HR*MARS*
Exploring Intellectual Capital

Studying Preference of Prominent Features and Possibilities of Mobile Phones and their Relation with Re-purchase Intention and Customer Satisfaction

Dr. Fariddeddin Allameh Haery
Department of Management and Accounting, Mobarakeh Branch, Islamic Azad University, Mobarakeh, Iran

Dr. HamidReza Bahrami
Department of Management, Naragh Branch, Islamic Azad University, Naragh, Iran

Hooman Allameh Haery
Department of Management, Naragh Branch, Islamic Azad University, Naragh, Iran

Abstract
Purpose- Preference of features and possibilities of mobile phones in users' viewpoint was the purpose of the current study.
Methodology- This survey was conducted using descriptive-field method. Historical study was used to collect the information for theoretical subjects and questionnaire was used to collect the data. The reliability was measured through Cronbach's alpha that was confirmed with a coefficient equal to 0.855. Isfahan province comprised the statistical population and the statistical sample included two-hundred twenty one persons from Isfahan, Najaf-Abad and Mobarake randomly. Four hypotheses were proposed in this regard. Significance of relation between possibilities and features of mobile phone with customer satisfaction and re-purchase intention, the relation between customer satisfaction and re-purchase intention and finally the order and priority of the possibilities and features in customers' viewpoint were tested.
Findings- Pierson correlation coefficient and one-variable and multi-variable regression model were used to test the hypotheses which were confirmed in all hypotheses. Friedman ranking was applied to determine the priority, so qualitative features ranked the highest and commercial possibilities ranked the lowest.
Conclusion- When customers are not satisfied with their former mobile phone and believe that the next generation mobile phone is more useful and easier to use than their current phone, they more probably enhance their mobile phones to the next generation models. At last, previous experience may reflect a barrier in buying mobile phone brands through interaction of the possibilities and features which significantly affect customer retaining especially in mobile phone industry.
Key words: mobile phone, possibilities and features of mobile phone, customer satisfaction, re-purchase intention
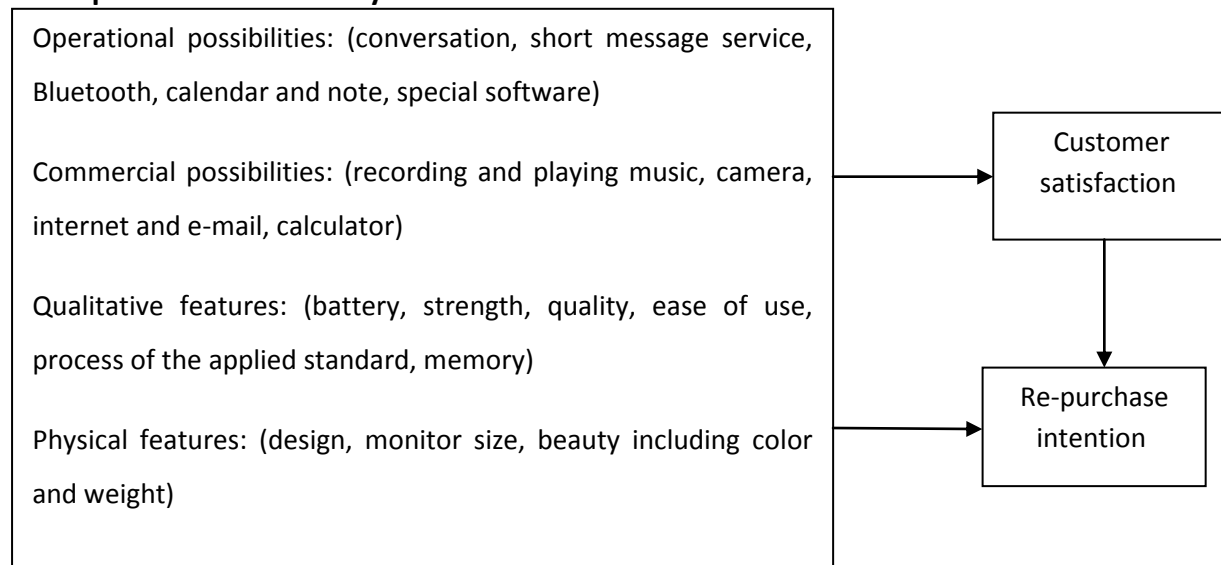
Introduction

