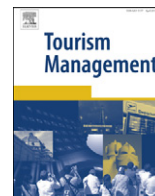


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London residents' support for the 2012 Olympic Games: The mediating effect of overall attitude

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HIGHLIGHTS

- The study evaluates perceptions of impacts and residents' support for the 2012 Olympic Games.
- We delineate impacts according to the triple bottom line approach.
- Social exchange theory and the theory of reasoned action are used to build a theoretical model.
- We conceptually distinguish between attitude and support. The mediating effect of overall attitude is also evaluated.
- Results show the need to disaggregate event impacts and distinguish between attitude and support.

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ABSTRACT

Using theory of reasoned action and social exchange theory, this study empirically tests a model of residents' support for the 2012 Olympic Games. The model proposes that overall attitude towards the Games mediates the relationship between perceived socio-cultural, economic, and environmental impacts, and residents' support for the Games. Results indicate perceived economic and socio-cultural impacts (positive and negative) influence overall attitude, but contrary to our predictions, perceived environmental impacts (positive and negative) are not related to overall attitude. The model confirms that overall attitude plays a mediating role between perceived socio-cultural, economic, environmental impacts and support for the 2012 Games. Findings highlight the need for researchers to disaggregate the components of perceived impacts when modelling attitudes and support for mega events.

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1. Introduction

Sport is the fastest growing segments of the tourism industry (Davies & Williment, 2008). Specifically, sports related mega-events such as the Olympic Games and the FIFA World Cup attract a global audience, shape world tourism patterns, and create lasting legacies for host cities/countries (Fourie & Santana-Gallego, 2011). The sustainability of mega sporting events depends on the extent to which the host community views are incorporated into the planning process. Residents' involvement leads to higher

support and is critical to the event's success and long-term economic viability (Gursoy & Kendall, 2006; Zhou & Ap, 2009). In addition, local community support can turn such events into 'urban festivals', providing positive shared experience for hosts and guests. However, lack of support can result in opposition, delays, legal actions and leads to hostility towards attendees, as well as unwillingness of residents to volunteer during the event (Gursoy & Kendall, 2006; Waitt, 2003).

A rich body of research examines local residents' reactions towards mega sporting events (e.g., Fredline & Faulkner, 2001; Kim, Gursoy, & Lee, 2006; Ritchie, Shipway, & Cleeve, 2009; Waitt, 2003). Existing studies can be classified into two main categories. The first category investigates residents' perceptions of the impacts of mega events (e.g., Kim et al., 2006; Kim & Petrick, 2005; Liu & Hong, 2010; Lorde, Greenidge, & Devonish, 2011; Ohmann, Jones, & Wilkes,

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2006; Ritchie et al., 2009; Waitt, 2003). The second research stream explicitly investigates the relationship between residents' perceived impacts and their support for mega events (e.g., Bob & Swart, 2009; Deccio & Baloglu, 2002; Gursoy & Kendall, 2006; Zhou & Ap, 2009). Yet, all these studies either group perceived impacts in two dimensions: positive and negative (aggregation of all positive and negative impacts), or create a "net effect" latent variable (e.g., positive economic impacts minus negative economic impacts). To date, research investigating the influence of event impacts on residents' support, as delineated in terms of the triple bottom line impacts (economic, socio-cultural, and environmental) or more simply the 'event footprint', is limited (Lorde et al., 2011).

Furthermore, while previous studies on tourism development investigate the influence of perceived impacts on support in a single theoretical model (e.g., Dyer, Gursoy, Sharma, & Carter, 2007; Gursoy, Chi, & Dyer, 2010; Gursoy & Rutherford, 2004; Latkova & Vogt, 2012; Yoon, Gursoy, & Chen, 2001), findings are not applicable to mega events such as the Olympic Games for various reasons. First, these studies investigated residents' support for less obtrusive types of tourism development having low impact on community life and are less likely to cause emotional, social, and cognitive reactions (Gursoy & Kendall, 2006). On the other hand, mega sporting events are described as obtrusive tourism venues (Webb, Campbell, Schwartz, & Sechrest, 1966). Experiences are more conspicuous to residents, leading to heightened awareness levels and making residents more reactive to such developments (Gursoy & Kendall, 2006). Second, the Olympic Games differ in terms of size, significance, target markets, and attendance (Getz, 2008). Olympic Games generate wider media coverage, higher levels of financial involvement, and more economic benefits for the local population than other types of tourism (Lorde et al., 2011). Differences exist between how developed and developing nations use the Olympics for political and social agendas (Cornelissen & Swart, 2006). As a result, the Olympic Games generate a relatively different triple bottom line impacts and support among residents (Bob & Swart, 2009; Zhou & Ap, 2009).

The purpose of this study is to empirically test a model linking residents' perceived impacts, overall attitude and support for mega events. More specifically, the research focuses on the London 2012 Olympic Games. The study's contribution to existing literature is threefold. First, unlike previous research aggregating event impacts into either benefits or costs in explaining support (e.g., Deccio & Baloglu, 2002; Gursoy & Kendall, 2006), our study delineates impacts as per the triple bottom line approach. To aid theoretical developments, it is important to establish the relative importance of each impact category in modelling residents' attitudes and support (Dyer et al., 2007; Lee, Kang, Long, & Reisinger, 2010). Second, while various models exist to study residents' support for tourism development (e.g., Nunkoo & Ramkissoon, 2011; Vargas-Sanchez, Porras-Bueno, & Plaza-Mejia, 2011), much ambiguity surrounds the relationship between residents' overall attitude and support (Andereck & Vogt, 2000). The terms attitudes and support are used and operationalized interchangeably (e.g., King, Pizam, & Milman, 1993; Ko & Stewart, 2002; Zhou & Ap, 2009). Andereck and Vogt (2000, p. 28) note, "in most studies, there is an apparent assumption that positive attitudes towards tourism imply support for tourism development". Andereck and Vogt (2000) suggest that investigating the relationship between residents' attitudes and support for tourism related projects offer significant theoretical and practical insights. Thus, in this study, we clearly distinguish between overall attitude towards the games and support for the Games and identify the relationship between the two constructs. Third, we propose that overall attitude mediates the relationship between perceived positive and negative economic, socio-cultural, and environmental impacts and residents' support. Resident

attitude studies (e.g., Andereck & Vogt, 2000; Kitnuntaviwat & Tang, 2008; Vargas-Sanchez et al., 2011; Yoon et al., 2001) have shown other variables such as overall attitude, sense of community can mediate the relationship between perceived impacts and support. Mediators provide useful information on 'how' or 'why' the independent variable predicts or causes the outcome variable (Bennett, 2000; Wu & Zumbo, 2008). The conceptual model (Fig. 1) is based on social exchange theory (Ap, 1992) and the theory of reasoned action (Ajzen & Fishbein, 1980).

