

# **Factors affecting the Satisfaction of China's Mobile Services Industry Customer**

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## **ABSTRACT**

This research integrates the American Customer Satisfaction Model, perceived usefulness and perceived ease of use to propose a modified American Customer Satisfaction Model to study consumer satisfaction with the mobile services industry. The research offers important recommendations to the mobile services industry better understand the factors affecting customer satisfaction.

**Keywords: ACSM; Perceived usefulness; Perceived ease of use**

## **Introduction**

The growth of China's mobile communication industry will be explosive in the future and coupled with its subscribers will continue to increase at an average annual pace of 50 million in the coming years. It is expected that the number of subscribers will increase to 440 million by 2006 at average annual increase pace of 12.8 percent. Due to the fact that the number of mobile phone subscribers in China is estimated to be as high as 570 million, the market will be one of the most important telecommunication markets in the world. This research examines the relevant factors influencing customer satisfaction regarding mobile service delivery in China.

Customer satisfaction has become a vital concern for companies and organizations in their efforts to improve product and service quality and maintain customer loyalty in a highly competitive marketplace. In the last decade, a number of national indicators have reflected that consumer satisfaction across a wide range of organizations has risen (e.g. USA—**ACSI** [1]; Europe—**ECSI** [2]; Denmark—[3]). Specifically, several mobile service studies conducted regionally have attempted to explore the antecedents of customer satisfaction, customer loyalty and customer retention [4-5]. The American Customer Satisfaction Model (**ACSM**) is a general, cross-industry model that provides market-based performance measures for firms, industries, sectors and nations. It measures the quality of goods and services as experienced by consumers [1] and gauges their actual and anticipated

consumption experiences [6]. This research integrates the **ACSM**, perceived usefulness and perceived ease of use to propose a modified American Customer Satisfaction Model to study consumer satisfaction with the mobile services industry in China.

## **THEORETICAL BACKGROUND**

### **The American Customer Satisfaction Model**

The American Customer Satisfaction Model (**ACSM**) measures the quality of goods and services as experienced by consumers [1] and gauges their actual and anticipated consumption experiences [6]. The objectives of the American Customer Satisfaction Index (**ACSI**) are to generate exact and comprehensive information about customer satisfaction that can serve as an indicator for the economic success of companies, industries, and the national economy.

The National Quality Research Center of the University of Michigan Business School conducts the fieldwork for the **ACSI**. The **ACSI** is a project partnership of the American Society for Quality, the University of Michigan Business School, the National Quality Research Center, and Arthur Andersen [1, 7-10]. The **ACSI** is based on a structural model that consists of six latent variables [1,9]. According to the **ACSI** model, there exists a positive association between perceived customer expectations (**PE**) and perceived quality (**PQ**), perceived value (**PV**) and satisfaction. Customer satisfaction has three antecedents: Perceived quality, perceived value, and perceived expectations.

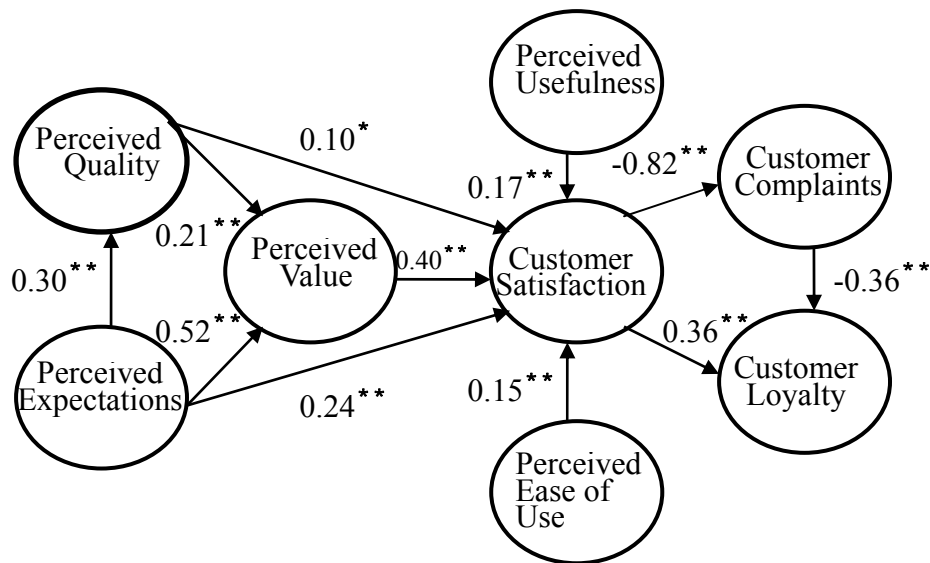
### **Perceived usefulness and perceived ease of use**

The technology acceptance model [11], adapted from the theory of reasoned action (**TRA**) [12], appears to be the most widely accepted among information systems researchers. The technology acceptance model [11] originally suggested that two beliefs- perceived usefulness and perceived ease of use - are instrumental in explaining the variance in users' intentions. Perceived usefulness is the degree to which a person believes that using a particular system enhances his or her job performance. Perceived ease of use is the degree to which a person believes that using a particular system will be free of effort.

Kuo et al. [13] found perceived ease of use have a positive effect on the customer satisfaction. Therefore, the research combines **ACSM**, perceived usefulness and perceived ease of use to propose the modified American Customer Satisfaction Model to study consumer satisfaction of the mobile services industry in China. Figure.1 shows the modified American Customer

Satisfaction Model with the variables and their relationships.

