

A Systems Approach to Cultural Event Management for Sustainable Tourism Destination Development: The Case of the Škofja Loka Passion Play

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Abstract

Cultural events are a powerful tool for shaping the image of a tourism destination. They extend the tourist season, improve the quality of life of the local population and add cultural value to the environment. However, the increased tourist flows generated by cultural events can create imbalances amongst stakeholders. This is largely a consequence of linear, cause-and-effect management that disregards the complex interdependencies amongst stakeholders, the local environment, the economy and visitors. The paper proposes a systems approach (von Bertalanffy, 1968), cybernetics (Wiener, 1948; Beer, 1959) and the method of system dynamics modelling (Forrester, 1961; Sterman, 2000). It examines how systems thinking – holistic, integrative and feedback-based – enables the recognition of patterns and structures that often remain hidden beneath the surface of everyday events. A conceptual model represents the planning, organisation, delivery and evaluation of cultural events as a system that integrates the destination vision, event objectives, value co-creation (visitors–creators–providers–local community) and evaluation as a feedback loop for learning and improvement. The model is illustrated using the case of the Škofja Loka Passion Play, which is inscribed on the UNESCO Representative List of the Intangible Cultural Heritage of Humanity. The findings suggest that a systems approach to cultural event management – recognising interdependencies, balancing participation and involving the local community – supports the sustainable, innovative and socially responsible development of the destination.

Keywords: cultural event management, systems approach, sustainable destination development, value co-creation, systems thinking.

1 Introduction

In contemporary tourism, cultural events are one of the most effective tools for shaping the recognition and image of a tourist destination. By integrating heritage, the arts and community life into the experiential format of an event, they extend the tourist season, redistribute visitor flows across space and time, strengthen the local economy and add cultural and symbolic value to the place (Getz, 2008; Richards & Palmer, 2010). At the same time, events are not neutral: their effects extend far beyond direct economic revenue and are reflected in residents' quality of life, the strain on the environment and infrastructure, and the preservation or depletion of heritage resources.

It is precisely because of this complexity that the management of cultural events often faces a paradox: measures that increase attendance and revenue in the short term may, in the long term, undermine the very resources – the authenticity of heritage, community trust, the quality of the space – on which the event's appeal is based. The root of this paradox often lies in linear thinking about causes and effects, which treats an event as a sequence of separate tasks (marketing, logistics, programme) rather than as a whole comprising interdependent elements linked by feedback loops (Sterman, 2000).

This paper argues that the sustainable development of a destination based on cultural events requires a shift from linear to systems thinking. The aim of the paper is threefold: (1) to link the theoretical

foundations of general systems theory, cybernetics and system dynamics with the management of cultural events; (2) to develop a conceptual systems model of cultural event management that incorporates value co-creation and evaluation as a learning loop; and (3) to evaluate the model using the example of the Škofja Loka Passion Play as a heritage event inscribed on UNESCO's Representative List of the Intangible Cultural Heritage of Humanity. With its focus on social responsibility and sustainability, this paper is directly linked to the thematic framework of the IRDO 2026 conference.

2 Theoretical foundations

2.1 General systems theory and systems thinking

General systems theory (von Bertalanffy, 1968) established the insight that complex phenomena cannot be understood merely by breaking them down into individual parts, but primarily by understanding the relationships between them. A system is a whole composed of interrelated elements, whose properties (emergence) arise from interactions and cannot be attributed to any single element. Systems thinking is therefore a holistic, integrative and feedback-based approach that seeks the structure from which observed patterns of behaviour arise (Senge, 1990; Meadows, 2008).

A tourist destination is a typical example of a complex, open and dynamic system: it comprises residents, service providers, visitors, the natural and cultural environment, and institutions, which are in constant exchange of matter, energy and information with one another. Within this system, a cultural event functions as a temporary subsystem with its own objectives, resources and stakeholders, yet remains embedded within the broader destination system. A systems approach to tourism enables us to view events not in isolation, but as a lever that, through feedback loops, influences the entire destination system (Jere Jakulin, 2017).

