

**INVESTIGATION OF THE EFFECT OF CUSTOMER SATISFACTION AND SERVICE  
PERFORMANCES ON INTENTION TO SWITCH IN MOBILE INDUSTRY**

**Sara Shakeri**

PhD of Marketing Management, Department of Business Management, Science and Research  
Branch, Islamic Azad University, Tehran, Iran

[shakerisara@ymail.com](mailto:shakerisara@ymail.com)

**Vahid Solgi**

Master's Student in Marketing, Molana Institute of Higher Education, Abyek, Iran

[vahidsolgi8@gmail.com](mailto:vahidsolgi8@gmail.com)

**Abstract**

*In this research, the relation among the core services, encounter services, satisfaction of the customers and switching intention has been studied. This study is conducted in Molana University among the students. Our main purpose in this research is investigating the performance of the core and finally the switching intention in mobile industry and finding that is there a relation among them or not. The conclusion is that if the services of the company are satisfactory, there will not be the intention of the switching. Investigating the effect of customer satisfaction and service performances on intention to switch in mobile industry is done in this study.*

*Keywords: Core service, Encounter service, Customer satisfaction, switching intention*

## **1. INTRODUCTION**

The total costs of attracting a new customer/potential switcher from a competitor rapidly increase and substantially exceed the costs of retaining an existing customer (Kotler et al., 2003). Prior studies, mainly in marketing and consumer behavior, have indicated service switching from the customer's perspective (Bansal and Taylor, 1999). It is not surprising, then, that many service companies are in search of increasing their service performance and satisfaction levels while dealing effectively with switching barriers to increase customer retention. Several studies have examined and identified determinants of switching behaviors (Andreasen, 1985; Keaveney, 1995). According to Sambandam and Lord (1995), service switching expresses a person's desire to replace/change his/her current service provider with another/competitor.

Similarly, Colgate and Lang (2001) and Keaveney (1995) identified service performance (i.e., core service and service encounter) and switching barriers (i.e., switching costs, relational investment, and lack of alternatives' attractiveness) as important preventing components of switching acts.

**International Journal Of Core Engineering & Management (IJCEM)**  
**Volume 3, Issue 5, August 2016**

The current study has investigated the complex relationships among service performances, customer satisfaction, and switching barriers in determining switching intention. Particularly, this study attempted to examine the asymmetrical effect of core service and service encounter performances on satisfaction and switching intention, to examine the mediating impact of satisfaction in forming switching intention, and to investigate the moderating effect of the dimensions of switching barriers on the relationship between switching intention and its antecedent variables in the mobile industry. Switching behaviour is believed to have important influences on companies' success in market place. Satisfaction can be approached by expectancy theory which suggests previous experiences influence future behavioural outcomes and this has largely been supported by empirical studies (Oliver: 2010). In an increasingly competitive service market, strengthening a company's service performances and reducing the failures of service performances seem to be undeniably necessary to success (Chu & Choi, 2000; Keaveney, 1995)

## **2. Theoretical Background and Hypotheses Development**

### **2.1 Service performances**

Clemmer (1990) provided a three- ring conceptual model that describes product/service attributes. Clemmer's (1990) core service is the basic service (the first ring) related to product/service value, which is surrounded by service support (the second ring) indicating personal care and warranty and surrounded by enhanced service (the third ring) which takes customers the next step from satisfied to complete loyalty.

According to Bitner et al (1990), such service performances consist of core and service encounter performances.

While core service performance refers to customer's perceived level of outcomes directly associated with product/ service value and technical issues about product/ service itself (Clemmer, 1990; Keaveney, 1995), service encounter performance indicated outcomes that they perceive during a face- to- face interaction with a provider (Bitner et al, 1990; Keaveney 1995).

The term "service encounter" has been widely used in marketing and consumer behavior literature. In a broad manner, Shostack's (1985) definition of service encounter includes every aspect of the service company with which its consumers interact (e.g., its personal, physical attributes, and other tangible/intangible elements).

However, most of the researchers held a limited perspective on the service encounter, describing it as an active interaction between a customer and a provider (e.g., Bitner et al., 1990; Keaveney, 1995; Surprenant and Solomon, 1987).

