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**Drivers of the perceived social impact of the Super Bowl:
Mediation and moderation analyses**

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PERCEIVED SOCIAL IMPACT OF SUPER BOWL

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Drivers of the perceived social impact of the Super Bowl: Mediation and moderation analyses

Word count: 7987

PERCEIVED SOCIAL IMPACT OF SUPER BOWL

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Abstract

Purpose: Building on the social leverage model, this study aims to examine the influence of event-related attributes on residents' perceived social impact of a major sport event, as mediated by event involvement. It also investigates the moderating effect of event rights holders' credibility on the relationship between event involvement and perceived social impact.

Methodology: Using a two-wave, time-lagged survey, data were collected from 220 residents of a Super Bowl host city. Hypotheses were tested using structural equation modeling.

Findings: High celebratory atmosphere, social camaraderie, and social responsibility as perceived before the event were associated with residents' perceptions of the social impact of the Super Bowl. Moreover, the association between social camaraderie and perceived social impact was mediated by event involvement. When appraising the rights holder as credible, involved residents reported an increased level of perceived social impact.

Originality: This study contributes to research on the social leverage model by demonstrating its application among indirect participants of major sport events. Additionally, it suggests the imperative role of rights holders' credibility in promoting the perceived social impact among involved residents.

Keywords: major sport event; social leverage; event involvement; credibility; for-profit entity

1. Introduction

Scholars have increasingly highlighted the importance of major sport events in promoting residents’ perceptions of positive social impact in host communities (hereafter, *perceived social impact*; Chalip, 2006; Gursoy et al., 2017; Kim & Walker, 2012; Oshimi et al., 2022). A *major sport event* refers to a one-off sport event which is hosted over a short duration and garners substantial media attention; examples include the Formula One Grand Prix and the Super Bowl (Doyle et al., 2021; Kim & Walker, 2012). Perceived social impact strengthens the legitimacy of event hosting and residents’ support, especially when major sport events do not generate the expected economic benefits (Chalip, 2006; Ghaderi et al., 2021).

According to the social leverage model (SLM; Chalip, 2006; Filo et al., 2018; Inoue et al., 2014), perceived social impact does not automatically result from hosting events. Instead, this desired outcome is achieved by strategically incorporating ancillary activities associated with events and host communities, such as social gatherings and concerts. Following Chalip (2006), scholars have identified three leveraging attributes— a celebratory atmosphere, social camaraderie, and event social responsibility—which influence the perceived social impact of medium- and small-scale events (Filo et al., 2010; Ghaderi et al., 2021; Inoue & Havard, 2014).

Previous research has contributed to our understanding of the SLM; however, there remain two important research gaps. First, previous studies employed a cross-sectional approach, which measured both leveraging attributes and perceived social impact after events (Gursoy et al., 2017; Inoue & Havard, 2014; Inoue et al., 2018). This approach is limited in fully testing the SLM, which proposes that perceived social impact is an outcome of the leveraging attributes (Chalip, 2006), but not the other around. Additionally, this cross-sectional approach is subject to methodological issues, such as common method variance (CMV; Podsakoff et al., 2012).

PERCEIVED SOCIAL IMPACT OF SUPER BOWL

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1 Second, although the mediating effect of event involvement was suggested (Chalip, 2006), it has
2 not been empirically examined because most research on middle- and small-scale events was
3 conducted with local participants who attended the events. For major sport events, attendance is
4 less common for residents owing to the high-ticket prices. Instead, locals tend to enjoy those
5 events indirectly via broadcasts or social media (Kim & Walker, 2012). Therefore, it is not
6 known how residents' event involvement mediates the relationship between the leveraging
7 attributes and perceived social impact when residents do not attend an event.

8 Furthermore, major sport events are highly commercialized, with the rights of some events
9 being held by for-profit entities, such as the National Football League (NFL; Getz et al., 2015).
10 Rights holders are those who secure the exclusive usage of the name, brand, logo, and other
11 design features of an event (Getz et al., 2015). The present study considers the case when rights
12 holders are for-profit entities. People are less likely to trust social claims posited by a for-profit
13 entity, especially when it has low credibility (Goldsmith et al., 2000). Some researchers argued
14 for an interactive effect of involvement and for-profit entities' credibility on people's perceptions
15 of positive social outcomes in event settings (Giesen & Hallmann, 2018; Walker & Kent, 2013).
16 Because rights holders usually act as official sources of information about the events (Giesen &
17 Hallmann, 2018), examining whether their credibility moderates the relationship between
18 residents' involvement and the perceived social impact of major sport events can offer important
19 insights.

20 The purpose of the current study is to examine the relationships between the three
21 leveraging attributes and perceived social impact in the setting of the Super Bowl, a major sport
22 event in North America. We employed a two-wave, time-lagged survey design to investigate
23 how residents' perceptions of leveraging attributes assessed prior to the Super Bowl influenced

their perceptions of social impact after the event. To provide a comprehensive understanding, this study further assessed the mediating role of event involvement and the moderating role of event rights holders’ credibility on the relationship between the leveraging attributes and perceived social impact of the Super Bowl. The findings of this study contribute to the SLM literature by providing additional theoretical and empirical explanations within major sport events and support for the proposed relationship.

2. Perceived social impact of sport events

A widely adopted definition of perceived social impact is derived from the concept of psychic income, referring to “the emotional and psychological benefit residents perceive they receive, even though they do not physically attend sport events” (Crompton, 2004, p.181). Under Crompton’s (2004) definition, the social impact perceived by residents who are not physically involved in a sport event can be assessed; hence, it is appropriate for this study. In this study, perceived social impact¹ refers to intangible—and sometimes fleeting—benefits that residents experience after an event, such as community pride, excitement, and happiness (Gibson et al., 2014; Oja et al., 2018). Kim and Walker (2012) extended Crompton’s conceptualization to measure the perceived social impact generated through hosting the Super Bowl. They identified a five-dimensional construct of perceived social impact: (a) a sense of community pride arising from enhanced community image, (b) a sense of excitement through experiencing the event, (c) a sense of pride resulting from improved infrastructures in the community, (d) community excitement, and (e) strengthened community attachment. Inoue and Havard (2014) and Oja et al. (2018) justified the formation of perceived social impact as a second-order factor (which

¹ In the literature, social impact has been examined at the macro level (i.e., social, physical, and environmental changes that produce both benefits and costs for host communities) and at the micro level (i.e., intangible psychological benefits for local residents). This study adopts the latter, as a focus on intangible benefits is consistent with the established framework.