2.2 Cybernetics and the management of complexity

Cybernetics, as the science of control and communication in living organisms and machines (Wiener, 1948), has introduced the central concept of the feedback loop into management: a system detects deviations between the desired and actual states and adjusts its behaviour accordingly. Ashby's law of requisite variety (Ashby, 1956) points out that a regulating system must possess at least as much internal variety as the variety of the environment it regulates; simple, unambiguous measures cannot, therefore, manage a diverse stakeholder environment.

Beer's cybernetics of management and the Viable System Model break down an organisation into the functions of execution, coordination, control, development and identity, and emphasise the capacity for self-regulation and learning (Beer, 1959; 1972; 1979). For event management, this means that the organisational structure is not merely a hierarchy of tasks, but a network of control loops that must maintain a balance between short-term operational efficiency (event delivery) and the long-term viability of the destination (preservation of heritage and community).

2.3 System dynamics and feedback loop modelling

System dynamics (Forrester, 1961; Sterman, 2000) provides a methodological tool for examining how the structure of feedback loops, time lags and accumulations (stocks and flows) generates the dynamic behaviour of a system over time. The central conceptual tool is the causal loop diagram (CLD), which uses reinforcing (R) and balancing (B) loops to illustrate why non-linear and often counter-intuitive effects occur. Reinforcing loops drive growth (or decline), whilst balancing loops stabilise the system around targets or constraints, such as the carrying capacity of the environment and the community.

Methodologically, the paper draws on the triadic object–subject–model framework (Kljajić, 1998), in which the researcher (subject) uses a model to understand and manage a complex object (a

destination hosting an event). The model is not a substitute for reality, but a tool for learning: it enables the simulation of the consequences of decisions before these are implemented in the vulnerable heritage environment.

3 Methodology

This paper is conceptual and theoretical in nature and is based on a qualitative systems methodology. The research process was carried out in four stages. Firstly, through a review of the literature, we defined the theoretical foundations of systems thinking, cybernetics and system dynamics, and their connection to event management and sustainability. Secondly, through conceptual modelling, we transformed the cultural event management process (planning–organisation–implementation–evaluation) into a systemic structure of feedback loops and illustrated it with a cause-and-effect diagram. Thirdly, we tested the model on a case study of the Škofja Loka Passion Play, selected as a typical and illustrative example of a heritage event with international recognition. Fourthly, we interpreted the findings in the light of the ISO 20121:2024 standard for sustainable event management and the concept of value co-creation.

The approach follows the object–subject–model triad (Kljajić, 1998) and the logic of soft systems methodology (Checkland, 1981), in which the model serves to structure the discussion among stakeholders rather than to predict unambiguous results. The validity of the conceptual model is thus defined by its usefulness in explaining the behaviour of the system and in guiding decisions, rather than by statistical generalisability.

