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# Economic performance measurement systems for event planning and investment decision making

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ABSTRACT

Cities and destinations have assigned a strategic role in tourist and place marketing to events. Economic impact analyses are one of the tools that policy makers can use to support effective investment decision making in event planning. The more precise and accurate these analyses are, the more helpful to event planning they will be. This paper proposes an innovative methodology to improve the economic impact estimate of events. It combines tested action-tracking technologies to track the consumer behaviour of visitors to the event (Radio Frequency IDentification – passive RFID) with bottom–up Input–Output models. A case study was carried out on the Festival of Economics in Trento, Italy, a cultural hallmark event aimed at high tourist flows, image-making and place branding and marketing. The paper suggests the inclusion of accurate economic impact analyses of events in the range of instruments used by policy makers to support effective decision making and investment.



## 1. Introduction

Over the last twenty years many cities and territories have renewed their image and increased their competitiveness as tourist destinations by focussing on immaterial resources and products, especially creativity, culture, services and opportunities for leisure time (Florida, 2002; Golfetto, 2000). The rate at which events appear in urban development and marketing plans is mainly due to their having been recognized as tourist and place marketing investments, often made with publicly owned resources and the support of financial partners and sponsors (Getz, 2008). Economic impact analysis is one of the instruments that policy makers can use to support effective decision making processes, by comparing the return on events and their whole economic impact with alternative investments. The effective allocation of financial resources and the optimization of their investment for urban growth and requalification purposes seem particularly important in this debt-burdened period of recession. The effectiveness of this tool in supporting investment decision making in events is strongly conditioned by the primary data collected on the number and type of visitors to an event (tourists, same-day visitors) and their expenditure. However, the questionnaires generally used in surveys collect people's preferences and intentions around consumption rather than their actual consuming and spending behaviours (Martin & Bateson, 1985). In addition, the calculation of the number of participants is not always based on rigorous methods or official and reliable sources (Research Resolutions & Consulting Ltd., 2005).

In this context, the paper proposes a methodology to assess the economic impact of events which integrates electronic instruments for collecting primary data on the demands of visitors to an event with bottom–up Input–Output models. Passive action-tracking electronic technology (passive RFID) is used, consisting of a tag that identifies and tracks objects (in this case a card given to event visitors) through radio waves transmitted to an electronic reader (Holloway, 2006). The innovation in the use of this type of electronic instrument instead of questionnaires is twofold: the survey of actual rather than intended consumer behaviour and the new application of a technology of proven efficacy in action-tracking, successfully used in many sectors to trace objects (their value and/or movement), transactions and people. The improvement of the primary data collected through this technology also increases the accuracy of the estimation of an event's economic impact calculated through more conventional economic impact methodologies. Both methodological and managerial implications follow on from this. These are, first, the potential for the use of innovative survey instruments in the economic impact analysis of events. Second, the adoption and systematic use of accurate economic impact analysis in the set of event planning and investment decision making tools.

The second section of the paper introduces the role of events in the tourist and place marketing of cities and destinations, the

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international literature on the economic impact analyses of events and related models, and the types and applications of action-tracking technologies. The third section describes the methodology, which combines the use of passive RFID technologies to track the consumer behaviour of visitors to the event with bottom–up Input–Output models. The fourth section presents the results obtained by applying this methodology to the assessment of the economic impact of a cultural hallmark event. The final section includes a discussion of the limitations of the study and improvements that could be made to the methodology.

## 2. Theoretical background

To give theoretical support to the rationale of integrating electronic instruments for data collection with economic impact analysis, three main issues are discussed. They concern the role of event tourism, the models of assessing the economic impact of events and the action-tracking technologies that can be used.

### 2.1. Event tourism

Event Tourism stands at the nexus of tourism and event management and involves event planning and marketing in the pursuit of tourist and place marketing objectives (Getz, 2008). An ample literature supports the growing role of events in *attracting tourist flows* (among others Bos, 1994; Ritchie & Beliveau, 1974; Ryan, Smee, Murphy, & Getz, 1998; Yoon, Spencer, Holecek, & Kim, 2000), and *creating an image, positioning and branding* cities and destinations (Chalip & Costa, 2006; Getz & Fairley, 2004; Hede, 2005; Jago, Chalip, Brown, Mules, & Ali, 2003; Li & Vogelsong, 2005; Ritchie, Sanders, & Mules, 2006; Smith, 2005). In so doing, they can act as catalysts in the *requalification of urban areas*, the development of infrastructure and services and the attraction of investment and human resources, thus enhancing the quality of urban life (French & Disher, 1997; Hall, 1992; Syme, Shaw, Fenton, & Mueller, 1989).