PERCEIVED SOCIAL IMPACT OF SUPER BOWL

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1 represents residents' overall psychological benefit they receive from sport events) when
2 examining its associations with antecedents and outcomes. The proposed second-order construct
3 meets the purpose of the current research which assesses the relationship between social
4 leveraging attributes and perceived social impact.

5 According to Crompton (2004), people who perceive social impact from a sport event
6 acquire substantial pleasure, which greatly motivates their support and involvement in the event.
7 An increasing number of studies has examined the perceived social impact of sport events and
8 explored the contribution of such events to host communities, including the delivery of future
9 events (e.g., Balduck et al., 2011; Ghaderi et al., 2021; Inoue et al., 2018). For example, Ghaderi
10 et al. (2021) found that residents with stronger perceived social impact expressed greater
11 tolerance of negative impacts, such as inconveniences caused by event hosting. Building on prior
12 work, further research is necessary to identify event-related attributes that promote perceived
13 social impact. Thus, a conceptual framework was established and assessed in the context of the
14 Super Bowl.

15 3. Hypotheses development

16 Figure 1 illustrates the conceptual framework developed based on the SLM and related empirical
17 studies (Filo et al., 2018; Inoue & Havard, 2014; Schlegel et al., 2017). The framework depicts
18 hypothesized relationships between three social leveraging attributes, event involvement, and
19 perceived social impact of the Super Bowl. The perceived credibility of the NFL (i.e., event
20 rights holder) was proposed as a moderator.

21 [Insert Figure 1 around here]

3.1. Social leverage model

Perceived social impact is an important *post hoc* outcome that justifies the host of an event. For event management, however, it is crucial to uncover “why those outcomes [i.e., perceived social impact] occurred” (Chalip, 2006, p. 112). Following this rationale, the SLM offers a framework to understand how perceived social impact can be increased by implementing planned activities before and during events (Inoue & Havard, 2014). Chalip (2006) argued that social leverage represents the strategic planning that promotes event participants’ experience of *liminality* (i.e., feelings that there are sacred aspects of events) and *communitas* (i.e., an engendered sense of community), which influence perceived social impact. Two significant attributes were posited to reinforce the quality of liminality and, subsequently, *communitas*: a celebratory atmosphere and social camaraderie (Chalip, 2006; Filo et al., 2010; Schlegel et al., 2017). A celebratory atmosphere entails positive feelings during sport events that enable people to feel relaxed by temporarily escaping from their everyday lives (Schlegel et al., 2017). Social camaraderie refers to perceptions of solidarity with others (Chalip, 2006). Overall, activities focusing on these two social leveraging attributes can foster liminality, which makes residents feel a sense of belonging and increases perceived social impact.

Inoue and Havard (2014) proposed a third attribute, namely perceptions of an event’s contribution to socially responsible activities, which can be leveraged to increase perceived social impact according to social exchange theory. Social exchange theory suggests that human interaction is based upon the exchange of tangible and intangible benefits (Cropanzano & Mitchell, 2005), and people engage in an exchange activity when they perceive an opportunity to maximize such benefits. Specifically, perceived social responsibility refers to the degree to which residents perceive that a sport event is committed to giving back to communities by

PERCEIVED SOCIAL IMPACT OF SUPER BOWL

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1 supporting charitable activities (Filo et al., 2018; Inoue & Havard, 2014). Hence, perceived
2 social impact, as a form of socioemotional resources, is an outcome of exchange wherein
3 residents gain a sense of reward from a sport event because of its contribution to local
4 communities (Inoue & Havard, 2014; O'Brien, 2007). Inoue and Havard (2014) empirically
5 supported this proposition by analyzing survey data from local attendees of a cause-related
6 spectator sport event.

7 In relation to the current research, the Super Bowl is a symbolic event with a meaning that
8 surpasses a mere elite sport competition. During the Super Bowl, various ancillary events, such
9 as music concerts, food festivals, and gatherings, are held for entertainment and socialization,
10 enabling people to perceive a robust celebratory atmosphere and social camaraderie during the
11 ten days leading up to the game. Moreover, the NFL is actively involved with host communities
12 through charitable activities. For example, at Super Bowl LII held in Minneapolis, the event's
13 social responsibility was demonstrated through the *52 Weeks of Giving* program, where more
14 than US\$5.5 million was invested in local nonprofits aiming to improve children's wellness in
15 the host city and state (Minnesota Super Bowl Host Committee [MSBHC], n.d.). According to
16 prior work on the SLM (Filo et al., 2010; Inoue & Havard, 2014; O'Brien, 2007; Schlegel et al.,
17 2017), residents' assessment of the celebratory atmosphere, social camaraderie, and perceived
18 social responsibility engendered through various activities conducted at the Super Bowl is
19 expected to increase the perceived social impact. Hence, it is hypothesized that:

20 **H1.** Residents' perceptions of celebratory atmosphere are positively associated with
21 perceived social impact of the Super Bowl.

22 **H2.** Residents' perceptions of social camaraderie are positively associated with perceived
23 social impact of the Super Bowl.

H3. Residents’ perceptions of event social responsibility are positively associated with perceived social impact of the Super Bowl.

3.2. The mediating effects of event involvement

High levels of liminality at a sport event are said to promote residents’ feelings of personal relevance to the event—or event involvement—which leads to positive outcomes, as indicated by residents’ strong perceptions of social impact (Brown et al., 2016; Chalip, 2006). In the current study, we define event involvement as residents’ sense of personal interest in the Super Bowl as fostered through various ancillary activities. Researchers suggested that event involvement functions as a central motive for sport event attendance and mediates the effects of event attributes on outcomes (Brown et al., 2016; Gibson et al., 2014; Oja et al., 2018).

The proposition that event involvement acts as a mediator originated in consumer behavior research. It indicates that consumers’ level of involvement with a specific product or service is determined by environmental and social elements (Celsi & Olson, 1988). Following this proposition, the three leveraging attributes can be regarded as environmental and social elements that residents perceive at sport events. Residents’ perceptions would activate their event involvement, which then promotes the perceived social impact as a psychological outcome (Celsi & Olson, 1988; Schlegel et al., 2017). This is consistent with the SLM (Chalip, 2006; Inoue & Havard, 2014), which suggests that individuals who perceive higher levels of celebratory atmosphere, social camaraderie, and social responsibility tend to increase the personal relevance of an event.