2. Literature review

2.1. Social exchange theory and theory of reasoned action

Studies investigating residents' support for tourism development and events mainly draw from social exchange theory (e.g., Andereck & Vogt, 2000; Andriotis & Vaughan, 2003; Dyer et al., 2007; Gursoy & Kendall, 2006; Latkova & Vogt, 2012; Nunkoo & Gursoy, 2012; Perdue, Long, & Allen, 1990; Waitt, 2003; Zhou & Ap, 2009). Social exchange theory (SET) has been particularly successful in explaining residents' support given its ability to account for divergent views based on experiential and psychological outcomes (Gursoy & Kendall, 2006; Nunkoo & Ramkissoon, 2011; Waitt, 2003). The three main elements of the exchange process are economic, environmental and socio-cultural benefits/costs (Andriotis & Vaughan, 2003). SET assumes individuals are more likely to participate in an exchange if they will gain benefits without incurring unacceptable costs. If residents perceived a development as beneficial, the higher their level of support (Ap, 1992; Gursoy & Kendall, 2006). SET is useful for studying residents' support for mega-events as it accounts for positive and negative impacts simultaneously (Ap, 1992). Positive and negative evaluations are conceptualized in terms of the presence or absence of certain conditions such as rationality, satisficing benefits and reciprocity (Searle, 1991; Waitt, 2003). In essence, SET can explain residents' perceptions of economic, environmental, and sociocultural impacts of tourism development and other related development (Andriotis & Vaughan, 2003).

Furthermore, theory of reasoned action (TRA) explains the relationship between overall attitude and support (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). TRA posits that humans are rational individuals with the ability to process information in order to reach a reasonable behavioural decision (Ajzen & Fishbein, 1980). According to TRA, a person's behaviour is a function of his/her attitudes (Fishbein & Ajzen, 1975). Attitude is a psychological tendency expressed by evaluating a particular 'object' with some degrees of favour or disfavour (Eagly & Chaiken, 1993). In this study, the object is 'Olympic Games' and the resultant behaviour is 'support for the games'. A number of studies have successfully applied TRA in tourism and leisure research (e.g., Ajzen & Driver, 1992; Han, Hsu, & Sheu, 2010; Kim, Kim, & Goh, 2011; Kwon & Vogt, 2010; Quintal, Lee, & Soutar, 2010). Theory of reasoned action suggests that fostering positive attitude towards tourism related developments lead to pro-tourism behaviours (Lepp, 2007).

2.2. Residents' overall attitude & support for the Olympic Games

Antecedents of residents' support for tourism development are well researched (e.g., Nunkoo & Ramkissoon, 2011; Vargas-Sanchez et al., 2011). However, much ambiguity surrounds the relationship between residents' overall attitude and support (Andereck & Vogt, 2000). Two problems can be identified: i) interchangeable use of the terms attitude and support; and ii) measurement issues. For example, Ko and Stewart (2002) make no distinction between overall attitude and support, using the two terms interchangeably.

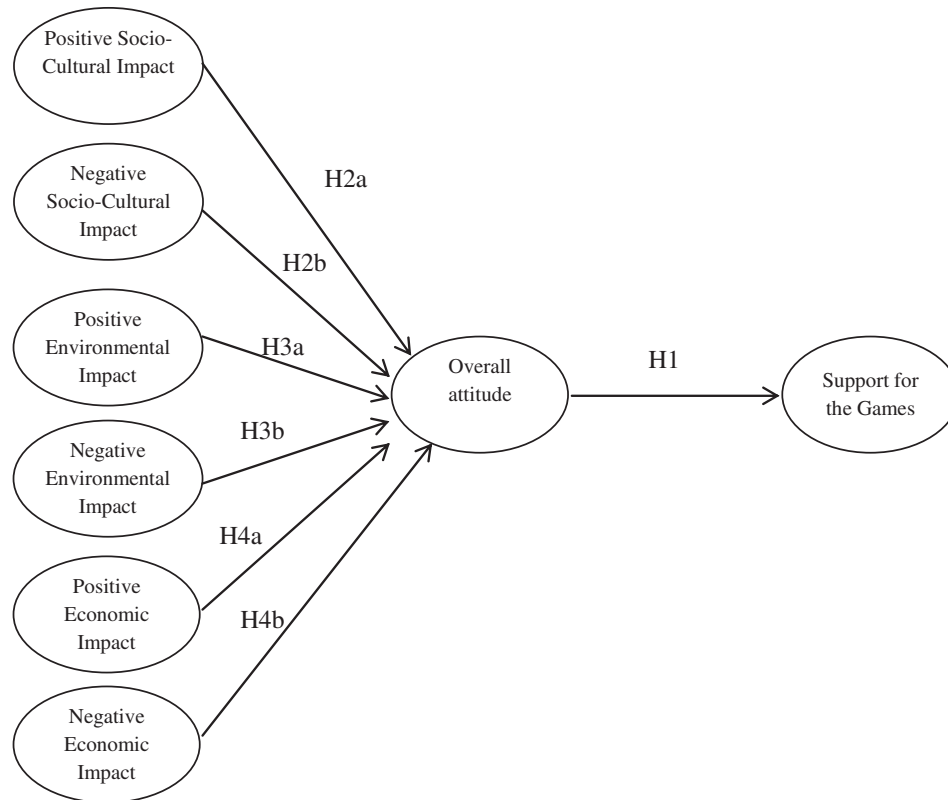


Fig. 1. Conceptual model.

The second issue relates to the measurement of attitude and support. Snaith and Haley (1995) establish that positive perceptions of tourism development predicted support. However, the authors measured support for tourism development using the item 'willingness to pay a local tax'. Residents might approve the development but not of the imposition of taxes per se to support the latter (Andereck & Vogt, 2000). In the mega event literature, support is also measured using overall attitude items (e.g., Mihalik & Simonetta, 1999; Zhou & Ap, 2009).

To further advance theoretical progress, in this paper, we argue the importance of distinguishing between attitudes and support. In the generic tourism literature, some studies have established a positive relationship between attitude and support. For example, Jurowski, Uysal, and Williams's (1997) study of nature-based tourism, found overall perceptions of impacts influence support. More recently, Kwon and Vogt (2010) note a positive relationship between residents' overall attitude to place marketing and intention to support marketing activities and future tourism product development. Based on these empirical evidences and the predictions of TRA, we propose the following hypothesis:

Hypothesis 1. Residents' overall attitude towards the Games is positively related to support for the Games.

2.3. Socio-cultural impacts

Sporting events have a number of socio-cultural consequences, extending far beyond the event itself (Cornelissen & Swart, 2006). Researchers identify a range of positive and negative socio-cultural impacts associated with mega sporting events (Deccio & Baloglu, 2002; Pillay & Bass, 2008; Ritchie & Lyons, 1990; Ritchie et al., 2009; Waitt, 2003). Hosting of mega sporting events brings the community and country together, provides residents with

opportunities to meet new people, increases residents' pride in the city, promotes the city as a tourist destination, helps people to understand other cultures, strengthens cultural values and traditions, and builds national identity (Hall, 1989; Kim et al., 2006; Kim & Petrick, 2005; Lorde et al., 2011; Waitt, 2003; Zhou & Ap, 2009). For example, the Sydney Olympics was an opportunity for New South Wales to showcase the material and symbolic transformation of a marginal brown site of noxious industries and dump, to a central, vibrant, clean and green economic base (Waitt, 2003). The Game was an opportunity for Australia to stage both its cosmopolitan lifestyle and aboriginal culture during the opening ceremony (Rivenburg, Louw, Loo, & Mersham, 2004). Hosting sport mega-events is also viewed as key social and political instruments to support governments' nation building projects (Cornelissen & Swart, 2006). The 2010 FIFA World Cup was an opportunity for South Africa to reduce poverty, to improve life conditions of the historically disadvantaged and to re-design apartheid cities (Pillay & Bass, 2008). Some of the positive socio-cultural benefits associated with mega-events such as strengthening of community cultural values and building of nation/community identity, are common in tourism development studies (Andriotis & Vaughan, 2003).

