



Examining the Antecedents of Mobile Service Users' Loyalty: An Empirical Study of Mobile Service Providers in Kuwait

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**Abstract:** Background and objective: Considering the increasing tough competitive environment, the role of user satisfaction and loyalty are the most important factors for the success and survival of any mobile service providers. Analysis of the determinant of user satisfaction can help mobile service providers to optimize their services to retain their user base. The competition among mobile service provider is very high. The research is aimed to empirically investigate the loyalty of online services of mobile operators in Kuwait using the American Satisfaction Index (ACSI) model.

**Materials and Methods:** This exploratory study employed structured questionnaire and collected primary data from the users of the all mobile service providers in Kuwait. Valid responses collected from 312 mobile service users were tested with Structural Equation Modeling (SEM) technique.

**Results:** Results of this research indicate that all hypothetical relationships demonstrate significant positive correlation and thus proposed research model is found generally plausible.

**Conclusions:** Findings indicate that perceived quality of online mobile services providers is the most significant factor that affects mobile service user satisfaction and their loyalty.

**Significant Statement:** The purpose this research is to examine the role of mobile service user satisfaction and their loyalty towards the online service provisioning by mobile service providers in Kuwait using a modified ACSI model. The results of this research offer many theoretical and managerial implications and contribution for researchers and mobile service providers offering online services in Kuwait.

**Keywords:** Mobile Service Providers, Perceived Value, User satisfaction, Perceived Quality, Loyalty.

1. **INTRODUCTION**

The increasing completion among mobile service providers demands reformism both in terms of service provisioning and service quality. Retaining mobile service user base and maintaining mobile service user loyalty are two big challenges for mobile service providers (Lai *et al.* 2009). According to Grönroos, (1996), it costs four times more than to retain an old user. Furthermore, high user satisfaction leads to a stronger competitive position and a significant determinant of user loyalty and post-intention (Fornell, 1992). Satisfied users not only become loyal and return to buy again but also express his good experience with other willing users (Fornell, *et al.*, 1996). Therefore the role of user satisfaction is a strong predictor of user loyalty (McQuitty *et al.*, 2000; Oliver.1993).

There are three mobile telecommunication companies in Kuwait and this is very saturated with 6.269 million mobile service users (Kuwait Ministry of Communication, 2013). There is an enormous

competition among major telecommunication service providers in Kuwait. Competition among service providers in limited population of Kuwait is a matter of survival those companies to retain their user base and remain in telecom, Not only this, but to sustain competitive edge over each other. Currently, all three service providers have online services that provide instant services to their mobile service users, such as paying bills, and checking details, news promotions, downloading media, and access to social networks. Telecom service providers are in state of chaos due to challenging environment and competition to manage mobile service user base.

The purpose of this research is to examine the role of mobile service user satisfaction and their loyalty towards the online service provisioning by mobile service providers in Kuwait using a modified ACSI model. The results of this research offer many theoretical and managerial implications and contribution for researchers and mobile service providers offering online services in Kuwait. Additionally, the results of

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this research would be very helpful to mobile service providers in developing countries to optimize mobile service user satisfaction and retention practices.

**2. RESEARCH MODEL AND HYPOTHESES**

Understanding the effect of the antecedents of mobile service users' satisfaction has been under academic debates since past few decades. Mobile service users always demand good quality products and services in a reasonable and affordable price (Peng, 2006). Various empirical studies for the analysis of significant factors related to mobile service user satisfaction, service quality, post-, intention, mobile service user loyalty, mobile service user retention has been done in different contextual settings (Kuo. et al. 2009; Wang. et al., 2004; Mittal et al., 1998; Basheer et al., 2012; Ghobadian et al., 1994; Wang. 2002; Cronin et al., 2000; Lee et al., 2006).

In another research study conducted by (Deng et al., 2010) proposed that perceived service quality, trust, perceived mobile service user values (both functional and emotional values) have influence on the overall mobile service user satisfaction. As per (Deng et al., 2010) mobile service user's trust and satisfaction has direct influence on the enhancement of mobile service user loyalty in services sector. Similarly, Heejin et al., (2006) found significant correlation between mobile service user loyalty and service quality satisfaction. Measuring mobile service user satisfaction for services is difficult as compared to products. Malik et al. (2012) argued that "it is easy to evaluate the quality of any product as compared to the service quality; because the services are composed of strange characteristics".

