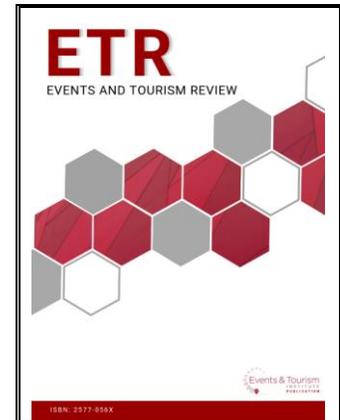## Challenges for MICE Sustainability: Complexity and Changing Adaptative Systems

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Abstract

The Meetings, Incentives, Conventions and Exhibitions (MICE) sector has been a leader in the adoption of sustainability practices but challenges remain. This paper addresses several of the challenges facing MICE as it works to become more sustainable. The paper examines the complexity of operationalizing sustainability in a way that supports ongoing performance management. The paper also outlines the usefulness of systems thinking when considering MICE, a complex, adaptive system (CAS), and examines the implications of this approach when seeking to support change toward sustainability in both components of the system and in the system as a whole.

Keywords: Sustainability, Systems Thinking, Meetings and Events, Complexity

Introduction

The world faces a range of significant challenges, and sustainability is one of the great issues of the twenty-first century. The meetings, incentives, conventions, and exhibitions (MICE) sector has been a leader in responding to the challenges of sustainability, but much work remains to be done (Park & Boo, 2010). Ensuring the MICE sector is sustainable is of concern to a broad range of stakeholders. Within the MICE sector sustainability is a high priority for companies with the MICE supply-chain and other key stake-holder groups (Mykletun, Bartkeviciute, & Puchkova, 2014). Consumers are also concerned about the sustainability of meetings. A recent global study of millennials (Fenich, Scott-Halsell, Ogbeide, & Hashimoto, 2014) showed a concern for sustainability and that sentiment is held by other components of the market (Leibowitz, 2018).

Understanding the factors associated with changing a complex, dynamic, adaptive system like the MICE sector is an important starting point for improving sustainability performance. The purpose of this article is to highlight both the complexity of operationalizing sustainability in the MICE sector and need for systems approaches to improve the sustainability of the sector.

Defining and Operationalizing Sustainability

One of the first challenges in addressing sustainability is determining a meaningful definition of the term. While "sustainability" has been criticized as a meaningless jargon term by some in the popular press (AdAge, 2010; Lammers, 2011), there is a growing consensus in research that definitions of sustainability incorporate a strategic perspective (WCED, 1987) and an optimizing of the often competing priorities of the triple bottom line (TBL) (Elkington, 1997). The TBL is a commonly applied heuristic for considering the trade-offs in development. It borrows the concept of the "profit and loss" sheet from accounting and proposes that development should consider the net impacts – positives less negatives – of actions from three perspectives: environment, economy, and social/human. There is a growing awareness of the

trade-offs required to achieve goals within each of these domains (Lu & Nepal, 2009) and recognition that stakeholders, even those committed to sustainability, may hold different opinions on what constitute reasonable balances in the TBL.

While this general definition of sustainability may be conceptually easy to grasp, the operationalization and performance management of sustainability, specifically in tourism and the meetings sector, requires the management of a variety of actions. Performance management of sustainability is complex (Day, 2016) for a number of reasons including the number of possible actions required, the varying processes for prioritizing actions and the number of actors in the process. Each of the domains of sustainability performance – environmental, social, and economic – require actions to be undertaken and for their performance to be managed over time. An important field of study in sustainability, including sustainability in tourism and in the MICE sector specifically, has focused on what should be done (criteria) and how it should be measured (indicators). The range of activities is considerable. For example, the Global Reporting Initiative (GRI), a framework for businesses to report their sustainability efforts used by many hotel companies, identifies 46 aspects in the three broad categories of the TBL that must be measured and managed (GRI, 2013). The Global Sustainable Tourism Council (GSTC) hotel guidance includes 26 criteria and 168 indicators (GSTC, 2016). Destinations, the locations in which MICE take place, face similarly comprehensive sets of actions and performance indicators. Although there remains continuing discussion and refinement of the criteria and indicators (*Measuring Sustainable Tourism: A Call to Action*, 2017), there appears to be increasing consensus on a core set of activities common to most guidelines.

