5-2018

Study on Customer Satisfaction of Bicycle Sharing Perceived Service Quality Based on SEM Model

Zhiying Zhou
Zhejiang Wanli University, zhouzhiying@zwu.edu.cn

Follow this and additional works at: http://aisel.aisnet.org/confirm2018

STUDY ON CUSTOMER SATISFACTION OF BICYCLE SHARING PERCEIVED SERVICE QUALITY BASED ON SEM MODEL

Research in Progress

Zhiying Zhou
Zhejiang Wanli University
zhouzhiying@zwu.edu.cn

Abstract:

Bicycle Sharing attracts a large number of users and a great market demand with the advantages of convenience, environmental friendliness, being non-expensive and suitable for short distance. This paper designs the variables as perceived service quality, satisfaction, and loyalty and simplifies the perceived service quality to three dimensions including perceived service quality of platform, perceived quality of bicycle entity, and perceived quality of value. Using structure equation modeling (SEM) it establishes a model about quality of Service-Satisfaction-Loyalty to analyze the service quality variables' influence on customer satisfaction and loyalty based on the survey data of Ningbo city.

Keywords:

Bicycle Sharing, Customer Satisfaction, Perceived Service Quality, Structural equation modeling (SEM)

The last ten years have witnessed the emergence of the concept of sharing economy and its penetration into all walks of life, changing numerous aspects of our daily lives. The development and evolution of the Internet have extended the local boundaries of sharing and facilitated connections among vast numbers of individuals (Belk, 2014; Hamariet al., 2016). With variations of the concept of the sharing economy emerging in so many fields, the area of shared mobility–the shared use of a motor vehicle, bicycle, or other devices that enables travelers to gain a short-term access to transportation modes on an on-demand basis–has developed as the forerunner of the transformation to be expected in other areas (Le Vine & Pollak, 2015; Shaheen & Chan, 2016).

Among all different types of sharing economy, bicycle sharing is the most popular one. Bicycle sharing system offers an attractive alternative to private transportation, alleviating concerns associated with increased carbon emissions, traffic congestion, and usage of non-renewable resources (Supriyo Ghosh, 2017). Bicycle sharing provides healthier living and greener environments while delivering fast movements for customers. It attracts a large number of users with the advantages of convenience, environmental friendliness, being

non-expensive and suitable for short distance, and a great market demand. By November 2017, more than 1,488 cities have adopted bicycle sharing systems with a fleet of over 18,740,100 bicycles in the global. 408 cities are planning to adopt bicycle sharing systems.

In China, a number of bicycle-sharing companies including mobile, hello bicycle, ofo, and little blue have surfaced and received a lot of venture capital investment. By August 2017, the number of shared bicycles in Ningbo of China has exceeded 200,000. The number of registered users was about 800,000, and the daily average usage exceeded 400,000. In this context, users have higher expectations for the service quality of bicycle-sharing systems, which requires companies to analyze consumers' needs from their perspectives and improve customer satisfaction so as to enhance its own competitiveness. However, the customer satisfaction (CS) of such systems has been rarely explored in the existing literature. This paper attempts to explore the factors that have significantly impacted the CS of bicycle-sharing systems.

Bicycle sharing is not only a kind of activity experience and service feeling, but also a product entity that embodies the service quality of the Internet platform. Therefore, the service quality dimension of shared bicycles should include not only the traditional service quality dimension, but also the environmental experience and the factors of online services.

Structural equation modeling (SEM) is a multivariate statistical analysis technique that is commonly used to analyze structural relationships. This technique is the combination of factor analysis and multiple regression analysis, and is used to analyze the structural relationship between measured variables and latent constructs. It can be considered as a set of relationships providing consistency and comprehensive explanations of the actual phenomena.

There are very few studies on the service impact factors, satisfaction, and loyalty in the sharing economy using SEM. In addition, there is a dearth of research on the quantitative analysis of the factors affecting the quality of shared bicycle service. This paper attempts to address the service gap by employing SEM to explore the relationship among the three factors of sharing bicycle systems: service quality, satisfaction, and loyalty. Taking advantages of SEM in multivariate correlation analysis, this study will analyzes the factors that affect the quality of shared bicycle so as to provide auxiliary support for improving the service quality of shared bicycles.

Based on the ACSI model (which is composed of quality perception, evaluation perception, customer expectation, customer satisfaction, and customer complaint and customer loyalty) combined with common users' experience, we consider the hot issues that are currently exposed to bicycle sharing and design the variables as perceived service quality, satisfaction, and loyalty. Perceived quality of bicycle sharing can be reduced to three dimensions

including perceived service quality of platform, perceived quality of bicycle entity, and perceived quality of value.

We formulate the following hypothesis based on the relationships among perceived service quality, satisfaction, and loyalty.

H1: Perceived service quality of platform is positively correlated with satisfaction.

H2: Perceived service quality of bicycle entity is positively correlated with satisfaction.

H3: Perceived quality of value is positively correlated with satisfaction.

H4: Satisfaction is positively correlated with loyalty.

The paper will analyze the survey data using SEM, verify the hypothesis, and propose some measures to improve customer satisfaction.

References

Belk, R. (2014). You Are What You Can Access: Sharing and Collaborative Consumption Online. *Journal of Business Research,67(8)*,1595-1600.

Hamari, J., Sjöklint, M., Ukkonen, A. (2016).The Sharing Economy:Why People Participate in Collaborative Consumption. *Journal of the Association for Information Science and Technology, 67(9),*2047-2059.

Le Vine, S., Polak, J. (2015). Introduction to Special Issue: NewDirections in Shared-mobility Research. *Transportation, 42(3)*,407-411.

Shaheen, S., Chan, N. (2016).Mobility and the Sharing Economy:Potential to Facilitate the First- and Last-Mile Public Transit Connections. *Built Environment, 42(4),* 573-588.

Supriyo Ghosh.(2017).Dynamic Repositioning to Reduce Lost Demand in Bike Sharing System.*Journal of Artificial Intelligence Research ,58,*387-430.