Therefore, this research posits a comprehensive theoretical framework, which integrates perceived quality, mobile service user satisfaction, mobile service user expectation and perceived value to identify the antecedents of mobile service user loyalty for the online service provision by mobile service providers in Kuwait. The conceptual model in Figure1 shows the relationship of various factors involved in this research and their hypothesized relationships.

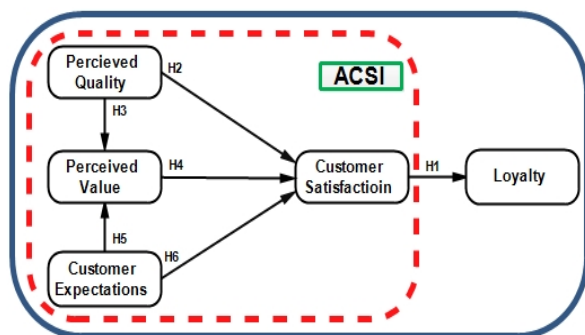


Fig. 1. Research model

**Mobile service user satisfaction and Loyalty**

Satisfaction is referred to as the users's state of being sufficiently satisfied in purchasing particular service or product against his or her sacrifice made (Basheer et al., 2012). Since mobile service user satisfaction is a measurement of the degree to which a mobile service user feels positive in context of service provider, it is vital that service providers must understand what makes mobile service user to be loyal (Mittal et al. 1998). Similarly, firm's survival in competitive , environment depends on the successful delivery of robust services and quality products (Khan et al., 2012). Moreover et. al., (2007) contend that mobile service user satisfaction is the measurement of life cycle of the relationship with special focus on expectations of the mobile service users in the product or services he or she is using. It is obvious that better service quality can convince, to have a positive word-of-mouth that can enhance corporate value. Therefore: (PR).

H1. Mobile service user satisfaction has significant positive effect on loyalty.

**Perceived quality**

From Service quality has always grabbed a strong attention in academia and , alike. Perceived quality is given proper consideration while formulating any long term mobile service user satisfaction policies. (Seth et al., 2005), found strong influence of service quality on mobile service user satisfaction, , performance, , costs, mobile service user profitability and loyalty. Perceived quality is an outcome of the comparison of mobile service users' expectations with perceived performance of services (Parasuraman. et al., 1988). In other words, it is the users' overall judgment of the excellence of service offering (Santos. 2003). (Juran 1988) offered deeper definition of quality and suggested that there are two main elements to measure it:

1. To what degree a service or product is free from deficiencies, and
2. What degree a service or product meets the 's needs?

Significant links between and among service satisfaction, quality, and value have been identified by several researchers (Garbarino 1999; Cronin et al., 2000; Spreng et al., 1996). They also found that high perceived value and service quality result in relatively high mobile service user satisfaction. Some researchers (Anton et al., 2007; Bell et al., 2005), observed that service quality is connected with clients' states of mind towards provider and their goal to stay with service provider. Similarly, Zeithaml and Bitner (2003) proposed that service quality has direct effect on mobile service user satisfaction, which is important for organizational long-term profitability. Based on these assumptions, it is hypothesize that:

*H2. Perceived service quality has significant positive effect on mobile service user satisfaction.*

*H3. Perceived service quality has significant positive effect on perceived value.*

### **Perceived Value**

According to Heinonen (2004), perceived value can be defined as “, ’s overall assessment of the usefulness of a product based on perceptions on what is received and what is given”. Mobile service user satisfaction is higher towards those service providers who give higher value to mobile service users in terms of charges, which intern leads to mobile service user loyalty Many previous research studies found a significant role of perceived value on the overall mobile service user satisfaction (Anderson. *et al.*, 1994; McDougall. 2000; Ravald. 1996). About perceived value, the results of the study by Woodruff. (1997) showed that it is the benefit or the result mobile service users receive in relation to the price paid for a particular service or a product. According to Lemon. *et al.*, (2001), perceived value has a direct positive relationship and a critical mediating role mobile service user satisfaction. Similarly, Cottet. *et al.*, (2006) argued that perceived value is a “preferential, an interactive and relative experience”. On the basis of the above arguments and discussions, we make the following propositions. On the basis of provided literary evidence it can be hypothesized that:

