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Why Are We Still Fanatical about Mega-Sporting Events? Residents' Perceived Social Impact and Overall Perception on the 2018 PyeongChang Winter Olympics

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Abstract

Background: Most existing studies dealing with mega-sporting events (MSE's) tend to depend on social exchange theory (i.e., cost-benefits effects), which is the most used to measure MSEs' social impacts. However, some point out that the impact of MSEs may vary based on its social context over merely cost-benefit effect. It requires the need for MSEs-related research to continue conducting various perspectives to measure social impact more accurately.

Purpose: The present study examines how residents have perceived mega sporting events in their community and how differently the residents' perceived social impact could be interpreted from existing studies.

Methods: Post-positivism and social constructivism were applied as methodological paradigms. The former was for the systematic empirical investigation with statistical methods. The latter was for an interpretive approach to come up with a new point of view. 454 data from residents of the 2018 PyeongChang Winter Olympics were analyzed through descriptive statistics, exploratory factor analyses, correlation analysis, and simple and multiple regression analyses.

Results: Represent that the existing studies' claims that the residents' perceived social impact of mega-sporting events is mostly predicted by social exchange theory (i.e., cost-benefit effect) might have failed. Instead, this study implies that personal experience(s) in a particular social context, which is conceptualized as 'social nostalgia,' could play a more crucial role in influencing the residents' per-

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ceived social impact.

Conclusions: First, it unveiled that social exchange theory has some critical limitations to interpret individuals' perceptions of social impact of MSEs. Second, things that significantly influence the residents' perceived social impact could be taken place in personal experience through historical events in the past, rather than mere material rewards. Lastly, applying a multi-paradigm (i.e., post-positivism and social constructivism) to this study helped come up with various possibilities of interpretating the individuals' perceived social impact of MSEs.

Keywords: Mega-sporting events, Olympics, social impact, social nostalgia, sociocultural contexts

1.Introduction

There would be no doubt that mega-sporting events-related issues (e.g., the Olympics, FIFA World Cup) are by far one of the hottest topics in sport-related fields. The underlying reason that mega-sporting events (MSEs) attract remarkable attention from academics and practitioners is probably because of its nature, "one-times sporting events of an international scale organized by a special 'authority' and yielding extremely high levels of media coverage and impacts (economic, tourism, infrastructure, etc.) for the host community because of the event's significance and/or size" (Byers et al., 2012, p. 102). On top of that, many ongoing controversial issues on such large-scale sporting events make it hotter with two different views, such as positive and negative.

For instance, on the one hand, many scholars point out that nowadays MSEs have brought about various negative impacts, such as overestimated economic effect (see Giulianotti et al., 2015; Matheson & Baade, 2004; Porter & Fletcher, 2008; Waitt, 2003), social conflicts by inequitable distribution of resources and public risk for private benefits (see Giulianotti et al., 2015; Müller, 2015), and environment destroy (see Collins et al., 2009; Giulianotti et al., 2015; Kim & Chung, 2018; Mallen & Chard, 2011). Given these matters, Müller (2015) states that hosting MSEs is a terrible decision for host cities (or nations) in that such events are not so much boons to citizens (or residents) as burdens for them to bear somehow.

Despite these concerns, on the other hand, positive benefits of MSEs (e.g., promoting national identities, economic impact, cultural commercialization, and lasting legacies) have been still addressed by many (see Byers et al., 2012; Fourie & Santana-Gallego, 2011; Kim & Petrick, 2005; Kim et al., 2006; Preuss & Solberg, 2006; Roche, 2006; Vetitnev & Bobina, 2018). In other words, 'the goose laying the golden egg' for host cities/nations of MSEs is still told as a die-hard myth.

Given all the accounts, it is not easy to draw clear lines of demarcation between the advantages and disadvantages of actual/potential outcomes of MSEs. However, once the conflicting 'adjectives (i.e., positive and negative)' are omitted from the polarized views on MSEs, they leave only the 'key factors (i.e., economic, social, and environmental issues),' which could be discussed by the triple bottom line[1] (TBL) framework.

On top of that, what is remarkable is that most of the existing studies on social impact of MSEs have so overwhelmingly employed social exchange theory as a primary lens (see Ap, 1992; Deccio & Baloglu, 2002; Fourie & Santana-Gallego, 2011; Inoue & Havard, 2014; Kim et al., 2006; Kim & Petrick, 2005; Kim & Walker, 2012; Preuss & Solberg, 2006; Vetitnev & Bobina, 2018; Waitt, 2003; Zhou & Ap, 2009). This theory is initially developed by Homans (1961) addressing that individuals' behaviors in the interaction of two (or more) are determined based on cost-benefit analysis. Said in another way, if the costs of hosting sporting events are expected

1. This approach, which is put forth by business writer John Elkington in 1994, is for corporate to evaluate how they commit to social and environmental impact as well as an economic impact (Elkington, 2018).

to be higher than the potential rewards/benefits, individuals would not be motivated to support hosting events.

Based on what has been reviewed so far, it can be summed up as follows: First, almost all the previous studies have dealt with at least one of the TBL factors (i.e., economic, social, and environmental). Second, individuals' overall perceptions of MSEs are determined by whether its potential rewards/benefits would surely be anticipated to outweigh its total cost (e.g., effort and financial-related). Consequently, the two theoretical frames have played crucial roles of the touchstone in understanding the residents' perceived social impact of MSEs.

However, some point out that the impact of MSEs may vary based on its social context over merely cost-benefit effect (Dolles & Söderman, 2008; Gratton et al., 2006; Maenning & Porsche, 2008; Tosun, 2002). Emphasizing that point, several researchers have paid attention to intangible values of MSEs such as the feel-good effect where positive personal experience leads to social cohesion and civic pride (Maenning & Porsche, 2008) and contingent valuation where individuals receive benefit from intangible values as well, which would be tough to value its visible benefits (Walker & Mondello, 2007; Wicker et al., 2012).

However, due to its ambiguity to measure, intangibly perceived social impact tends to be underestimated (Whitson & Horne, 2006; Wicker et al., 2012). It requires the need for MSEs-related research to continue conducting various perspectives to measure social impact more accurately (Dolles & Söderman, 2008). Among them, understanding social context could be considered another critical factor to measure individuals' perceived social impact of MSEs (Dolles & Söderman, 2008; Maenning &Porsche, 2008; Zhou & Ap, 2009).