### **2.2 Customer satisfaction**

**International Journal Of Core Engineering & Management (IJCEM)**  
**Volume 3, Issue 5, August 2016**

Customer satisfaction is an important and essential marketing concept in those satisfying customers' needs and desires is vital to a company's success (Han and Ryu, 2006; Spreng et al., 1996).

Customer satisfaction has been frequently regarded as an important determinant long-term customer behavior (Oliver 1980). According to Oliver (1980), when individuals experience a service and compare the encounter with their expectations, the outcome is customer satisfaction. If the performance (core service/service encounter) meets/exceeds expectations, they are generally satisfied. However, if the performance does not meet expectations, they are normally displeased with that service.

### **2.3 Switching intention**

Service switching, switching intention, customer loyalty, customer retention, and repurchase intention are all associated and related to each other (Bansal and Taylor, 1999; Han et al., 2009).

While customer loyalty, retention, and repurchase intentions indicate favorable outcomes for the provider, service switching and switching intention mention unfavorable outcomes (Bansal and Taylor, 1999; Han et al., 2009).

Particularly, the term "behavioral intention" includes both switching and rebuy intention (Keaveney, 1995).

Similarly, switching intention in the present study indicates negative consequences for a service company, referring to the affirmed likelihood of exchanging the current service provider with another.

### **2.4 Roles of service performances in the decision-making process**

Evidence in the prior literature indicates that customer satisfaction and behavioural intentions are influenced by an individual's perceptions of service performance (Anderson and Sullivan, 1993; Oliver, 1997; Spreng and Olshavsky, 1993).

Bitner et al. (1990) expressed that both core service and service encounter performances are positively and significantly associated with customers' post purchase behaviour.

Overall, based on the theoretical relationship among above mentioned variables and the fact that the behavioral intention variable includes both positive (e.g., intention to rebuy) and negative consequences (e.g., intention to switch) (Bansal and Taylor, 1999; Keaveney, 1995), it may be posited that core service and service encounter performance influence both customer satisfaction and switching intention in the mobile industry.

### **2.5 The customer satisfaction and switching intention relation**

In recent years, several studies in the service sector have proposed and empirically validated the association and relationship between customer satisfaction and behavioural intentions such as customer rebuy and switching intentions (Bansal and Taylor, 1999; Cronin et al., 2000; Kotler et al., 2002). Cronin et al. (2000).

**International Journal Of Core Engineering & Management (IJCEM)**  
**Volume 3, Issue 5, August 2016**

Bansal and Taylor (1999) stated that dissatisfaction leads to a greater likelihood to switch. The satisfaction and intention relationship provides the basic marketing/service concept to the service operations that must satisfy customers' needs and desires to prevent switching (Kotler et al.,2002).

## **2.6 Hypotheses**

- H1. Core service performance positively affects customer satisfaction**
- H2. Service encounter performance positively affects customer satisfaction.**
- H3. Core service performance negatively affects switching intention.**
- H4. Service encounter performance negatively affects switching intention.**
- H5. Customer satisfaction negatively affects switching intention.**

## **3. METHODOLOGY**

In this article we have distributed our questionnaires between 400 people who already had mobile phone and 28 of questionnaires were missing. 50% of our statistical society was male.

We have four variables and for the first variable (core service performance) we have five questions asked and for the second variable (service encounter performance) we have five questions and for the third variable (customer satisfaction) we have three questions and for the last variables (switching intention) we have two questions.

Today we have 15 main questions in our questionnaire. In order to assess the questionnaires performance we used Likert Scale. (Five- points Likert Scale)

## **4. RESULTS**

To test the model developed we used the Structural equations model (SEM) approach. Structural model analysis LISREL was used to create the covariance-based structural equation model. Structural equations express relationships among several variables that can be either directly observed variables (manifest variables) or unobserved hypothetical variables (latent variables). LISREL also provides a number of model fit indices. As noted, all constructs were assessed using 5-point Likert type scales.