As *tourist marketing tools* which attract visitors, events can reduce the variability of demand over the year, extend the length of the tourist season or even create a new one, in addition to reaching new segments (Dimanche, 2002; Jago & Shaw, 1998; Marris, 1987). Among other immediate effects, increased demand boosts the prestige of the place hosting an event through word of mouth and the demand for local goods and services (Getz, 1991). As *place marketing instruments*, events connected spontaneously and uniquely with a place create, strengthen or relaunch that place's image; positioning or re-positioning it and either branding it or reinforcing its brand, acting as a fortification strategy (Getz, 1997; Park, Jaworski, & MacInnis, 1986). If brand equity (Aaker, 1991) is the set of advantages linked to a brand, then events also affect awareness, perceived quality, loyalty and associations related to a place.

In order to attain such effects, investment decision making in events becomes a core strategy for urban destinations that wish to improve their tourist development and their growth and requalification. Economic issues usually prevail in event strategy-making and portfolio building (Getz, 2005), although the benefits generated by events also include non-monetary values. A balanced portfolio usually aims to develop hallmark events and to elevate regional or local events to this status. Like mega-events (the Olympic games etc.), one-off events which have to be bid for, hallmark events are at the top of the event portfolio as they create high tourist demand and high value. Occurring regularly in the same location, they may gradually become so closely associated with the identity of the place in which they are held that they become a driver for image-making and place marketing and branding.

Economic impact analysis is one of the tools that policy makers can use to develop event strategies and portfolios. Assessing the whole economic impact of an event on a host site enables them to make better investment decisions about events and compare their returns with those on alternative investments. It is also an important tool for encouraging the engagement and commitment of different place stakeholders to event strategies and for involving institutional and financial partners and seeking promoters and sponsors.

### 2.2. Models for assessing the economic impact of events

Studies on the economic impact of events have been part of the international literature for almost forty years (among the earliest and more recent studies: Davidson & Schaffer, 1980; Della Bitta, Loudon, Booth, & Weeks, 1978; Fourie & Santana-Gallego, 2011; Getz, 2009; Hodur & Leistritz, 2006; Hojman & Hiscock, 2010; Rivera, Hara, & Kock, 2008; Vaughan, 1979). Getz (2008) and Guerzoni (2008) provide overviews of the main economic impact studies of events, organised both chronologically and by type of event. Economic impact is also one of the main "discourses" identified and discussed by Getz (2010) in his review of the extensive English language literature on festivals, an important sub-field within event studies. By contrast, in Italy economic impact studies of events, especially cultural ones, are still limited in number (Bracalente & Ferrucci, 2009; Galeotti, 1992; Rispoli, Di Cesare, Stocchetti, & Quattromani, 2001; Solima, 1999) and their application to case studies is recent (Europa Inform, 2004; Guerzoni, 2008; IRER, 2006; Re, 2006; Segre & Scamuzzi, 2004).

Economic impact studies have extended and adapted to event methodologies originally developed in regional, environmental and tourism economics, as a result of the progressive specialization of these disciplines. According to these studies, the main assumption is that the demand for goods and services from visitors to events and event organizers has a multiplicative effect on sales, production, income, added value and employment through the interdependence of the different sectors of the economic system. The total economic impact is an estimate of the sum of these effects. The direct effects are spending on goods and services by visitors to events (e.g. overnight stays, meals, shopping, tickets) and event organisers (e.g. furniture, equipment, advertisement, renting, fees). The indirect multiplicative effects are related to the production involved in supplying the input needed to provide the goods and services required (e.g. hotel, restaurant, shops, transport). The induced multiplicative effect is the increased consumption of residents and the improved standard of living made possible by incomes generated, directly or indirectly, through events.

Many models have been applied to assess these multiplicative economic effects or to estimate the multipliers (Table 1). Loveridge (2004) provides a critical review of the types of multi-sector models commonly used to assess the total economic impact of events on regional economies. *Economic Base* models provide the fundamental notion of regional economic impact modelling but are the most problematic. After them, *Input–Output models* (I–O) (Guy, 1993; Leontief, 1967; Yan, 1972) are the oldest and widely used. The basic model is centred on a transaction matrix that captures inter-sector flows and the final demand of each sector. It shows how the output of one industry is an input to another industry, the units being currency amounts (not physical quantities). The matrix inversion captures the various rounds of spending as input sectors buy their inputs, creating more intermediate demand from the basic industries (multiplicative effects). Spending on event-related goods creates a final demand shock/change for the productive sectors and has a multiplicative effect