

Chapter 9

Research on Discrete Service Process Optimization

Jing Wang

Beihang University, China

Chengcheng Luo

Beihang University, China

ABSTRACT

The discrete service process is a new concept that contains a series of related events in chronological order. During the service process, customers experience a series of service encounters and each event may contribute to the overall evaluation of the service. In this chapter, firstly, a new definition of discrete service process is described and the Sequential Incident Technique (SIT) is applied to analyze the discrete service process of a famous Chinese restaurant – Hai Di Lao Hot Pot. Then, two methods are used to optimize the discrete service process. One is the Revised Kano model, which combines attribute-based methods with incident-based methods; the other is eye-tracking experiments based on customer-experienced utility. Finally, improvements are suggested based on the research conclusion.

INTRODUCTION

With the rapid development of experience economy, the progress of products under development and service innovation has been speeded up, which based on conception of customer demand-oriented and users supremacy. It's strategic significance for an enterprise to improve service level and maintain customer satisfaction by paying close attention to provide appropriate service products to customers based on the service process. Both

academics and practitioners have been involved in establishing conceptual and empirical refinements with regard to service process, which may be a more important antecedent of customer evaluations than the service outcome.

Moreover, Service processes often concern a sequence of related events occurring at different points in time and can be broken down into a number of distinct stages. The evaluation of the service process also depends on accumulation impression of a series of different events, such as catering services, travel services, hotel, and the visit of an amusement park and so on. However,

DOI: 10.4018/978-1-4666-4663-6.ch009

there is no consensus definition of the service process which contains a series of related events in chronological order. For it is similar to discrete manufacturing which is driven by events, it's appropriate to define it as discrete service process.

The discrete service process focus on chronological order and process perspective, and the research begins with collecting all events which may affect customer satisfaction during the service process in chronological order. A process-oriented method named the sequential incident technique (SIT) will be applied. When it comes time to optimize the whole service process, there are two strengths of this chapter:

1. Service processes have several attributes. In the ideal state, the attributes of each service encounter stage need to be cleared. To observe each process by Kano/ Revised-Kano model is one solution to solve this problem. Based on the research, the optimization suggestion has been proposed.
2. In the neuroscience, it becomes clear that behaviors of human being are based on unconsciousness mind which is not accessed by consciousness. The behavior of human being from a lot of data based on observation has been interpreted. The eye tracking approach and questionnaire are effective to solve this issue. So an eye tracking experiments are conducted to optimize service process based on customer utility.

In this chapter, first, the new concept of discrete service process is proposed. Then, the sequential incident technique (SIT) will be applied to analyze the discrete service process of a famous Chinese restaurant and service activities will be classified into three types. In the third part, the Revised Kano model, which combines attribute-based methods with incident-based methods, is proposed to research customer satisfaction of the sample firm and improvement suggestion is conducted based on the research conclusion.

In the fourth part, eye tracking experiments are conducted to optimize service process based on customer experienced utility.

A CONCEPT OF DISCRETE SERVICE PROCESS

This chapter puts forward the concept of discrete service process based on sequential sex and facing to the whole process and regards the benchmark enterprise-Hai Di Lao Hot Pot as research object. The sequential incident technology has been used to analyze its whole service process.

Introduction of Discrete Service Process Concept

The concept of discrete service process is proposed based on event sequence and service encounter cascade.

Event sequence (see Figure 1 for path of development) refers to the chronological events in the event system queue and it belongs to temporal data. Generally an event in an event sequence can be described as (T, E), while T is time label and E is event collection.

$$(T,E) = \{(t_i, e(t_i)) \mid t_i \in T, i = 1, 2, \dots, |T|\}.$$

Research on results sequence in behavioral economics is in line with this concept (Read & Powell, 2002; Kahneman *et al.*, 1997; Verhoef *et al.*, 2004). Each event in the event sequence can make instant utility to customers.

The concept of service encounter cascade proposed by American scholar Zeithaml, which is described as a chain of service encounters

Figure 1. Development path of event sequence



27 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/research-on-discrete-service-process-optimization/87917

Related Content

Big Data and Analytics: Why an IT Organization Requires Dedicated Roles to Drive Sustainable Competitive Advantage

Dominik Krimpmann and Anna Stühmeier (2017). *International Journal of Service Science, Management, Engineering, and Technology* (pp. 79-92).

www.irma-international.org/article/big-data-and-analytics/182516

Identifying and Ranking Influencing Factors in Using RFID Technology in Tourism Industry via the Use of Structural Equation Modeling

Mahdie Honarzade, Mahboubeh Mahmoudinia and Maryam Saberi Anari (2018). *International Journal of Information Systems in the Service Sector* (pp. 1-20).

www.irma-international.org/article/identifying-and-ranking-influencing-factors-in-using-rfid-technology-in-tourism-industry-via-the-use-of-structural-equation-modeling/211903

A Study on Adoption of Employee Welfare Schemes in Industrial and Service Organisations: In Contrast with Public and Private Sectors

Chandra Sekhar Patro (2016). *International Journal of Service Science, Management, Engineering, and Technology* (pp. 16-33).

www.irma-international.org/article/a-study-on-adoption-of-employee-welfare-schemes-in-industrial-and-service-organisations/149896

CloudRank: A Cloud Service Ranking Method Based on Both User Feedback and Service Testing

Jianxin Li, Linlin Meng, Zekun Zhu, Xudong Li, Jinpeng Huai and Lu Liu (2013). *Principles, Methodologies, and Service-Oriented Approaches for Cloud Computing* (pp. 230-258).

www.irma-international.org/chapter/cloudrank-cloud-service-ranking-method/74232

A Business Model Approach for Service Engineering in the Internet of Services

Holger Kett (2013). *Best Practices and New Perspectives in Service Science and Management* (pp. 228-236).

www.irma-international.org/chapter/business-model-approach-service-engineering/74995