### **4.1 Measurement Model**

Discriminant validity is shown when: (1) measurement items load more strongly on their assigned construct than on the other constructs in a CFA(see table 3); and, (2) the square root of the average variance extracted (AVE) of each construct is larger than its correlations with the other constructs (see table 2). We used the factor loadings, composite reliability and average variance extracted to assess convergence validity. The recommended values for loadings are set at  $> 0.5$ , the average variance extracted (AVE) should be  $> 0.5$  and the composite reliability (CR) should be  $> 0.7$ . From Table 1 it can be seen that we have startup intention as first order constructs. From table 1 it can be seen that the results of the measurement model exceeded the recommended values thus indicating sufficient convergence validity. In order to assess the reliability of measurement items, we compute composite construct reliability

**International Journal Of Core Engineering & Management (IJCEM)**  
**Volume 3, Issue 5, August 2016**

coefficients and Cronbachs Alpha. Composite reliabilities range from 0.803 (for Core service performance) to 0.895 (for Switching Intention), which exceed the recommended level of 0.7. The results (see table 1), therefore, demonstrate a reasonable reliability level of the measured items.

#### **4.2 Convergent validity**

Table 1 shows the descriptive statistics, Composite reliability and average variance extracted (AVE) for the model constructs. The convergent and discriminant validity of all variables were be tested by confirmatory factor analysis using the maximum likelihood estimator of LISREL 8.73. The discriminant validity of the scales was checked by the Fornell and Larker's (1981) formula. Structural model analysis LISREL was used to create the covariance-based structural equation model (SEM). Discriminant validity is the degree to which items differentiate among constructs or measure distinct concepts. The criterion used to assess this is by comparing the AVE with the squared correlations or the square root of the AVE with correlations. As shown in Table 3, we have used the second method which is to compare the square root of the AVE with the correlations. The criteria is that if the square root of the AVE, shown in the diagonals are greater than the values in the row and columns on that particular construct than we can conclude that the measures discriminant. From table 3, it can be seen that the values in the diagonals are greater than the values in their respective row and column thus indicating the measures used in this study are distinct. Thus the results presented in Tables 2 and 3 demonstrate adequate discriminant and convergent validity.

#### **4.3 Goodness of fit statistics**

LISREL provides a number of model fit indices. The incremental fit index (IFI) which tests the improvement of the model over a baseline model (usually a model of independence or uncorrelated variables), relative fit index (RFI) which compares a chi-square for the model tested to one from a baseline model, variations of RFI (which are not explicitly designed to be provide penalties for less parsimonious models) such as the normed fit index (NFI) and non-normed fit index (NNFI or TLI), and no centrality-based indices whereby the no centrality parameter is calculated by subtracting the degrees of freedom in the model from the chi-square ( $\chi^2/df$ ) such as the comparative fit index (CFI), and root-mean-square error of approximation index (RMSEA). Values greater than 0.90 are desirable for IFI, RFI, CFI, NFI and NNFI while values less than 0.09 for RMSEA are acceptable. The result of model indices support a good overall model fit (Goodness fit statistics: Chi-Square=186.8, DF=81( $\chi^2/df=2.306$ ), RMSEA=0.027, CFI=1, NFI=0.95, NNFI=0.96, GFI=0.94, RFI=0.93).

