.24	3.40
4-6 year	145	2.27	5.67
More than 6 year	170	8.31	3.99
Without response	4	0.70	100
Total	534	100	

By virtue of Table 7, the most respondents' percent belongs to ones who had used cell phone more than 6 years and the least percent belongs to ones who had used it less than one year.

Testing hypotheses

Main hypothesis: In view of consumers, there is a significant difference between Nokia and Samsung brands' special values.

Table 9: Ranking mean of Nokia and Samsung brands' special values

	Number	Ranking mean	Total ranks
Nokia special value	267	64.57	98.17442
Samsung special value	267	25.42	75.1140
Total	534		

Table 10: Main hypothesis testing

Description	
Mann Whitney	6.3485
Wilcoxon	977.90399
Z	-3.528
Significance level	0.001

By virtue of Table 10 because the significance level is less than 0.05 it can be concluded than the zero hypothesis is rejected and the inequity of Nokia and Samsung special value mean is accepted. On the other hand, by virtue of Table 9 the Nokia special value is more than the Samsung's so the main hypothesis is confirmed.

Table 11: Comparing ranking mean of the elements of Nokia and Samsung special values

Brand	Ranking mean of the elements of Nokia and Samsung brand			
	Loyalty	Perceived quality	Awareness of brand	Brand association
Nokia	56.43	55.54	69.43	97.68
Samsung	24.32	34.26	27.32	42.44

Table 12: Mann Whitney test statistic about the secondary hypotheses

Secondary hypotheses	Z	Mann Whitney	Wilcoxon	Significance level
Secondary H1	-2.987	5.1235	355.4725	0.001
Secondary H2	- 0.370	25.1425	563.5236	0.000
Secondary H3	- 2.915	36.1732	365.5241	0.002
Secondary H4	-2.955	56.1741	635.4786	0.000

By virtue of Table 12 the significance level concerning all secondary tests is less than standard error 0.05. So, secondary hypotheses are rejected and ranking mean inequity of the elements of Nokia and Samsung brand is confirmed; on the other hand, by virtue of Table 11 the special value mean of the elements of Nokia is more than the Samsung's namely all hypotheses of the study are confirmed.

Discussion and conclusion

By virtue of the findings the consumers' views are different concerning the brand's special value of both Nokia and Samsung cell phones and the Nokia's is more than the Samsung's. Also by

virtue of the secondary hypotheses it can be said that there is significant difference between the elements' means Nokia and Samsung brands' special values and all the all elements' mean of Nokia are more than the Samsungs'. The findings of this study is in accord with the Hosseini's et al. (2006) concerning three variables: perceived quality, awareness of brand and loyalty to brand; also they are in accord with the findings of Seyedjavadin and Shams (1997), Maja Cotking and William Gartner (2005) concerning four dimensions of Nokia and Samsung special brand based on consumer including awareness, brand association (Image of the brand), brand quality and loyalty to brand. We recommend that Samsung should absorb consumers to its products brand's special value, if it desires to competes with others; so it should promote the quality of its products and needs more publicities to inform consumers more about the brand and creates more brand association in the consumers' mind.

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