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# Factors influencing visitor travel to festivals: Challenges in encouraging sustainable travel

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## Abstract

This paper examines how visitor travel-mode choices to festivals are formed and how sustainable travel could be encouraged. The empirical analysis focuses on Hay Festival of Literature and Arts using semi-structured interviews with visitors. Themes and topics explored through the interviews were informed by theories of travel behaviour. Findings highlight a range of external and internal factors influencing visitor travel-mode choices, which are closely interrelated. External factors reflect environmental elements related to the location and type of overnight accommodation, festival location, travel time, and quality of public transport services. Internal factors include autonomy in travelling different routes and times, travelling with young children, cost of travel, and physical-health and mobility issues. An additional internal factor was routine use of the car and extension of this behaviour when travelling to the festival. Based on the consolidation of the empirical findings, the paper also proposes a new theoretical framework for capturing a more comprehensive understanding of event related travel decisions. To encourage further sustainable travel, festival organisers and policy makers should not only focus exclusively on travel time and cost but consider a wider array of factors that are unique to festivals and their geographic locations.

**Keywords:** events, festivals, sustainable travel, event management, travel mode choice, visitor travel

## Introduction

Festivals and events play an increasingly prominent role in the UK tourism industry and its cultural landscape. This is due to economic impacts generated through direct spending by visitors, increased employment opportunities and visitation, enhanced image of the host location, and their socio-cultural benefits (Chirieleison & Scrucca, 2017; Gursoy, Kim & Uysal, 2004). In 2015, more than 10.4 million visitors attended festivals and music events in the UK, and were worth an estimated £2.4 billion to the UK economy in terms of direct spend (Eventbrite, 2016). An increase in the number of festivals and events being organised, and the number of people attending them are key factors in driving the scale of this economic impact.

However, events and festivals can also result in a range of negative social and environmental consequences (Kim, Jun, Walker & Drane, 2015). As noted by Getz (2009, p.64), “in an era of global climate change, rising energy costs and the risk of scarcity, environmental issues have recently come to the fore in the events literature”. Increased awareness of these impacts has resulted in greater attention to the importance of events and their sustainability by policy makers, event organisers and academics (Buckley, 2012; Hall, 2013; Mair & Whitford, 2013). In particular, research on the sustainability of events and festivals is developing rapidly, with increased attention on their management and evaluation (Collins & Cooper, 2016; Gaffney, 2013; Gratton, Arcodia, Raciti & Stokes, 2011).

Festivals and events can have significant resource demands and environmental impacts (Collins & Cooper, 2016), and several studies have employed a variety of methodologies to measure and evaluate those impacts (Andersson & Lundberg, 2013; Collins, Munday & Roberts, 2012; Dolf & Teehan, 2015; Edwards, Knight, Handler, Abraham & Blowers, 2016). These studies have consistently found that visitor travel can impact significantly on the overall sustainability performance of an event (e.g. Collins & Roberts, 2018; Dolf & Teehan, 2015). This is due to distances travelled by attendees, and the car being a predominant mode of travel. In response, an increasing number of festivals are developing strategies to minimise traffic congestion and pollution in their local area (see for example, Glastonbury Green Traveller, 2011). However, these strategies have been met with varying degrees of success in terms of encouraging a significant proportion of attendees to switch to more sustainable travel modes (Powerful Thinking, 2015). Therefore, the development of effective management strategies designed to encourage sustainable travel to events and festivals requires a more comprehensive understanding of the complex range of direct and indirect factors that influence how visitors choose to travel and why. In effect, it is important to recognise that the travel mode-choice to events relates to individual (internal) factors and those external factors that an individual may have limited or no control over.

The aim of this paper is to gain a better understanding of the process of decision-making when travelling to a festival. It specifically seeks to address two research questions: (a) ‘What factors influence visitors’ choice of travel mode to a festival?’ and (b) ‘What would encourage visitors to travel by more sustainable transport modes in the future?’. The paper responds to calls for research to better understand visitor travel decisions to festival and events (see, Collins & Cooper, 2016). Robbins, Dickinson, and Calver (2007), for example, have highlighted the need for more qualitative research to understand existing travel choices, travel experiences, preferred mode of travel and how travel practices arise.

The empirical focus of this paper is the Hay Festival of Literature and Arts, an 11-day festival held in Wales, UK. The organisers have explicitly incorporated sustainability practices and management into the organisation and staging of the Festival. For example, a key aim of its ‘Greenprint’ programme is to enable visitors to make more sustainable choices including travel to the Festival. However, despite attempts to encourage visitors to choose more sustainable travel options, in 2012 travel by private car accounted for 91% of total distances travelled by UK visitors (see, Collins & Cooper, 2016).

The remainder of this paper is structured as follows. The following section provides a review of the literature on visitor travel impacts and behaviour. This section also describes the

theories employed as a guiding framework to identify themes and topics used in the empirical part of the study. The paper then discusses the methodological approach including background to Hay Festival and the data collection process. This is followed by an analysis of the findings and a proposed theoretical framework for understanding event related travel. The discussion and concluding sections discuss the results in relation to other evidence in the literature, reflects upon the value of the methodological approach and suggests areas for further research.

## **Literature review**

### **Visitor travel and impacts**

The organisation and planning of visitor travel is critical to ensuring the success and sustainability of festivals. While the staging of festivals can bring economic and social benefits to host locations, visitor travel can also result in negative social and environmental impacts. As Robbins et al. (2007) highlight, travel is a key issue for event management and sustainability. This issue mainly relates to a reliance on cars to reach venues and their subsequent effect on greenhouse gas emissions and other environmental impacts including increased road congestion, noise levels, deterioration in air quality and a large ecological footprint (Collins & Cooper, 2016; Zheng, Garrick, Atkinson-Palombo, McCahill & Marshall, 2013).

The Association of Independent Festivals (AIF) and Association of Festival Organisers (AFO) conducted a study of UK festival organisers' environmental practices and priorities. The study which involved almost 17% of UK summer music festivals (representing a range of types, sizes and locations) found that 78% had an environmental policy in place, and 70% promoted and incentivised sustainable travel (AIF & AFO, 2015). However, the study found that despite efforts, the environmental impact attributable to audience travel was "the most significant single source of carbon emissions attributable to the events industry" (AIF & AFO, 2015; p.25). The study also concluded that emission levels varied considerably between festivals depending on their audience demographics and location. As a result, the adoption of generic travel strategies and incentives may not be appropriate or effective in encouraging visitors to choose more sustainable forms of transport when travelling to festivals.

In response to the 2015 United Nations Framework Convention on Climate Change (UNFCCC), Powerful Thinking, a not-for-profit festival industry group, published a comprehensive report on existing research on the environmental impacts of UK festivals. Based on their analysis of 279 summer music festivals, the report concluded that the festival industry is responsible for an estimated 100 kilotonnes of CO<sub>2</sub>e annually, of which 80% is attributable to audience travel (Powerful Thinking, 2015). A study on the environmental impact of the UK music industry in 2007 reported similar findings, with audience travel to events accounting for up to two thirds of festival-sector generated CO<sub>2</sub>e emissions (Bottrill, Papageorgiou & Jones, 2009).

