

Research of electricity customer satisfaction evaluation based on service blueprint

Abstract—Effective customer satisfaction investigation is a very important precondition for power supply enterprise to win in the market competition. It is the problems need to be solved for power supply enterprise how to use advanced and practiced method to evaluate electricity customer satisfaction and how to use the evaluation result to improve the service. This paper designed an electric customer satisfaction evaluation index system based on the service blueprint theory, which covered every process of the electric customer service. In order to avoid the problem of weight identity and consider the affection of information quality to weight, authors constructed a model of customer satisfaction comprehensive evaluation based on the entropy-weighting method. In the end authors performed a simulation to show the validity.

Keywords—power supply enterprise; customer satisfaction; service blueprint; entropy-weighting method

I. INTRODUCTION

The reform of electricity market has changed the role of the electricity supplier from the administrator of production and consumption into the manager of electricity service, and has shifted the supplier's main interest from production to service, e.g., DSM, load forecasting and consumption guidance. It is an established idea that electricity suppliers should focus on customers, and provide services in all respects. The value chain of electricity supply based on planned economy is gradually transforming into the chain that is based on customer demand and service quality improvement [1][2]. Such changes have helped suppliers realize that it is the only way to win and profit that quality of service be promoted, which lays the solid foundation for sustained, sound and stable development of electricity market.

Evaluation of electricity supply service is the precondition for service quality improvement. The evaluation, however, mainly relies on personal perception and subjective judgment, for it is difficult to describe the power supply service clearly due to its invisibility. In 1980s, American scholars, e.g. G. Lynn Shostack and Jane Kingmam Brundage [1], originally equipped service product design with technologies from industrial design, decision science and computer graphics, which has made creative contribution to theory development and practical application of service blueprint. With such background, this paper implants service blueprint theory into customer satisfaction evaluation of electricity suppliers, and

establishes a customer satisfaction evaluation system, integrating service blueprint and operation analysis of electricity supply service.

II. SERVICE BLUEPRINT THEORY

Concept of service blueprint

Service blueprint is a tool that depicts the service system precisely [1][2]. With a flowchart, it demonstrates service intuitively by continuous description of service process, service encounter, the role of staff and customers, and the corporeal evidence of service. In the service blueprint description, service is disintegrated into steps and tasks of service process, and the approach to complete the tasks, so that everybody involved in the service process understands and handles his job objectively whatever his situation and goal is. Moreover, service connections between customers and staff are clearly shown in the service blueprint, which helps control and improve the quality of service.

The structure of service blueprint

In Fig. I, the service blueprint is divided by 3 lines into 4 parts, which are customer behavior, foreground staff behavior, background staff behavior, and support process [1-3].

(1) Customer behavior can be expressed according to the customer's steps, options and behaviors in the process of purchase, consumption and evaluation. For instance, customer behavior in newly installation business includes filling in the application form, submitting the documents, paying the bill, signing the contract, etc.

(2) Foreground staff behavior can be seen by customers. Take the service station for example, the staff behavior in newly installation business includes processing applications, checking submitted documents, releasing approved electricity supply schemes, sending bills, rechecking electricity price, and other behaviors that can be perceived by customers.

(3) Background staff behavior cannot be seen by customers. According to the example mentioned above, the approval of electricity supply schemes is one of the background staff behaviors.

(4) The support process of service includes the various internal services which are supposed to support the foreground and background staff, and the service interaction between the departments. In the example above, all the