A factor that adds to the complexity of implementing sustainability programs is that, while a common set of indicators are emerging, the salience of the indicators to a specific business or location is contingent on a variety of factors. As such, there is variation between businesses and other entities as to which activities they will undertake to achieve their sustainability goals. In the meetings and events sector, while some research has addressed a TBL approach to event sustainability (Andersson & Lundberg, 2013), much attention has focused on environmental sustainability (Boggia, Massei, Paolotti, Rocchi, & Schiavi, 2018). For example, the Accepted Practices Exchange (APEX) Green Meeting Standards focus on environmental issues. The priorities of different types of stakeholders must also be considered in the operationalization of sustainability programs across the MICE sector. The APEX Green Meeting Standards recognize the contribution of different actors to the system and provide specific guidance to a variety of types of organizations including destination marketing organizations/local government (destinations), exhibits, transportation, audio visual production, onsite offices, venues, and food and beverage (ASTM, 2012). Each of these types of businesses, even those strongly committed to sustainability, will have unique perspectives on the action they should take and the ways they should manage their efforts. As becomes quickly apparent, the complexity of sustainability in the MICE sector can quickly become overwhelming. Researchers have only begun to address the challenges of sustainable tourism performance measurement and management.

It is important to note that considerable effort has been invested in considering what needs to be done while less attention has been paid to how it will be done. The challenge of changing the MICE sector in ways that improve its sustainability can be illuminated by understanding the networked system nature of MICE and exploring the mechanisms for system change.

Systems Thinking for Sustainability

Significant progress toward sustainability can be made by addressing elements of the MICE sector. Addressing the actions of specific players in the sector, whether they are convention centers or hotels, consumers or meeting planners, has contributed to our ability to achieve sustainability goals. Similarly, focusing on specific issues, such as energy conservation, and components of environmental management, contributes to understanding. Nevertheless, focusing on elements of a sector overlooks the value of understanding the sector as a whole. There is growing recognition that taking a broader, more holistic perspective provides an important view of the challenges (Baggio, 2013; Holmes, Hughes, Mair, & Carlsen, 2015), and an effective paradigm for this sort of analysis is systems thinking. "Systems thinking is a discipline for seeing wholes. It is framework for seeing interrelationships rather than things, for seeing patterns of change rather than static snapshots" (Senge, 1990, p. 68). Senge (1990) argues that systems thinking can avoid being overwhelmed by complexity.

While tourism is often described as an industry, there is general agreement in research that it can best be described as a system (Baggio, 2014; Morrison, Lehto, & Day, 2018) or network (Volgger & Pechlaner, 2015). These terms – systems and networks – are used somewhat interchangeably. In describing tourism as a system, it is most accurate to describe it as a complex adaptive system (CAS) (Farrell & Twining-Ward, 2005). The system is complex because it is comprised of a large number of independent elements and adaptive because it changes in response to inputs from both within and outside the system (Day, 2016). CASs are common and take many forms. An ecosystem is a complex adaptive system, and it is interesting to note we are seeing the term "ecosystem" coopted to describe business systems. For instance, a reference to the growth of an entrepreneurial ecosystem (Boutillier, 2016; O'Connor, Stam, Sussan, & Audretsch, 2018) describes the many companies that may contribute to entrepreneurial growth in a specific region.

Although there is a growing body of work addressing systems and networks in tourism, there is less research focusing on the MICE sector as a CAS. Like tourism as a whole, the MICE system is a complex, adaptive system. The relationship between the tourism system as a whole and the MICE system illustrates important characteristics of systems. Systems may overlap, such as tourism and MICE, which share some elements; systems may be comprised of subsystems or embedded systems. Broadly speaking, each part of the MICE sector – meetings, incentives, conventions, and exhibitions – is a CAS. The system of businesses focused around and or supplying to a convention center is a subsystem or embedded system within the larger destination system. The MICE system and the tourism system are embedded in larger social,

environmental, and economic systems. Recognizing these relationships is important because each system or subsystem has unique characteristics and may respond in different ways to interventions to improve sustainability.

Three further insights from systems thinking are instructive when considering improving sustainability. First, the MICE system is open; it is influenced and influences things external to the system. Changes in society or the environment have significant influence on the system and should be considered as plans are developed to improve sustainability. Second, the MICE system is dynamic; it is constantly changing and adapting. As noted previously, a system adapts to external changes such as new technology or changes in consumer preferences. Recognizing that strategies that address the dynamic, adaptive nature of the MICE system must be able to evolve with the system is important. Finally, relationships in systems are complex and changes may impact the system or system components in unpredictable ways or generate unanticipated results. Monitoring direct and indirect impacts of decisions is necessary to make informed choices.

A systems approach to MICE does not preclude analysis of the components of the system. Indeed, considering varying levels within the system can provide critical insights. At one level, the system is comprised of individuals and their behavior, whether within a business or organization or as consumers contributing to the sustainability of the system. At a higher level, the role of businesses and their engagement with corporate social responsibility can be addressed. At a higher level – performance of a system or a subsystem – such an industry sector or a destination can be assessed. Examining actions at different levels can highlight incongruencies between actors in the system. For example, a company may introduce a linen reuse program that conserves energy and reduces water waste (environmental goals) while at the same time reducing costs (economic goal). However, from a destination-level perspective, this action may reduce employment.