**International Journal Of Core Engineering & Management (IJCEM)**  
**Volume 3, Issue 5, August 2016**

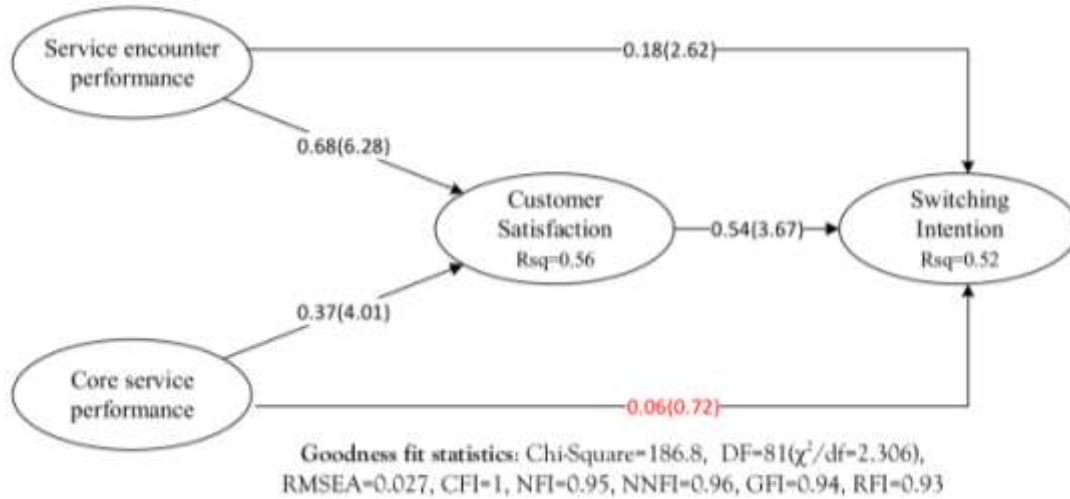


Fig1. Research Model in Estimation and Significant situation

Table 1: Discriminant Validity and descriptive statistics

Construct	AVE	Composite Reliability	Cranach's Alpha	Mean	SD
Core service performance	0.506	0.803	0.678	3.767	1.006
Customer Satisfaction	0.538	0.823	0.716	2.816	1.112
Service encounter	0.701	0.875	0.786	3.05	1.143
Switching Intention	0.682	0.895	0.843	3.300	1.021

Table 2: Convergent Validity (Reliability and inter-construct correlations for reflective scales)

Construct	CSP	CS	SE	SI
Core service performance	0.711			
Customer Satisfaction	0.456	0.733		
Service encounter	0.303	0.354	0.837	
Switching Intention	0.411	0.528	0.361	0.826

Note: Diagonals represent the square root of the AVE while the off-diagonals represent the correlations

Table 3: Cross loading and loading factors

Item/Construct	Core service performance	Customer Satisfaction	Service encounter	Switching Intention
csp1	0.619	0.301	0.193	0.195
csp2	0.747	0.306	0.215	0.289
csp3	0.718	0.308	0.171	0.236
csp4	0.753	0.372	0.266	0.404
cs1	0.431	0.731	0.17	0.462
cs2	0.41	0.719	0.142	0.345
cs3	0.255	0.763	0.428	0.417
cs4	0.213	0.719	0.306	0.291
sev1	0.242	0.335	0.865	0.312

**International Journal Of Core Engineering & Management (IJCEM)**  
**Volume 3, Issue 5, August 2016**

sev2	0.26	0.303	0.887	0.329
sev3	0.265	0.245	0.755	0.262
si1	0.388	0.434	0.252	0.758
si2	0.344	0.409	0.325	0.869
si3	0.259	0.446	0.332	0.82
si4	0.364	0.451	0.284	0.853

#### 4.4 Structural Model

As shown in Table 4. To evaluate the structural models' predictive power, we calculated the  $R^2$ ,  $R^2$  indicates the amount of variance explained by the exogenous variables (Barclay et al.1995). Using a T-value technique with a sampling of 372, the path estimates and t-statistics were calculated for the hypothesized relationships. One hypothesis was not supported in the testing (the effect of Core service performance on Switching Intention). Four hypotheses were supported in the testing at  $P < 0.01$ : As shown in Table 4 and fig 1, the path coefficients and result of hypotheses. In this model, we have relied on the  $R^2$  value, computed in LISREL to determine how closely our data conform to a linear relationship.  $R^2$  values range from 0 to 1, with 1 representing a perfect fit between the data and the line drawn through them, and 0 representing no statistical correlation between the data and a line (See result at table 4), So Approximately, 56% of the variance of Customer Satisfaction are explained by Core service performance and Service encounter performance and Approximately 52% of the variance of Switching Intention are explained by Core service performance, Service encounter performance and Customer Satisfaction.

Table 4: Hypothesis Testing

Hypothesis	Path coefficient	t-value	$R^2$	Result	Sign
Core service performance → Customer Satisfaction	0.37	4.01	0.56	Supported	+
Service encounter performance → Customer Satisfaction	0.68	6.28		Supported	+
Core service performance → Switching Intention	0.06	0.72	0.52	NS	NS
Service encounter performance → Switching Intention	0.18	2.62		Supported	+
Customer Satisfaction → Switching Intention	0.54	3.67		Supported	+

$|t| > 1.96$  Significant at  $P < 0.05$ ,  $|t| > 2.58$  Significant at  $P < 0.01$

#### 5. CONCLUSIONS

Findings from this study indicated that core service encounter performances played critical role in forming switching intention. The findings are generally in line with those from Keaveny's (1995) study, which revealed that core service failure among various causal antecedents of service switching has the most significant service encounter performance failure.