Car dependency has increased rapidly over the last 25 years, and the most recent Department of Transport (2018) data show that 61% of domestic trips were made by car, and only 8% were made by bus and rail (6% and 2%, respectively). A similar pattern exists for festivals. For example, an analysis of audience travel to UK music festivals shows that travel by car is the most popular mode (61%). Only a small proportion of visitors chose to

travel to festivals using more sustainable modes such as train (15%), car share (15%) and coach (4%) (Powerful Thinking, 2015). In the case of Sidmouth Folk Festival (England, UK), 94% of attendees travelled by car (Mason & Beaumont-Kerridge, 2004). In other countries, studies have reported similar travel patterns. For example, Gibson and Wong's (2011) analysis of the Australian music and arts festival "Splendour in the Grass" concluded that attendees' travel footprint was significantly higher than the national average. This was due to the long distances travelled by attendees, and 69% had travelled by car.

The annual AIF survey of UK festival audiences has examined incentives that would encourage greater use of public transport instead of the car (AIF & AFO, 2015). Their study concluded that festival goers would be encouraged to change mode by a discounted travel ticket (48%), fast track festival entrance (31%), and preferential access to campsites (23%). However, almost 20% still indicated they could not be persuaded to use alternatives to the car. This finding highlights the need to develop an enhanced understanding of visitors' current travel choices and factors that may be preventing them from switching from the car to more sustainable transport options.

### **Travel behaviour and implications for studying travel to festivals**

Understanding visitor travel to festivals and events and why the car is selected over other modes entails similarities, but most importantly presents distinct features relative to other travel purposes (e.g. work) (Mabit, Rich, Burge & Potoglou, 2013). Firstly, travel to festivals and events and their subsequent impacts are constrained by time and space (Robbins et al., 2007). Secondly, journey origins spread over larger geographical areas, and so travel to festivals frequently entails long-distance travel (Davies & Weston, 2015; Robbins et al., 2007). This is because festivals and events are not only attended by local residents but also visitors from other locations seeking a different experience. As a consequence, attending a festival may involve a single-day, weekend or multiple-day visit (Smith & Costello, 2009). Finally, all trip origins share a common destination, which in principle should enable better management of options and alternative modes of travel.

Robbins et al. (2007) argue that mode of travel to an event is influenced by its setting (i.e., urban versus rural, temporary versus permanent), timing, type and frequency. However, there is very limited evidence on how visitors choose mode of travel to a festival or an event. In the absence of such evidence, we selectively draw upon previous studies on long-distance travel, which include travel to holiday and leisure destinations. A key finding was that visitor duration of stay at a destination is a key factor associated with visitor mode of travel. For example, Mabit et al. (2013) found that travellers visiting Germany and Denmark for holiday purposes reported that duration of stay (i.e., less than 24 hrs versus 1-7 days) and car availability were key factors that influenced visitors decision to travel by car. Visitors also exhibited different levels of sensitivity to travel time according to journey distance and duration of stay.

In general, factors associated with mode choice when travelling for holiday and leisure purposes have been grouped into instrumental and non-instrumental (Anable & Gatersleben, 2005; Price & Matthews, 2013). Instrumental factors concern the practicalities of the journey and include monetary costs, convenience, flexibility and travel time. Non-instrumental factors are related to affective factors such as pleasure and excitement. Anable

and Gatersleben (2005), for example, found that visitors travelling for leisure purposes did not necessarily seek to minimise travel costs, but attached equal importance to non-instrumental factors and affective aspects such as convenience, relaxation, perceived freedom and no-stress.

Different events are likely to attract visitors of different profiles. For example, music festivals tend to attract younger visitors. Robbins et al. (2007) proposed that visitors' socio-economic profile, income and age directly influence car ownership and entitlement to drive, and so are likely to determine a visitor's intention to drive to an event or festival. Van Middelkoop, Borgers, and Timmermans (2003) reported that choice of travel mode was mediated by distance to the final destination, time and comfort, presence of children and type of accommodation. Also, Nicolau (2008) found that tourists' willingness to travel longer distances was positively associated with increased income and living in a large city, but negatively associated with the number of children. However, no association was found between age and willingness to travel longer distances. Finally, when transport mode was used as an explanatory variable, findings showed that tourists were more likely (in order of preference) to travel longer distances by train, coach or plane than car (Nicolau, 2008).

Although only a small proportion of visitors choose to travel to events by more sustainable modes such as public transport, they frequently express concerns about the environmental impacts of travel to events (e.g. Buckinghamshire New University, 2012) and declare positive values about environmentally friendly transportation (Beudeanu, 2007; Chafe, 2005). Khoo-Lattimore and Prideaux (2013) have suggested that discrepancies exist between tourist awareness and actual travel behaviour, and these need to be explored further. As a consequence, there is a 'travel paradox' under which increased environmental concerns do not necessarily reflect behaviour change and therefore a real shift towards sustainable travel modes is still needed. Collins and Cooper (2016) highlighted that the impact of visitor travel and its relation to car use should be a priority area for festival organisers and policy makers in achieving more sustainable forms of tourism.

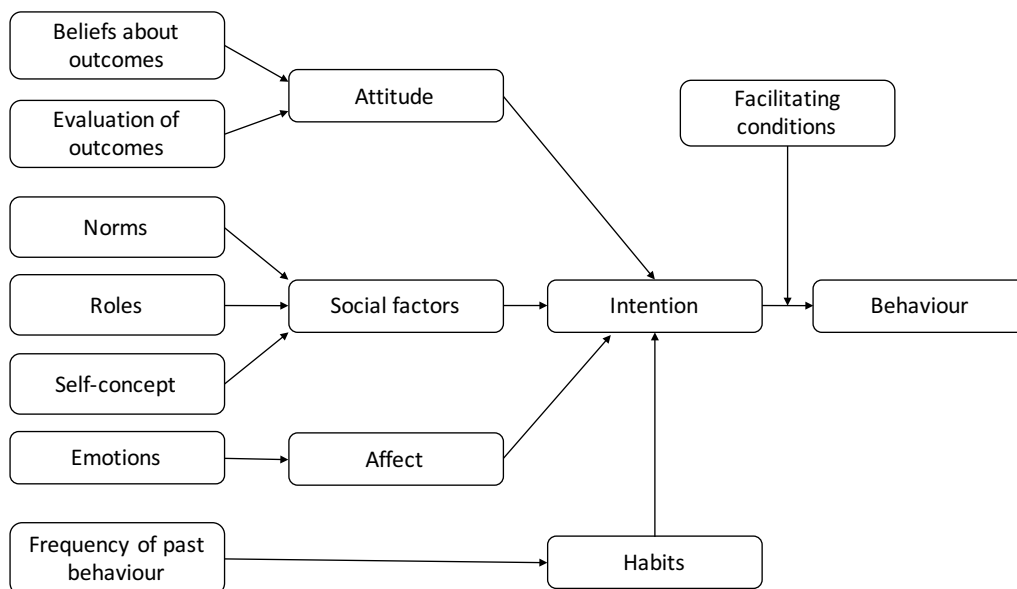
### **Theoretical background: Extending theory to event and festival travel**

Travel behaviour change and related programmes have been at the core of travel demand management (TDM) strategies aimed at reducing car dependency, its impacts and encouraging use of public and non-motorised modes (Arnott et al., 2014). Understanding the factors associated with choice making, in particular, is a principal input in the development and implementation of policies and relevant strategies. These factors correspond to both the individual traveller (internal) and their environment (external) (Stern, 2000). There are currently three well-known theories that seek to answer the question '*what factors are associated with choice making and why?*': (a) the Theory of Planned Behaviour (TPB) (Fishbein & Ajzen, 1975), (b) the Theory of Interpersonal Behaviour (TIB) (Triandis, 1977) and the (c) Norm Activation Theory (NAT) (Schwartz, 1977). The leisure constraint model has also been proposed by scholars as a framework to define the nature and operation of leisure barriers (Crawford & Godbey, 1987).