"Managing" System Change

At the heart of improving sustainability performance is change. Stimulating change is an extremely challenging activity, whether considered from a personal perspective, within an organization, or within the system as a whole. The adoption of sustainability is often presented as a management issue, or specifically a change management issue. From a business perspective, much has been written about organizational change (Kotter, 1996; Kotter & Schelsinger, 2008), and it remains a topic of extreme importance in businesses and organizations. While traditional change management approaches can be effective in introducing change to organizations and businesses, these approaches provide only a partial set of answers to the challenge of changing system performance. A systems approach recognizes the importance of addressing all levels of the system – individual, organization, and destination or sector.

Effective system change requires individuals to change and adopt new practices. Individual behavioral change is challenging – as anyone who has ever started an exercise regime or modified their diet will attest. Event attendees or convention participants must adopt behaviors that are pro-sustainability. While we have greater understanding of motivations of consumers to

participate in pro-environmental or pro-social behaviors, there remains a paucity of research on ways to support people as they adopt new behaviors (La Lopa & Day, 2011). While research has focused on encouraging conscious decisions to change behavior, there is also opportunity to encourage behavior change through decision architecture (Thaler, 2008) and behavioral economics (Thaler, 2015).

Sustainability across the sector is a systems governance challenge. The MICE system is not a managed hierarchy, as you may find in some businesses or the military, some management models traditionally applied to business are ineffective for systems like destinations or sectors. Rather, networks of independent actors require approaches to influencing the system based on collaboration, trust, informal mechanisms, and shared knowledge (Volgger & Pechlaner, 2014). Understanding the mechanisms that support adoption of sustainability in systems is important. Policy frameworks provide parameters for sustainability in "eventful cities" (Getz, 2017) but other factors should be considered. Volgger and Pechlaner (2015) identify the means by which actions within a system can be encouraged, ranging from access to budget and financial resources to trust and knowledge to brands and themes. The power of brands to influence system members to adopt sustainability measures is an area of research that requires greater attention. The possibility of positive feedback loops – also known as virtuous cycles, in which a destination brand or industry reputation encourages companies and individuals to adopt sustainability-related behaviors, and these behaviors then build the strength of the brand – is exciting but requires greater examination. Similarly, it is posited that industry associations play an important role in establishing sectoral norms that focus attention on key issues, such as sustainability. The role of the Event Industry Council and its member organizations in raising expectations of behavior may be an important factor in influencing the MICE system to adopt sustainability practices. Again, the possibility that this too is a positive feedback loop in the system requires greater examination.

Conclusion and Implications

This paper highlights some of the challenges of sustainability in the MICE system. While the issues of improving the sustainability are substantial, there is growing understanding of the work required to implement change across the system. Applying a systems-based approach to analyzing the issues generates several important insights. They include:

- While conceptually simple, sustainability is a complex activity. It requires the implementation of a substantial number of activities at all levels of the system.
- The actions required to achieve sustainability are contextual. While there is a common set of activities generally recommended, which activities, and the priority given to them, will be determined by a variety of factors including location and individual actors – people, businesses, government and non-government entities.
- Sustainability requires ongoing performance management. Individuals, businesses, destinations and sectors, like the MICE sectors itself, must consider managing sustainability as an ongoing activity.

- Recognizing MICE as a Complex Adaptive System encourages a dynamic approach to sustainability programs and greater awareness of changes within and outside the system.
- A systems approach to sustainability with the MICE sector provides a useful way of dealing with the complexity of sustainability management. A systems-thinking approach provides a framework for examining the interactions between actors and consideration of different levels within the system. The discussion also highlights the value of considering not only specific actions but also their impacts – intended or unintended – on other parts of the system.
- Sustainability requires change through many levels of the system and different techniques must be employed. No single approach is sufficient and improving the sustainability of the system requires techniques that support individual change, organizational change, and governance techniques that support change across the system. The analysis highlights the need for a range of approaches to encouraging adoption of sustainability practices through the system

This article has highlighted the complexity of operationalizing sustainability across the MICE system and suggested a systems-thinking approach as an effective means of meeting the challenge of improving sustainability in the sector. There is clear evidence that many of the actors in the MICE system are working towards improving their performance of sustainable activities and that the system is moving in a positive direction. Nevertheless, despite recent advances there is still much to be discovered, and the gaps in our knowledge of how to address systematic change across the MICE system provide an engaging agenda for future research.

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