On the negative side, studies report that mega events are likely to result in law enforcement problems, increase in crime rate, congestion and crowding (Bob & Swart, 2009; Ritchie et al., 2009). Lorde et al. (2011) reported that the ICC Cricket World Cup in 2007 led to more vandalism and prostitution in the community. Conflicts between local residents and attendees can occur over access to recreational space before and after the event (Fredline, 2004). Event visitors can displace local residents as they may avoid using regular facilities during the event (Bull & Lovell, 2007). In tourism development studies, negative social outcomes such as crime, prostitution, traffic congestion and crowding are popular (e.g., Soutar & McLeod, 1993).

Prior research establish that positive and negative socio-cultural impacts have an influence on resident support for tourism development and events (Andereck & Vogt, 2000; Dyer et al., 2007; Gursoy & Kendall, 2006; Gursoy & Rutherford, 2004; Lee et al., 2010; Perdue et al., 1990; Zhou & Ap, 2009). Other studies support the relationship between residents' perceptions of social impacts and overall attitude. For example, King et al. (1993) show that negative sociocultural impacts such as reduced quality of life and morality are significant predictors of residents' overall opinion. More recently, Vargas-Sanchez et al. (2011), modelling perceived impacts as a net effect latent variable (positive minus negative impacts) report a relationship between socio-cultural impacts and attitudes. Based on the empirical findings and theoretical postulates of SET, the following hypotheses are proposed:

Hypothesis 2a. Positive socio-cultural impacts positively influence residents' overall attitude towards the Games.

Hypothesis 2b. Negative socio-cultural impacts negatively influence residents' overall attitude towards the Games.

2.4. Environmental impacts

Environmental impacts of mega sporting events remain relatively less well documented in the literature (Collins, Jones, & Munday, 2009). On the positive side, mega events can help to preserve the physical environment and local heritage (Deccio & Baloglu, 2002; Lorde et al., 2011). Mega sporting events serve as a catalyst for environmental and landscape restoration in the host city and surrounding areas. For example, the 2002 FIFA World Cup in South Korea provided an incentive for conservation of natural resources and historical buildings (Kim et al., 2006). Events can also stimulate the implementation of planning and administrative controls such as recycling policies and pollution controls (Allen, O'Toole, McDonnell, & Harris, 2005). For example, the Olympic village for the London games obtained an excellent eco-rating (Logan, 2012). Mega events can also serve as a springboard to enhance level of environmental consciousness of residents (Kim et al., 2006). Similar positive environmental impacts on the host community have been noted in tourism development studies (e.g., Andriotis & Vaughan, 2003; Choi & Sirakaya, 2005).

On the negative side, mega sporting events can lead to more traffic congestion, noise pollution, destruction of the natural and physical environment, and bring changes to land use patterns (Kim et al., 2006; Lorde et al., 2011; Ritchie et al., 2009). For example, the local community was inconvenienced by noise and air pollution in the vicinity of the 1999 Rugby World Cup venue (Jones, 2001). Events can also impact on local eco-systems, utilizing reserves of irreplaceable natural capital, and contribute to carbon emissions related to climate change (Jones, 2008). Moreover, build facilities may result in environmental degradation, loss of habitats and natural drainage, soil erosion, and deforestation as France experienced hosting the 1992 Winter Olympic Games (Getz, 1997). Evidence also exists on similar negative environmental impacts on host communities associated with tourism development (e.g., Andriotis & Vaughan, 2003; Choi & Sirakaya, 2005).

The literature on mega-events and tourism development establishes a relationship between perceptions of environmental impacts and support (Deccio & Baloglu, 2002; Kitnuntaviwat & Tang, 2008; McGehee & Andereck, 2004). However, limited evidence exists on the relationship between environmental impacts and overall attitudes. The study of Ko and Stewart (2002), despite its methodological flaws, hints the existence of such a relationship. Yoon et al. (2001), establish a structural path between negative environmental impacts and total impacts. In addition, SET suggests that positive perceptions of impacts lead to

positive attitude, while negative perceptions are likely to have an adverse consequence on attitude (Andereck & Vogt, 2000; McGehee & Andereck, 2004). By extension, the following hypotheses can be formulated:

Hypothesis 3a. Positive environmental impacts positively influence residents' overall attitude towards the Games.

Hypothesis 3b. Negative environmental impacts negatively influence residents' overall attitude towards the Games.

2.5. Economic impacts

It is widely acknowledged that mega sporting events are associated with several positive and negative economic impacts. Positive impacts include more business and employment opportunities for the local residents (Bob & Swart, 2009; Zhou & Ap, 2009), increase in tax revenues for government (Deccio & Baloglu, 2002; Getz, 1997), improvement in infrastructure such as transport facilities and building of stadiums (Bob & Swart, 2009; Kim & Petrick, 2005; Ritchie et al., 2009; Shone & Parry, 2004), increase in investment and accelerated growth for the community (Kim & Petrick, 2005), regeneration of urban areas, canal, and waterfront development (Shone & Parry, 2004), fast-track urban development (Pillay & Bass, 2008) and increase local expenditure in the economy (Gelan, 2003; Gursoy, Kim, & Uysal, 2004). Mega events can develop a destination's tourism industry with an increase in the inflow of tourists, length of stay and expenditure (Barker, Page, & Meyer, 2002; Dwyer & Forsyth, 2006; Getz, 1997). Similar positive economic impacts are identified in the genetic literature on the impact of tourism development on host communities (e.g., Andriotis & Vaughan, 2003; Soutar & McLeod, 1993).

However, mega events also generate a number of negative economic impacts such as price inflation, increased tax burden for the local people, and mismanagement of public funds (Deccio & Baloglu, 2002; Pillay & Bass, 2008). The construction of public facilities for visitors, and exorbitant operating costs (such as wages and security equipment) are perceived as a waste of taxpayers' money (Bob & Swart, 2009; Getz, 2007; Lorde et al., 2011). For example, the 2008 Beijing Olympics was hailed as the most expensive Games held, with an estimated cost of over \$40 billion (Leeds, Mirikitani, & Tang, 2009). In 2004, Athens spent 13 billion Euros in hosting the event, accounting for around 6% of Greece's Gross National Product (GNP). Huge amount of investment does not always justify the benefits drawn from the event (Holloway, 2009). Mega-events may also crowd out regular business travellers who tend to avoid the host city or country during the event. The multiplier effect stimulated by the initial direct spending on the mega event often does not materialise (Pillay & Bass, 2008). In general, the literature posits host communities' attitude towards an event is mainly influenced by the economic benefits associated with tax revenues, employment creation, and additional sources of income (Getz, 1997).