Moreover, leisure literature suggests that a high level of involvement with a leisure activity increases the meaning and relevance of the activity among participants, which then generates positive feelings among other followers (Iwasaki & Havitz, 2004; Sato et al., 2016). Because

PERCEIVED SOCIAL IMPACT OF SUPER BOWL

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1 participating in sport events is a form of leisure (Chalip, 2006; Sato et al., 2016), people's
2 feelings of involvement in events should increase perceived social impact, such as event
3 excitement or community attachment (Gibson et al., 2014). Building on the above discussion, we
4 hypothesize indirect associations between the three social leveraging antecedents and perceived
5 social impact via the mediation of event involvement.

6 **H4.** Event involvement will positively mediate the relationships between each of the three
7 event attributes—celebratory atmosphere (**H4a**), social camaraderie (**H4b**), and perceived
8 event social responsibility (**H4c**)—and the perceived social impact of the Super Bowl.

9 3.3. *The moderating effects of perceived credibility*

10 Besides the central route through which people perceive an event's social impact by evaluating
11 the information they receive during the event, cognitive response theory suggests the effect of
12 source credibility on people's perceptions as a peripheral route (Atkinson & Rosenthal, 2014;
13 Petty & Cacioppo, 1986). Source credibility refers to the perceived expertise and trustworthiness
14 of an information source (Goldsmith et al., 2000; Petty & Cacioppo, 1986). Petty and Cacioppo
15 (1986) posited a potential moderating effect of perceived source credibility on the relationship
16 between recipients' involvement and their subsequent attitudes. That is, if involved recipients of
17 a message perceive a source as credible, they will be more confident of their evaluation of the
18 source and its message and, in turn, show more positive attitudes (Petty & Cacioppo, 1986;
19 Walker & Kent, 2013).

20 In this study, examining the moderating role of the perceived credibility of the NFL is
21 imperative because residents usually have minimal access to the processes of the planning,
22 preparation, and hosting of major sport events (Giesen & Hallmann, 2018; Kim & Walker,
23 2012). Hence, the Super Bowl acts as a communication medium through which the NFL, as a

source, delivers information about the positive social impact of its premier event to host communities. In this evaluation process, the perceived credibility of the NFL would significantly influence the way that residents process information they receive during the Super Bowl. In addition, according to cognitive response theory (Atkinson & Rosenthal, 2014; Petty & Cacioppo, 1986), the influence of perceived credibility is greater for more involved residents. Furthermore, examining rights holders' credibility is crucial because the NFL, as the Super Bowl's rights holder, has close associations with many for-profit business activities. This high level of commercialization may affect people's attitudes toward social initiatives surrounding the Super Bowl. It is expected that the perceived credibility of the NFL will increase residents' perceptions of the Super Bowl's social impact, especially when residents are involved in the Super Bowl. Our final hypothesis thus predicts:

H5. Highly involved residents who perceive the NFL as a highly credible institution will report higher levels of perceived social impact of the Super Bowl than those who perceive the NFL as having low credibility.

4. Methods

4.1. Research context

The current study is a part of a broader project investigating residents' perceptions of the Super Bowl. The context of this research was Super Bowl LII, which took place in Minneapolis in February 2018. Various social activities were held around the city during Super Bowl week (i.e., the ten days leading up to the game) to engage residents and visitors. For example, there was the *Super Bowl Experience Driven by Genesis*, an interactive festival zone for American football culture (MSBHC, n.d.). The *NFL Women's Summit* was held to celebrate and share stories about women in sport. Multiple music events, such as *Super Bowl Livehouse* and *Super Saturday*

PERCEIVED SOCIAL IMPACT OF SUPER BOWL

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1 Night, provided opportunities for entertainment and socialization. In addition, Super Bowl LII
2 put great emphasis on its socially responsible program, *52 Weeks of Giving* (MSBHC, n.d.).

3 4.2. Participants and design

4 Study participants were recruited using consumer sample panels maintained by Qualtrics.
5 Eligible respondents had to be: (a) 18 years or older, (b) resident in one of the seven counties
6 constituting the Minneapolis–St. Paul metropolitan area (Metropolitan Council, 2020), and (c)
7 aware that Minneapolis was hosting Super Bowl LII. Individuals satisfying these criteria
8 received an email invitation containing a link to the online surveys.

9 Data were collected using a two-wave, time-lagged design to assess how the leveraging
10 attributes shaped prior to the event were connected to residents' perceptions of social impact
11 after the event. This time-lagged design addressed the SLM argument that adopts an *ex ante*
12 focus to “identify the strategies and tactics that can be implemented prior to and during an event
13 to generate desired outcomes” (Chalip, 2006, p. 112). In addition, this design can alleviate the
14 potential for biased estimates by reducing respondents' ability to provide similar responses
15 patterns for both independent and dependent variables, as suggested by Podsakoff et al. (2012).

16 The first-wave survey was completed by 750 respondents during the ten days prior to the
17 day of the Super Bowl LII (Time 1). A MANOVA was conducted to test whether the responses
18 to survey items varied between the participants who completed the survey in the first and last
19 three days of data collection. Results of the MANOVA (Wilks' Lambda = .97; $F = .78$; $p = .65$)
20 indicated that their responses did not significantly vary regardless of how long they were
21 exposed to social activities and events surrounding the Super Bowl. At the end of the
22 questionnaire, respondents were asked whether they would like to participate in the second wave
23 survey. Those who chose to continue the survey received the second-wave questionnaire eight

PERCEIVED SOCIAL IMPACT OF SUPER BOWL

1 days after the Super Bowl LII final (Time 2), and 220 individuals completed the survey
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1 days after the Super Bowl LII final (Time 2), and 220 individuals completed the survey
(response rate 29.3%). Each respondent was assigned a unique ID, enabling us to match their
data from the first and second waves. We determined the sample size based on the item-to-
response ratio of 1:5 (Hair et al., 2005). The minimum required sample size for Time 1 (22
items) was 110 and for Time 2 (15 items) was 75, leading to a total required sample size of 185.
The final sample consisted of the 220 residents who completed both surveys, exceeding the
minimum sample size required. Among the 220 respondents, 49.5% were male; the mean age
was 43.82 years old ($SD = 15.59$); and the median value of household income was US\$40,001–
US\$60,000, covering 19.5% of the respondents. Furthermore, 47.8% had participated in Super
Bowl-related ancillary activities at least once, and 45.9% posted or shared information about the
Super Bowl on social media at least occasionally.