Tendency towards a product can be provided by adding of features that are not yet present in the competition market. Features are resources of primary received advantages when a product is purchased. Thus, they have a positive effect on assessment of products. Adding such features can increase customer satisfaction and loyalty so that it can become an incentive to re-purchase the new series.

Sometimes new features of the mobile phone might be irrelevant or even harmful under specific conditions or in some age groups. Therefore, adding these features pave the way to establish a descending order in selling the products. Consumers evaluate the applied quality and performance in the product both internally and externally to decrease the probable risk in pre-purchasing behavior.

Using small digital tools in developed countries has had an extensive growth. At the same time it is growing in developing countries too. Today a numerous number of these tools such as iPad, lap tops, tablet and mobile phone are useful and interesting for people. Mobile phone more than other tools has had a more extensive growth and this market will continue to grow. Therefore, studying this market can be very helpful for manufacturers, whole sellers and retailers. Investigating customers' tastes at different ages and their expectations from mobile phone can highly help produce the mobile phones especially in Iran that is a newly-established industry.

Conceptual model of survey

Hypotheses

Primary hypothesis: The possibilities and features of mobile phone have a significant relation with customer satisfaction and re-purchase intention.

Secondary hypotheses

1- Possibilities and features of mobile phone have a significant relation with customer satisfaction.

2- Possibilities and features of mobile phone have a significant relation with re-purchase intention.

3- Customer satisfaction has a significant relation with re-purchase intention.

4- Possibilities and features of mobile phone have order and priority in viewpoint of consumers.

Methodology

This survey is applied in terms of purpose, because it can be used by mobile phone manufacturers and sellers. It is descriptive-field in terms of method. Methods of data collection included historical study and field study. Questionnaire was used to collect the data related to the hypotheses and the articles, internet and books were used to collect the theoretical subjects. The reliability was measured through Cronbach's alpha that was equal to 0.855 and showed high reliability of the questionnaire. Validity of the questionnaire was confirmed through professors and experts' opinions. The statistical population included all mobile phone holders in Isfahan province. The sample size was determined given to the estimated variance from the preliminary sample (0.1568) and using Cochran formula (population size=∞), confidence level (95%) and standard error of estimation equal to d=0.05. It was estimated equal to 241 persons as below.

$$n = \frac{Z_{\frac{\alpha}{2}}^2 S^2}{d^2} = \frac{(1.96)^2 (0.1568)}{(0.05)^2} = 241$$

Hence, 241 questionnaires were distributed among those who had mobile phone and who had re-purchase intention. The questionnaires were given to employees and B.A and M.A students of the Islamic Azad Universitities of Mobarake and Najaf-Abad branches and the old people in Isfahan province in order to collect their opinions and analyze them.

Inferential analysis of data

Testing of hypotheses

Hypothesis one: There is a significant relation between possibilities and features of mobile phone and customer satisfaction.

Independent variables	Statistical standard	Customer satisfaction (dependent variable)
Operational possibilities	Pierson correlation coefficient	0.348
	Significance level	0.000
Commercial possibilities	Pierson correlation coefficient	0.328
	Significance level	0.000
Physical features	Pierson correlation coefficient	0.368
	Significance level	0.000
Qualitative features	Pierson correlation coefficient	0.353

	Significance level	0.000
Commercial features	Pierson correlation coefficient	0.419
	Significance level	0.000

Correlation test among possibilities (operational and commercial) and features (physical, qualitative and commercial) variables of mobile phone with customer satisfaction (number=221)

Given to Pierson correlation coefficient, commercial features have the highest correlation with customer satisfaction with coefficient equal to 0.419 and the weakest correlation was related to commercial possibilities with a coefficient equal to 0.328. Correlation of all factors with customer satisfaction was confirmed with 0% error.