Generally, mega-event and tourism impact studies conclude that positive economic impacts result in supportive feelings and vice versa (Bob & Swart, 2009; Deccio & Baloglu, 2002; Dyer et al., 2007; Gursoy & Rutherford, 2004; Lee et al., 2010; McGehee & Andereck, 2004; Mihalik & Simonetta, 1999; Perdue et al., 1990). However, scant studies explicitly establish a structural path between positive/negative economic impacts and overall attitude. By aggregating positive and negative economic impact items into a single construct, Yoon et al. (2001) note a positive relationship between economic impacts and the dependent variable 'total impacts'. Moreover, SET postulates that perceived positive economic impacts result in favourable attitude while perceived negative impacts

adversely influence attitude (McGehee & Andereck, 2004). Therefore, the following hypotheses are formulated:

Hypothesis 4a. Positive economic impacts positively influence residents' overall attitude towards the Games.

Hypothesis 4b. Negative economic impacts negatively influence residents' overall attitude towards the Games.

2.6. Mediating effects of overall attitude

The impacts of mega sporting events are multifaceted and can be categorized under economic, socio-cultural, and environmental (Getz, 2007; Lorde et al., 2011; Ritchie et al., 2009; Zhou & Ap, 2009). According to SET and TRA, residents' perceptions of impacts are antecedents to overall attitudes and support (behaviour) is a consequence of attitudes. Resident attitude studies (e.g., Andereck & Vogt, 2000; King et al., 1993; Kitnuntaviwat & Tang, 2008; Yoon et al., 2001) posit that overall attitude mediate the relationship between perceived impacts and support. For example Yoon et al. (2001) found that residents' attitudes mediate the relationship between perceived impacts (economic, social, cultural and environmental) and support. Based on the above, it is logical to hypothesize that:

Hypothesis 5. There is an indirect relationship between the positive and negative socio-cultural, environmental, and economic event impacts and support, mediated by overall attitude.

3. Research methods

3.1. Context of the study

London city will host the 2012 Summer Olympics and the Paralympics Games. The events are funded by two organizations: 1) one private, the London Organizing Committee of the Olympic Games and Paralympic Games (LOCOG); and 2) one public, the Olympic Delivery Authority (ODA). LOCOG is in charge of organizing, staging and hosting the 2012 London Games and is funded by the International Olympic Committee (IOC), ticket sales, merchandising and sponsors. On the other hand, the ODA is responsible for the delivery of the event's venues and facilities and is funded by numerous bodies in the public sector such as the Department for Culture, Media and Sport (DCMS) and the London Development Agency (LDA) (Environmental Sustainability Report, 2012). It is estimated that to date, London has invested £9 billion on the 2012 Olympic Games (Holloway, 2009). The Games are expected to generate several economic and social benefits, with the creation of an estimated 200,000 jobs (Pitcher, 2008) and £5 million spent on developing local skills by training sports coaches, construction workers and staff (Merrick, 2007). The 2012 Games have also led to infrastructural developments that will improve existing transport links in London and within the UK. Examples include extension of the Docklands Light Railway and increase in capacity on the London Underground network (e.g., Jubilee Line and Central Line) (DFT, 2012).

London has also embedded sustainability throughout the planning process, with the aim of making the 2012 London Olympics a benchmark for future games. London addressed sustainability in their Olympic bid with a commitment to use existing venues where possible, ensuring the utilisation of all build facilities after the event. The organising committee is also committed to minimise waste, greenhouse gas emissions, and negative environmental impacts (Environmental Sustainability Report, 2012). However, it is possible for people affected by the Games to have

a different perception. For example, non-host residents of Weymouth and Portland expect the Games to contribute to traffic congestion and increase property prices (Ritchie et al., 2009). Media has also been sceptical about the ability of the Games to be environmentally sustainable. The Games will produce 3.4 million tons of CO₂, while the total annual UK emissions are estimated at 550 million tons (Davis, 2009).

3.2. Questionnaire development

The research instrument consists of several rating scales to capture the study's main variables: perceived impacts, overall attitude, and residents' support. For perceived positive and negative socio-cultural impacts, respondents had to rate their level of agreement/disagreement [1 = strongly disagree and 5 = strongly agree] with nine statements adapted from previous studies mega events and tourism development in general (e.g., Andriotis & Vaughan, 2003; Choi & Sirakaya, 2005; Gursoy & Kendall, 2006; Soutar & McLeod, 1993; Zhou & Ap, 2009). Perceived positive and negative environmental impacts were measured using eight items (Andriotis & Vaughan, 2003; Choi & Sirakaya, 2005; Lorde et al., 2011; Ritchie et al., 2009). Nine statements captured perceived positive and negative economic impacts (Dyer et al., 2007; Gursoy et al., 2004; Kim & Petrick, 2005). Attitude towards the games and residents' support for the games were operationalized as summative overall measures. Two statements (Vargas-Sanchez et al., 2011; Yoon et al., 2001), capture residents' overall attitude: "I am excited about London hosting the 2012 Olympic Games"; and "Overall, the Games positive impacts will outweigh its negative ones". Based on Andereck and Vogt (2000) conceptualisation, support for the games was measured using two statements adapted from Ko and Stewart (2002): "I support the 2012 Olympics Games as a resident"; and "London should bid for other major sporting events". In addition, the research instrument included standard socio-demographic background questions (such as age, gender, length of residence in London, and educational level).

Since respondents had to rate all study variables in the questionnaire using self-report, data may be susceptible to common method variance – CMV (Lindell & Whitney, 2001). Several steps were taken to address this issue. First, the survey design and administration adhered to Podsakoff, MacKenzie, Lee, and Podsakoff (2003) guidelines. For example, to reduce evaluation apprehension, respondents were assured anonymity and confidentiality. Second, measures of the dependent variables in the questionnaire followed those of the independent variables (Salancik & Pfeffer, 1977). Third, we employed Harman's single-factor test to assess CMV (Podsakoff & Organ, 1986). The test requires loading all the study variables in an exploratory factor analysis (EFA) statistical procedure. EFA findings reveal the existence of a multi-factor structure (8 factors with eigenvalues greater than 1) with the first factor accounting for only 10 percent of the total variance. Results suggest common method variance is not a pervasive issue in the data.

3.3. Sample design and data collection

Events for the 2012 Games will take place in the Olympic Park (East London) and at other venues across London. Accordingly, similar to previous studies (e.g., Kim et al., 2006; Lorde et al., 2011), the population of interest is residents of the host community, in our case Londoners. One of the researchers administered the survey at four major London parks during different days and times of the week, including weekends. The selected parks are located in different areas of London: Regents Park (North–West), Hyde Park (Central), Battersea Park (South–West) and Victoria Park (East).

Respondents were informed about the study's purpose and all questionnaires were completed onsite. Data were collected in 2010 over one month. In mega-events literature, pre-event impacts assessment remains the most common research design (e.g., Deccio & Baloglu, 2002; Mihalik & Simonetta, 1999; Ritchie et al., 2009; Zhou & Ap, 2009). Of the 363 residents approached, a total of 212 (response rate of 58.4%) completed the survey.