For representativeness, we compared key demographics between the final sample and
residents living in the Minneapolis–St. Paul metropolitan area aged 18 and over. According to
the United States Census Bureau (2019), in 2018, 50.5% of residents were male, and their
median age was between 35 and 44 years old, covering 15.9% of the population. The median
household income was US\$55,720. Thus, these statistics, to some degree, indicated that our
sample mirrored the population of the Minneapolis–St. Paul metropolitan area.

4.3. Measures

All variables were measured with a seven-point Likert scale ranging from 1 (“strongly disagree”) to 7 (“strongly agree”). Table 1 shows descriptions of all items used, which were adapted from established scales. At Time 1, the three social leveraging attributes (i.e., the predictors), event involvement (i.e., the mediator), and perceived credibility (i.e., the moderator) were assessed. Specifically, we measured *celebratory atmosphere* with seven items from Schlegel et al. (2017).

PERCEIVED SOCIAL IMPACT OF SUPER BOWL

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1 For these items, we replaced the word “Rio de Janeiro” with “Minneapolis”. A three-item scale
2 measuring the sense of *social camaraderie* was adopted from Filo et al. (2010). The
3 measurement of the *perceived social responsibility* of the Super Bowl was adopted from Inoue
4 and Havard (2014), who measured residents’ perceptions of the social responsibility of a sport
5 event. Woisetschlager and Michaelis’s (2012) three-item scale was used to measure *event*
6 *involvement*. Finally, three items measuring the *perceived credibility* of the NFL were adopted
7 from Becker-Olsen et al. (2006). Walker and Kent (2013) demonstrated the applicability of these
8 items to sport organizations. At Time 2, we measured the outcome variable, residents’
9 perceptions of the social impact using Kim and Walker’s (2012) scale.

10 4.4. Analysis

11 We performed structural equation modeling (SEM) through the Mplus 8.4 statistical package to
12 test the hypotheses. We followed the two-step modeling approach recommended by Anderson
13 and Gerbing (1988). A confirmatory factor analysis (CFA) was first conducted to assess the
14 reliability and validity of all constructs measured by the multi-item scales. Then, a structural
15 model was estimated to test the hypothesized direct paths.

16 A nonparametric bootstrapping procedure was employed to assess the mediating effect of
17 event involvement. The calculation of a bias-corrected 95% confidence interval (CI) excluding a
18 zero indicates the presence of significant mediating effects (Hair et al., 2005).

19 The moderating effects of the perceived credibility of the NFL on the relationship between
20 event involvement and perceived social impact were examined with latent moderated structural
21 modeling (LMS; Klein & Moosbrugger, 2000). This method involved creating a latent
22 interaction variable, Event Involvement \times Perceived Credibility, which was then added to the
23 structural model as another predictor of perceived social impact. Because goodness-of-fit indices

(GOFs) are not available in LMS, model fit was assessed based on a comparison of two models using a log-likelihood ratio test (Klein & Moosbrugger, 2000). Model 0 was the structural model consisting of all direct paths and served as the reference model. Model 1 was the hypothesized model and included the interaction variable.

5. Results

5.1. Testing the measurement model

The GOFs of CFA resulted in: $\chi^2(906.11) / df (361) = 2.51$; Comparative Fit Index (CFI) = .95; Root Mean Square Error of Approximation (RMSEA) = .06; and Standardized Root Mean Square Residual (SRMR) = .05. The GOFs indicated an adequate data model fit (Hu & Bentler, 1999). Concerning the constructs' reliability and validity, Table 1 showed that the construct reliability (CR) and average variance extracted (AVE) of all constructs were above the cutoff values of .70 for CR and .50 for AVE, supporting the reliability and convergent validity of the multi-item scales (Fornell & Larcker, 1981). As shown in Table 2, the square root values of AVE for all the constructs surpassed the correlation coefficients between all pairs of constructs in the model. The results suggested adequate discriminant validity (Fornell & Larcker, 1981).

[Insert Table 1 here]

[Insert Table 2 here]

5.2. Testing the common method variance

In addition to the time-lagged survey design, this study applied an unmeasured latent method construct (ULMC) approach to detect the presence of CMV (Ehrnrooth et al., 2021). A ULMC factor was created and allowed to load on all measured variables. The measurement model including the ULMC factor represented a ULMC model, which was compared to the baseline measurement model. The analysis indicated that the factor loadings on all the constructs did not

PERCEIVED SOCIAL IMPACT OF SUPER BOWL

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1 change significantly when the ULMC factor was added. The GOFs in Table 3 revealed a
2 minimal difference between the two models, suggesting that the hypothesized measurement
3 model was unlikely to be affected by the CMV (Ehrnrooth et al., 2021). Hence, we retained the
4 measurement model for further analyses.

5 [Insert Table 3 here]

6 5.3. Testing the structural model

7 The structural model (Model 0) yielded an adequate model fit: $\chi^2(959.30) / df(362) = 2.65$; CFI
8 = .93; RMSEA = .06; SRMR = .07. Overall, the model explained a significant amount of
9 variance in perceived social impact of the Super Bowl ($R^2 = .52, p < .01$). With respect to the
10 hypotheses (see Table 4), celebratory atmosphere and perceived social responsibility were
11 positively associated with perceived social impact ($\beta_{ATM} = .29, \beta_{PSR} = .28, p < .01$), supporting
12 *H1* and *H3*. However, the path coefficient from social camaraderie to perceived social impact
13 was not significant ($\beta = .12, p = .37$). Hence, *H2* was rejected.

14 [Insert Table 4 here]

15 5.4. Testing the mediating effects

16 To examine the mediating effect of event involvement on the relationships among the three
17 social leveraging attributes and perceived social impact, direct paths between the constructs were
18 first analyzed. As shown in Table 4, celebratory atmosphere did not have a significant
19 relationship with event involvement ($\beta = .04, p = .64$). In contrast, social camaraderie (β
20 = .61, $p < .01$) and perceived social responsibility ($\beta = .20, p = .04$) had significant positive
21 associations with event involvement. Additionally, there was a positive association between
22 event involvement and perceived social impact ($\beta = .36, p < .01$), supporting our prediction.