**Figure 1: The modified American Customer Satisfaction Model.**



## RESEARCH MODEL AND HYPOTHESES

### Research model

The research model of this research is shown in Fig. 1. We have integrated ACSM, perceived usefulness and perceived ease of use to propose a modified American Customer Satisfaction Model to study consumer satisfaction with the mobile services industry in China. The research involved 274 current mobile phone service users residing in China.

### Hypotheses

This research applies the modified American Customer Satisfaction Model to study consumer satisfaction with the mobile services industry in China. Thus, we hypothesized:

- H1: Perceived expectations will positively affect perceived quality of mobile services.
- H2: Perceived expectations will positively affect perceived value of mobile services.
- H3: Perceived expectations will positively affect customer satisfaction of mobile services.
- H4: Perceived quality will positively affect perceived value of mobile services.
- H5: Perceived quality will positively affect customer satisfaction of mobile services.
- H6: Perceived value will positively affect customer satisfaction of mobile services.
- H7: Perceived usefulness will positively affect customer satisfaction of mobile services.
- H8: Perceived ease of use will positively affect customer satisfaction of mobile services.

- H9. Customer satisfaction will negatively affect customer complaints of mobile services.  
 H10. Customer satisfaction will positively affect customer loyalty of mobile services.  
 H11. Customer complaints will negatively affect customer loyalty of mobile services.

## RESEARCH METHODOLOGY

### Sampling method

A sampling of 274 questionnaires was collected from 360 current mobile phone service users in China. We sent questionnaires by email in May of 2006. After three months, we had 278 returned as of August 2006. The rate of response for the questionnaire was 77.2%. Of the 278 basic questionnaires returned, we had to leave out 4 for which some questions had not been answered, thus leaving the number of valid questionnaires at 274.

## DATA ANALYSIS AND RESULTS

Seven common model-fit measures were used to assess the model's overall goodness-of-fit. The various goodness-of-fit statistics are summarized in Table 1 and do demonstrate the good overall fit of the measurement model to the data.

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

Fit Indices	$\chi^2/df$	GFI	NFI	NNFI	CFI	IFI	RMSEA
Recommended Value	$\leq 3.0$	$\geq 0.8$	$\geq 0.9$	$\geq 0.9$	$\geq 0.9$	$\geq 0.9$	$\leq 0.05\sim 0.08$
Result Value	2.65	0.84	0.97	0.98	0.98	0.98	0.078
Ref.		[14]	[15]	[15]	[15]	[15]	[16]

Next, we proceeded to examine the path coefficients of the structural model. The significant structural relationship among the research variables and the standardized path coefficients are presented in Fig. 1. The data shows that perceived expectations had a positive effect on perceived quality of mobile services ( $\gamma = 0.30, P < 0.01$ ). Therefore, hypotheses H1 was supported. Perceived expectations had a positive effect on perceived value of mobile services ( $\gamma = 0.52, P < 0.01$ ). Therefore, hypotheses H2 was supported. Perceived expectations had a positive effect on customer satisfaction of mobile services ( $\gamma = 0.24, P < 0.01$ ). Therefore, hypotheses H3 was supported. Perceived quality had a positive effect on perceived value of mobile services ( $\beta = 0.21, P < 0.01$ ). Therefore, hypotheses H4 was supported. Perceived quality had a positive effect on customer satisfaction of mobile services ( $\beta = 0.10, P < 0.05$ ).

Therefore, hypotheses H5 was supported. Perceived value had a positive effect on customer satisfaction with mobile services ( $\beta = 0.40$ ,  $P < 0.01$ ). Therefore, hypotheses H6 was supported.

Perceived usefulness had a positive effect on customer satisfaction of mobile services ( $\gamma = 0.17$ ,  $P < 0.01$ ). Therefore, hypotheses H7 was supported. Perceived ease of use had a positive effect on customer satisfaction of mobile services ( $\gamma = 0.15$ ,  $P < 0.05$ ). Therefore, hypotheses H8 was supported. Customer satisfaction had a negative effect on customer complaints of mobile services ( $\beta = -0.82$ ,  $P < 0.01$ ). Therefore, hypotheses H9 was supported. Customer satisfaction had a positive effect on customer loyalty of mobile services ( $\beta = 0.36$ ,  $P < 0.01$ ). Therefore, hypotheses H10 was supported. Customer complaints had a negative effect on customer loyalty of mobile services ( $\beta = -0.36$ ,  $P < 0.01$ ). Therefore, hypotheses H11 was supported.

## **CONCLUSIONS**

This research set out to study the relevant factors affecting customer satisfaction with mobile services in China. The research offers five major findings as follows:

1. This research found that perceived expectations, perceived quality, perceived value, perceived usefulness, and perceived ease of use were critical factors for customer satisfaction with mobile services.
2. Perceived expectations have a positive effect on perceived quality of mobile services; therefore, as the level of perceived expectations increases, the level of perceived quality also increases.
3. Perceived expectations and perceived quality have a great positive and direct impact on perceived value of mobile services.
4. Customer satisfaction has a significantly positive direct impact on customer loyalty. Thus, as the level of customer satisfaction increases, the level of customer loyalty increases. The research concluded that if China's mobile services industry wants to effectively increase customer loyalty, it should work out a way to improve customer satisfaction
5. Customer satisfaction negatively directly influences customer complaints. Thus, as the level of customer satisfaction increases, the level of customer complaints decreases. Customer complaints have significantly negative direct impact on customer loyalty. Thus, as the level of customer complaints increases, the level of customer loyalty decreases.

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