Given that, this study questions whether the three factors (i.e., economic, social, and environmental) could be explained completely by social exchange theory (i.e., cost-benefits effects), which is the most commonly used to measure MSEs' social impacts. Therefore, this study has two purposes. First, it investigates how residents for the 2018 PyeongChang Winter Olympics have perceived the social impact of the events. It also explores how differently the perceived social impact of the residents could be interpreted from existing studies. Eventually, the outcomes would be expected to expand interpretive perceptions of the social impact of MSEs.

2."Make It or Die Trying" to Host the Olympics

"The International Olympic Committee has the honor of announcing that the 23rd Olympics Winter Games in 2018 are awarded to the city of PyeongChang," the IOC President Jacques Rogge announced on July 6, 2011 (IOC Media, 2011). PyeongChang, a small rural county in the province of Gangwon-do, Korea, was finally selected as the host city of the 2018 Winter Olympics, officially known as the XXIII Olympic Winter Games. It was such a victory from a tenacious desire for a win, even after two failed attempts to host the 2010 and 2014 Winter Olympics, which were awarded to Vancouver, Canada, and Sochi, Russia.

PyeongChang was indeed desperate for a win. According to the PyeongChang Organizing Committee for the Olympic and Paralympic Winter Games (POCPG, 2014, as cited in Kim & Chung, 2018), the rates of supports by PyeongChang county (and nation-wide) were as significantly high as 96.8% (91.8%) in the 2003 bid, 97.3% (92.3%) in the 2007 bid, and 93.4% (91.4%) in the 2011 bid. The overwhelming support of the public for the events contributed to leading the city to the host city of the 2018 Winter Games, which in turn resulted in a resounding success in both on and off the field of play (Olympic News, 2019).

With hosting the PyeongChang games, Korea became the fifth country to host the world's biggest MSEs (i.e., The Summer and Winter Olympics, the FIFA World Cup, and the Athletics World Championships) after France, Germany, Italy, and Japan in the world (Yoo, 2018). Besides, Korea has hosted the Asian Games[2] four times so far: the 1986 Seoul games, the 1999 Gangwon (Winter) games, the 2002 Busan games, the 2014 Incheon games. By now, one might be questioning, 'why are Koreans that fanatical about MSEs?' and, unfortunately, few data have yet provided empirical or theoretical evidence concerning that question.

However, looking back over modern-day Korea might give us a hint that a few significant historic sporting events brought about remarkable social changes of Korea. Notably, the 1988 Seoul Olympics and the 2002 FIFA Cup Korea/Japan played tremendous roles in transforming its national image and prestige in the international society. For instance, the Seoul Olympics, as the second games held in Asia following Japan in 1964, provided Korea not only with an opportunity to bring international attention, but with such a foothold to lead to rapid economic development and social modernization/mobilization (Manheim, 1990). Also, it functioned in paving the way for political and cultural exchanges with the Eastern Bloc countries and Soviet Union (Cho & Bairner, 2011), which was certainly considered very sensational in the Cold War period.

The resounding success of the Olympics has rendered Korea, as one, more eager to host other MESs again. Eventually, such a desire and effort resulted in hosting the FIFA World in 2002, co-hosted with Japan, and first held in Asia. It was another chance for Korea to take advantage of the MSEs' effect by "boost[ing] confidence in Korea' economic rise" and showing off highly advanced technology throughout the events (Davis, 2002, para. 2). In addition, as the events were held right after Korea had overcome the Asian financial crisis[3], which was the most challenging economic crisis in modern Asian history, it played a role in rebranding national image and status (Joo et al., 2017). Consequently, even if there might be divided perspectives among experts to interpret the

2. After the Olympic Games, the Asian Games that are governed by the Olympic Council of Asia are the second largest multi-sporting event in the world. The Games are held every four years from all over Asia.

3. The Asian financial crisis began in 1997 and took place in multi-Southeast Asian countries. During the crisis, Korea experienced severe economic depression. For example, the economic downturn dragged the Korea GDP growth rate, which had run in a positive 5 to 10 % before the crisis, down a negative 5.8% in 1998 (Hahm & Mishkin, 2000).

social impact of the MSEs in Korea, it could not be refuted that the events were undoubtedly overwhelming over the whole country.

After all, to answer the primary question of this study, "why are Koreans still fanatical about MSEs?" it might need to understand Korean society's underlying context first. It led us to come up with the concept of '*social nostalgia.*' This concept originally emerged to explain about homing instinct of human beings (Fodor, 1949, as cited in Nawas & Platt, 1965). Nawas & Platt (1965) identify nostalgia as a state where one misses a particular time in the past, which makes them happy in the memories whereby he/she hopes that things will be replayed again in his/her life.

In other words, it means "a symbolic return to, or reinstatement of, those features of his past which are perceived as having the greatest gratification value" (Zwingmann, 1959, as cited in Nawas & Platt, 1965, p. 54). Lately, such an analogous concept named the feel-good effect supports that positive personal experience (e.g., social cohesion and civic pride) of a sporting event influences individuals to be willing to pay for other sporting events (Maenning & Porsche, 2008)

Given those, the concept of social nostalgia is deemed appropriate as a legitimate theoretical lens to shed light on the existing gap by i) proposing new aspects of research questions from a different perspective, ii) interpreting a particular society where its citizens experienced national glory through MSEs, and iii) expanding interpretive perceptions of MSE-related social impact.

However, unfortunately, few scales directly measure people's social nostalgia for the good old days, particularly regarding a retrospect of the previous large-scale sporting events, which could be such a critical factor in understanding people's perceived social impact. Therefore, this study makes three premises as follows. First, 'positive experiences of hosting MSEs in the past' is put forward as a latent variable to interpret the findings (see research questions and model in the following section). Second, the variables used for this study were prefigured (Crabtree and Miller, 1992) based on the most common three factors of the MSEs-related studies (i.e., economic, social, and environmental), which were also in the middle of controversial issues on the PyeongChang games (Kim & Chung, 2018; Yang et al., 2019).

Last but not least, to fulfill the purposes of this study, it employs two different methodological paradigms: '*post-positivism*' that takes a scientific approach such as "empirical, cause-and-effect oriented, and deterministic based on a priori theories" (Creswell, 2013, p. 24), and '*social constructivism*' addressing that "[subjective meanings] are not simply imprinted on individuals but are formed through interaction with others (hence social construction) and through historical [events] and cultural norms that operate in individuals' lives" (Creswell, 2013, p. 25). In other words, while the data analysis and findings of this study depend on statistical methods, it also explores such latent meanings in the phenomena based on social constructivism.

