Longitudinal Analysis of Event Impact on Residents' Satisfaction and Behavior Intentions: Case of the Nanjing Youth Olympic Games

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Mega sporting events are out of the ordinary, discontinuous, and one-off events large in both scale and scope. The main features of these mega sporting events are their ability to appeal to worldwide audiences and the profound impacts they have on the host nation and residents. As important stakeholders in the mega sporting event, residents are as much a part of the event as direct participants. Recently, studies have begun to use primarily social exchange theory to investigate how residents are devoted to event development based on their satisfaction and behavior intentions. Social exchange theory assumes that individuals are more likely to exchange if they believe the benefits outweigh costs based on experiential and psychological outcomes (Li, Hsu, & Lawton, 2015). In event context, social exchange theory suggests that a dynamic process is involved in the formation of residents' behavior intentions with regard to event impacts (Kaplanidou et al., 2013).

Despite the growing attention in understanding residents’ reaction to a mega sporting event, several research gaps still exist in the literature. First, previous research used a benefit-cost approach to estimate the positive and negative impacts related to the event (e.g., Gursoy, Yolal, Ribeiro, & Netto, 2016). As such, there is a lack of empirical evaluation with regard to the triple bottom line approach (i.e., social, economic, and environmental impacts) via a benefit-cost approach as it applies to impact associated with a mega event. Second, hosting a mega sporting event may change residents’ perceptions and behavior intentions over time (Kaplanidou et al., 2013), who stated that, compared to the pre-event period, residents’ levels of support increased substantially after the event had taken place. However, the majority of research used data collected from different subjects at two points in time to compare the perceptual and behavioral change from pre-event to post-event (Gibson et al., 2014), suggesting the use of a panel data to better estimate the true change before and after the event. As such, it is necessary to investigate resident’s perceptual and behavioral change derived from various impacts associated with a mega-sporting event using a panel data.

To fill the gaps, the purpose of the current study is two-fold: (a) conceptualize the triple bottom line approach by incorporating the attitudinal valence (i.e., positive and negative). So, a total of six event impacts related to a mega-sporting event were proposed and tested, (b) investigate how host city residents’ satisfaction and behavioral intention toward a mega-sporting event changes before and after the event using a panel data.

With assistance from the Nanjing Youth Olympic Games Organizer, the first wave of data collection using a mall-intercept survey was conducted among Nanjing’s numerous mass gathering locations, which included subway stations, bus stations, theaters, malls, and major grocery stores; this occurred three months before the event. As a result, 478 data were collected. In order to track the same respondents in the post-event survey, survey respondents were asked to enter their email addresses and the last four digits of their residency numbers. Three months following the completion of the event, a post-event survey was conducted via an email that included a link to the survey, which was sent out to the same respondents who participated in the pre-event survey. A total of 266 participants responded to the post-event survey. All matched cases were checked in terms of their email addresses, the last four digits of their residency numbers, and demographic information. The questionnaire consisted of items measuring socio-cultural positive/negative impacts (11 items), economic positive/negative impacts (7 items), environmental positive/negative impacts (5 items), satisfaction (3 items), word-of-mouth (2 items), support (2 items), and demographic information.

To test the proposed moderating impact of time (i.e., pre and post), we conducted the invariance test for both
measurement and structural models using the 266 matched data set. First, a non-restrict model was generated. The model included a good fit to the data (chi-square = 2008.52, p < .001; chi-square/df = 2.52; CFI = 0.92; and RMSEA = 0.45). The model was compared to the full-metric invariance model whose fit to the data was satisfactory (chi-square = 2042.66, p < .001; chi-square/df = 2.50; CFI = 0.92; RMSEA = 0.06; and SRMR = 0.45). Results of the chi-square difference test revealed that there was no statistical significance between the two models (Δ chi-square (23) = 34.45, p > .05), supporting the full-metric invariance. The baseline model for the structural invariance was developed, which acceptably fit to the data (chi-square = 2269.56, p < .001; chi-square/df = 2.76; CFI = 0.91; and RMSEA = 0.49). The model was compared to the full-structural invariance model whose fit to the data (chi-square = 2342.85, p < .001; chi-square/df = 2.70; CFI = 0.91; and RMSEA = 0.49). The chi-square difference test revealed that there was statistical difference between the model (Δ chi-square (30) = 73.16, p < .05), indicating that changes occurred between pre-event model and post-event model. Notably, the magnitude of the influence of social cultural positive impact, economic negative impact on satisfaction were significantly difference across the time difference. In other words, the social cultural positive impact increased after the event, and the economic negative impact decreased at the post-event. In addition, the extent to which the satisfaction impacts word-of-mouth and support behavior increased from pre-event to post-event studies.

Adopting social exchange theory, the current study is one of the first attempts to examine host city resident’s perceptual and event supporting behavior intention change from pre-event to post-event. The increase of satisfaction level derived from the causal effect of socio cultural positive impacts indicates residents indeed observed the quality of life enhancement, opportunity to strengthen the community bond, positive event legacy, and increased city pride, all of which led to increased word-of-mouth and event support behavior. Furthermore, the current study found that negative economic impact such as increased cost of living, spending spree for hosting a mega event that are associated with a mega event decreased as time passed. This change of belief positively exerted residents to word-of-mouth and event support behavior. In sum, it is argued that the perceptual and behavioral change is the core principle of social exchange theory, which argues that stakeholders (i.e., residents) can indeed devote to hosting a successful event and preserving the socio-cultural legacy event after the event. Further implications associated with theory and practice will be discussed in this presentation.