Chapter 3

Integrating E–SERVQUAL and Kano Model into Quality Function Deployment to Improve Website Service Quality: An Application to University’s Website

Dorie Pandora Kesuma
STMIK Global Informatika MDP, Indonesia

Achmad Nizar Hidayanto
Universitas Indonesia, Indonesia

Meyliana
Bina Nusantara University, Indonesia

Kongkiti Phusavat
Kasetsart University, Thailand

Dina Chahyati
Universitas Indonesia, Indonesia

ABSTRACT

Today’s internet technology has been utilized in various fields, one of which is to provide services in the field of education. Internet technology in the form of website enables organizations to provide anywhere anytime services to their customers, thus it is expected increasing customers’ satisfaction. This research aims to develop a service design framework that can be used to evaluate the quality of website service at the university and formulate solutions for its improvement, by combining E–SERVQUAL, Kano Model, and Quality Function Deployment (QFD). To demonstrate the use of the proposed framework, we conducted a case study in one of the private universities in Palembang, Indonesia. Step by step of the framework usage is discussed, to provide a better understanding of the framework we are proposing.

DOI: 10.4018/978-1-4666-9764-5.ch003
INTRODUCTION

The internet growth in 1990’s has triggered the appearance of world-wide-web (WWW) or website, a global information media where everyone can access or interact with certain information via internet-connected computer. Internet has changed the way organizations provide services to their customers and allows co-creation value, especially with the Web 2.0 technology. Internet allows organizations to provide interactive services, with the expectation that customers can get closer to the organization (Mathwick, Wiertz, & de Ruyter, 2008; Shin, 2014; Verhagen et al., 2015; Van Doorn et al., 2010; Wagner & Majchrzak, 2007).

One of the sectors that use a lot of Internet technology is the education sector. The Internet has changed how the university runs both its primary and supporting business processes. Internet technologies allow prospective customers to perform various administrative tasks that previously had to be done manually, for example an online admission process. Students as the main customers of universities are also able to perform various activities such as online course registration, online consultation with their advisor, etc. Moreover, Internet technology has also altered how the learning process is done, from the conventional one through face-to-face method to blended learning (combination of face-to-face and online learning) and fully online learning or commonly known as e-learning. E-Learning allows the learning process becomes more collaborative in nature, especially since the emergence of Web 2.0 technologies (Hew & Cheung, 2013, Cheng et al., 2014). There are also many efforts to use and integrate social media (like Facebook) as part of Web 2.0 technologies in the learning process (Balakrishnan, Liew, & Pourgholaminejad, 2015; Chen, Fan, & Sun, 2015; Mao, 2014; Won et al., 2015). The use of the internet is expected to be one of the tools to improve higher educations’ service quality and compete in global level (Aldridge & Rowley, 1998; Athiyaman, 1997; de Jager & Gbadamosi, 2013; Moogan, Baron, & Bainbridge, 2001; Oldfield & Baron, 2000).

Now, Internet is considered as the backbone for universities to deliver their services to both prospective and main customers, and one of them is in form of web-based services such as online course registration. The internet usage has changed customer’s way of thinking due to the existence of a more intense interaction and the expectation of a better and faster service quality from the university. This challenges the university management side to define and provide web-based service that can fulfill customer’s requirement and get the desired service performance (Goldstein et al., 2002). Regarding this, the management needs to be able to formulate a website service attribute and quality that can be a guide for the developers to plan, implement, operate, and evaluate the website service made for university customer.

In the service design context, the university management surely wants to implement a service with high quality by considering and responding customer’s requirements in all service’s processes (Edvardsson, 1997; Lin, Yeh, & Wang, 2015). Unfortunately, the meaning of “quality” might be different for each person due to its various criteria. Juran & Godfrey (1999) said that quality can be meant as product’s features that can fulfill the user’s’ needs and in the end create satisfaction to the users. Quality can also mean free from flaws, or in other words free from mistakes or errors that can lead to users’ dissatisfaction. The concept of quality itself often times taken as a relative measurement of a product’s or service’s goodness, which consists of design quality and suitability quality. Design quality means product’s specification, while suitability quality means a measurement of how far a product fulfill the requirement or quality specification that has been decided (Tjiptono et al., 2003).

With the service design concept, the management is expected to be capable in creating a high quality website, thus be able to give the best online experience to the customer. This experience will surely trigger satisfaction from the user, and in the future it is expected to improve loyalty and engagement level