*H4. Perceived value has significant positive effect on mobile service user satisfaction*

### **Mobile service user expectations**

Expectations measure the mobile service user's anticipation of the quality of a service or products. Understanding mobile service user expectation is very useful for the improvement of service quality and mobile service user satisfaction. The term expectations matter a lot for the firms who care for their mobile service users and are keen to know what their mobile service user's expect. Different sources of information including word of mouth, prior exposure with competitive services, publicity and expert opinions lead to the expectation of a new service or a product (Zeithaml. *et al.*, 1993). The outcome of the studies done by (Anderson. *et al.*, 1994) implied that, user expectations construct has direct and positive significance on the overall user satisfaction. In SERVQUAL model Parasuraman. *et al.*, (1985) the meaning of expectation is treated as a normative expectation. Therefore, it is hypothesized that:

*H5. Mobile service user expectations have significant positive effect on perceived value.*

*H6. Mobile service user expectations have significant positive effect on mobile service user satisfaction.*

## **3. MATERIALS AND METHOD**

### **Measurement Development**

To enhance the content validity of the instrument of this research a number of steps were taken with the help of experts, field managers and researchers (Evans *et al.*, 2003; Khan 2010). This study employed two stages to establish the content validity of the instrument. Initially, pretesting was performed with the help of telecom executives, managers and users to identify any contextual error or ambiguity in understanding the questionnaire items. After reviewing and fixing the suggested minor corrections, a second stage of pilot study with a sample of 50 responses was performed. Questionnaires items for each variable were adopted from the previous literature, however contextual changes in wording was incorporated. Five-point Likert scale ranging from (1) strongly disagree to (5) strongly agree was used to seek respondent's feedback.

### **Sample and Data collection**

Quantitative questionnaire survey technique was adopted by researchers to collect the sample data for this research. This approach is in confirmation with the prior studies conducted in various information systems acceptance and user satisfaction domain (Lai *et al.* 2009; Kuo *et al.*, 2009; Chandio 2011). Self-administrated survey was conducted and questionnaires were distributed to the walk-in users at various mobile service providers' service centers. The inclusion criterion for the sample was that the respondents should have experience with using online services through their mobiles. 450 questionnaires were distributed at different universities, banks, and oil company's headquarters. Out of 373 responses received back, twenty one responses were discarded due to incomplete data entries. Finally, 352 valid responses were used for data analysis

### **Data Analysis and Results**

Structural Equation Modeling (SEM) technique was employed used to test the proposed model. As per Hair *et al.*, (2006). SEM helps researchers in examining the interrelationships among multiple independent and dependent variables simultaneously. Similarly, Tbachnick *et al.*, (2001) and Hair. *et al.* (2006) argue that SEM is a powerful tool that offers rigorous statistical procedures to examine complex hypothetical models. After dealing with outliers, missing values and normality issues, was tested for reliability and validity of an individual measurement item using Confirmatory Factor Analysis. This step was taken to test the presumed model comprising of 34 items related to all 10 constructs: Post-, intention, mobile service user satisfaction, mobile service user perceived value, Perceived service quality, Stability, Content quality, Functional value, Monetary value, Responsiveness and

Staff attitude. To test the presumed model and hypotheses, first, Confirmatory Factor Analysis (CFA) technique was used for the analysis of proposed model; second, the specification of structural model based on dependent and independent factors was conducted for the testing of hypotheses using the SEM based software package AMOS Version 21.0.