Multi-variable regression was used to determine the effect of each variable of possibilities and features with customer satisfaction. For pre-test Kolmogoroff-Smirnoff test was first applied that the assumption of normality of the residues was confirmed at significance level 0.068. Variance inflation factor for independent variables was calculated for co-linearity that all of them were less than 5. Thus, there is no co-linearity.

Durbin-Watson statistic was equal to 1.51 and because it is between 1.5 and 2.5 it shows that no correlation problem exists between the residual amounts. Modified coefficient of determination (R^2) was equal to 10.3% which totally showed a relatively good correlation with satisfaction. Confirmation of this hypothesis is consistent with research results of Anderson and Fornell (1994), Paterson et al. (1997) and Parsons (2010).

Hypothesis two: There is a significant relation between possibilities and features of mobile phone and re-purchase intention.

Regression analysis of hypothesis 2 (dependent variable: customers' re-purchase intention)

Independent variables	Regression coefficient	t-value	Significance level	Co-linearity
Intercept	0.759	1.516	0.131	-
Operational possibilities	0.261	2.108	0.046	2.76
Commercial possibilities	-0.035	-0.289	0.773	2.79
Physical features	-0.149	-2.215	0.031	2.73
Qualitative features	0.350	2.405	0.017	2.07
Commercial features	0.207	2.128	0.048	1.94
F statistic (4.93) and significance level (0.000)	Coefficient of determination (R^2)=0.103			
K-S statistic and significance level (0.068)	Durbin-Watson statistic (1.51)			

Pierson correlation coefficient was first used and commercial features had the highest

correlation equal to 0.272 and the lowest correlation was related to commercial possibilities with correlation coefficient equal to 0.171. Except commercial possibilities other factors were confirmed at significance level less than 5%. Multi-variable regression was used to determine degree of correlation. In order to test data normality Kolmogoroff-Smirnoff test was applied and the assumption of normality of the residue was confirmed equal to 0.068 with an error less than zero degree. Independent variables were tested to examine co-linearity that value of inflation factor of the independent variables was less than 5. Thus it showed that there is no co-linearity among the independent variables and in order to show there is lack of co-linearity among the residue values Durbin-Watson was used which was equal to 1.51 (between 1.5-2.5). As a result, there is no self-correlation problem among values of residues. Value of correlation (modified R^2 coefficient) was equal to 10.3% which does not show a relatively good relation. Confirmation of this hypothesis is consistent with research results of Ball et al. (2004), Hollowell (1996) and Strauss Neuhaus (1999).

Hypothesis three: There is a significant relation between customer satisfaction and re-purchase intention.

Regression analysis of hypothesis 3 (dependent variable: customers' re-purchase intention)

Independent variable	Regression coefficient	t-value	Significance level
Intercept	1.303	3.66	0.000
Customer satisfaction	0.48	5.05	0.000
F statistic (25.52) and significance level (0.000)	Coefficient of determination $(R^2)=0.104$		
K-S statistic (1.16) and significance level (0.081)	Durbin-Watson statistic (1.56)		

Correlation coefficient was tested by means of Regression test. For regression pre-test Kolmogoroff-Smirnoff test was first used to test normality of variables which was confirmed equal to 0.081 and with an error less than 5%. Then Durbin-Watson test was applied to examine auto-correlation among residues that was obtained equal to 1.56 (between 1.5 and 2.5). It showed there is no auto-correlation problem. Modified R^2 coefficient showed degree of correlation equal to 10.4%. Confirmation of this hypothesis is consistent with research results of Smith (2007).

Hypothesis four: Possibilities and features of mobile phone have order and priority in consumers' viewpoint.