In the absence of an adequate sampling frame and consistent with previous research (e.g., Gursoy & Kendall, 2006; Kim et al., 2006; Lorde et al., 2011), a convenience sampling method was used to select participants. To minimise selection bias, the sample consisted of respondents with diverse socio-demographic characteristics. The sample equally split between males (50%) and females (50%). Respondents' age groups were as follows: 29.3 percent (25 years old and under); 48.6 percent (26–35 years old); 13.2 percent (36–45 years old); 5.2 percent (46–55 years old); 2.4 percent (56–65 years old); and 1.4 percent (above 65 years old). Respondents were well educated with 54.3% holding an undergraduate degree and 31.9% a postgraduate degree. In terms of occupation, a high proportion (32%) of respondents were professionals. The majority of respondents (64.6%) have resided in London for over 3 years.

In addition, the sample consisted of respondents living across London: North (17.9%), East (11.3%), South East (10.9%), South West (17.9%), West (11.8%), North West (12.3%) and 17.9% from Central London. In the generic tourism development literature, contradictory evidence exists in relation to the influence of distance/proximity to major tourist development on perceptions of impacts. For example, Harrill and Potts (2003) note that neighbourhoods located in core zones had the most negative attitudes towards tourism related developments. Korca (1998) reported that residents living outside the principal tourism areas are more supportive of tourism developments. On the other hand, Belisle and Hoy (1980) found that as distance from tourism zone increases, positive impacts are perceived less favourably. In our sample, proximity (as measured by area of residence in London) has no statistical influence ($p > 0.05$) on residents' perceptions of impacts, overall attitudes and support for the Games (see Table 1). In summary, although convenience sampling is not representative of the larger population, our sample captured a good mixture of residents residing in various parts of London.

3.4. Data analysis

Partial Least Square (PLS) path modelling (Lohmöller, 1989) was used to test the hypothesised research model. PLS method is a non-traditional alternative to covariance-based structural equation modelling (CBSEM). In PLS, structural models are estimated using an iterative procedure that maximizes the strength of the relationship between independent and dependent variables. PLS is

suitable for predictive applications and theory building (Chin, 1998). Unlike CBSEM, PLS imposes less restrictive assumptions about normality and the procedure has the ability to handle small samples (Chin, 1998; Chin & Newsted, 1999). In recent years, PLS has emerged as a popular method for empirical research in tourism (e.g., García, Gómez, & Molina, 2012; Hutchinson, Lai, & Wang, 2009). PLS path models are defined in terms of two sets of linear relations: inner and the outer models. The inner model specifies the relationship between unobserved or latent variables, similar to CBSEM structural models. The outer model (or measurement model in CBSEM) shows the relationship between a latent variable and observed or manifest variables (Lohmöller, 1989). Unlike conventional SEM, PLS does not produce an overall test statistic, such as the χ^2 Goodness of Fit and RMSEA (Rigdon, 2005). PLS model evaluation is based on multiple fit indices, including R^2 values, average variance explained (AVE), path loadings and Goodness of Fit index (GoF) (Fornell & Cha, 1994; Lohmöller, 1989; Tenenhaus, Esposito Vinzi, Chatelin, & Lauro, 2005). The hypothesised model was estimated using SmartPLS 2.0 (Ringle, Wende, & Will, 2005). Statistical significance of the coefficients for the measurement and structural models were obtained via a bootstrap re-sampling procedure.

4. Findings

4.1. Measurement model

Following Anderson and Gerbing (1988) recommended procedure, we first establish reliability, convergent, and discriminant validity of the study's main constructs (see Tables 2 and 3) before testing the structural model. Reliability assessment uses composite reliability estimates (Werts, Linn, & Jöreskog, 1974). From Table 2, composite reliability for all scales was above the recommended threshold of 0.70 (range from 0.77 to 0.91), indicating the measures are reliable (Fornell & Larcker, 1981; Nunnally & Bernstein, 1994).

The significance of factor loadings and average variance extracted (AVE) were used to assess convergent validity. From Table 2, factor loadings are greater than 0.55 and are significant ($p < 0.05$). Average variances extracted are above 0.50, establishing the measure's convergent validity (Fornell & Larcker, 1981). Discriminant validity was examined by comparing the square root of AVE for individual constructs with the correlations among the latent variables. For adequate discriminant validity, the diagonal elements in Table 3 should be greater than the off-diagonal elements (Barclay, Thompson, & Higgins, 1995; Fornell & Larcker, 1981). Comparing all correlation coefficients with square roots of AVEs in Table 3, the results suggest strong evidence of discriminant validity.

4.2. Structural model

The structural model (Fig. 1) was evaluated using R^2 estimates, standardized path coefficients (β), and significance level (t statistic). The R^2 values measure the structural model's predictive power, while path loadings (interpreted as standardized regression coefficients) indicate the strength between independent and dependent variables. R^2 values are greater than the recommended 0.10 value (Falk & Miller, 1992). The model explains 61 percent of overall attitude towards the Games and 63 percent of support for the Games. The model variance explained are higher in comparison to studies that fail to distinguish between positive and negative impacts (e.g., Yoon et al., 2001). The Goodness-of-fit (GoF) was computed to further assess the stability of the proposed model. GoF is the geometric mean of the average communality (outer measurement model) and the average R^2 of the endogenous constructs (Tenenhaus et al., 2005). For the entire model, GoF value was 0.62

Table 1

Effect of proximity on perceived impacts, overall attitudes and support for the games.

Area of residence in London	M							
	PSCI	NSCI	PEnl	NEnl	PEcl	NEcl	Att	Supp
North	3.47	3.68	2.83	3.48	4.03	3.53	3.91	3.91
East	3.38	3.83	3.01	3.63	4.03	3.46	3.69	3.69
South East	3.48	3.46	3.03	3.30	4.09	3.37	4.15	4.15
South West	3.39	3.57	2.85	3.46	3.93	3.24	3.80	3.80
West	3.65	3.57	3.17	3.44	4.07	3.36	4.02	4.02
North West	3.44	3.50	3.08	3.48	3.96	3.56	3.81	3.81
Central	3.43	3.75	2.91	3.74	3.82	3.82	3.63	3.63
F	0.41	0.86	0.91	1.21	0.66	1.75	0.92	1.05

Note: PSCI = Perceived Positive Socio-Cultural Impact; NSCI = Perceived Negative Socio-Cultural Impact; PEnl = Perceived Positive Environmental Impact; NEcl = Perceived Negative Environmental Impact; Att = Attitude towards the Games; Supp = Support for the Games.

Table 2

Assessment of the measurement model: reliability, convergent and discriminant validity.

