

Comparing Kano model and the penalty – reward contrast analysis of sport spectators' experiences

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Abstract

In a wide range of academic studies and practical applications, Kano's model about quality attributes is popular among researchers and practitioners. Using a non-linear view of a relationship between quality attribute performance and customer satisfaction, the Kano model tries to classify quality attributes that can elicit customer satisfaction or frustration (Mikulic & Prebezac, 2011). However, because the Kano model needs to be designed to consider both positive and negative perspectives of satisfaction, the research involves a range of items in the questionnaire, which can be cumbersome when participants complete surveys (Busacca & Padula, 2005). A long questionnaire may influence data quality in the process of data collection.

On the other hand, the Penalty-Reward Contrast Analysis (PRCA) uses regression analysis to analyze the impact of very high and very low attribute performance on overall satisfaction with two sets of dummy variables for each attribute (Mikulic & Prebezac, 2011). Compared with the Kano model, PRCA might have some advantage. PRCA's advantage is that items in the questionnaire do not have to ask twice about the customer's feelings in the case of fulfillment of an attribute and in the other case of non-fulfillment of the same attribute. Therefore, in the process of data collection, PRCA's questionnaire is shorter than the Kano's. A shorter questionnaire may have better data quality. Thus, in terms of data collection, PRCA is more parsimony than the Kano model. Given this comparison of the data collection between the Kano's model and PRCA, this current study attempts to examine whether PRCA can be a substitute for the Kano's model by applying these two methods in sport spectators' experiences.

In order to have a same base for the comparison between Kano and PRCA, general sport spectators' experiences in watching games were adopted in this current study because everyone more or less has experiences in watching sports by television, on the Internet, reading news paper or magazine, or physically going to the sport stadium. In addition, the questionnaire was revised in three ways. First, the provision (or non-provision) of the benefits rather than the attribute itself was stated in the questions. For example, how do you feel if watching sport can (cannot) appreciate the beauty? Second, while the audience may feel indifference or unimportance for some possible benefits of watching sports, it seems that the audience will not dislike the possible benefits. Thus, the Kano's scale is revised as: 5=strongly like it, 4=like it, 3=somehow like it, 2=for granted, 1=indifference. This revised scale is also more appropriate for PRCA. Meanwhile, the scale for the non-provision of the benefits is revised as: strongly dislike it, dislike it, somehow dislike it, can endure, indifference. Third, because this study is more concerned with behavioral attitudes than just satisfaction, behavioral attitudes are used as dependent variable in PRCA.

Before doing the comparison between the Kano's model and PRCA, this study first used experiential marketing theory and means-end chain theory to develop a scale measuring spectator sport experiences with eight dimensions: 1. Sensory experience, 2. self-esteem experience, 3. entertainment experience, 4. external learning experience, 5. intrinsic learning experience, 6. act experience, 7. social experience, and 8. self-association experience (Gau & Huang, 2013). Each dimension has between 3 and 5 items and totally the scale has 31 items. Each question item (five-point scale) was asked in both positive and negative ways for the Kano analyses. As for PRCA, the positive answers to items measuring the sport spectators' experiences were used as independent variables, whereas answers to four questions measuring spectator sport behavioral attitudes (seven-Liker scale) were used as the dependent variable. In order to check the common method bias, exploratory factor analysis is conducted. The first data from the provision of benefits (that is, asking questions by the positive ways) showed discriminant eight factors with all items assigned into the expected factors except for two items. Nevertheless, these two items still had sufficient loadings (above 0.3) in their expected factors. The second data from the non-provision of benefits (that is, asking questions by the negative ways) showed discriminant eight factors with all items assigned into the expected factors except for three items. Nevertheless, these three items still had sufficient loadings (above 0.4) in their expected factors.

Participants were recruited on campus from senior high school students at Yunlin County, Taiwan in 2012. A total of 290 valid questionnaires were collected. The results of these two analyses (Kano analyses and the Penalty-Reward Contrast Analysis) were compared in different categories: all, gender, athletes versus non-athletes, high versus low level of involvement. The results of the comparison across categories showed that the level of similarity of the results between the two analyses was between 40% and 73% among the 31 individual items, while the similarity among the 8 dimensions was between 44% and 69%. Different categories have different levels of similarity, but none of the analyses showed a very high degree of similarity. This implies that Kano analysis and the Penalty-Reward Contrast Analysis might have different focus or different conceptual reasoning. Although the questionnaire for the Penalty-Reward Contrast Analysis might be shorter than Kano analysis and this may ensure better data quality for PRCA, however, the research design of PRCA might not be able to substitute for the Kano model. This conclusion provides empirical evidence for Mikulic and Prebezac's (2011) comment that it is questionable to say the conceptual validity of PRCA meets a Kano classification method.

Reference

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