The TPB was introduced as an extension to the Theory of Reasoned Action (TRA) to capture the effects of factors that a decision-maker may not have complete control over, but may determine their choice. The premise of TPB is that choices and individual behaviour, more

generally, can be determined by *the strength of intentions*, which in turn are determined by *attitudes, subjective norms* and *perceptions* and more recently, *actual behavioural control* (Ajzen & Fishbein, 2005). TPB has been used in a variety of research areas related to human behaviour with only a small number of applications focusing on leisure travel and tourism contexts including visiting a destination (Hsu & Huang, 2012), destination choice (e.g. Buttle & Bok, 1996; Sparks & Pan, 2009) and hotel choice (Lam & Hsu, 2006).

The second theory, the TIB, also postulates that intention is one of the influential factors of behaviour (Triandis, 1977). Most importantly, Triandis (1977) recognised that habit should be taken into consideration when explaining (or predicting) behaviour. Effectively, habit, intention and facilitating conditions, in ranked order, were recognised as three key determinants of behaviour with the first two interacting with environmental factors that facilitate or inhibit behaviour (see, Figure 1). Habit is determined by the frequency of past behaviour and intentions are a function of attitude, social factors and affection. As with TPB, beliefs and evaluation of outcome form the foundation of individuals' attitudes. Social factors, referred to as subjective norms in TPB, include norms (i.e., social rules), roles (i.e., behaviours assumed appropriate for persons within a group) and self-concept (i.e., the idea of a person about themselves). On the other hand, TIB assumes that affection is another determinant of intentions, which represents the extent at which an individual enjoys or dislikes the behaviour. Although previous research has shown that TIB has greater predictive power than TPB (Bamberg & Schmidt, 1999), only a handful of applications have been developed in the field of travel behaviour research (e.g. Galdames, Tudela & Carrasco, 2011).



**Figure 1.** Theory of Interpersonal Behaviour (Triandis, 1977)

The NAT was introduced to explain altruistic behaviour as it proposes that personal norms are a determinant of pro-social or pro-environmental behaviours (Schwartz, 1977). Personal norms reflect an adaptation through societal norms and are activated when an individual becomes aware of the consequences and takes responsibility of their behaviour (Klößner & Matthies, 2004). Normative decisions are made through attention, motivation, evaluation

and denial stages. Following the motivation stage, individuals evaluate the costs and benefits of various alternatives and the alternative with the highest utility is chosen (Klößner & Matthies, 2004). The stage of denial takes place when no clear decision can be made. In the latter case, moral is altered or removed and the process is repeated until a choice is made. The key difference with TPB is the emphasis of NAT on altruism and benefits to others are prioritised (Wall, Devine-Wright & Mill, 2007). Most importantly, NAT may capture positive beliefs about certain behaviour, but these may not translate into actual behaviour. Findings in travel behaviour research studies have been mixed. For example, Bamberg and Schmidt (2003) reported no association between moral beliefs and car use, whereas Wall et al. (2007) reported a significant association between personal norms and car use.

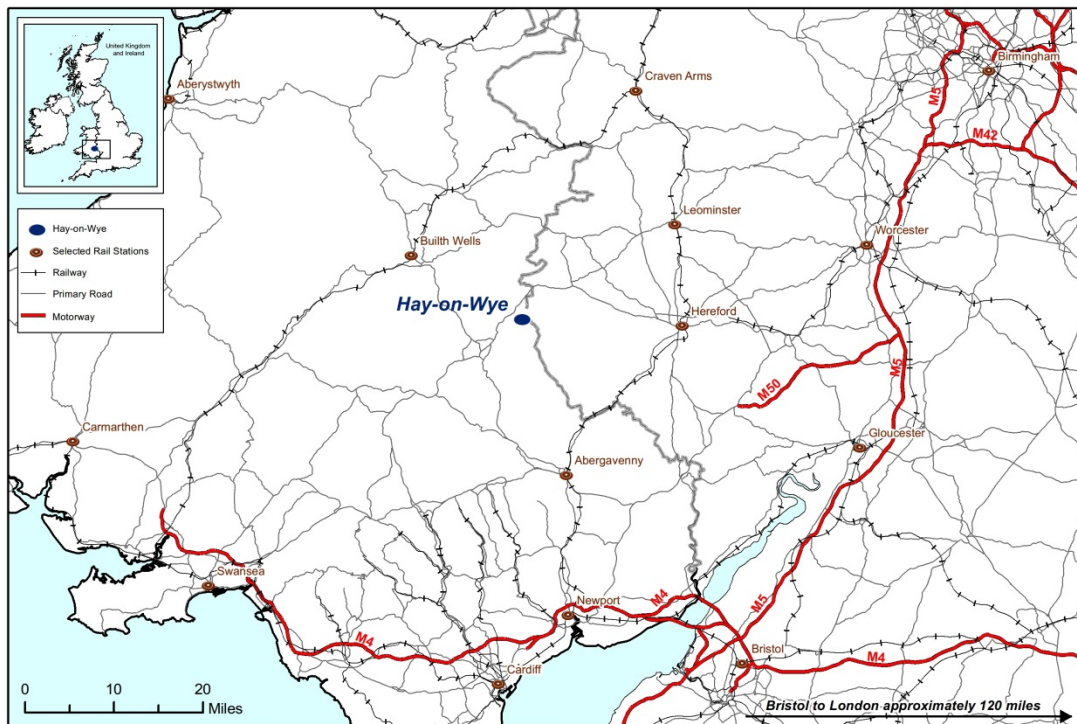
In the domain of leisure travel behaviour, emphasis has also been placed on the relationship between barriers, preference and participation of family, a framework known as *leisure constraint model* (Crawford & Godbey, 1987). Barriers can be intrapersonal (e.g., psychological states and attributes), interpersonal (e.g. spousal interaction) and structural such as family life-cycle state, disposable financial resources, season, time and work commitments. In the contest of structural barriers, Samdahl and Jekubovich (1997) and Jackson (1997) developed and discussed the role of constraints and facilitators in the choice of leisure activity. The authors argued that an enhanced understanding of constraints and facilitators on individuals' leisure behaviour can assist in uncovering the differences in choices across different population segments. They also highlight that structural constraints do affect the type of leisure activity, but do not necessarily prevent individuals from engaging in leisure.