Table 5 showed that the indirect effects of event involvement were significant from social camaraderie to perceived social impact, as its CI excluded a zero ($\beta = .24$, 95% CI = [.12, .38]). This result supported *H4b*. In contrast, the indirect effects were not significant for celebratory atmosphere ($\beta = .10$, 95% CI = [-.10, .05]) and perceived social responsibility ($\beta = .08$, 95% CI = [-.03, .17]) based on their CI values. These results rejected *H4a* and *H4c*.

[Insert Table 5 here]

5.5. Testing the moderating effects

The results revealed a significant log-likelihood ratio ($\Delta\chi^2(2) = 4.86$, $p < .01$), indicating that Model 1 had a better fit than Model 0. This suggests that the interaction variable captured additional information beyond the baseline model, supporting the presence of the moderating effects examined for Model 1. As shown in Table 4, the interaction variable (Event Involvement \times Perceived Credibility) had a significant positive effect ($\beta = .12$, $p < .01$), supporting *H5*. This positive moderation means that when the value of the perceived credibility equals 2.14 (i.e., one standard deviation below the mean value), with one unit increase at residents' event involvement, the perceived social impact increases by .49. Meanwhile, when the value of the perceived credibility is one standard deviation above the mean value, which equals 5.68, with one unit increase at residents' event involvement, the perceived social impact increases by .92. These results supported the positive moderating effect of the perceived credibility of the NFL, as predicted in *H5*.

6. Discussion

Building on the SLM, the current study assessed the relationships between multiple social leveraging attributes and perceived social impact in the context of the Super Bowl. The results showed that residents' perceptions of celebratory atmosphere and event social responsibility

PERCEIVED SOCIAL IMPACT OF SUPER BOWL

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1 prior to the event evoked the perceived social impact. Perceptions of social camaraderie
2 indirectly promoted perceived social impact through event involvement. Our results also
3 generate new insights into the role of the perceived credibility of event rights holders, as a
4 moderator, in strengthening the relationship between event involvement and perceived social
5 impact.

6 **6.1. Theoretical implications**

7 The current study contributed to the SLM literature by quantitatively confirming its applicability
8 to the setting of major sport events. In so doing, we extended previous research (e.g., Schlegel et
9 al., 2017) by simultaneously examining the effects of multiple antecedents (i.e., celebratory
10 atmosphere, social camaraderie, and perceived social responsibility) that capture the association
11 of different facets of liminality. The findings comprehensively explain the proposition that, for a
12 major sport event, features beyond sport competitions—such as celebratory, social, and
13 responsible elements—explain why residents feel good about hosting these events in their
14 communities (Chalip, 2006; Schlegel et al., 2017). Moreover, by applying the time-lagged
15 survey design, we measured the leveraging attributes before the Super Bowl game and the
16 perceived social impact after the event. This approach addressed the argument made by the SLM
17 (Chalip, 2006; Filo et al., 2018) that highlights the need to shift from *ex post* impact analyses of
18 event outcomes to an *ex ante* strategic evaluation of *how* host communities obtain expected
19 social impact outcomes from event hosting.

20 The findings implied that residents who perceived a celebratory atmosphere during the
21 Super Bowl were likely to feel positively toward the event, but not all became involved in the
22 sport competition as a result. One explanation could be that the Super Bowl offers a festival
23 atmosphere with a series of social and entertainment activities, such as music concerts with

1 famous headliners and social gatherings, in addition to the sports competition. Residents may
2 engage in these activities for enjoyment and leisure without perceiving their relevance to the
3 competition (Chalip, 2006, 2016). Although the mediating effect of event involvement was only
4 partially confirmed, evidence was provided for the existence of possible mediators between
5 social leveraging attributes and perceived social impact. Hence, further exploration is warranted
6 for the SLM by testing other robust mediators.

7 The significance of the perceived credibility of the NFL as a moderator offers evidence that
8 an event rights holder’s credibility can influence the perceived social impact of major sport
9 events. This finding is consistent with Goldsmith et al.’s (2000) proposition that the strength of
10 the relationship between consumer involvement and attitudinal responses to an entity may
11 depend on the credibility of the entity among consumers. Prior researchers have argued that a
12 sport organization’s reputation influences consumers’ perceptions of its efforts to make a
13 positive social impact (Babiak & Wolfe, 2006). However, as a central dimension of
14 organizational reputation, the effect of an organization’s credibility requires focused attention
15 within major sport events (Inoue & Kent, 2012; Walker & Kent, 2013). Our study contributes to
16 the literature by demonstrating the moderating role of perceived credibility in a major sport event
17 and by extending the application of the credibility construct to sport management research.

18 **6.2. Managerial implications**

19 Our results present several managerial implications. Existing strategies of social leverage in the
20 literature were mainly derived from cases of smaller events, such as an Australian surfing
21 festival and a U.S. professional golf tournament (Inoue & Havard, 2014; O’Brien, 2007). Our
22 findings highlighted the importance of social leverage for major sport event organizers.

PERCEIVED SOCIAL IMPACT OF SUPER BOWL

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1 No matter how well a major sport event is planned and prepared, it can cause social costs
2 for host communities, such as increases in crime and traffic restrictions, along with considerable
3 financial burdens (Balduck et al., 2011). According to Chalip (2006), optimizing residents'
4 feelings of inclusion is effective for perceived social impact which can soften the public criticism
5 and increase residents' support of sport events. Residents' feelings of inclusion are particularly
6 critical for the Super Bowl and other highly commercialized events because most people cannot
7 afford to buy tickets. In the case of Super Bowl LII, various entertainment events were delivered
8 in and outside the stadium to increase residents' engagement. Notably, the organizing committee
9 gave away tickets to residents who shared the most uplifting stories about the Super Bowl on
10 Twitter. Such activities are useful to increase solidarity in major sport events. It is thus essential
11 to solicit information on targeted resident segments and design activities that address their
12 interests during the planning process to increase their engagement and feelings of inclusion.