In this research, we have studied the relationship between the variants of core service, encounter services, satisfaction of the customers and switching intention. The results shows that the performance of these services also influences on satisfaction of the customers and these services are in relation to the switching intention. Our purpose in this article is to show that performing the encounter and core services can show the

**International Journal Of Core Engineering & Management (IJCEM)**  
**Volume 3, Issue 5, August 2016**

satisfaction of the customers from their mobiles and encounter and core services and satisfaction have direct effect on switching intention of the customers. According to the statistics and results of this study, when customers get good service from their mobile company they are satisfied. And if the performance is not good enough it may lead them to switch.

Since there will be changes in demanding and style of customers, future researchers should find the variants appropriate to the consumers. For instance, a few years ago taking photographs by the mobiles was a minor service but today it is one of the core services of mobiles.

#### **6. RESEARCH LIMITATIONS**

Since it is a survey based research, there will be some limitations. This study is a survey study and it has been done among Iranian consumers in mobile industry. It would have different results if it was taken in other countries. As this study uses a survey approach and a questionnaire has been distributed among a specific number of consumers, it could have different results in other larger sample populations. Despite having these limitations, this research shows significant results and statistics that could be used and utilized by managers and marketing experts for further implications in mobile industry.

#### **REFERENCES**

1. Anderson, E.W., Sullivan, M.W., 1993. The antecedents and consequences of customer satisfaction for firms. *Marketing Science* 12, 125–143.
2. Andreasen, A.R., 1985. Consumer responses to dissatisfaction in loose monopolies. *Journal of Consumer Research* 12, 135–141.
3. Bansal, H.S., Taylor, S.F., 1999. The service provider switching model (SPSM): a model of consumer switching behavior in the services industry. *Journal of Service Research*.
4. Bitner, M.J., Booms, B.H., Tetreault, M.S., 1990. The service encounter: diagnosing favorable and unfavorable incidents. *Journal of Marketing* 54, 71–84.
5. Clemmer, J., 1990. The three rings of perceived value. *Canadian Manager* 15, 12–15.
6. Kotler, P., Bowen, J., Makens, J., 2003. *Marketing for Hospitality and Tourism*, Third ed. Prentice Hall, Englewood Cliffs, NJ.
7. Cronin, J.J., Brady, M.K., Hult, G.T.M., 2000. Assessing the effects of equality, value, and customer satisfaction on consumer behavioral intentions in service environments. *Journal of Retailing* 76 (2), 193–218.
8. Fornell, C., 1992. A national customer satisfaction barometer: the Swedish experience. *Journal of Marketing* 56, 6–21.
9. Oliver, R.L., 1997. *Satisfaction: A Behavioral Perspective on the Consumer*. McGraw- Hill, New York.
10. Oliver, R.L., 1980. A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research* 17, 460–469.