In the context of leisure travel, these ideas mean that structural constraints – i.e., barriers and facilitators would influence travel behaviour but would not prevent travel. Examples of structural barriers in this context can be travel distance and duration of stay. A limited number of studies have focused on *constraints to (leisure) travel behaviour* and have argued that constraints to leisure behaviour are different from travel behaviour in terms of cost, duration and commitment altogether (Uraiporn & Kenneth, 2009). Factors influencing and constraining travel include socio-economic characteristics such as age, income, and family life-cycle and presence of children. For example, Teaff and Turpin (1996) reported that senior Americans were more likely to travel longer distances, stay longer, relied on travel agents and placed higher priority on visiting friends and relatives. Nickerson and Jurowski (2000) reported that vacation patterns were significantly associated with a family's travel decisions. They also provided a perspective that planning of vacation travel was aimed at increasing children satisfaction.

## **Methodology**

The empirical focus of this paper is Hay Festival of Literature and Arts that took place between 21 and 31 May 2015. Hay Festival is arguably one of the largest literature festivals in the world, with more than 800 events attended by up to 100,000 visitors. It is held annually in the rural town of Hay-on-Wye (Wales, UK), which is located on the edge of the Brecon Beacons National Park, one of three designated National Parks in Wales, and adjacent to the English border (see Figure 2).





**Figure 2.** Hay-on-Wye, Wales, UK

Hay Festival is an interesting case for considering visitor travel-mode choices to festivals in more detail for several reasons. First, the festivals’ rural location combined with limited public transport services present challenges to visitors in terms of how they chose to travel to the festival and why. Second, the festival is held over an 11-day period and visitors can attend on single or multiple days. Third, limited availability of overnight accommodation within the vicinity of the Festival (e.g. hotels, bed and breakfast and camping facilities) may influence visitors’ choice to stay overnight and how they would travel to the Festival.

The empirical study was based on semi-structured interviews with visitors that attended the 2015 Hay Festival. A qualitative approach was used as it would allow us to obtain a deeper understanding than a typical travel survey as the aim of the interviews was to capture existing travel patterns to the Festival, experiences and practices, and the factors that influenced visitors’ travel choices (Robbins et al., 2007). A focused interviewing approach also allowed more flexibility as it would allow us to “elicit as complete a report as possible of what was involved in the experiences of a particular situation” (Merton, Fiske & Kendall, 1990; p.21). Interviewees would be able to express their personal opinions and provide new insights into their perspectives on festival travel. Interviews would also enable the interviewer to ask further questions and provide prompts so that interviewees can recall experiences more vividly and assist in obtaining a more rigorous understanding of previous travel choices and why.

The previously reviewed theories (i.e., TPB, TIB, NAT and the leisure constraint model) were used to identify key themes and topics for the interviews. These theoretical frameworks enriched our research approach as they established a reference point for our research

design, in particular the development of key themes discussed during the interviews within a relatively unexplored research domain. Theories would also help benchmark the analysis of the interview data against well-established evidence from the broader travel-behaviour research. On the other hand, the qualitative nature of this research enabled unexpected findings (outside theory) to emerge and assisted in the collection of rich contextual information about people’s travel decision-making, their perceptions and barriers towards more sustainable travel modes (Braun & Clarke, 2006).

As shown in Table 1, the key interview themes included travel decision making related to their visit to Hay Festival in 2015, any previous travel to the festival, and future travel plans to the festival including barriers and facilitators to encouraging more sustainable travel. Similar to the theories discussed earlier in this paper, these interview themes were used to understand what factors were associated with travel-mode choice and why. For each theme, specific topics were used to enable each interviewee to respond and provide details of their personal travel experiences to Hay Festival and their perspectives (see also, Table 1). Interviews were designed to be of 20-minute duration, although in practice the actual duration was dependent on the participant's personal schedule and the level of engagement and discussion offered. All telephone interviews were digitally recorded and transcribed, and direct quotes including those presented in this paper have been anonymised.

**Table 1.** Semi-structured interview guide

Theme	Topic
Travel to festival in 2015	<p>Number of days attended festival.</p> <p>Choice and location of overnight accommodation (if applicable).</p> <p>Method(s) of transport used to travel to/from the festival. Who interviewee travelled with.</p> <p>Method(s) of transport used to travel during the festival if staying for multiple days (i.e. to and from festival and overnight accommodation).</p> <p>Reason(s) for choice of travel, factors influencing mode choice and who was involved in decision-making. Whether previous travel experiences (including travel to Hay Festival) had influenced mode choice.</p> <p>Other transport methods considered, and reason(s) for non-selection.</p> <p>Travel experience to festival, and any challenges encountered.</p>
Previous travel to festival	<p>Previous attendance at Hay festival and frequency.</p> <p>Method(s) of transport previously used to travel to/from the festival. Who interviewee travelled with.</p> <p>Reason(s) for choice of travel and who was involved in decision-making. Travel experience and any challenges encountered.</p> <p>Other transport methods considered, and reason(s) for non-selection.</p>
Future travel to festival: travel barriers and facilitators towards sustainable travel modes	<p>Future plans to attend festival.</p> <p>Method(s) of transport considered when travelling to the festival in the future. Reason(s) for preferred travel mode.</p> <p>Alternative transport method(s) that would or would not be considered and reasons why. Potential barriers to travelling to festival by public transport instead of private car.</p>

Theme	Topic
	<p>Awareness of car sharing and car-pooling as a method of transport.</p> <p>Factors influencing decision to travel by car share instead of private car.</p> <p>Factor(s) that may encourage attendee to travel to festival from key locations (i.e. Cardiff, Hereford, London and Birmingham) by organised festival coach service.</p> <p>Type(s) of incentives that may encourage interviewee and other visitors to travel to festivals by more sustainable modes of transport (e.g. train, bus, coach, bicycle and walking).</p>

The interviews were conducted by telephone rather than face-to face, as they helped access a more geographically dispersed sample of visitors (Edwards & Holland, 2013). Although telephone interviews are used less often than those conducted face-to-face (Opdenakker, 2006), they are still a 'versatile' data-collection method (Carr & Worth, 2001; p.521), and can generate rich, detailed and high-quality research data (Sturges & Hanrahan, 2004). In this study, potential interviewees were selected from a geographically-stratified random sample of 200 visitors taken from the Festival organiser's database of 8,578 visitors that had purchased online tickets prior to the Festival and resided in one of the following four UK locations: Cardiff (Wales), Herefordshire, Midlands and Greater London (England). Based on information provided by the Festival organiser, these locations represented the majority of visitors' home locations in 2015.