13 Furthermore, although the NFL is a for-profit entity, some residents in this study rated it as
14 credible. This may be because of the NFL's consistent engagement in socially responsible
15 activities and the fact that "the Super Bowl is an event which is surrounded by considerable CSR
16 activity" (Babiak & Wolfe, 2006, p. 211). In the current case, the NFL collaborated with the
17 organizing committee to initiate *the 52 Weeks of Giving* campaign, which launched a series of
18 responsible activities for children's wellness and disadvantaged communities across Minnesota.
19 Leveraging the popularity of Super Bowl LII, this campaign strategically associated the NFL
20 with social good throughout the year and drew considerable media coverage, which might have
21 contributed to residents' perceptions of the NFL as a credible entity for generating positive social
22 impact. Being socially responsible is critical for highly commercialized event rights' holders
23 which often face public scrutiny. From a managerial perspective, sport entities which aim to

1 increase their credibility among the public should focus on relevant social issues in communities
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6 2 and use major sport events, like the Super Bowl, as a “hook” to promote their social performance
7
8 3 (O’Reilly et al., 2008). In addition, they should make coherent and long-term investments in
9
10 4 socially responsible initiatives that target relevant issues.

11
12 5 **7. Limitations and suggestions for future research**

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14
15 6 This study has some limitations that should be highlighted. Firstly, the time-lagged survey
16
17 7 design extended prior studies that examined relationships between the leveraging attributes and
18
19 8 perceived social impact using only post-event cross-sectional surveys (Inoue & Havard, 2014;
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21 9 Inoue et al., 2018). However, the time lags administered for data collection may have limited the
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23
24 10 study’s ability to consider confounding effects caused by other factors. For example, there is
25
26 11 evidence that spectators’ evaluations of game quality and half-time show during the Super Bowl
27
28 12 can influence their perceptions of social impact (Apostolopoulou et al., 2006; Biscaia et al.,
29
30
31 13 2021; Tobar, 2006). To achieve a more comprehensive understanding of the leveraging
32
33 14 attributes, future research should add these factors to the framework and examine their impact on
34
35 15 the perceived social impact of the Super Bowl.

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37
38 16 Secondly, this study may not fully represent the perspectives from residents who were not
39
40 17 involved in the Super Bowl. As the Super Bowl is the most popular major sport event for
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42 18 American people, it is perhaps unsurprising that many respondents reported their involvement
43
44
45 19 with the event. Furthermore, before filling out the questionnaire, respondents were screened by
46
47 20 being asked: “Are you aware that the Super Bowl LII will be held in Minneapolis?” This
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49 21 screening also increased the proportion of respondents involved in the event. Hence, to increase
50
51 22 the representativeness of uninvolved residents, future research could take a more neutral
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54 23 approach to include respondents. For example, investigations can be conducted in host cities

PERCEIVED SOCIAL IMPACT OF SUPER BOWL

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1 which have never held a major sport event, such as the UEFA EURO and Rugby World Cup,
2 before.

3 Lastly, this study was focused on the Super Bowl. While case studies can provide support
4 for theory building, there are limitations to the ways the findings might be applied to other sport
5 events. To increase the generalizability of the current framework, more research is needed to test
6 it in other types of events, such as a multi-day event. Additionally, the data for this study were
7 collected in 2018. However, our focus on a past event should not undermine the capacity of this
8 research to test and confirm the theoretical framework. Nevertheless, studies can be conducted
9 with more recent events to further justify the current results.

10 **8. Conclusion**

11 The Super Bowl is a major sport event that integrates entertainment and social activities. We
12 found that these activities contributed to residents' perceptions of the event's celebratory
13 atmosphere and social responsibilities, which, in turn, promoted residents' perceptions of social
14 impact, regardless of their involvement with the event. Our finding supported the SLM by
15 indicating that sport events can be strategically hosted to achieve social benefits for residents. In
16 addition, residents who rated the NFL as credible and were highly involved with the Super Bowl
17 reported greater perceptions of the social impact. The result suggests the importance for highly
18 commercialized sport entities to increase their credibility by sustaining their social responsibility
19 efforts and reputation.

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PERCEIVED SOCIAL IMPACT OF SUPER BOWL

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1 Table 1

2

3 *Factor loadings, construct reliability, and average variance extracted for all scales*

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Scales/Items	β	CR	AVE
Celebratory atmosphere (T1)		.95	.74
There are amazing vibes in Minneapolis.	.81		
There is tremendous enthusiasm in Minneapolis.	.75		
I experience really strong emotions in Minneapolis.	.87		
The atmosphere in Minneapolis gives me goose bumps.	.88		
There’s a real thrill in the air in Minneapolis.	.85		
I get caught in the general euphoria in Minneapolis.	.93		
I get a real high in Minneapolis.	.89		
Social camaraderie (T1)		.94	.84
Following Super Bowl has allowed me to develop warm relationship with others.	.89		
Following Super Bowl has provided me with a sense of belonging.	.93		
I feel closeness with others who follow Super Bowl.	.93		
Perceived event social responsibility (T1)		.79	.65
Super Bowl LII is involved with the local communities.	.84		
Super Bowl LII puts charity into its event activities.	.78		
Local companies benefit from Super Bowl LII.	.71		
Event involvement (T1)		.94	.85
I am very interested in Super Bowl LII.	.95		
I plan to follow broadcasts of Super Bowl LII.	.92		
Super Bowl LII is a great event for me.	.89		
Perceived credibility (T1)		.95	.87
The NFL is an organization I can trust.	.95		
The NFL has a strong value system.	.94		
The NFL is an organization I believe in.	.91		

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Note. N = 220. CR = Construct reliability coefficients; AVE = Average variance extracted. T1 = Time 1; celebratory atmosphere was measured with Schlegel et al.’s (2017); social camaraderie was measured with Filo et al.’s (2010); perceived event social responsibility was measured with Inoue and Havard’s (2014); event involvement was measured with Woisetschlager and Michaelis’s (2012); perceived credibility was measured with Becker-Olsen et al.’s (2006).

PERCEIVED SOCIAL IMPACT OF SUPER BOWL

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Table 1

Factor loadings, construct reliability, and average variance extracted for all scales (cont.)