Items	Item loadings	t-statistic	Composite reliability	AVE
<i>Perceived positive socio-cultural impacts</i>			0.87	0.53
The Games will bring the London community closer	0.75	20.50**		
The Games will provide residents a chance to meet new people	0.65	9.87**		
The Games will foster pride among London residents and British people	0.71	17.53**		
The Games will promote London as a multi-cultural destination	0.68	11.99**		
The Games will provide residents relaxation and entertainment	0.70	16.26**		
The Games will strengthen local community bonds and cohesion	0.85	42.41**		
<i>Perceived negative socio-cultural impacts</i>			0.77	0.54
The Games will disrupt residents quality of life	0.84	11.97**		
The Games will lead to overcrowding of local facilities	0.55	3.64**		
The Games will increase crime	0.79	11.99**		
<i>Perceived positive environmental impacts</i>			0.81	0.59
The Games will improve environmental conservation and protectionism	0.77	15.28**		
The Games will raise environmental awareness	0.72	8.56**		
The Games will stimulate planning and administrative controls such as recycling policies and pollution controls	0.82	19.60**		
<i>Perceived negative environmental impacts</i>			0.85	0.53
The Games will damage the natural environment	0.92	10.53**		
The Games will increase noise pollution	0.94	6.57**		
The Games will increase visual pollution	0.80	14.42**		
The Games will increase littering	0.68	5.33**		
The Games will increase air pollution	0.73	8.26**		
<i>Perceived positive economic impacts</i>			0.90	0.56
The Games will provide locals employment opportunities	0.72	12.90**		
The Games will improve the provision of public services and infrastructures	0.75	17.90**		
The Games will increase business opportunities	0.78	17.22**		
The Games has led to the regeneration and redevelopment of towns and cities	0.71	13.93**		
The Games will enhance London's international reputation through world media exposure	0.75	18.49**		
The Games will improve London's image worldwide	0.72	17.03**		
The Games will promote London as a tourist destination	0.80	20.46**		
<i>Perceived negative economic impacts</i>			0.77	0.63
The Games has led to increased tax rates for London residents	0.72	8.65**		
The large investment required to host the Games cannot be justified in terms of the economic benefits that will be generated for residents	0.86	12.26**		
<i>Overall attitude towards the games</i>				
Overall, I am excited about London hosting the 2012 Olympic Games	0.92	72.69**	0.91	0.84
Overall the Games positive impacts will outweigh its negative ones	0.91	60.45**		
<i>Support for the games</i>				
I support the 2012 Olympic Games as a resident	0.93	110.90**	0.90	0.82
London should bid for other major sporting events	0.89	32.62**		

Note: **Significant at the 0.05 level; AVE = average variance extracted.

and exceeds the cut-off value of 0.36 (Wetzels, Odekerken-Schröder, & van Oppen, 2009). Results suggest the structural model exhibits adequate explanatory power. A bootstrapping procedure calculated path loadings, *t*-values and standard errors for the hypothesized relationships.

From Table 4, the path coefficient from attitude to support towards the games was significant ($\beta = 0.79$; $p < 0.05$), thus confirming H1. We also found support for H2a and H2b. Perceived positive socio-cultural impacts have a positive relationship with attitude ($\beta = 0.27$; $p < 0.05$); and perceived negative socio-cultural impacts have a negative relationship with attitude ($\beta = -0.19$; $p < 0.05$). However, contrary to our theoretical predictions, the path

loadings from positive environmental impacts to attitude ($\beta = 0.01$; $p > 0.05$) and from negative environmental impacts to attitude ($\beta = -0.10$; $p > 0.05$) were not significant, and therefore, H3a and H3b are rejected. For H4a and H4b, PLS parameter estimates ($\beta = 0.44$ and $\beta = -0.17$) are significant ($p < 0.05$).

4.3. Mediating effects of overall attitude

To test the mediating effect of overall attitude on the relationship between perceived positive and negative impacts and support for the Games, we followed Baron and Kenny's (1986) classic causal steps approach. Four conditions must be met to establish

Table 3

Mean, standard deviation, inter-construct correlations.

	Mean	SD	PSCI	NSCI	PEnl	NEnl	PEcl	NEcl	Att	Supp
PSCI	3.46	0.72	0.73							
NSCI	3.63	0.76	-0.40**	0.73						
PEnl	2.96	0.72	0.43**	-0.24**	0.77					
NEnl	3.52	0.71	-0.33**	0.60**	-0.13	0.73				
PEcl	3.96	0.65	0.60**	-0.14*	0.34**	-0.20**	0.75			
NEcl	3.49	0.85	-0.36**	0.39**	-0.24**	0.44**	-0.27**	0.79		
Att	3.84	1.00	0.65**	-0.35**	0.36**	-0.28**	0.67**	-0.44**	0.91	
Supp	3.90	1.08	0.61**	-0.39**	0.38**	-0.32**	0.53**	-0.35**	0.79**	0.90

Note: **Significant at the 0.01 level; *Significant at the 0.05 level; PSCI = Perceived Positive Socio-Cultural Impact; NSCI = Perceived Negative Socio-Cultural Impact; PEnl = Perceived Positive Environmental Impact; NEnl = Perceived Negative Environmental Impact; Att = Attitude towards the Games; Supp = Support for the Games; Square root of average variance extracted (AVE) is shown on the diagonal of the matrix in boldface; inter-construct correlation is shown off the diagonal.

Table 4
Results for the hypothesised model and mediation tests using PLS.

Hypothesis	Direct effects		Mediation tests	
	Beta	t-value	Beta	t-value
H1 Overall attitude – Support	0.79	28.37**		
H2a Perceived positive socio-cultural impacts – Overall attitude	0.27	4.55**		
H2b Perceived negative socio-cultural impacts – Overall attitude	–0.19	–3.71**		
H3a Perceived positive environmental impacts – Overall attitude	0.01	0.35		
H3b Perceived negative environmental impacts – Overall attitude	–0.10	–1.75		
H4a Perceived positive economic impacts – Overall attitude	0.44	6.99**		
H4b Perceived negative economic impacts – Overall attitude	–0.17	–3.16**		
<i>H5 Mediation test: Step 1 – Independent variables to outcome variable</i>				
Perceived positive socio-cultural impacts – Support			0.29	4.48**
Perceived negative socio-cultural impacts – Support			–0.18	–2.60**
Perceived positive environmental impacts – Support			0.11	2.01**
Perceived negative environmental impacts – Support			–0.01	–0.19
Perceived positive economic impacts – Support			0.26	3.83**
Perceived negative economic impacts – Support			–0.10	–1.81*
<i>H5 Mediation test: Step 2 – Independent variables to mediator</i>				
Perceived positive socio-cultural impacts – Overall attitude			0.27	4.64**
Perceived negative socio-cultural impacts – Overall attitude			–0.19	–3.16**
Perceived positive environmental impacts – Overall attitude			0.02	0.38
Perceived negative environmental impacts – Overall attitude			–0.11	–1.90*
Perceived positive economic impacts – Overall attitude			0.44	7.02**
Perceived negative economic impacts – Overall attitude			–0.19	–3.50**
<i>H5 Mediation test: Steps 3 & 4 – Independent variables and mediator to outcome variable</i>				
Perceived positive socio-cultural impacts – Support			0.11	1.90
Perceived negative socio-cultural impacts – Support			–0.06	–0.92
Perceived positive environmental impacts – Support			0.10	1.70
Perceived negative environmental impacts – Support			–0.07	–0.76
Perceived positive economic impacts – Support			0.05	0.76
Perceived negative economic impacts – Support			–0.05	–1.03
Overall attitude – Support			0.69	11.48**

Note: **Significant at the 0.05 level; *Significant at the 0.10 level.

mediation: first, a direct link must be established between the independent and dependent variable; second, the independent variable must be related to the mediating variable; third, the mediator must be significantly related to the dependent variable when both the independent and mediating variables are predictors of the dependent variable; and fourth, the relationship between the independent variable and dependent variable must be significantly reduced when the mediator is added. Complete mediation is established when the path coefficients for the independent variable in Condition 1 are significant and the same coefficients are not in Condition 4. Otherwise, assuming all the four conditions hold, partial mediation is supported (Baron & Kenny, 1986).