**Table 2.** Interviewee characteristics

Characteristics	Number of interviewees
<i>Home Origin</i>	
Cardiff	9
Herefordshire	9
London	8
Midlands	8
<i>Age</i>	
20-29	5
30-39	6
40-49	6
50-59	3
60+	14
<i>Gender</i>	
Male	14
Female	20
<i>Group Composition</i>	
Single person	6
Couple	14
Family with children	6
Group	8

Characteristics	Number of interviewees
<i>Attendance</i>	
First-time	7
Repeat visitor	27
<i>Duration of visit</i>	
Single day	15
Multiple days	19
<i>Main mode of travel to festival</i>	
Car	32
Campervan	2

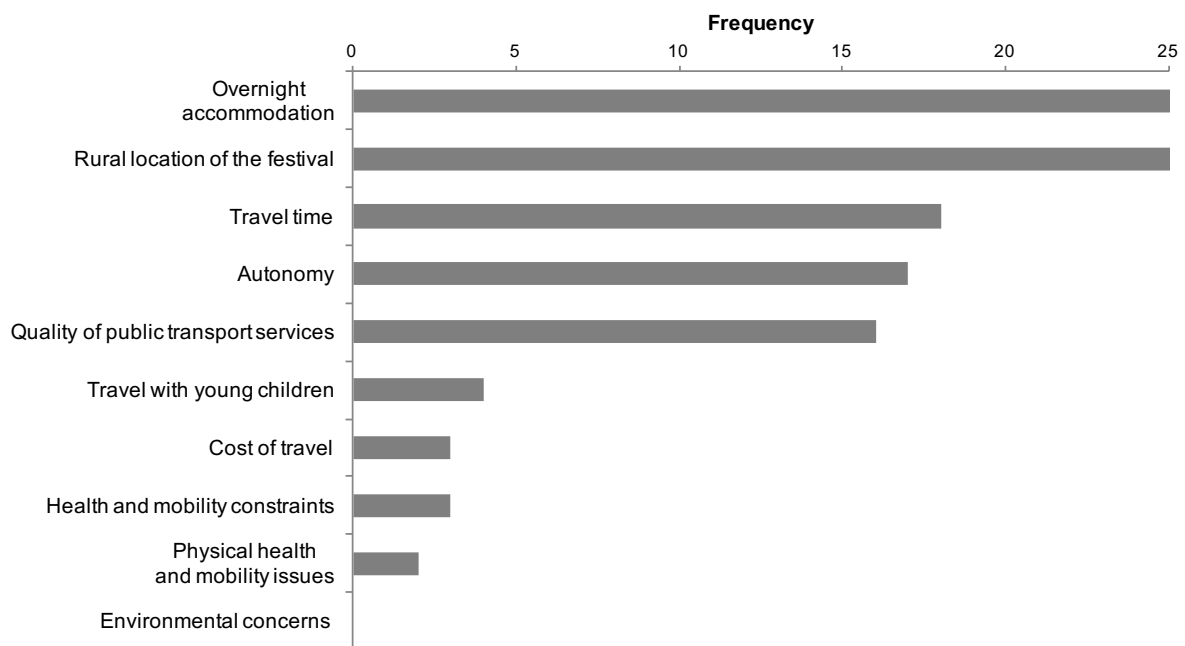
To secure a good response rate, emphasis was placed on developing a rapport with potential interviewees. Potential interviewees were initially contacted by the Festival organiser via email explaining the purpose of the study, who was conducting the study, how findings would be used and that they were randomly selected for the study. Potential interviewees were then contacted by the interviewer by telephone, who scheduled an interview time that was convenient for them. Five attempts were made to contact potential interviewees, after which an alternative interviewee was selected from the geographically stratified random sample. Interviews were conducted by a single interviewer between 2 July and 15 July 2015.

The number of visitors interviewed was 34 (see, Table 2). Twenty-seven visitors had attended the festival on at least one previous occasion, and seven were first time visitors. The majority of interviewees had travelled to the Festival by car (32). Nineteen interviewees attended the Festival on multiple days and 15 attended on a single day. Interviewees' age ranged from 20 years or older, and 20 interviewees travelled to the festival in pairs or as part of a group. The resulted sample is within the general recommendations for conducting qualitative research and as shown later in this paper it provided a good level of saturation and enough data to capture the factors associated with mode-choice decisions to Hay Festival (Creswell, 1998; Morse, 1994). This sample size also enabled us to examine a range of different characteristics (i.e., age, gender, home location) and how these would impact on travel choice decisions.

### **Research Findings**

Analysis of the interviews revealed the majority of interviewees had travelled to the festival by car. Only two participants had travelled by campervan, which they also used as overnight accommodation. The interview findings pointed to a number of factors that influenced visitors' decision to travel to the festival by car. These factors were grouped in accordance with TPB, TIB and NAT theories as well as the leisure constraint model into external (or environmental), internal (or interpersonal) and factors facilitating sustainable travel - i.e., those that would be likely to affect future intentions to use sustainable travel modes. Figure 3 presents the frequency of factors mentioned by interviewees. For example, overnight accommodation, festival location, travel time, autonomy and quality of public transport services were mentioned by more than half of the interviewees and so confirming a satisfying level of saturation of our study. In addition to presenting the findings about each

factor in more detail, the following discussion of our findings attempt to link these factors with the aspects of the theories and leisure constraint model reviewed previously.



**Figure 3.** Frequency of factors influencing visitor travel decisions

### External Factors

Several external factors had a significant influence on travel mode choice decisions by visitors across all visitor profiles, and their decision to travel by car. These were: *location and type of overnight accommodation; rural location of the festival; travel time to the festival; and quality of public transport services* (i.e., bus and train). They are factors which the TPB points that the decision-maker would have limited control over. By identifying these, we have been able to capture how interviewees perceived or anticipated the effects on their travel and festival experience. It also highlights how interconnected these factors were in terms of influencing visitors' final mode choice.

Almost half of the interviewees stayed in overnight accommodation during the festival. Hay-on-Wye is a small rural town with limited overnight accommodation, and the increased number of visitors in recent years has meant that many need to find overnight accommodation with increasing distances from the town.

*“I think that one of the problems is probably the fact that the accommodation is difficult, so your transportation is always linked to your accommodation so there is limited accommodation anyway in Hay.”* (Male, 60+, Cardiff)

For some visitors wishing to stay within the vicinity of the festival, and on a restricted budget, the limited amount of low cost overnight accommodation meant that camping tended to be the preferred or only option. However, this meant there was the additional need to consider how camping equipment and food supplies would be transported.

*“We were camping and we had lots of stuff, so you know, as a family holiday, it’s not really practical cos I have to carry it... Not really practical to go by public transport*

*with camping gear... we need a vehicle to bring everything with us.” (Female participant, 30-39, Midlands)*

A number of interviewees discussed the potential effect of the above four external factors, not only in terms of travelling to the festival but also on their overall festival experience. Use of public transport was perceived as inconvenient, infrequent and unreliable. This combined with the length of time it could take to travel to the festival by public transport, due to the number of changes required *en route*, were factors that discouraged interviewees from even considering public transport as an option. This is in line with the TPB and NAT which highlight the importance of individual perceptions and beliefs towards a particular behaviour, and their decision to select a behaviour that reduces any negative or unwanted effects.