3.Research Questions and Model

Based on what has been reviewed so far, the present study casts legitimate research questions and provides a research model below (see Figure 1). The detailed information about the

variables used for this study will be discussed in the method section. This section briefly provides information about the constituent elements of the variables so that it can help readers understand the rationale of the research questions with ease.

First, economic impact and environmental issues were used as independent variables in research questions 1 and 2, respectively. The former, as a multidimensional variable, consists of two different dimensions divided into positive and negative. The latter is a unidimensional variable. Second, social-related factors referred to as socio-psychic impact in this study were used as mediating variables in the research questions. It consists of five sub-dimensions: community pride, community attachment, community infrastructure, community excitement, and event excitement.

Lastly, for dependent variables to deal with the overall perception of the events, we used three different variables. The first two were grouped in one multidimensional variable, including intention of hosting the events again and perception of external rumors about the events. The last, as a unidimensional variable, was dealt with residents' intention of supporting other cities if they would have a plan on bidding for MSEs.

Therefore, considering the latent variable, 'positive experiences of hosting MSEs in the past', which is conceptualized as 'social nostalgia' in this study, the descriptive research questions are as follows;

RQ1. How do residents who experienced hosting the Olympics in their local city perceive the events' economic impact? Thereby, how does that influence them to perceive:

a. Socio-psychic impact through the events?

b. The overall perception of the events?

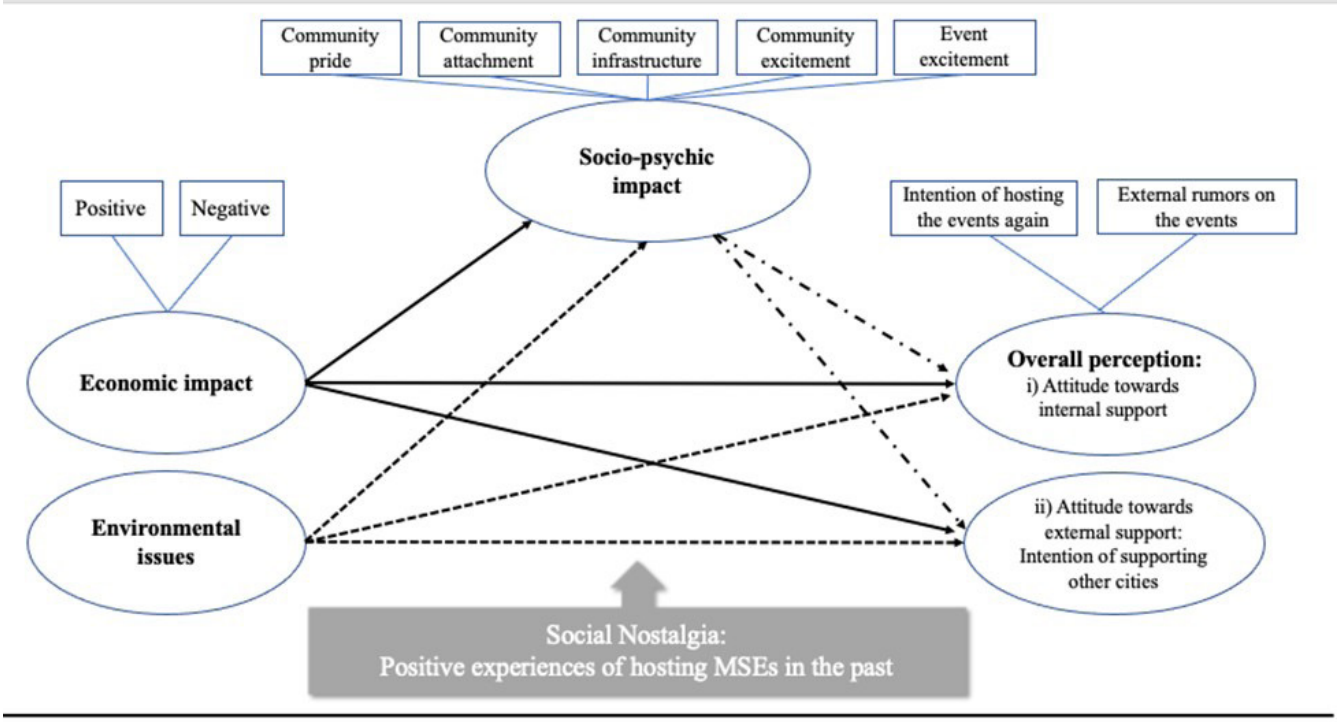
RQ2. How do residents who experienced hosting the Olympics in their local city perceive the events' environmental issues? Thereby, how does that influence them to perceive:

a. Socio-psychic impact through the events?

b. The overall perception of the events?

RQ3. How does the degree of socio-psychic impact that residents perceive through the events influence the overall perception of the events?

Figure 1. *Racial demographics of the institution*



4.Methods

4.1 Sampling and Data Collection Procedure

The sample of this study was collected from residents in PyeongChang county, which held most of the outdoor events as the home of the 2018 Winter Olympics, and from residents of the neighboring county, Jeongseon in which some of the alpine skiing events were held. As there were some limitations to consider providing all the population of residents in the two counties with an equal chance of getting selected, we used convenience sampling as a non-probability sampling technique.

When it comes to the respondents' demographic characteristics, various factors, including socio-economic status, education level, occupation, etc., could be considered essential qualities to identify the individuals. However, it does not mean that all the information is always necessary for all studies as some of the factors would be redundant to know. Instead, it depends on what the research is supposed to know based on the research questions (or hypothesis).

Thus, we simplified the demographic profiles by collecting information only necessary for this study, such as gender, age group, and length of residence since this study focused on the residents' general perceived social impact on the events rather than testing any significant difference among the different groups based on socio-economic status, education level, occupation, etc. The respondents were all over the age of 20, whom this project was designed to target. The length of residence was classified based on the three times bidding processes (see Table 1).

