Predicting future intentions of basketball spectators using SEM and fsQCA☆

Ferran Calabuig Moreno [a],*, Vicente Prado-Gascó [b], Josep Crespo Hervás [a], Juan Núñez-Pomar [a], Vicente Añó Sanz [a]

[a] *Department of Physical Education and Sports, University of Valencia, Gascó Oliag St., 3, Valencia 46010, Spain*
[b] *European University of Valencia, General Elio St., 8, Valencia 46010, Spain*

ARTICLE INFO

ABSTRACT

This study analyzes relationships among service quality, perceived value, satisfaction, emotions, and future intentions of spectators of a professional basketball competition using a sample of 429 basketball spectators of a premier division in Spain. The results from structural equation modeling support the hypotheses, except for the effect of emotions and match result on future intentions. The results from fuzzy-set qualitative comparative analysis (fsQCA) with the same data set show that none of the variables are necessary conditions for positive future intentions of spectators. However, seven combinations of these variables are sufficient conditions for explaining positive future intentions. The most important combinations of conditions are Satisfaction × Perceived Value and Service Quality × Satisfaction

© 2015 Elsevier Inc. All rights reserved.

1. Introduction

Service managers strive to meet the needs and demands of customers to retain them; for that purpose, managers use mainly measures of service quality and satisfaction. A high interest also exists in analyzing and understanding the effect of perceived value on satisfaction and customers' loyalty. This interest also exists in the context of sport management (Calabuig, Burillo, Crespo, Mundina, & Gallardo, 2010) and in sporting events in particular (Theodorakis, Alexandris, Tsigilis, & Karvounis, 2013).

Sport managers have an interest in knowing how management variables (i.e., quality attributes, perceived value) influence future intentions; hence, scholars place emphasis on this particular issue. Therefore, satisfaction is a focal point because satisfaction is a consequence of service quality, which is a manageable antecedent of future intentions (Calabuig, Prado-Gascó, Crespo, Núñez-Pomar, & Añó, 2015).

Additionally, some studies introduce the spectators' emotions in models predicting future behavior (Biscaia, Correia, Rosado, Maroco, & Ross, 2012), or analyze the moderator effect of emotions (Calabuig et al., 2015), thus dealing with the more intangible and harder variables to manage by sporting event managers.

Although all these studies show a high degree of depth of research on sporting events, studies of professional sport omit the result of the match from the model when examining the links among service quality, perceived value, satisfaction, and future intentions. This study presents an analysis of the relationships among these variables and their capability to predict spectators' future intentions. The major contribution of this research lies in the analysis of the relationships among these variables, and in the use of the qualitative comparative analysis (QCA) and structural equation modeling (SEM) for this purpose. Introducing the QCA allows knowing whether the combination of any of these variables can clarify the future intentions of the spectators, a clarification that SEM does not offer.

2. Theoretical background and hypotheses

2.1. Effects of service quality, perceived value, and satisfaction on future intentions

Zeithaml (1988) defines perceived service quality as a global judgment or attitude relating to the superiority of a service. Customer satisfaction is a pleasurable fulfillment response toward a good, service, benefit, or reward (Oliver, 1997), or an emotional state that occurs in response to the evaluation of a service (Westbrook, 1981). Satisfaction is a construct distinct from service quality, which has affective elements (Taylor, 1997).

Zeithaml (1988, p.14) defines perceived value as "the consumer's overall assessment of the utility of a product based on the perception of what is received and what is given." Several studies in the management literature suggest that perceived value is one of the most relevant

determinants of repurchase intentions (Dodds, Monroe, & Grewal, 1991; Wu, Chen, Chen, & Cheng, 2014). In sport management research, Calabuig, Núñez-Pomar, Prado-Gascó, and Añó (2014), and Clemes, Brush, and Collins (2011) provide empirical results that confirm the relationship between perceived value and future intentions.

Empirical studies show that satisfaction positively affects intention (Anderson & Fornell, 2000; Carlson & O'Cass, 2010; Cronin & Taylor, 1992). In the sporting events context, empirical evidence exists of the influence of service quality and satisfaction on behavioral intentions (Alvarado & Beltrán, 2008; Bodet & Bernache-Assollant, 2011; Cronin, Brady, & Hult, 2000; Koo, Andrew, & Kim, 2008; Matsuoka, Chelladurai, & Harada, 2003; Trail, Anderson, & Fink, 2005; Yoshida & James, 2010).

Conversely, no empirical evidence exists of the influence of the match result on the future intentions of sport spectators. Nevertheless, some studies analyze the influence of the outcome quality on behavioral intentions. Grönroos (1984, p. 38) defines this factor as "what the customer is left with when the production process is finished." When attending a sport event, spectators generally expect to receive socio-psychological benefits—such as thrills, enjoyment, and social interaction (Ko, Zhang, & Cattani, 2011). Many factors that shape the valence of an outcome are outside the management's direct control (Brady, Cronin, & Brand, 2002). According to Ko et al. (2011), spectators at a sporting event might have positive perceptions of service quality but report negative valence of the outcome because of the loss of their team. Because of this characteristic of the outcome quality, no evidence exists of the influence of the match result on future intentions despite this relationship's obvious existence.