*“Convenience. It’s all about convenience. I don’t know about the public transport very much but I do know that public transport is a big problem. I know there is a train to Hereford isn’t there? But then you have to get a bus, it’s just too difficult.” (Male, 40-49, Midlands)*

*“I did consider different ways of doing it but I live about fifty miles away so it’s about three buses away, ... getting a bus, I couldn’t really work out how to do it... Last time we went to the festival, we drove and we parked right outside the festival, ... there were four of us as well so we didn’t see the need to use public transport.” (Male, 20-29, Cardiff)*

Although several interviewees referred to the environmental impacts associated with car travel to the festival (i.e. increased emissions and traffic congestion), and acknowledged there would be benefits associated with greater use of car sharing<sup>1</sup> and public transport, they still maintained that they would continue to travel by car. From this, we can conclude that although visitors may hold positive values and be aware of sustainable transport options, the trade-off between wider societal benefits and individual ‘costs’ (i.e., inconvenience, loss of autonomy) does not appear to be sufficient enough to influence and encourage travel by more sustainable modes. While the NAT has assisted in identifying the positive beliefs held by some visitors in relation to sustainable travel, our study also highlights that a real ‘travel paradox’ exists as the anticipated effect on visitor travel experience is prioritised (in line with the TPB).

### **Internal factors**

A number of internal or interpersonal factors were found to influence interviewee mode choice. These were: *routine; autonomy; travelling with young children; cost of travel; and physical health and mobility issues*. Of these, the most influential was interviewee routine use of the car at home and extending this behaviour in order to travel to the festival. This finding is in line with the TIB which proposes that ‘habit’ is a key determinant of behaviour, and one that strongly interacts with external (environmental) factors. Indeed, a preference to travel by car to the Festival was reinforced further by external factors (i.e. location of overnight accommodation, festival location, travel time and quality of public transport services), alongside the perception that alternative modes would create certain difficulties

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<sup>1</sup> In this paper, ‘car sharing’ is defined as sharing spare seats in a vehicle with other people who are travelling in the same direction.

(e.g. additional travel time, difficulties in working out public transport connections, late arrival).

*“I think it would be incredibly difficult [to travel by public transport] from where I live, because I live in a very remote village in Derbyshire. So there aren’t easy, appropriate transport links from my village... so right from the beginning I’m not going to be able to get out of the village, at an appropriate time so, I don’t think that I could travel by public transport.” (Female, 30-39, Midlands)*

*“We always travel that way [by car] so it was hardly a decision, it was just what we do really because yep it’s a sort of country route.” (Male, 40-49, Cardiff)*

*“We’ve always travelled by car. Last year...we did look into the public transport...it was just going to take all day. [...] the shuttle bus was just not going to be often enough and not necessarily meet the train that we might be on. It would just take so much longer. And from where we live, it involves getting a train into Cardiff, before we even get the train to Hereford.” (Female, 40-49, Cardiff)*

Those visitors that were more familiar with using public transport on a frequent basis were more receptive to the idea of considering alternatives to the car in the future. Although a key determining factor would be the cost.

*“Some effective, reliable, regular, cheap public transport – it just doesn’t exist, not where we live anyway, so if there’s the option, and if you do go on the bus, it costs twice as much as when you’re using your car, so I can’t see what the incentive is to use public transport when it’s so much more costly than driving.” (Female, 20-29, Midlands)*

The TIB also postulates that a determinant of behavioural intentions is affection – i.e., likes or dislikes of certain behaviour. This was also evident in this study for a small number of interviewees who had previously used public transport and had a negative experience, which merely reinforced their preference to travel to the festival by car in subsequent years:

*“Well as I say...a lot of people got off the train and on the bus, it used to be mayhem cos people would get off the train and say ‘where’s Hay?’ you know ‘is this Hay?’ ha ha, well you’ve got a bit of a journey to get there and people would end up having taxis.” (Female, 60+, Herefordshire)*

*“... public transport is a big problem. I know there is a train to Hereford isn’t there but then you have to get a bus, it’s just too difficult.” (Male, 40-50, Midlands).*

A further factor expressed by the majority of interviewees was the need for autonomy while attending the festival. The car provided interviewees with flexibility to collect or visit friends and family on route to the festival, and undertake other visitor activities during the festival period.

*“I was staying with my friends nearby who aren’t at all near a railway station, and also I was going on to another place in Gloucestershire, which is even further from a railway station, on a kind of roundtrip so there wasn’t a choice so.” (Female, 60-70, London)*

*“We needed to transport people around while we were there so we needed the car... we hire a cottage in XXXX area, and people visit us and we had a succession of visits from friends and while we’re there we need to transport them about.” (Male, 40-50, London)*

*“it’s more reliable than public transport, plus I had my daughter with me, I don’t know it just seemed the thing to do, plus I was doing other things as well, so I drove to Abergavenny to visit a friend so I’ve been to South Wales.” (Female, 40-50, Midlands)*

Alongside routine and autonomy, a further set of structural factors were specific to particular visitor profiles, and included *travelling with young children*, *cost of travel* (i.e., cost of a rail/bus ticket versus petrol and car parking costs), and *physical health and mobility constraints* (due to older age).

*“We drove because we have a little boy and we were going to stay overnight somewhere nearby so we needed to take quite a bit of stuff with us really ....” (Female, 20-29, Cardiff)*

*“... cheap public transport – it just doesn’t exist, not where we live anyway ... if you do go on the bus, it costs twice as much as when you’re using your car.” (Female, 30-39, London)*

*“At my age I don’t really wanna be trekking around on a coach you know. If you’re younger like my children then I suppose then you know it would be okay to go on a coach, or ... find somebody to share a car with.” (Male, 60+, Midlands)*

### **Barriers and factors facilitating sustainable travel**

Barriers identified in this study and facilitators suggested by interviewees are shown in Table 3 and grouped into 'feasible' and 'challenging' depending on how realistic they would be to address these barriers. Among the grouping criteria were cost implications, complexity in decision making and implementation, and regulatory 'obstacles' (e.g. with public transport services).

**Table 3. Barriers and Facilitators to reducing car use by visitors**

	<b>Barriers</b>	<b>Suggested Facilitator</b>
<b>Feasible</b>	Limited information on alternative transport options (public transport and car sharing schemes)	Enhanced publicity of: Public transport services and routes to festival through the Festival website, other media, receipt of a direct email following the purchase of festival tickets Car sharing schemes via the festival website, email, and development of an online App.
	Limited access to public transport service timetables	Enhanced access to public transport information via mobile and information technology to access public transport information
	Trip duration/travel time (due to number of connections and connection waiting time)	Provision of direct coach service from key locations/hubs
	Cost of travelling by public transport greater than car fuel costs	Reduce/subsidise cost of public transport for visitors
	Space to transport camping gear	Increased number of campsites providing



		tents in situ
<b>Challenging</b>	Limited public transport service; service times and number of connections	Enhanced public transport service – extended timetable and more frequent service
	Location of overnight accommodation and limited access to public transport	Enhanced bus service to more neighbouring villages. Provision of more overnight camping facilities next to festival site
	Lack of incentives	Use of persuasive messages (reduced cost for festival tickets; saving fuel money, reduced CO2 emissions, reduced local environmental impacts, enhanced social experience when travelling as a group)
	No disincentives	Restrict car-use, reduce opportunities for parking

During the interviews, participants were asked what would encourage them and other visitors to switch from using the car to more sustainable modes. While some interviewees suggested that financial incentives such as ticket discounts may be attractive, the majority of discussions focused on overcoming external factors that they had limited control over. Almost two-thirds of interviewees indicated they would consider car sharing in the future as it would still enable them to retain use of a car and maintain autonomy for the driver to some extent. However, to facilitate this, interviewees emphasised that information relating to car sharing schemes needed to be easily accessible either via the Festival website, by email or use of an online App (application software).