To find and access potential respondents

Table 1 *Respondents' demographic profiles*

Section	Frequency	Percentage(%)
Gender		
Male	236	52.0
Female	218	48.0
Age group		
20-40 years old	261	57.5
41-60 years old	171	37.7
61yeard old & older	22	4.8
Length of residence		
1-5 years	75	16.5
6-10 years	38	8.4
11-15 years	51	11.2
16 years & longer	290	63.9

Note. Length of residence; a group of 1-5 years who experienced only the events, a group of 6-10 years who experienced the events including the 3rd bidding process, a group of 11-15 years who experienced the events including the 2nd and 3rd biding processes, and the last group of 16 years & longer who experienced the events including all the three times bidding processes.

more efficiently, the researchers chose the PyeongChang and Jeongseon city halls (also referred to as county offices) as the best sites for data collection in that most of the visitors were current residents in the counties. For an efficient and effective distribution of the questionnaires; i) we tried to contact civil servants working at the city halls in advance, and they willingly cooperated with us on this project; ii) the principal researcher provided two voluntary managers, one from the Olympics Legacy Division in PyeongChang City Hall and the other one from the Community Welfare Division in Jeongseon City Hall, with the detailed explanation of the purpose of this study and the survey procedure; iii) the managers distributed the questionnaires to the residents who visited the city halls and collected them; iv) the voluntary respondents in the survey were explained generally about this project and asked to complete the questionnaires on the spot.

There were some good reasons for distributing questionnaires by civil servants on behalf of the

researchers. While conducting this project, the researchers could not attend the sites due to the geographical distance. Thus, they contacted two potential volunteers to help with the survey. The voluntary managers informed above were considered the best alternative ones of distributing questionnaires in that they were in charge of the Olympics Legacy Division and the Community Welfare Division; thereby having a much better rapport with the residents than the researcher(s) would have. During the survey period, the researchers kept in close touch with them to check how the process had gone. Indeed, they performed such an excellent job until the survey was completed. Consequently, it helped the researchers resolve any potential bias that might come up regarding the data collection procedure.

Through the data collection procedure, initially, a total of 500 were collected. To transform collected data into legitimate results, missing or erroneous data of 46 were omitted from the final pile through data cleaning, whereby 454 were used for data analysis.

4.2 Instrumentation and Measurement

The present study employed two types of measuring instruments: i) scales that were developed to measure variables directly dealing with economic, environmental, and socio-psychic impact concerning residents' perceptions on mega-events, such as sporting events and Expos, and ii) survey items that were designed to measure residents' experience of MSEs. The scales/items used in this study were modified in accordance with the purpose of this study. Thus, it was necessary to ensure that whether the items applied to this study would be appropriate to be used. For the verification, i) content validity for the items was established by the expert panel through several times meetings, ii) convergent validity as a subtype of construct validity was established by exploratory factor analysis with varimax rotation, and factors were extracted with eigenvalues greater than 1.0 (see Tables 2-1, 2-2, and 2-3), and iii) discriminant validity as a subtype of construct validity was measured (see Table 3 in the result section).

4.3 Independent Variables

First, we employed a scale designed by Jeong (1998) to measure events-related economic impact, which were also validated by Kim and Petrick (2005), applying it to their work regarding residents' reception on the FIFA 2002 World Cup. It consists of two sub-dimensions: positive and negative. When it comes to environmental factors, we employed a modified scale combined originally from Gursoy et al.'s (2002) and Yoon et al.'s (2001) structural modeling. Kim et al. (2006) validated it by selecting three items out of them and applying those to their own study concerning the impact of the 2002 FIFA World Cup. However, we used only two items from them in that the other was dealt with a local cultural factor instead. Consequently, it is a unidimensional variable that consists of two homogeneous items: natural resources conservation and natural resources restoration. The factor loadings of the items and Cronbach's α coefficients were informed in Table 2-1.

Table 2-1 *Factor loadings for exploratory factor analysis with varimax rotation of economic impact and environmental issues*

Items	Economic Impact		Environ. Issues (n = 2)
	Positive (n = 4)	Negative (n = 3)	
Accelerated growth of the county	.89	.08	
Improved economic conditions	.89	.12	
Increased job opportunities	.82	.12	
Increased investment in the county	.82	.09	
Increased speculation of real estate	.14	.89	
Increased price of real estate	.20	.85	
Excessive expenditure on preparation of the Olympics	-.00	.68	
Provided legitimate policies for the natural resources conservation			.95
Provided legitimate policies for the natural resources restoration			.95
Eigenvalue	3.01	2.05	1.82
Variance explained (%)	43.10	29.35	91.35
Accumulation (%)	43.10	72.45	91.35
Cronbach's α	.88	.75	.90

Note. Econ. Impact: KMO: .76, X^2: 1602.41, df: 21, Sig: .00; *Environ. Issues*: KMO: .50, X^2: 520.39, df: 1, Sig: .00; Factor loadings > .40 in boldface; 7-point Likert scale ranging from strongly disagree (1), neutral (4), and strongly agree (7).

4.4 Mediating Variable

The socio-psychic scale developed by Kim and Walker (2012), measuring the factors associated with a mega-event (Super Bowl XLIII), was used for this study. It consists of five sub-dimensions: community pride, community attachment, community infrastructure, event excitement, and community excitement. Initially, 15 items from the scale were analyzed using factor analysis, and two items with a low factor loading (i.e., increased self-respect and enjoyed interacting with visitors) were excluded from community attachment and event excitement, respectively. The factor loadings of the items and Cronbach's α coefficients were informed in Table 2-2.

Table 2-2 *Factor loadings for exploratory factor analysis with varimax rotation of socio-psychic impact*

Items	Comm. Attachment (n = 3)	Comm. Pride (n = 3)	Comm. Infra. (n = 3)	Event excitement (n = 2)	Comm. excitement (n = 2)
Increased socio-psychological health	.82	.15	.26	.12	.10
Increased social interactions in a community	.81	.16	.22	.28	.20
Strengthened friendships in a community	.81	.14	.27	.22	.18
Increased a positive image as a host city	.19	.85	23	.15	.16
Showed the ability to host MSEs	.21	.84	.09	.25	.05
Given a chance to bring international attention	.02	.79	.23	.10	.33
Helped become urbanization	.27	.16	.82	.20	.08
Improved public facilities	.17	.28	.79	.08	.25
Promoted opportunities to revive a community	.38	.14	.74	.23	.06
Enjoyed watching the Olympics	.32	.17	.22	.80	.24
Increased interests in the Olympics	.23	.32	.21	.79	.22
Brought excitement to a community	.35	.30	.17	.30	.74
Provided entertainment to a community	.23	.39	.27	.38	.63
Eigenvalue	2.67	2.65	2.36	1.87	1.36
Variance explained (%)	20.57	20.39	18.22	14.41	10.51
Accumulation (%)	20.57	40.96	59.18	73.60	84.12
Cronbach's α	.89	.88	.86	.88	.85

Note. KMO: .91, X^2: 4385.86, df: 78, Sig: .00; Factor loadings > .40 in boldface; 7-point Likert scale ranging from strongly disagree (1), neutral (4), and strongly agree (7).