H1. A direct, positive relationship exists between spectators' perceived service quality and future intentions of sport events spectators.

H2. A direct, positive relationship exists between spectators' perceived value and future intentions of sport events spectators.

H3. A direct, positive relationship exists between satisfaction and the future intentions of sport event spectators.

H4. A direct, positive relationship exists between the result of the match and future intentions of sport events spectators.

2.2. Effects of emotions on future intentions

Emotions are subjective feelings that demand immediate attention and motivate behavior especially in hedonic contexts such as live sporting events. Emotions are a complex set of interactions among objective and subjective variables that can lead to affective experiences such as feelings of pleasure and arousal (Dubé & Menon, 2000). Mehrabian and Russell's (1974) model (i.e., pleasure–arousal–dominance model) constitutes the best framework for analyzing emotions during consumption experiences. Nevertheless, Russell (1980) recommends a two-dimensional (i.e., pleasure and arousal) version of the model because with that structure the model tends to be more stable. Bitner (1992) states that pleasure indicates the degree to which individuals feel good with the surrounding environment, whereas arousal reflects the degree to which the environment emotionally activates a person.

According to Jiang and Wang (2006) and Dubé and Menon (2000), the two-dimensional model has some advantages in leisure contexts. This research adopts pleasure and arousal as emotions that basketball spectators experience when attending a basketball match. Calabuig et al. (2014) the relevance of considering the study of consumer emotions in hedonic contexts; the authors relate emotions to service evaluations such as future intentions.

Sumino and Harada (2004) observe that excitement is an antecedent of intentions to attend future sport events. In contrast, negative emotions induce unfavorable behavioral intentions (Bougie, Pieters, & Zeelenberg, 2003). Recently, Biscaia et al. (2012) find that joy predicts spectators' future intentions.

H5. Pleasure has a direct effect on future intentions of sport spectators.

H6. Arousal has a direct effect on future intentions of sport spectators.

In summary, the research model tests the effects of four constructs: service quality, satisfaction, perceived value, and emotions on future intentions (Fig. 1). Furthermore, the model tests the effect of the match result on future intentions.

2.3. QCA and SEM methods

Qualitative comparative analysis is an analytic technique that builds on set theory and that allows for an in depth analysis of how causal conditions contribute to an outcome. QCA assume that the influence of particular attributes on a specific outcome depends on how the attributes combine, rather than on the levels of the individual attributes. This method is now attractive for business and organizational settings, and many studies use this technique (e.g., Crilly, 2011; Calabuig et al., 2015; Skarmeas, Leonidou, & Saridakis, 2014).

SEM is a method that allows comparing theoretical models or frameworks with real data to test the hypothesis. The method enables the analysis of latent variables and their linear relationships using manifest or observable indicators. SEM is an evolution of general linear modeling procedures, but much more flexible and more reliable because SEM allows the quantification of observational error from measurement of latent variables (Carrillo, Prado-Gascó, Fiszman, & Varela, 2012).

3. Research methods

3.1. Participants and sampling

The sample for this study is a convenience sample of 429 spectators of a basketball first-division club who attended matches throughout the regular season 2013–2014. Ages range from 18 to 76 (average age = 36.03 ± 12.1), 31.9% of the spectators are women. Most participants hold a university degree (45.6%) or have secondary studies (39%). Table 1 shows sample characteristics.

3.2. Measurement

Hightower, Brady, and Baker's (2002) measure provides the tool to assess overall service quality and demonstrate strong reliability (α = 0.94). Oliver's (1997) scale of consumer-satisfaction evaluates spectators' satisfaction through five items with a Cronbach's alpha of 0.93. Hightower et al.'s (2002) scale assesses overall perceived value on a four items, with a Cronbach's alpha of 0.89 for this study. The measurement of the future intentions of sport spectators relies on three items (Zeithaml, Berry, & Parasuraman, 1996) providing good Cronbach's
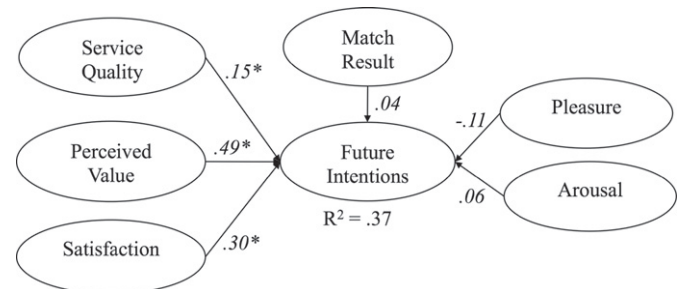
* p < 0.05. Model fit: χ² (df)= 1114.27 (334); S-B χ² (df)= 860.12 (334); NNFI= .93, CFI= 0.94, IFI= 0.94, RMSEA= 0.06

Fig. 1. Structural model predicting future intentions of sport spectators. *p < 0.05. Model fit: χ^2 (df) = 1114.27 (334); S-B χ^2 (df) = 860.12 (334); NNFI = .93, CFI = 0.94, IFI = 0.94, RMSEA = 0.06.