The second most popular option was travel by a direct and frequent festival coach service between visitors' home location and the Festival. However, for some interviewees 'structural' barriers including physical health and mobility constraints and choice of accommodation would still prevent them from considering a festival coach service.

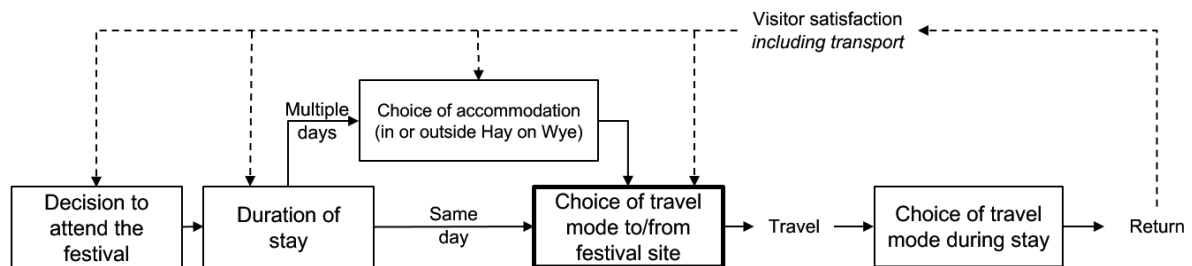
*"If I wasn't camping I would use a coach but the accommodation opportunity is really quite limited if people didn't have a lot of luggage, they'd consider to use public transport ... luggage is a problem for all the people who can't afford to stay in the hotels."* (Female, 50-59, Midlands)

Finally, some interviewees expressed a willingness to consider travelling by public transport, although to facilitate this, the quality of services (i.e., an external barrier) needed to be improved with an enhanced timetable and more frequent connections. Interviewees also highlighted that cost of travel (car versus public transport) would continue to be an important consideration.

### **A theoretical framework of event related travel**

Figure 4 shows the proposed framework which summarizes the complexities of the decision-making stages undertaken by visitors: pre-, during and post-festival. This framework represents a consolidation of the empirical findings on those factors that influence mode-choice when travelling to the Festival and those which are likely to encourage more sustainable travel. This study shows that visitors' decision to attend a festival is followed by their intended duration of stay (same or multiple days), choice of accommodation (in or

outside Hay-on-Wye), and choice of travel mode to/from the festival site and during their stay. Single-day visitors may also make different travel choices during their visit; for example, travel to/from home and the festival site. Post-festival, visitors reflect on their level of satisfaction with the festival and travel experiences. The latter then feeds into visitors' decision on whether or not to attend the festival in the following year. This is in line with previous research which has shown an association between overall visitor satisfaction and return to the destination (Baker & Crompton, 2000). Although the proposed framework may not capture all the complexities involved, such as the visitor socio-economic and attitudinal profiles, it does highlight the key external and intrapersonal factors that are central to understanding visitor mode choice.



**Figure 4.** Framework summarising visitor choices associated with festival attendance

## Discussion

This paper has examined how visitor travel-mode choices to festivals are formed and how sustainable-travel could be encouraged. It responds to calls for more rigorous research, including the use of qualitative research, to understand travel choices and the complexities surrounding travel to events (Collins & Cooper, 2016; Robbins et al., 2007). Although there has been a growth in literature examining the sustainability of festivals by devising a number of sustainability indicators, sustainable travel to festivals remains a relatively unexplored area. For example, Liu, Lin, Wang, and Chen (2018) reported a number of stakeholder-derived sustainability indicators but travel to festivals and related environmental impacts appeared to have been overlooked by stakeholders.

This study offers new evidence on why visitors travel the way they do. It proposes a new theoretical framework that can assist festival organisers and policy makers to better understand visitor travel-mode choice. Furthermore, this framework makes a contribution to the literature on festival travel and is in line with recent calls for research “on the process of individual, organisational and societal change, and how we can create behaviour change” (Font, Higham, Miller & Pourfakhimi, 2019). In doing so, it contributes new knowledge on how visitors travel choices to festivals and events are formed, and how sustainable travel to festivals could be encouraged in the future.

Our findings highlight that visitor travel-mode choice is influenced by a range of internal and external factors, which are closely interconnected. For the majority of interviewees, the interplay between the need for and location of overnight accommodation, the festival's rural location, travel time, quality of public transport services and autonomy were the most important factors influencing their decision to travel by car. Our findings also point towards a pattern of socio-psychological typologies of festival visitors similar to those reported in wider vacation decision-making studies, such as health and mobility constraints related to

age, family life-cycle, past experience and cost (expenditure) (Decrop & Snelders, 2005). This evidence raises questions about the appropriateness of generic transport strategies aimed at encouraging sustainable travel to festivals and suggests that strategies need to be tailored to specific target groups.

Travel by car was found to be the dominant travel choice for the majority of interviewees, offering them: (a) *autonomy* regarding arrival and departure; (b) a wider *choice of overnight accommodation*; (c) longer duration of stay and ability to undertake other visitor activities; and (d) faster and more efficient travel to the festival compared with public transport. Our findings also suggest that convenience and habitual car use (e.g. commuting) extends into the context of festival travel. Previous studies have reported that habitual behaviours may block the adoption of more environmental behaviours (Bratt, Stern, Matthies & Nenseth, 2015).

Although *car sharing* can offer some benefits associated with travelling by a privately-owned car including symbolic and affective aspects (Mokhtarian & Salomon, 2001), reduced autonomy for passengers was highlighted as a potential barrier to its future use. Furthermore, car sharing when travelling to Hay Festival (i.e., an annual event) presents a further challenge to the more conventional approach of car sharing, such as daily commute to work, which involves matching. While car sharing schemes have become increasingly popular (Shaheen & Cohen, 2007), the majority of published research has focused on car sharing for routine purposes rather than event-related travel. Only recently, Delhomme and Gheorgiu's (2016) study in France provided some evidence on car sharing for different travel purposes including leisure. Their findings suggest that car sharers were more likely to be: younger, women, have children and more persons per household, were environmentally aware and generally held more positive attitudes towards public transport. This evidence suggests that promoting car sharing may be attractive to a specific segment of visitors. Further research is needed to examine the effectiveness of car sharing in the context of event-related travel.