Scales/Items	β	CR	AVE
Community pride – Image (T2)		.85	.65
Minneapolis gained positive recognition by hosting Super Bowl LII.	.76		
Super Bowl LII provided opportunities to showcase Minneapolis.	.84		
Outsiders know more about Minneapolis because of Super Bowl LII.	.81		
Community attachment (T2)		.89	.72
Super Bowl LII increased my sense of belonging in various community groups.	.80		
Super Bowl LII increased my social interactions within my community.	.88		
Super Bowl LII strengthened my friendships in my community.	.87		
Event excitement (T2)		.87	.69
Super Bowl LII increased my interest in American football.	.85		
Super Bowl LII increased my fan involvement with American football.	.87		
I was excited by the visitors of Super Bowl LII.	.76		
Community infrastructure (T2)		.81	.59
Super Bowl LII improved the quality of community public services.	.78		
Super Bowl LII improved the quality of local police and fire services.	.71		
Super Bowl LII promoted opportunities to revive the local community.	.81		
Community excitement (T2)		.83	.62
Super Bowl LII provided entertainment to the local community.	.77		
Super Bowl LII provided new activities to the local community.	.83		
Super Bowl LII brought excitement to the local community.	.75		
Perceived social impact		.94	.77
Community pride – Image	.85		
Community attachment	.86		
Event excitement	.87		
Community infrastructure	.97		
Community excitement	.83		

Note. $N = 220$. CR = Construct reliability coefficients; AVE = Average variance extracted. T2 = Time 2. perceived social impact were measured with Kim and Walker's (2012).

PERCEIVED SOCIAL IMPACT OF SUPER BOWL

Table 2
Descriptive statistics and correlations of the constructs

Constructs	1	2	3	4	5	6
1. ATM	.86					
2. SCM	.58**	.92				
3. PSR	.64**	.53**	.81			
4. EVI	.21	.78**	.43*	.93		
5. PSI	.54**	.35	.53**	.59**	.97	
6. CRE	.52**	.63**	.66**	.59**	.39*	.93
M	4.82	4.02	4.99	4.55	5.81	3.91
SD	1.61	1.74	1.49	1.85	1.21	1.77

Note. N = 220; Values in parentheses represent the square root of the average variance extracted; ATM = Celebratory atmosphere; SCM = Social camaraderie; PSR = Perceived event social responsibility; EVI = Event involvement; CRE = Perceived credibility; PSI = Perceived social impact; M = Mean; SD = Standard deviation. **p < .01, *p < .05.

PERCEIVED SOCIAL IMPACT OF SUPER BOWL

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Table 3

Goodness-of-fit indices comparison between the baseline measurement and ULMC models

Models	χ^2/df	CFI	RMSEA	SRMR
Baseline measurement model	2.51	.95	.06	.05
ULMC	2.21	.96	.06	.05

Note. Baseline represents the measurement model; ULMC represents the measurement model with ULMC factor.

PERCEIVED SOCIAL IMPACT OF SUPER BOWL

Table 4
Standardized path coefficients of the hypothesized paths

Paths		Model 0	Model 1
Perceived Social Impact			
H1	ATM → PSI	.29**	.29**
H2	SCM → PSI	.12	.09
H3	PSR → PSI	.28**	.28**
	EVI → PSI	.36**	.24**
	CRE → PSI	.16*	.09
H5	EVI × CRE	—	.12*
Event Involvement			
	ATM → EVI	.04	.04
	SCM → EVI	.61**	.61**
	PSR → EVI	.20*	.20*

Note. Model 0 is a linear model without the moderator (Perceived Credibility); Model 1 is the hypothesized model including the moderator. ATM = Celebratory atmosphere; SCM = Social camaraderie; PSR = Perceived event social responsibility; EVI = Event involvement; CRE = Perceived credibility; PSI = Perceived social impact. * $p < .05$, ** $p < .01$.

PERCEIVED SOCIAL IMPACT OF SUPER BOWL

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Table 5

Bootstrapping Tests of Indirect Effects

	Path	β	<i>SE</i>	Bootstrapping (95% CI)	
				Lower 2.5%	Upper 2.5%
H4a	ATM → EVI → PSI	.01	.03	-.10	.05
H4b	SCM → EVI → PSI	.24**	.11	.12	.33
H4c	PSR → EVI → PSI	.08	.06	-.03	.17

Note. $N = 220$. β = Standardized coefficient; *SE* = Standard error; CI = Confidence interval. ATM = Celebratory atmosphere; SCM = Social camaraderie; PSR = Perceived social responsibility; EVI = Event involvement; PSI = Perceived social impact. ** $p < .01$.

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PERCEIVED SOCIAL IMPACT OF SUPER BOWL

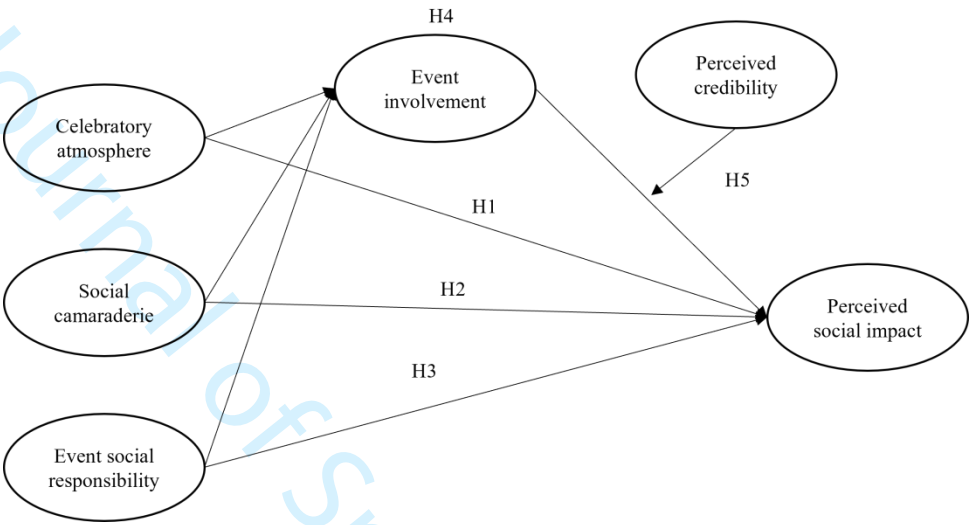


Figure 1. The hypothesized antecedents, mediator, and moderator of perceived social impact. Perceived social impact was constructed as a second-order factor based on Kim and Walker's (2012) conceptualization.