4.5 Dependent Variables

The items to measure the overall perception of the events were combined from existing surveys directly dealing with residents' perception on MSEs (Inoue & Havard, 2014; Prayag et al., 2013; Ritchie & Lyons, 1990; Vetitnev & Bobina, 2018; Zhou & Ap, 2009). We employed two variables that were labeled as attitude towards internal sup-

port and attitude towards external support. When it comes the former made of five questions, it was extracted into two dimensions via factor analysis. Zhou and Ap (2009) also validated the separate dimensions of the variable in their study regarding the 2008 Beijing Olympics. Therefore, we labeled each dimension as i) intention of hosting mega-events again and ii) perception of external rumors about the events, based on the features of the items. The latter of the dependent variables was extracted as a unidimensional variable made of two items, which was validated by Inoue and Havard's (2014) study regarding a large-scale sporting event. The factor loadings of the items and Cronbach's α coefficients were informed in Table 2-3.

Table 2-3 *Factor loadings for exploratory factor analysis with varimax rotation of the overall perception*

Items	Attitude towards internal support		Attitude towards external support (intent. of supt. others) (n = 2)
	Intent. of hosting events (n = 3)	External rumors (n = 2)	
Believing we should apply to host another MSEs	.93	-.12	
Willing to support if planned to host another MSEs	.93	-.11	
Positive impact of the Olympics outweighed the negative impact	.58	.16	
Believing it was too commercialized	.03	.88	
Believing it was too politicized	-.05	.84	
Willing to recommend hosting MSEs to other cities			.51
Willing to say positively if other cities plan to host MSEs			.51
Eigenvalue	2.08	1.55	1.89
Variance explained (%)	41.36	31.06	94.60
Accumulation (%)	41.63	72.69	94.60
Cronbach's α	.76	.68	.94

Note. Internal support: KMO: .54, X^2: 950.13, df: 10, Sig: .00; *External support:* KMO: .50, X^2: 717.40, df: 1, Sig: .00; Factor loadings > .40 in boldface; 7-point Likert scale ranging from strongly disagree (1), neutral (4), and strongly agree (7).

4.6 Data Analysis

The data were transformed into a numerical code for computer analysis. The data analyses were conducted using the SPSS/PC+ 21.0 version statistical package program in accordance with the purposes of the present study. First, as described above, the following analyses were tested: descriptive statistical analysis, exploratory factors analysis with varimax rotation, reliability analysis. Second, to evaluate the extent to which each independent variable has a statistical relationship with its dependent variable, correlation analysis was tested by calculating the Pearson correlation coefficient (see Table 3). Lastly, to infer causal relationships between the variables, simple and multiple regression analyses were used (see Tables in the result section).

Table 3 *Correlation coefficient matrix of the variables*

Items	1	2	3	4	5	6	7	8	9	10	11
1. Econ. Positive	1										
2. Econ. Negative	.26***	1									
3. Environ. Issues	.42***	.16***	1								
4. Comm. Pride	.59***	.10*	.51***	1							
5. Comm. Attachment	.52***	.13**	.27***	.43***	1						
6. Comm. Infra.	.68***	.21***	.40***	.63***	.50***	1					
7. Event excitement	.49***	.18***	.32***	.61***	.55***	.56***	1				
8. Comm. Excitement	.53***	.14**	.31***	.62***	.66***	.58***	.72***	1			
9. Hosting event again	.49***	.05	.24***	.45***	.51***	.52***	.53***	.52***	1		
10. External rumors	-.01	.25***	.02	.00	-.07***	.02	-.01	-.02	-.06	1	
11. Suprt. Other cities	.45***	.02	.34***	.51***	.39***	.45***	.50***	.49***	.64***	-.07	1

Note. *$P < .05$, **$p < .01$, ***$p < .001$

5.Results

Regarding correlation coefficients of the variables used for simple and multiple regression analyses in this study, Table 3 represents the extent to which each variable is associated with its dependent variable between +1.0 to -1.0. The statistical result indicates that the correlation coefficients were ranged from -.07 to .72. The result of having less than .85 explained that discriminant validity was established by Kline's (2005) criterion. Also, multicollinearity less than .80 between the independent variables explained that all pairs of predictor variables were reliable, thereby not interfering with the analysis of results. The following acronyms, PECI, PENI, PSPI, and OPOE, refer to perceived economic impact, perceived environmental issues, perceived socio-psychic impact, and the overall perception of the event, respectively in the results section.

5.1 Perceived Economic Impact of Residents who Experienced Hosting the Olympics in Their Local City

Figure 2 represents how residents perceived the events' economic impact generally. It resulted in positive perception with a mean of 4.53, which was .53 higher than the median value 4 of the 7-point Likert scale, and in a standard deviation of 1.21. Negative perception resulted in a mean of 5.09, which was 1.09 higher than the median value at the identical scale, and a standard deviation of 1.05. It means that the degree of scattering of negative perception was more centralized to its mean value than the positive one.

5.2 Relationship between Perceived Economic Impact and Perceived Socio-Psychic Impact

Table 4 represents the results of multiple regression analysis of PECI with PSPI. PECI explained a proportion of variance in community pride of PSPI (R^2adj = .35), community attachment of PSPI (R^2adj = .27), community infrastructure of PSPI (R^2adj = .46), event excitement of PSPI (R^2adj = .24), and community excitement of PSPI (R^2adj = .28). While positive perception of PECI significantly influenced all the factors of PSPI positively as follows: community pride (β = .61, p < .001), community attachment (β = .52, p < .001), community infrastructure (β = .67, p < .001), event excitement (β = .47, p < .001), and community excitement (β = .53, p < .001), negative perception of PECI did not influence any significant impact on PSPI.