Ranking of possibilities and features of mobile phone (number=221)

Indexes	Mean Friedman rank	Friedman statistic	Significance level
Operational possibilities	2.22		

Commercial possibilities	1.94		
Physical features	3.65	0.276	0.000
Qualitative features	3.84		
Commercial features	3.35		

Ranking was conducted using Friedman rank in which the mean was applied, so qualitative features had the highest rank (3.84) and physical features were at the next rank with mean equal to 3.15. The lowest rank was related to commercial possibilities that their mean was equal to 1.94.

Manner of this ranking is consistent with Jones and Sasser's study (1995).

Interpretation of the results

Preference of features and possibilities of mobile phones among users was the purpose of the current study. Quality of conversation and battery (conversation time) have been the most important possibilities and features of mobile phone. The factors related to possibilities and features had correlation with satisfaction and re-purchase intention in multiple regression model. Only there was a very weak correlation between commercial possibilities and behavioral loyalty (re-purchase intention) as well as physical features and customer satisfaction. Finally, the relation between customer satisfaction and re-purchase intention was analyzed and a significant but moderate correlation was discovered. The relation between satisfaction structure and re-purchase intention had similarity with similar industries (automobile and computer) in Jones and Sasser's study (1995) that seems there is a relation just at satisfaction levels more than 3 but when customer's satisfaction level is below 3, low satisfaction level seems low. It can be due to gradual evolution of technology. Therefore, if customers are not satisfied with their current mobile phone, their purpose will be to purchase a similar brand since they have experienced the interaction of possibilities and features, while they are aware of the superior technology in new brands of the organization. This finding is consistent with the recent study conducted by Tseng and Lo (2011) who perceived that when customers are not satisfied with their current mobile phone and believe that the next generation mobile phone is easier to use and more useful, they more probably enhance their mobile phones to the next generation models. Ultimately, previous experience may reflect a barrier in buying new mobile phone brands through interaction of the possibilities and features which significantly affect customer retaining especially in mobile phone industry.

References

Anderson, E. W, Fornell, C., 1994. A customer satisfaction research prospectus. In: Rust, R.T., Oliver, R.L. (EdS.), Service Quality: New Directions in Theory and Practice. Sage, London, pp. 241 – 268

Anderson, J.C, Gerbing, D,W., 1988. Structural modeling in practica: A review and recommended two- step approach. Psychological Bulletin 103 (3), 411- 423

Ball, D., Coelho, P.s., Machad, A., 2004. The role of communication and trust in explaining customer loualty: an extension to ECSI model. European Journal of Marketing 38 (9/10). 1272- 1293.

Hallowell, R., 1996. The relationship of customer satisfaction, customer Loyalty, and profitacility: an empirical study. International Journal of service Industry Management 7 (4). 27-42.

Jones, T.O., Sasser, W.E., 1995. Why satisfied customers derect? Harvard Business Review 73 (6). 88-91.

Patterson, P.G., Johnson, L.W., Spreng, R.A., 1997. Modeling the determinants of customer satisfaction for business- to- business professional services. Journal of Academy of Marketing Science 25(1), 4-17.

Parsons, K., 2010. Mobile phones. <http:// businesscenter. Jdpower. Com/ default. Aspx? F= /jdpacontent/ corpcomm/ Home/ Electronics/ Electronics _mobile phones. Htm> (accessed 8.02.11).

Smith, S.M., 2007. How to measure customer satisfaction: Satisfaction measurement and theory. <http:// www. aboutsurveys. Com/ how- to- measure- customer- satisfaction- measurement- and- theory> (accessed 16.02.2011).

Strauss, B., Neuhaus, P., 1997. The qualitative satisfaction model. International Journal of Service Industry Management 9(2), 169-188.

Tseng, F.-M., Lo. H.-Y., 2011. Antecedents of consumers intentions to upgrade their mobile phones. Telecommunications Policy 35(1). 74-86.