

Cultural Differences in Applying Kansei Engineering to Services

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Abstract—It is imperative for companies to provide competitive products and services at a competitive price. Products and services need to offer features and properties which can make them distinguishable and attractive to customers. Emotions and feelings are prominent during product interaction and service encounter. Kansei Engineering (KE) enables interpretation and translation of customer emotions into design parameters. The application of KE covers both products and services design. Besides dealing with attractive exterior appearances, KE has an ability to optimize properties that are not directly detectable or visible, such as the comfort of hospital and concert hall. There are few empirical studies. Kansei management should recognize cultural differences in Kansei. However, for analysis of cultural values we need to understand the different needs of different customers. A study of luxury hotel services for Indonesian, Japanese and Singaporean tourists, was conducted using interviews and a tri-lingual face-to-face questionnaire. 425 responses were collected. Japanese tourists were found to be the most Kansei-oriented. They tended to value luxury hotels as “clean” and “quiet” places to stay. Indonesian and Singaporean tourists shared a common response to the Kansei word “elegant” which correlates with their common cultural dimension of “power distance”. Incorporation of cultural issues into Kansei studies can provide marketing strategies for customers of different cultural backgrounds.

Keywords— *Kansei Engineering; emotions; cultural difference; services*

I. INTRODUCTION

Products and services of similar quality are ubiquitous in today's global market. Functionality and usability alone are no longer prominent success factors in product and service innovation. This is because customers today concern themselves more on satisfying their emotions than merely their cognition. Kansei Engineering (KE) has shown its superiority in investigating and modelling customer emotion/Kansei for product and service design and development.

Kansei Engineering (KE) has been widely and extensively used since the 1970s [15]. Its applications cover physical product design, system design and service quality improvement [20, 5-7]. According to Hartono and Tan [5-6], the application of KE has been extended into international-

class services and cross-cultural studies. Recent research on KE has extended KE methodology in services incorporating the Kano model, Markov chain and quality function deployment (QFD) [7]. By incorporating Markov chain into KE, practically this recent research offers valuable information for a manager to understand how the dynamics of customer needs as time goes by so that appropriate strategies can be prepared at the very early stage.

Research on KE have been conducted in different regions with different outcome. However, the reasons for cultural differences on Kansei is relatively unexplored. To deal with this issue, this study proposes two objectives. The first is to develop a framework of KE incorporating culture differences. The second objective is to showcase the framework applicability by taking a comprehensive case study involving Indonesian, Japanese and Singaporean tourists.

II. KANSEI ENGINEERING IN SERVICES

KE is defined as innovative and ergonomic technology of customer-oriented product development. The method focuses on user and customer emotions [15]. KE is deemed to be the first and foremost product development methodology that can translate customer impressions, feelings and demands into concrete design parameters [14-15, 26].

The superiority of KE is described as follows [7]. First, KE captures customer emotional needs and translates them into design features [17-19]. According to [13], KE works with symbolic attributes and user perceptions, expressed in their own words; whereas, other techniques base product and service developments on user preference for functional aspects. Second, with regard to subjectivity, KE is able to build a mathematical relationship model between emotions and product/service elements. This condition is supported by the affective flow that enables users to perceive certain stimuli with their appropriate senses without any barrier [15-16, 24]. Third, apart from tangible aspects, KE has an ability to optimize intangible properties such as the atmosphere of a concert hall. It is done by modifying the engineering properties of artifacts [14-15, 25-26]. In other words, KE covers both the tangible and intangible dimensions of product experiences and service encounters. Forth, KE is known as a quality framework with an integrated set of statistical tools