5.3 Relationship between Perceived Economic Impact and the Overall Perception of the Events

Table 5 represents the results of multiple regression analysis of PECI with OPOE. First, PECI explained a proportion of variance in intention of hosting the events again of OPOE (R^2adj = .24), and positive perception of PECI significantly influenced residents to be willing to host the events again (β = .51, p < .001). Second, PECI explained a proportion of variance in external rumors on the events of OPOE (R^2adj = .07). Despite the lower adjusted R^2 value, negative perception of PECI significantly influenced residents to perceive external rumors sensitively (β = .28, p < .001). Lastly, PECI explained a proportion of

variance in intention of supporting other cities of OPOE (R^2adj = .21), and both positive and negative perception of PECI significantly influenced residents whether to support other cities if they would plan to host MSEs (β = .48, p < .001) and (β = .09, p < .05), respectively.

Table 5 *Multiple regression analysis of PECI with OPOE*

Predictors	Intent. of hosting the events again		External rumors on the events		Intent. of supporting other cities	
	β	t	β	t	β	t
Positive	.51	12.03***	-.09	-1.93	.48	11.15***
Econ. Negative	-.07	-1.84	.28	6.03***	-.09	-2.25*
Adjusted R²	.24		.07		.21	
F	73.31***		18.29***		62.46***	

Note. *P < .05, ***p < .001

5.4 Perceived Environmental Issues of Residents who Experienced Hosting the Olympics in Their Local City

Figure 3 represents how residents perceived the events' environmental issues generally. It resulted in a mean of 3.86, which was .14 smaller than the median value 4 of the 7-point Likert scale, and in a standard deviation of 1.31. PENI's standard deviation was .10 and .26 higher than positive and negative of PECI, respectively. It means that PENI's degree of scattering was relatively greater than PECI.

5.5 Relationship between Perceived Environmental Issues and Perceived Socio-Psychic Impact

Table 6 represents the results of a simple regression analysis of PENI with PSPI. PENI explained a proportion of variance in community pride of PSPI (R^2adj = .26) and significantly influenced its scores positively (β = .51, p < .001), community attachment of PSPI (R^2adj = .07) and significantly influenced its scores positively (β = .27, p < .001), community infrastructure of PSPI (R^2adj = .16) and significantly influenced its scores positively (β = .40, p < .001), event excitement of PSPI (R^2adj = .10) and significantly influenced its scores positively (β = .32, p < .001), and community excitement of PSPI (R^2adj = .09) and significantly influenced its scores positively (β = .31, p < .001).

Table 6 *Multiple regression analysis of PECI with PSPI*

Predictors	Comm. Pride		Comm. Attachment		Comm. Infra.		Event excitement		Comm. Excitement	
	β	*t*	*β*	*t*	*β*	*t*	*β*	*t*	*β*	*t*
Environ. Issues	.51	12.69***	.27	6.08***	.40	9.50***	.32	7.21***	.31	7.08***
Adjusted R²	.26		.07		.16		.10		.09	
F	161.04***		37.04***		90.42***		52.05***		50.12***	

Note. ***$p < .001$

5.6 Relationship between Perceived Environmental Issues and the Overall Perception of the Events

Table 7 represents the results of a simple regression analysis of PENI with OPOE. First, PENI explained a proportion of variance in intention of hosting the events again of OPOE (R^2adj = .05). Despite the lower adjusted R^2 value, it significantly influenced its scores positively (β = .24, $p < .001$). Second, PENI explained a proportion of variance in external rumors on the events of OPOE (R^2adj = -.00) and did not influence any significant impact on it. Lastly, PENI explained a proportion of variance in intention of supporting other cities of OPOE (R^2adj = .11) and significantly influenced its scores positively (β = .34, $p < .001$).

Table 7 *Simple regression analysis of PENI with OPOE*

Predictors	Intent. of hosting the events again		External rumors on the events		Intent. of supporting other cities	
	β	*t*	*β*	*t*	*β*	*t*
Environ. Issues	.24	5.36***	.02	.45	.34	7.74***
Adjusted R²	.05		-.00		.11	
F	28.82***		.20		59.92***	

Note. ***$p < .001$

5.7 Relationship between the Perceived Socio-Psychic Impact and the Overall Perception of the Events

Table 8 represents the results of multiple regression analysis of PSPI with OPOE. First, PSPI explained a proportion of variance in intention of hosting the events again of OPOE (R^2adj = .39). Particularly, it was significantly influenced by three dimensions of PSPI positively: community attachment (β = .21, p < .001), community infrastructure (β = .23, p < .001), and event excitement (β = .20, p < .001). Second, PSPI explained a proportion of variance in external rumors on the events of OPOE (R^2adj = -.00) and did not have any significant impact on it. Lastly, PSPI explained a proportion of variance in intention of supporting other cities of OPOE (R^2adj = .33). Especially, it was significantly influenced by two dimensions of PSPI positively: community pride (β = .24, p < .001) and event excitement (β = .17, p < .01).

Table 8 *Multiple regression analysis of PSPI with OPOE*

Predictors	Intent. of hosting the events again		External rumors on the events		Intent. of supporting other cities	
	β	t	β	t	β	t
Comm. Pride	.03	.71	-.00	-.02	.24	4.44***
Comm. Attachment	.21	4.28***	-.11	-1.83	.05	1.09
Comm. Infra.	.23	4.58***	.08	1.25	.09	1.85
Event excitement	.20	3.60***	-.01	-.15	.17	2.98**
Comm. Excitement	.07	1.23	.01	.22	.11	1.74
Adjusted R²	.39		-.00		.33	
F	60.01***		.93		46.53***	

Note. **p < .01, ***p < .001

6.Discussion

It is discussed in two different paradigms. First deals with a detailed interpretation of the data findings based on statistical values. The other, as informed in advance, provides an interpretive discourse of the findings with the latent variable inferred from the statistical data.