Our study found that *public transport* was considered a less attractive alternative to the car as services were perceived expensive and limited frequency and connections. This may explain why attempts to influence car use have had limited success nationally (Steg, 2005), but also in relation to other festival-related studies (AIF & AFO, 2015). Public transport services need to be improved to meet the needs of festival visitors and their anticipated travel experience, otherwise the majority are unlikely to consider travelling by public transport in the future. It is worth noting that visitors' perceived public transport to be more expensive than private car without having actual knowledge of exact costs and time involved. This is in line with longstanding evidence from the travel behaviour literature. For example, Henley, Levin, Louviere, and Meyer (1981) reported that car users were likely to overestimate travel times by bus and underestimate car-driving costs. Visitor perceptions of cost (monetary and time) could be an area for future investigation.

This study employed well-established theories of travel behaviour (i.e., TPB, TIB, NAT and leisure constraint model) as a guiding framework for the definition of the themes and points explored during the semi-structured interviews, and assisting in contrasting our findings with those theories. Although the three theories and model used have previously been used

to examine travel behaviour in various contexts, including leisure travel (Galdames et al., 2011; Hsu & Huang, 2012; Uraiporn & Kenneth, 2009), this study is one of the first to use a combined theoretical framework to examine travel in the context of festivals. In doing so, the proposed theoretical framework (see, Figure 4), has captured additional dimensions in travel decision making and explicitly visualized the temporal scale of relationships (pre-, during and post-event), which is particularly important when considering how to create behaviour change.

This methodological approach can assist festival organisers and policy makers in providing a systematic and rigorous examination of visitor travel experiences to festivals, preferred mode of travel and how travel practices arise. Although not strictly deductive, a key benefit of this approach was that our empirical work was anchored against a strong reference point (theory). At the same time, our approach allowed for flexibility in collecting a range of detailed narratives (Braun & Clarke, 2006) thereby uncovering visitor decision-making processes. As Clifton and Handy (2003) suggest, theory can help point to areas of “further exploration for which qualitative techniques are ideally suited”. Thus, the application of a qualitative approach has been useful in enhancing our understanding how people think about their constraints and travel choices (Røe, 2000).

This study has demonstrated the value of using qualitative research to develop an enhanced understanding of visitors' current travel choices and influencing factors, and we argue that this research approach should become more commonplace in tourism research when considering the distinctiveness and constraints associated with event-related travel (Robbins et al., 2007). Although interview themes and topics were guided by a unidirectional approach, the qualitative approach offered the flexibility to uncover interconnections between factors beyond time and cost (e.g. overnight accommodation and location). However, it is not possible at this stage to statistically test the significance of those interconnections as we would in a purely quantitative study. On reflection, the qualitative data does provide sufficient evidence to inform the design of a subsequent survey in which the influence of these factors can be tested on a larger sample and as part of a quantitative study.

Although the methodology used in this research does have a number of strengths, it does have its limitations. Firstly, the majority of interviewees resided in urban areas, and so the findings may not be directly applicable to those living in rural locations. Secondly, the majority of interviewees included in the study had travelled to the Festival by car, and their views may not reflect those that travelled by public transport or car share. Thirdly, an ideal empirical study may have involved face-to-face interviews of longer duration. However, as the target sample (festival audience) was geographically dispersed, the most resource-efficient means to secure a good level of participation in the study, interviews were conducted by telephone. While telephone interviews may not enable the interviewer to develop the same level of rapport with interviewees or pick up on non-verbal cues, they allow for the interviewee to relax and share more sensitive information that they would in a face-to-face interview (Novick, 2008). Finally, although the empirical research in this study relates to a single festival, the findings provide new insights regarding the factors influencing visitor travel choices to festivals, particularly in rural locations. The proposed

framework could be extended to other types of festivals and events in different geographical settings.

Travel is an important issue for event management and the sustainability of festivals (Robbins et al., 2007). Event organisers and policy makers face a number of challenges in developing effective transport strategies that would encourage visitors to choose more sustainable forms of travel and reduce the environmental impact of future festivals. Organisers of festivals can utilise our findings to consider how to address barriers to encouraging sustainable travel. For example, it is important that the profile of the visitor (e.g. travelling with children, groups) would require different arrangements and incentives than those travelling alone or the elderly. Thus, sustainable travel promotion strategies and incentives would need to target specific visitor profiles. Our findings suggest that future studies would need to develop robust segmentation tools and link those with relevant strategies, plans and incentives. The findings also point to several external factors including improvements in travel times, frequency and public transport services. A systematic approach towards developing a travel plan on behalf of the organisers would help set specific targets, monitor, assess and adjust public transport services with the aim of improving shares of public transport (Department for Transport, 2009).

As a way forward, in November 2016, the authors of this paper were invited by Hay Festival to present findings from this study to key stakeholders (including local-transport operators, overnight-accommodation providers and transport consultants) so that opportunities could be identified to instigate change in travel choices. This provided stakeholders with an insight into factors influencing visitor travel choices and further reinforced the interconnectedness of barriers to sustainable travel in Table 3. For example, we learnt that year on year Hay Festival gradually improves its personalised travel-planning system, which is integrated with the online sales of the ticket. This is a helpful implementation for visitors who purchase tickets online. Further, communication of available travel options is feasible and relatively inexpensive via the festival, overnight accommodation websites and social media, especially for those who attend the free events or purchase tickets on the day. Social media and websites are also relevant for enabling access to public transport timetables. In recent years, Hay Festival piloted a direct private-coach service from Hereford, however there is a financial limit as to how much the organiser can contribute suggesting that partnerships with local government and other stakeholders would be necessary to increase the market share of this option.

## **Conclusion**

Our study contributes to an emerging body of knowledge concerning the sustainability of festivals and their impacts, in particular (e.g. Fleming, Fletcher, Fleming, MacGarry & McCahon, 2018). Our findings form a plausible basis for better understanding the complexities involved around how visitors make travel decisions, and show the need for organisers and policy makers to think beyond visitor travel time and cost considerations. This paper also consolidates empirical evidence into a theoretical framework, which captures the complex nature of travel-mode decisions as these are interlinked with an array of other dimensions. Our framework points towards the need to engage stakeholders (e.g. visitors, residents, business owners and government agencies) and provides suggestions for further research. For example, research has shown that past experience can affect future

intentions including travel-mode choice. Past visits should be utilised as opportunities to engage with visitors regarding future interventions and better understand visitor perceptions to improve the sustainability of future festivals. Recent evidence has uncovered a relationship across experience, perceived value and satisfactions with behavioural intentions (Wilson, Arshed, Shaw & Pret, 2017).

There is therefore a continuous process upon which festival organisers and stakeholders should build upon visitors' needs and engagement and employ effective interventions and communication tools to achieve lower shares of car travel to festivals. The proposed theoretical framework encourages future studies to engage with and expand upon the complexities of festival travel (e.g. Allen, 2018). For example, choices of accommodation and duration of stay coupled with segmentation analyses (i.e., understanding the visitor profile) are important directions for future work. Although segmentation analyses have been conducted for specific needs and themes of festivals (Kruger & Saayman, 2017), further research should extend to visitors' travel profiles. Significant contributions should also emerge from exploring visitor response to difference communication campaigns, incentives, management and strategies aiming at more sustainable travel to festivals and events. Last but not least, creating opportunities to develop and study good governance to enable effective coordination of stakeholders should be key in this endeavour (e.g. Frost & Laing, 2015).

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