Three separate PLS models were used to test for mediation. In Table 4, for the first condition, under “Mediation test: Step 1”, all the independent variables (with the exception of perceived negative environmental impact) have a statistically significant relationship with the dependent variable support ($R^2 = 0.48$). The second step mandates that there is a relationship between the independent variables and the mediating variable overall attitude. Significant relationship was established between the perceived impacts dimensions and attitude ($R^2 = 0.61$). In step 3, results confirm the relationship between overall attitude (mediator) and the criterion variable support ($\beta = 0.69$, $p < 0.05$). In the final step, to predict the criterion variable support, both the independent (six perceived impacts dimensions) and mediator (overall attitude) variables are included simultaneously in the PLS model. Mediation exists if path coefficients between the perceived impacts dimensions and support are reduced when the indirect path via attitude is introduced into the model.

Results (see Table 4 under “Mediation test: Steps 3 & 4”) confirm the indirect relationship between perceived impacts and support. The magnitude of the direct effect between perceived impacts and support in Step 4 declines when controlling for the mediator, overall attitude (reduction in all beta coefficients and none of the

paths are statistically significant). For example, beta coefficient for the direct path between perceived socio-cultural impact and support was 0.27 ($p < 0.05$) in Step 1 and dropped to 0.11 ($p > 0.05$) after the inclusion of overall attitude as a mediator in Step 4. To assess the significance of the mediating effects of attitude, we applied the Sobel's z-statistic test (Sobel, 1982). If the z value exceeds 1.96 ($p < 0.05$), mediating effect is supported. All z values for the indirect paths exceeds 1.96 and significant ($p < 0.05$). For example, the z value for the indirect relationship between positive environmental impact and support for the game was 3.39 ($p = 0.000$). In summary, findings confirm the mediating effects of overall attitude on the relationship between perceived impacts and support for the games.

5. Discussion and implications

In tourism development and impact studies, much ambiguity surrounds the relationship between residents' overall attitude and support (Andereck & Vogt, 2000). Poor conceptualisation and the interchangeable use of the terms attitudes and support has hampered progress in understanding the nature of this relationship. In this research, consistent with the theory of reasoned action, we treat overall attitudes towards the Games and residents' support for the Games as conceptually different constructs. As hypothesised (H1), findings indicate a positive relationship between overall attitude and support for the Games. Such results are in line with previous tourism development studies (e.g., Yoon et al., 2001), and residents' attitudes towards place marketing (Kwon & Vogt, 2010). Tourism scholars must clearly distinguish between overall attitudes and support since, failure to do so, will hinder research progress and result in poor conceptual developments.

Our results concur with previous mega-event (e.g., Lorde et al., 2011; Ritchie et al., 2009; Zhou & Ap, 2009) and tourism development studies (e.g., Dyer et al., 2007; Yoon et al., 2001) highlighting

the importance of using a triple bottom line approach when assessing residents' perceptions of tourism impacts. Findings establish a positive significant relationship between perceived positive socio-cultural impacts and overall attitude (H2a). Hypothesis 2b was also confirmed, suggesting that adverse socio-cultural consequences of mega events lead to unfavourable attitudes from the hosts. Unlike previous tourism development studies (e.g., Vargas-Sanchez et al., 2011; Yoon et al., 2001), our results highlight the need for researchers to disaggregate social cultural impacts, into positive and negative dimensions.

In addition, contrary to our predictions, hypothesis 3a and 3b were not supported, advocating the absence of a significant relationship between perceived positive/negative environmental impacts and overall attitudes. Findings are different from prior studies (e.g., Ko & Stewart, 2002; Yoon et al., 2001). A number of plausible explanations can be offered to explain the insignificant influence and the divergent results. First, methodological differences exist between our research and the previous studies. Yoon et al. (2001) aggregated environmental impacts into one construct without investigating the relative importance of positive and negative impacts separately. Similarly, Ko and Stewart (2002) use a summated measure consisting of positive and negative environmental impacts. Second, the context of the studies is different: mega-sporting events vs. tourism development. Impacts of tourism related initiatives are not universal but are dependent on the type and nature of the development (Tosun, 2002; Zhou & Ap, 2009). Olympic Games differ in terms of their magnitude and often it is only during and/or after the Games that environmental impacts become more evident. Residents' assessment of environmental impacts caused by the event often proves difficult (May, 1995). In addition, Olympic Games can have secondary and long-term environmental consequences (May, 1995). In our study, we measured perceptions of environmental impacts prior to the event and it is likely that residents were not fully exposed to the environmental consequences. Third, existing literature reports contradictory findings in relation to the influence of perceived environmental impacts on overall attitude (King et al., 1993).

Furthermore, results confirm hypotheses 4a and 4b. Consistent with previous tourism development studies (e.g., Yoon et al., 2001), perceived positive economic impacts have the strongest influence on overall attitude (refer to beta coefficient in Table 4). Such results are not surprising given that economic benefits of tourism are often the most valued among the local community (Akis, Peristianis, & Warner, 1996; Gursoy, Jurowski, & Uysal, 2002; Keogh, 1990; Ritchie, 1988). Similarly, mega-events such as the Olympic Games are known to have substantial positive economic consequences on the host destination (Getz, 1997; Hall, 1989; Lorde et al., 2011). In addition, a closer examination of the mean values in Table 3 reveal that London residents consider the Games to bring negative economic consequences, confirming findings of prior Olympic impact studies (e.g., Deccio & Baloglu, 2002; Ritchie et al., 2009; Zhou & Ap, 2009).

The study also investigates the mediating effects of overall attitude on the relationship between perceived impacts and residents' support for the Games (H5). Findings confirm H5, suggesting that overall attitude mediates the relationship between perceived positive and negative i) socio-cultural, ii) environmental, iii) economic impacts and support for the Games. Results suggest that support is not always a direct consequence of perceived impacts as established by the majority of studies on mega-events (e.g., Deccio & Baloglu, 2002; Gursoy & Kendall, 2006; Zhou & Ap, 2009) and tourism development research in general (e.g., Gursoy & Rutherford, 2004; Gursoy et al., 2010; Nunkoo & Gursoy, 2012).

Findings offer important practical implications for the Games' various stakeholders. Kim and Petrick (2005, p. 25) posit "sports mega-event authorities tend to show great interest in economic

criteria, whereas they tend to ignore investigations into social and cultural impacts of their events." Interestingly, our study results demonstrate that perceived negative socio-cultural impacts have the strongest adverse effect on residents' overall attitude. For the long-term sustainability of the games, it is important for London Organizing Committee (LOCOG) to mitigate such negative impacts. An examination of the mean values in Table 3 indicates that London residents expect the negative socio-cultural impacts ($M = 3.63$) to outweigh the positive ones ($M = 3.46$). Event organisers should emphasise and market the event's positive socio-cultural impacts through social marketing campaigns. Information should be provided to London residents in the form of leaflets, or a website designed specifically for residents with news, discussion forums and updates. The current website (www.London2012.com) is informative, but does not explicitly address social needs and concerns of residents. Previous studies (e.g., Mihalik & Simonetta, 1999) show that media coverage is important in shaping residents' attitude. In addition, event organizers should reduce physical and economic barriers to participation in the Games and include marginalized communities. To achieve socio-cultural sustainability, local community empowerment, involvement and participation is crucial (Cole, 2006; Dodds, 2007; Muller, 1994). Olympic Games offer two main opportunities for community development. First, the Games strengthen community bonding and personal relationships among residents through enabling extensive volunteering efforts. Second, local participation contribute to community well-being and quality of life (Ritchie, 2000; Ritchie & Smith, 1991).