6.1 Statistical Interpretation of the Perceived Social Impact of Residents on the Events

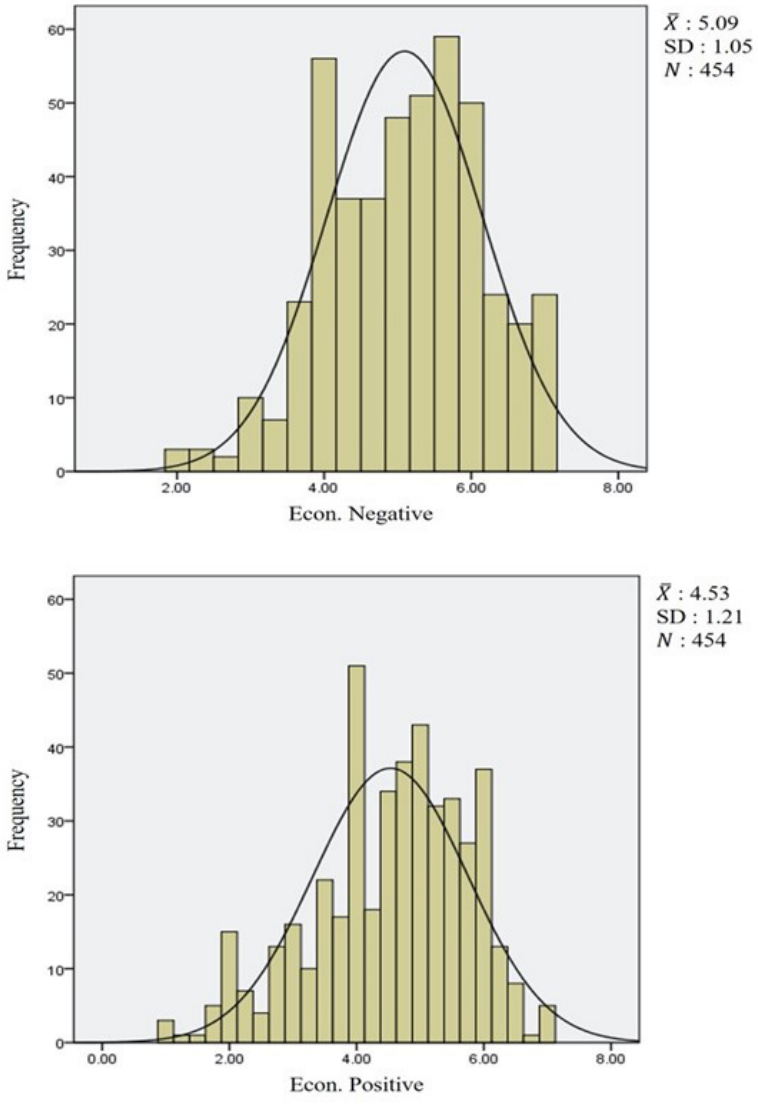
The present study represents that PECI significantly has something to do with PSPI. Mainly, what is notable in the findings is the residents' perceptions of the economic impact resulting in paradoxical outcomes. For instance, while the positive perceptions play crucial roles in increasing all the factors of PSPI positively, the negative ones do not have any significant impact on the residents' PSPI. These results may imply that social exchange theory, which has been supported by most previous studies, explained only a cross-section of the individuals' perceived social impact on MSEs.

Refreshing the central concept of social exchange theory, if the cost-benefit effect had primarily influenced the residents' perceived social impact, the perceived negative economic impact of the residents would have had a direct impact on their PSPI. However, as shown in the findings, the negative ones had nothing to do with the residents' PSPI even though the statistical values show that the overall perception of the negative economic impact was higher and denser than the positive one in general (see Figure 2). This finding conflicts with Inoue and Havard's (2014) argument that it would have a low social impact if the event's support for the cause did not meet the individuals' expectations. It also refutes Deccio and Baloglu's (2002) claim that residents would not be supportive of hosting the Olympics if they did not receive any economic benefits.

Such outcomes predict the relationships between PECI and OPOE. For instance, the perceived positive economic impact influenced the intention of the residents to support the events again in their local community positively. In a similar vein, it resulted in the residents positively supporting other cities if they plan to host MSEs. The positive perception of the economic impact did not significantly impact external rumors, such as too politicalized and commercialized events. In contrast, the negative perception of the economic impact influenced the residents to perceive external rumors more sensitively.

However, the perceived negative economic impact ironically did not influence the residents' OPOE concerning the intention of hosting the events again in their local community, but the intention of supporting other cities negatively. It may imply that the residents' receptions of the social impact could be more objective when evaluating the outcomes for others rather than doing this for themselves. Consequently, social exchange theory, at some point, fails to predict that individuals would be motivated to support MSEs only when the potential benefits weigh over the costs of hosting events. This result supports Zhou and Ap's (2009) empirical evidence that, regarding hosting the Olympics, residents in a particular sociocultural context tend to emphasize the ben-

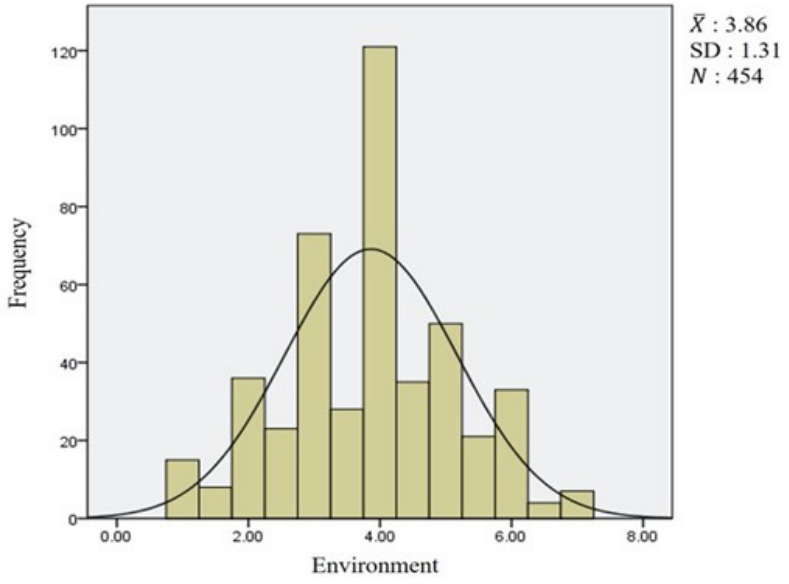
Figure 2. *Perceived economic impact of residents on the events*



efits for a whole society prior to personal interests even if it would disadvantage them.