**Table-1: Goodness-of-fit measures of the research model**

Measures	Absolute fit measure		Incremental fit measures			Parsimony fit measure
	$\chi^2/df$	RMSEA	NFI	TLI	CFI	AGFI
Criteria	$1 < \chi^2/df < 3$	$< 0.05$	$\geq 0.85$	$\geq 0.90$	$\geq 0.90$	$\geq 0.80$
Measurement Model	2.86	0.081	0.906	0.925	0.936	0.827
Structural Model	2.89	0.087	0.898	0.915	0.926	0.819

According to Hair *et al.*, (2006), measurement model assist us to test the discriminant and convergent validity of all the constructs. Items having less than 0.5 factor loading value were deleted i.e. PQ3 item related to perceived quality variable was deleted from further analysis due to less factor loading value. After dropping the problematic items measurement model was run again (Byrne. 2001). (Hair. *et al.*, 2006) and the factor loadings results of all the items values found significant. As shown in Table2 convergent validity and Internal reliability was estimated by the average variance and composite reliability extracted, respectively. According to (Smith. 1974), sometimes Cronbach’s alpha values can underestimate reliability. We used composite

reliability (CR) technique to further assess reliability. Composite reliability is the degree to the construct indicators signifies the latent construct.

**Table-2: Variables, factor loading, reliability and validity values**

Construct	Composite Reliability	AVE	Std. loadings
Loyalty	0.882	.789	LOY1(.888), LOY2(.889),LOY3(.868)
Mobile service user Satisfaction	0.910	.718	CS1(.822), CS2(.850), CS3(.872), CS4(.844)
Perceived Quality	0.953	.743	PQ1(.877), PQ2(.887), PQ4(.899), PQ5(.842), PQ6(.861), PQ7(.881), PQ8(.781)
Perceived Value	0.914	.728	PV1(.866), PV2(.897), PV3(.792), PV4(.854)
Mobile service user Expectations	0.854	.760	CE1(.859), CE2(.976), CE3(.580)

**Testing the hypothesized Structural Model**

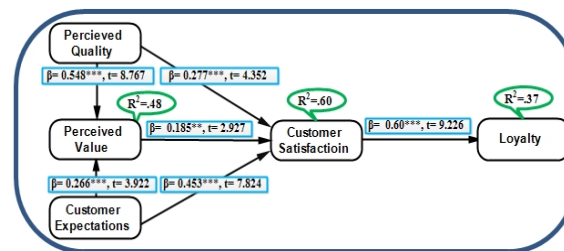
Byrne (2001) contend that the structural model (SM) recognize the immediate or circuitous impact of one latent constructs on the other latent constructs in the model, i.e SM tests the proposed hypothetical path in the model. Based on the overall goodness-of-fit values (Table 3), the estimated path coefficients were examined to evaluate the proposed hypothesis. Results of hypothetical relationships, t-values, and standardized regression coefficients are shown in (Table-3)

**Table-3: Report of hypotheses testing**

Hypothesis	Relationship	Structural Coefficients	CR (t-Value)	Results
H1	Mobile service user Satisfaction → Loyalty	0.605	9.226	Supported
H2	Perceived Quality → Mobile service user Satisfaction	0.277	4.352	Supported
H3	Perceived Quality → Perceived Value	0.548	8.767	Supported
H4	Perceived Value → Mobile service user Satisfaction	0.185	2.927	Supported
H5	Mobile service user Expectations → Perceived Value	0.266	3.922	Supported
H6	Mobile service user Expectations → Mobile service user Satisfaction	0.458	7.824	Supported

Notes: \*\*\* $p < 0.001$ , \*\* $p < 0.01$

Results show that all proposed hypothesis (i.e. H1, H2, H3, H4, H5 and H6) were supported by the data. From obtained results it can be seen that the highest positive significant coefficients path is between mobile service user satisfaction and loyalty ( $\beta$  value .605, t value 9.226). However least positive significant coefficient path found between perceived value and mobile service user satisfaction ( $\beta$  value 0.185, t value 2.927). (Fig. 2) demonstrate t-values, the standardized path coefficients ( $\beta$  values), coefficients of determination ( $R^2$ ) of latent variables.