**International Journal Of Core Engineering & Management (IJCEM)**  
**Volume 3, Issue 5, August 2016**

11. Sambandam, R., Lord, K.R., 1995. Switching behavior in automobile market: a consideration-sets model. *Journal of the Academy of Marketing Science* 23 (1),57–65.
12. Han, H., Ryu, K., 2006. Moderating role of personal characteristics in forming restaurant customers' behavioral intentions: an upscale restaurant setting. *Journal of Hospitality and Leisure Marketing* 15 (4), 25–54.
13. Han, H., Back, K., Barrett, B., 2009. Influencing factors on restaurant customers' revisit intention: the roles of emotions and switching barriers. *International Journal of Hospitality Management* 28, 563–572.
14. Spreng, R.A., Mackenzie, S.C., Olshavsky, S.W., 1996. A reexamination of minants of consumer satisfaction. *Journal of Marketing* 60, 15–52.
15. Spreng, R.A., Olshavsky, R.W., 1993. A desires congruency model of consumer satisfaction. *Journal of the Academy of Marketing Science* 21 (3), 169–177.
16. Shostack, G.L., 1985. Planning the service encounter. In: Czepiel, J., Solomon, M., Surprenant, C. (Eds.), *The Service Encounter*. Lexington Books, Lexington, MA, pp. 243–254.
17. Surprenant, C.F., Solomon, M.R., 1987. Predictability and personalization in the service encounter. *Journal of Marketing* 51, 73–80.
18. Kotler, P., Armstrong, G., Cunningham, P.G., 2002. *Principles of Marketing*. Prentice Hall, Englewood Cliffs, NJ.
19. Ranaweera, C., Prabhu, J., 2003. The influence of satisfaction, trust, and switching barriers on customer retention in a continuous purchasing setting. *International Journal of Service Industry Management* 14 (4), 374–395.
20. Colgate, M., Lang, B., 2001. Switching barriers in consumer markets: an investigation of the financial services industry. *Journal of Consumer Marketing* 18 (4), 332–347.
21. Keaveney, S.M., 1995. Customer switching behavior in service industries: an exploratory study. *Journal of Marketing* 59, 71–82.
22. Bansal, H.S., Taylor, S.F., 1999. The service provider switching model (SPSM): a model of consumer switching behavior in the services industry. *Journal of Service Research* 2 (2), 200–218.
23. Oliver, R. L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research.*, 17, 460e469.
24. Oliver, R. L. (2010). *Satisfaction: A behavioral perspective on the consumer* (2nd ed.). Armonk, NY: ME Sharpe.
25. Barclay, D. W., Thompson, R., & Higgins, C. (1995). The Partial Least Squares (PLS) Approach to Causal Modeling: Personal Computer Adoption and Use an Illustration. *Technology Studies*, 2(2), 285-309.
26. Chin, W.W. (1998). The Partial Least Squares Approach to Structural Equation Modeling. In *Modern Methods for Business Research*, Marcoulides, G.A. (ed.), Lawrence Erlbaum Associates, Mahwah, NJ, pp:1295-1336.

**International Journal Of Core Engineering & Management (IJCEM)**  
**Volume 3, Issue 5, August 2016**

27. Fornell, C., & Cha, J. (1994). "Partial least squares", in Bagozzi, R.P. (Ed.), *Advanced Methods of Marketing Research*, Blackwell, Cambridge, MA, pp. 52-78.
28. Fornell, C., & Lacker, D.F. (1981). Evaluation structural equation models with unobserved variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.
29. Gil-Garcia, J.R. (2008). Using partial least squares in digital government research, in Garson, G.D., Khosrow-Pour, M. (Eds), *Handbook of Research on Public Information Technology*, Idea Group, Hershey, pp.239-53.
30. Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis*. Upper Saddle River, NJ: Prentice-Hall.
31. Ringle, C.M., Wende, S., & Will, A. (2005). *Smart PLS Version 2.0 M3*, University of Hamburg.

#### **Appendix**

This research has used a survey approach and a questionnaire has been distributed among Iranian consumers. Participants were asked to rank a list of items on the Likert-type scale, ranging from "strongly disagree" to "strongly agree". Here is the questionnaire list of questions:

1. *I am satisfied with the services I have got from Samsung.*
2. *The services that are provided by Samsung have met my expectations.*
3. *Samsung services are conforming to my needs.*
4. *I am going to get my required services from Apple in near future.*
5. *I am willing to get services from Apple.*
6. *I am not willing to continue getting services from Samsung.*
7. *Using Apple is difficult for me.*
8. *Switching Samsung is complicated for me.*
9. *I am loyal to Samsung.*
10. *If I want to buy a mobile phone other than Samsung, I would have to tolerate a lot of paperwork.*
11. *Due to lack of quality in Samsung, I have to buy a new mobile phone from Apple.*
12. *In order to switch Samsung, I have to do a lot of work.*
13. *I think Apple provides a better performance for customers in comparison with Samsung.*
14. *I think that I can get valuable services from Apple.*
15. *Apple's quality of service is conforming to the expectations.*