When it comes to PENI concerning the conservation and restoration of the natural resources, the mean value of the residents' PENI was smaller than the median value (see Figure 3). Despite that fact, surprisingly, it represents that environmental issues did not have any negative impact on the residents' PSPI. Even, they play crucial roles in increasing all the socio-psychic impact positively. Although the proportions of some of the factors explained by the estimated regression were relatively small, given all the significant F-values and standardized beta coefficients, it may imply that social exchange theory does not predict that individuals' PSPI would directly be pro-

Figure 3. *Perceived economic impact of residents on the events*



portional to the cost-benefit effect. Consequently, it leads the residents to be willing to support hosting the events again in their community, which in turn resulted in a non-negatively significant impact on the external rumors. Also, the residents would be willing to support other cities if they plan to host MSEs, regardless of how they perceived the environmental issues.

When it comes to PSPI, the findings predict that positively perceived community attachment, community infrastructure, and event excitement influence the residents to be willing to support hosting the events again. Also, positively perceived community pride and event excitement play critical roles in supporting other cities. However, what is interesting is that while community pride has nothing to do with the intention of hosting the events again in their city, it has a positive impact on the intention of supporting other cities. Although the outcomes could be in an interpretive controversy, this study implies that individuals still believe it would be worth trying to gain a positive local image and chance to bring international attention, showing the ability to host MSEs.

Last but not least, the findings represent low (adjusted) R-squared values in external rumors on the events (R^2adj = .07) that is predictable from PECI, and community attachment (R^2adj = .07), community excitement (R^2adj = .09), and intention of hosting the events again (R^2adj = .05) that are predictable from PENI. One might point out that a regression analysis with such small R^2 values should not be interpreted as scientific significance. However, a small effect size is not always a problem or unworthy, particularly in social science, since it is almost impossible to include all the relevant predictors in models

(Sweet & Grace-Martin, 2012). However, despite that general understanding, it is still critical to recognize the possibility of any omitted predictors in this research. Thus, future research should take this matter into consideration.

6.2 Interpretive Discourse on the Perceived Social Impact of Residents on the Events

The present study casts doubt on whether individuals are motivated to support hosting MSEs by the cost-benefit effect. In other words, this research questions whether the extent to which residents perceive social impact of MSEs have been reasonably explained by social exchange theory on which most previous studies depend. The empirical evidence of this study answers the question, saying that there could be another variable beyond the mere cost-benefit effect. It embraces Dolles and Söderman's (2008) suggestion that it should take a variety of perspectives to understand how MSEs function in a particular society more accurately.

Reiterating the remarkable findings, it shows that even though residents perceived negative economic impact more highly than its mean value and environmental issues more negatively than its mean value, not only did the former not have any negative impact on PSPI, but the latter also functioned even positively in increasing all the factors of PSPI. Consequently, such ironies led to mostly identical outcomes to residents' OPOE as discussed above.

Given those conflicting outcomes, it was gone through a way in which to verify them once again by comparison with other empirical data. For instance, Yang et al. (2019) revealed that perceived negative economic impacts and environmental issues of the PyeongChang games brought about social conflicts among individuals, thereby influencing residents' negative attitudes. It supports the findings of this study where the residents' perceived social impacts of the PyeongChang games were revealed more negatively at the first stage.

However, Zhou and Ap (2009) claim that, in a particular society, residents' perceptions might be subject to a social atmosphere. They state that once individuals perceive the Olympics as a project that benefits the entire nation, the vast majority of people tend to become embracers rather than opposers, regardless of many ongoing controversial issues. After all, it establishes that the respondents' sensible perceptions and ideal perceptions of the social impact could be conflicting.

Given that fact, the present study rationally infers, as suggested with the research problem, that 'social nostalgia' set as the concept of the latent variable could directly influence the residents' final perceived social impact to turn into positive. This inference is supported by the following empirical evidence. For example, Russia put much effort into the 2014 Sochi Olympics as a foothold to revive the national resurgence retrieving national glory as a global power (Makarychev & Yatsyk, 2014; Ruiz & Schwirtz, 2016). It implies that their sociocultural retrospect to the past, so-called 'social nostalgia,' was triggered while they were at a loss of something good in their memories (Howland, 1962,

as cited in Nawas & Platt, 1965).

Also, Kietlinski (2011) states that the experience of hosting the Olympics, particularly during the developing stage of a nation such as Japan in the 1960s and Korea in the 1980s, makes the time settle down in an individual's lifetime memory. It implies that individuals tend to miss a particular time that makes them proud of themselves in their memories, thereby hoping the experience is replayed again (Nawas & Platt, 1965).

In a similar vein, Maenning and Porsche (2008) propose a new concept named the feel-good effect. The concept was developed from social phenomena where the positive experience of sporting events leads individuals to be willing to pay for other events, expecting intangible benefits such as social cohesion and civic pride as well. For instance, almost 70 percent of the German population experienced a positive cognitive change to their own country through a resounding success in the 2006 FIFA World Cup Germany. Along with the outcomes, they state that such a positive social phenomenon should be interpreted in "an interdisciplinary manner, where psychological and sociological aspects play an essential role" (p. 15). Consequently, this study infers that 'social nostalgia' for positive experiences of MSEs in the past could play a critical role in making such particular societies, as Korea, fanatical about the events.

To sum up, this study presents some significant meanings of the findings to contribute to existing literature. First, it unveiled that social exchange theory, which was overwhelmingly employed in the previous studies, has some critical limitations to interpret individuals' perceptions of social impact of MSEs. Second, things that significantly influence the residents' perceived social impact could be taken place in personal experience through historical events in the past, rather than mere material rewards. Lastly, applying a multi-paradigm (i.e., post-positivism and social constructivism) to this study helped come up with various possibilities of interpretating the individuals' perceived social impact of MSEs.

7.Limitations

The present study was conducted applying multi-methodological approaches to fill a gap in the existing literature. Despite that effort, it still leaves some limitations as follows. First, this study designed the research model considering a latent variable hypothetically built on a literature review. Such an unconventional approach might be less familiar in traditional post-positivist perspectives. Thus, it suggests that future research should consider developing an appropriate scale or research survey to measure social nostalgia for a retrospect of the previous MSEs more statistically.

Second, each society has its own particular sociocultural context built on its history. In other words, the extent to which their social backgrounds influence the individuals' perceived social impact of MSEs could vary based on where they lived and how they experienced the society. Thus, the findings of this study would have limitations to be generalized to all different societ-

ies. Lastly, regarding the statistical outcomes, although low (adjusted) R-squared values should not always be a problem in social science (Sweet & Grace-Martin, 2012), it suggests that future researchers should consider any predictor variables possibly omitted from this study, which could influence the residents' perceived social impact.

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