Furthermore, residents have concerns that the amount of money invested in hosting mega-events cannot be justified in terms of their potential benefits. Thus, it is important to manage residents' expectations of the economic impacts. Residents should be informed of the potential long-term economic benefits (such as new infrastructure and facilities) prior to the Games. Such measures are likely to foster positive attitudes and increase support for the 2012 Olympic Games among London residents (Ritchie et al., 2009). Hosting the 2012 Olympics Games has led to substantial improvements in London transport infrastructure. Moreover, the Games have been a catalyst for the regeneration of the Lower Lea Valley in East London. The redevelopment is hailed as one of the most exciting and largest regeneration opportunities in Britain with the potential to accommodate up to 40,000 new homes and 50,000 new jobs (Greater London Authority, 2007). It is expected that development of the Olympic Park in the Lower Lea Valley will deliver a lasting legacy for East London beyond the 2012 Games.

In addition, although major infrastructural developments has been centralised around East London, it is important for event organisers to communicate the likely impacts to non-host cities (Pillay & Bass, 2008). For example, Kent, a county in the South of England has developed the Kent Campaign for the 2012 Games. The objective behind this initiative is to ensure that Kent derives maximum benefits from the London 2012 Games and beyond. Kent County Council Sport, Leisure and Olympics Service have been working with a range of partners from the public, private and voluntary sectors covering the thematic areas of Sports, Tourism Arts, Business, Volunteering, Young People and Transport. Kent Council has a dedicated website (<http://www.kentsport.org/london2012>) to keep its residents and other stakeholders informed of the latest developments (e.g., The Olympic Torch Relay; Sporting Events throughout the county). Indeed, Deccio and Baloglu (2002) note that to ensure the sustainability and success of mega events is maximised, it is important not to neglect the expectations and perceptions of the non-host community.

The model developed in this study suggests that overall attitude mediates the relationship between residents' perceptions of impacts and support for the Games. Measuring only impact

perceptions and support without understanding residents' overall attitudes may offer erroneous information for decision-making. It is paramount for event organisers to manage perceptions of impacts and engage residents in the decision making process in order to foster positive attitudes, which in turn influences support. The model alludes to the need for a participatory planning process to ensure success (Bramwell, 1997). Participatory planning provides the capacity to change residents' relationships with their community (Bramwell, 1997). Therefore, to generate positive attitudes and support it is necessary for authorities to mitigate residents' perceptions of negative impacts and promote the long-term positive legacy of the Games.

6. Conclusion

The objective of this study was to understand residents' support for the 2012 Olympic Games. Drawing on SET and TRA, we propose a model linking perceived impacts, attitude and support for the Games. Findings demonstrate the validity of a model of residents' support for mega-events using the triple bottom line impact framework. The paper makes an important theoretical contribution to the literature. Unlike the majority of prior research, this study explicitly delineated the impacts of mega-events into six categories: positive socio-cultural, negative socio-cultural, positive environmental, negative environmental, positive economic and negative economic. We then assessed the differential influence of each impact on overall attitude and support. Existing research on mega-events fail to understand perceived impacts using the triple bottom line approach (Lorde et al., 2011). Our results indicate that perceptions of each of the six impacts have distinct effects on overall attitude. A rich body of knowledge in psychology has established that combining distinct variables of similar valence into summary dimensions is methodologically inappropriate (e.g., Cacioppo & Bertson, 1994; Hubbert & Whittington, 2003). Collapsing perceived impacts into summary dimensions (costs vs. benefits) or 'net effects' is problematic and masks important relationships between specific impact (e.g., positive socio-cultural, negative environmental) and overall attitude. To benefit theory development and measurement, we recommend researchers to go beyond aggregating impact dimensions to accommodate: a) the separate and differential effects of each impact category (e.g., positive socio-cultural, negative socio-cultural); and b) investigation of their unique antecedents and consequences.

Furthermore, the study investigates the mediating effects of overall attitude on the relationships between perceived impacts and residents' support. Previous studies on residents' support for tourism and mega-events have generally assumed that support is a direct consequence of positive and negative impacts of tourism. While this is true, our research also suggests that such relationships are fully mediated by residents' overall attitudes. Although the theoretical conceptualisation of mediation is well established in the literature (e.g., Baron & Kenny, 1986; Judd & Kenny, 1981), applications to model support for tourism and mega-events is still in its infancy. Establishing mediation represents a theoretical advancement from a simple bivariate relationship between two constructs. Modelling overall attitude as a mediator provides a deeper and more refined understanding of the casual relationship between the six categories of impacts and support. Researchers should go beyond the simple account of bivariate relationship between impacts perceptions and residents' support. An understanding of the factors that bridge the casual relationship and alter the magnitude or directions of the casual relationship is likely to contribute theoretically to the field of residents' support.

The study findings should be interpreted with caution for a number of reasons. The sample size is small. Future studies could

test the validity of the proposed model using a larger sample size. We also acknowledge that our sampling design has some limitations. Other procedures such as systematic sampling in neighbourhoods close to Olympic venues, the 'drop and collect' method (e.g., Ritchie et al., 2009), and cluster sampling are desirable. However, no funding was provided for this study. Our approach was fast, cost effective and suited for research with limited budget. In addition, the proposed model did not include all factors influencing residents' support. Previous research have identified that support for mega events is likely to be influenced by residents' involvement in event decision-making, role of the media, politics (Ritchie et al., 2009), community concern, community attachment, environmental attitudes of local residents (Gursoy & Kendall, 2006), and perceived impact of the Games on quality of life (Andereck & Nyaupane, 2011). Inclusion of other factors is likely to improve the predictive power of the model. Furthermore, data were collected from residents before the Games commence. Impacts vary over time and attitudes may deteriorate during and after the event (Kim et al., 2006; Kim & Petrick, 2005; Lorde et al., 2011). We encourage other researchers to use our findings as a starting point for longitudinal research, comparing perceived impacts, attitudes and support post event. Our study focuses on the host community (London residents) attitudes towards games. To ensure the sustainability and success of an event is maximised, it is also important to understand expectations and attitudes of the non-host community (Deccio & Baloglu, 2002). Finally, we recognise the limitations of SET (see McGehee & Andereck, 2004) in explaining the relationship between impacts, overall attitude and support. Other frameworks such as social representation theory (Pearce, Moscardo, & Ross, 1996; Ritchie et al., 2009) and dependency theory (Lepp, 2008) are relevant to model residents' support.

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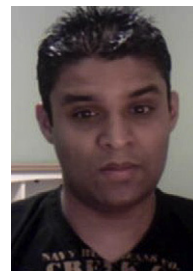
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