**Fig. 2. Notes: \*\*\* indicates that relations are highly significant at 0.001 level. \*\* indicates the relationship is significant at 0.01. □ Indicates the significant relationship, while ---> indicate insignificant relationship.**

#### 4. DISCUSSION

Keeping in view the tough competition among telecom market of Kuwait, it has become crucial to win mobile service users' loyalty through superior service provision. Although all service providers have their best policies for mobile service user retention huge numbers of mobile service users are still not persistent with their service provider and keep switching for better services. Therefore, service providers are very much concerned to understand the causes of mobile service user dissatisfaction and factors that can help them win mobile service user loyalty. The main objective of this study was to empirically examine the relationship among mobile service user expectations, perceived value, perceived quality, mobile service user satisfaction, and loyalty. Findings of this research indicate that all hypothetical relationships demonstrate significant positive correlation and thus proposed research model is found generally plausible. According to the parameter estimate results ( $\beta = 0.548$ ,  $t\text{-value} = 8.767$ ,  $p = 0.001$ ), perceived quality is the most significant predictor of mobile service user satisfaction through the mediating impact of perceived value. Whereas, other parameter estimate results for the relationships between mobile service user expectations and perceived value, mobile service user expectations and mobile service user satisfaction, perceived value and mobile service user satisfaction, mobile service user satisfaction and loyalty all found strongly significant at  $p=0.001$ . Moreover, as shown in Fig.2, the total 37% of variance in loyalty is explained by its all predictor variable; however, 60% of variance in mobile service user satisfaction is explained by its predictor variables i.e. mobile service user expectations, perceived value and perceived quality. These results indicate the strong predictive power of proposed model. Highly positive direct significant correlation values between mobile service user satisfaction and loyalty indicate that mobile service users are more likely to be permanent users of mobile service providers offering superior online services. These results are consistent with the prior studies (Zeithaml *et al.* 2000; Lee. *et al.*, 2006; Kuo. *et al.*, 2009). Similarly, regarding the role of perceived quality, results of this research indicate that mobile service user satisfaction can significantly be influenced by better and reliable service quality. These results are in line with previous findings (Garvin. 1988; Kuo. *et al.*, 2009; Martin. 2004). Similarly, the perceived mobile service user value is significantly influenced by mobile service user expectations and perceived quality. Therefore it indicates that users believe and understand that the monetary and functional value is worth for what they sacrifice and what they get from their mobile service providers. This indicates mobile service usersatisfaction level and highlights their perception of how they value the quality of service considering that

what they are paying for the service delivery. These findings are consistent with the previous research findings (Wang. *et al.*, 2004; Deng. *et al.*, 2010; Kuo. *et al.*, 2009). In summary, mobile service users' loyalty towards their mobile service provider is directly and significantly affected by mobile service user satisfaction, which has backward support of mobile service user expectation, perceived value, perceived quality, and service satisfaction.

Findings of this research provide sufficient guidelines for mobile service providers in Kuwait to help them formulate appropriate strategies improve their efficiency and gain competitive advantage by retaining existing mobile service users and attracting new mobile service users. Special focus on the identified significant factors can guide them gain competitive advantage over others. Service providers can improve their service quality, mobile service user satisfaction, perceived value, as to enhance their mobile service user loyalty. Although the context of the study is limited only to mobile online services, the results can generally be implicated to other telecom services such as VOIP, MPLS, IP, Cloud and Managed services to develop mobile service user oriented Strategies.

#### 5. CONCLUSION

The primary aim of this research study was to empirically investigate the loyalty of online services of mobile operators in Kuwait using the American Mobile service user Satisfaction Index (ACSI) model. The data collected from Kuwait strongly supported the proposed model, i.e. hypothetical relationships among loyalty, perceived value, mobile service user expectations, mobile service user satisfaction, and perceived quality found strongly significant. Both measurement model and structure model results verified the model fit and hypothetical relationships among constructs. Overall, findings generally found strongly supporting the modified ACSI model. Further, proposed model found to be applicable in Kuwaiti mobile service providers' context. Overall results indicated that the users of online mobile services in Kuwait intend to be loyal to their mobile service provider if they are satisfied with the service quality.

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