Responses to Reviewers' Comments

Manuscript ID: IJSMS-12-2022-0208.R1

Title: Drivers of perceived social impact of the Super Bowl: Mediating and moderating effects of involvement and credibility

We would like to thank the reviewers for supporting the improvements we made in the updated manuscript, and the chief editor for letting us refine our work again. In this revision, the reviewers' suggestions have been incorporated, leading us to further strengthen the quality of our manuscript. The highlighted parts in the manuscript indicate the specific changes we have made to address the reviewers' comments. Please also note that we have copy-edited the paper thoroughly to improve the flow and provide a more concise discussion. These editorial revisions are not highlighted to avoid confusion. In the following sections, we explain our specific responses to each comment provided by the reviewers.

Responses to the Comments from Reviewer 1:

Comments	Responses
1. I would point at 8 (conclusion) as a place to start as it is very weak. If you read it, you'll only see things that we've know about mega-events for a long time. You have SO MUCH more in your results. Bring it out. This might help.	Following your suggestion, we revised our conclusion section (page 21, line 11–19) by focusing on the central findings of our research: “The Super Bowl is a major sport event that integrates entertainment and social activities. We found that these activities contributed to residents' perceptions of the event's celebratory atmosphere and social responsibilities, which, in turn, promoted residents' perceptions of social impact, regardless of their involvement with the event. Our finding supported the SLM by indicating that sport events can be strategically hosted to achieve social benefits for residents. In addition, residents who rated the NFL as credible and were highly involved with the Super Bowl reported greater perceptions of the social impact. The result suggests the importance for highly commercialized sport entities to increase their credibility by sustaining their social responsibility efforts and reputation.”
2. Perhaps tie the findings back to literature relevant to the Super Bowl specifically (as it is a pretty special instance of the mega-event). Here are few examples not in your lit review that you could add/build from.	Thank you for the suggestion. We read the articles you suggested and incorporated the relevant points from these articles into our revision. Specifically, we added the following three references into our discussions:

<p>a) Journal of Sport Management (2008): Mega-special-event promotions and intent to purchase: A longitudinal analysis of the Super Bowl</p> <p>b) Marketing Science (2018): Super Bowl Ads</p> <p>c) Sport Marketing Quarterly (2006) - a full special issue on the Super Bowl.</p>	<p>Apostolopoulou, A., Clark, J., & Gladden, J. (2006). From H-Town to M-Town: The importance of Super-Bowl entertainment. <i>Sport Marketing Quarterly</i>, 15(4), 167–180.</p> <p>O'Reilly, N., Lyberger, M., McCarthy, L., & Seguin, B. (2008). Mega-special-event promotions and intent to purchase: A longitudinal analysis of the Super Bowl. <i>Journal of Sport Management</i>, 22, 392–409.</p> <p>Tobar, D. A. (2006). Affect and purchase intentions of Super Bowl XL television spectators: Examining the influence of sport fandom, age, and gender. <i>Sport Marketing Quarterly</i>, 15, 243–252.</p> <p>Please see our responses below for discussion on how and why we have integrated these references.</p>
<p>3. Practitioner/Management recos - these are notably weak and high level. Dig into your results and how they could help the operator, agency, sponsor, team, league, etc. Right now, it is very high level.</p>	<p>We updated our managerial implication with more specific discussion based on our findings and previous research on the Super Bowl, as inserted below:</p> <p>Page 19, line 13–16: “Furthermore, although the NFL is a for-profit entity, some residents in this study rated it as credible. This may be because of the NFL’s consistent engagement in socially responsible activities and the fact that “the Super Bowl is an event which is surrounded by considerable CSR activity” (Babiak & Wolfe, 2006, p. 211).”</p> <p>Page 19, line 22–page 20, line 4: “Being socially responsible is critical for highly commercialized event rights’ holders which often face public scrutiny. From a managerial perspective, sport entities which aim to increase their credibility among the public should focus on relevant social issues in communities and use major sport events, like the Super Bowl, as a “hook” to promote their social performance (O’Reilly et al., 2008). In addition, they should make coherent and long-term investments in socially responsible initiatives that target relevant issues.”</p> <p>In the above discussion, we included O’Reilly et al.’s (2008) work because it discussed the promotional power of the Super Bowl in influencing the public.</p>

4. Future research - also needs work. Specific. Build on your work and the literature.

Following your suggestion, we revised our section of “limitation and suggestion for future research” to provide more condensed discussion.

Page 20, line 10–15: “For example, there is evidence that spectators’ evaluations of game quality and half-time show during the Super Bowl can influence their perceptions of social impact (Apostolopoulou et al., 2006; Biscaia et al., 2021; Tobar, 2006). To achieve a more comprehensive understanding of the leveraging attributes, future research should add these factors to the framework and examine their impact on the perceived social impact of the Super Bowl.”

Apostolopoulou et al.’s (2006) and Tobar’s (2006) articles were included here, as they both discussed the impact of the quality of the core game and half time show on spectators’ perceptions of some aspects of the social impact, such as event excitement.

Responses to the Comments from Reviewer 2:

Comments	Responses
Even if I do not agree with your feedback concerning the behavioural outcome variables, I do not see this as reason to reject this paper for this journal. However, I think you missed the chance to bring your research on a higher level. Editors of general management and marketing journal easily reject for this reason, see among others https://doi.org/10.1007/s11747-020-00764-w .	Thank you for highlighting the importance of the behavioral outcomes and sharing the relevant article. This is very helpful feedback, and we will incorporate your suggestion into the development of our future research.

Responses to the Comments from Reviewer 3:

Comments	Responses
<p>My only further suggestion would be to include a couple of sentences to report that the authors understand the data collection across 10 days could lead to variance in how the event was perceived by those who complete the survey on day 1 vs. day 10 as those completing the survey later would have a great opportunity to participate in the events surrounding the Super Bowl. Therefore, an ANOVA was conducted to determine if there were any statistically significant differences between the early and late respondents in Time 1. Upon further thought, it may have been best to run a MANOVA with all of the variables measured in Time 1 acting as the DV, but I will leave that in the hands of the editorial team to determine.</p>	<p>Thank you for your suggestion. We updated our manuscript by reporting the MANOVA results based on the comparison of residents who completed the survey during the first three days of data collection and those completing it during the last three days.</p> <p>“A MANOVA was conducted to test whether the responses to survey items varied depending on when participants answered the survey. Results of the MANOVA that compared between the participants who completed the survey in the first and last three days of data collection (Wilks’ Lambda = .97; $F = .78$; $p = .65$) indicated that their responses did not significantly vary regardless of how long they were exposed to social activities and events surrounding the Super Bowl.” Please see page 11, line 17–21 for this change.</p>