

Chapter 8

Biological Data for Understanding Customer Experiences

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ABSTRACT

In this chapter, the authors introduce the biological data-based marketing system to understand customer experiences. In a service economy, understanding customers, including how they feel and experience through service, is important for corporate success. The authors focus on brain activities and eye movements and measure them by the NIRS approach and eye tracking tool. Through discussions of two different kinds of experiments, they indicate a potential of biological data as a new style of understanding of customers.

NEED FOR DEEP UNDERSTANDING OF CUSTOMERS

Service Value Co-Creation

The value is always uniquely and phenomenologically determined by the beneficiary of a customer (Vargo & Lusch, 2004). Companies can only propose their service value to customers. The concept of “value co-creation” between the

provider and recipient is the central basis for the definition of service and business success (Vargo & Lusch, 2004).

However, companies have struggled with understanding customer experiences in promoting their potential of value proposition. Great service needs deep understanding of customer experiences. Regarding customer understandings, questionnaire survey and interview methods have been developed. The important thing is to understand customers including how they feel and experience through service. Recently, new

DOI: 10.4018/978-1-4666-4663-6.ch008

technology provides us new viewpoints for understanding customers. In line with the development of different measurement devices, the challenge to measure brain functions is now drawing attention. In this chapter, we focus on neuro science based technology that can obtain biological information and discuss the availability for next service marketing.

Need for Objective Customer Understandings

Feeny (2001) insisted that the enhancement of the customer's buying and usage experiences along with the selling process were important factors for e-marketing. Although this customer-oriented thinking is useful in designing an e-service structure and in thinking about their own business, a more important factor is the actual content of the site and how it should be designed based on an understanding of customer characteristics.

"Persona" marketing (Pruitt and Adlin, 2006; Cooper, Reimann, and Cronin, 2007) is a method used to design websites that is focused on customer characteristics including behaviors, and it has received a lot of attention in recent years. This marketing method uses virtual personalities (personas) relying on clustered human behavior mainly based on quantitative surveys. Web content design that defines virtual personalities is important for reflecting the needs of many potential customers on the Internet.

Regarding the communication about corporate value proposition with customers, the intangible value such as satisfaction, delight, and so on as the result of value co-creation is quite important. Steiner and Harmon (Steiner and Harmon, 2009) pointed out the importance of an "intangibles layer" as a new strategic marketing perspective relevant to human knowledge, emotion, and experience. That intangibility is closely related to customer's imagination in experiencing corporate value proposition. As for the "imagination of customers," Strandvik and Rindell (2010) use *image-*

in-use to describe a pre-value co-creation process of service. An *image-in-use* is "an expression for the image of a company that in practice is used by an individual customer in a particular context for construction and re-construction (Rindell and Strandvik, 2009)."

Regarding what customers think about and feel when they look at something, Norman (2005) proposed a conceptual framework in his product design study. He has proposed there were three levels of thinking and feeling: an instinctual level, behavioral level, and reflecting level. This framework is promising for the design of websites that include an interface design based on customer ways of thinking and feeling. There is a need to understand objectively customers.

Beyond Traditional Marketing Strategies

In service economy, it is important to understand how do customers feel and think in service value co-creation process. Especially, company needs to know customers' *image-in-use* as "an expectation for value co-creation experience" (based on Stranvik and Rindell, 2010). Firms should cultivate customers' *image-in-use* through their product and process to make customers participate in the process of value co-creation.

There is a need to understand more objectively how customers think and feel when they view websites. However, traditional marketing methods had limitations of obtaining objective customers' data including what they feel in service process. When considering what customers actually think about when they look at the website, the persona method depends too much on the imagination of the service-offering side and how they render a persona from the results of quantitative data, and it thereby lacks objectivity. In addition, the discussion of the content, including objective measurements of brain functions, is still insufficient.

Based on this background, we need to obtain objective data about when users viewed specific

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