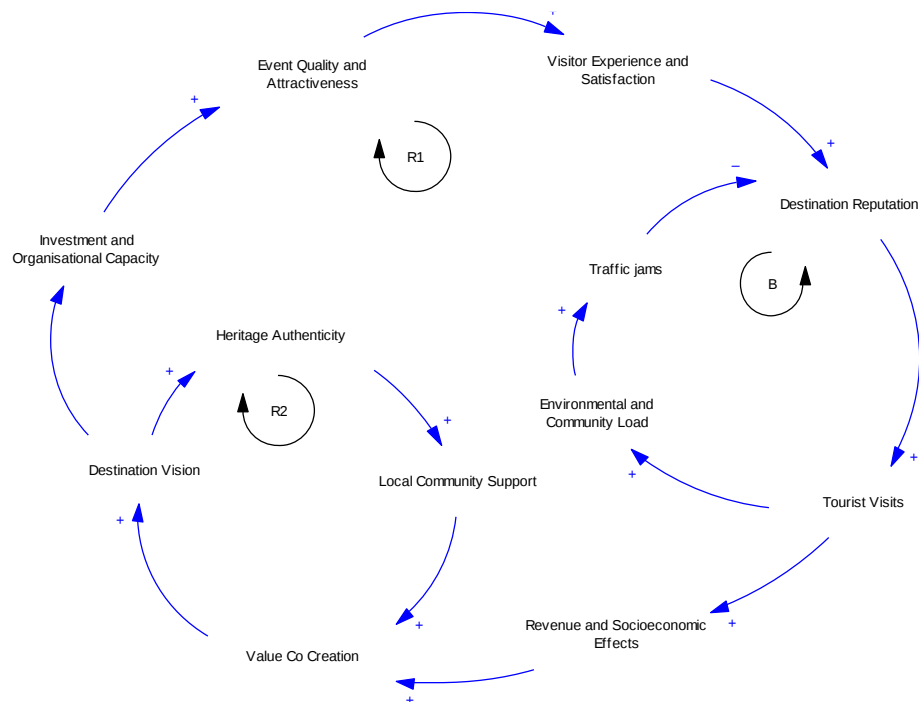
4 The management of cultural events as a system

The management of a cultural event is usually described as a sequence of phases: planning, organisation, implementation and evaluation. In a linear conception, evaluation is the final act, which merely assesses the event. In a systems-based conception, however, evaluation becomes a feedback loop of learning that closes the circle and feeds the next cycle with improved knowledge. An event is thus not a one-off project, but a recurring process embedded within the destination's long-term vision.

The proposed conceptual model (Figure 1) links five components: (1) the destination's vision and the event's objectives as a baseline reference; (2) investment and organisational capacity; (3) the quality and appeal of the event; (4) visitor experience and satisfaction, the destination's reputation and tourist visitation; and (5) socio-economic, cultural and environmental impacts. These components are linked by two fundamental types of feedback loops.

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Figure 1: Conceptual system model of cultural event management for sustainable destination development (cause-and-effect diagram). Source: the author.



Reinforcing loop R1 represents the engine of the destination's growth: investment and organisational capacity enhance the quality and attractiveness of the event; this, in turn, enhances the visitor experience and satisfaction, which improves the destination's reputation and increases visitor numbers; increased visitor numbers generate revenue and socio-economic impacts, which enable further investment and value co-creation. Value co-creation, in turn, helps shape the vision and objectives for the next cycle through learning. Reinforcement Loop 2 illustrates growth stemming from the destination's vision; this influences the authenticity of heritage, the authenticity of heritage has a positive impact on increasing support from the local community, and the local community in turn enhances the value of co-creating the event. If the system were to operate solely through reinforcing loops or growth loops, visitor growth would become an end in itself and unlimited.

The balancing loop B1 introduces carrying capacity constraints: higher visitor numbers increase the burden on the environment and the local community, which reduces residents' support; lower support weakens value co-creation and thus, in the long term, reduces the quality and authenticity of the event. Sustainable management is therefore not about seeking the highest possible visitor numbers, but about maintaining a balance between the reinforcing and balancing loops – between growth and carrying capacity. It is precisely here that the advantage of a systemic approach over a linear one becomes apparent: a decision that is beneficial in one loop (e.g. aggressive marketing to increase visitor numbers) may be detrimental in another (overburdening the community).

The central focus of the model is the co-creation of value amongst visitors, creators, providers and the local population. In line with the logic of service dominance (Vargo & Lusch, 2004) and co-creation of experiences (Prahalad & Ramaswamy, 2004), value is not created by the provider and is not 'delivered' to the visitor, but rather arises from the interaction between all stakeholders. Recent research into co-creation in heritage and event tourism (Mason et al., 2024) confirms that it is precisely the involvement of the local community that has a decisive influence on the authenticity of the experience and on the social acceptability of the event.

5 Sustainable and socially responsible event management

The systemic model is consistent with the international standard for sustainable event management, ISO 20121:2024. The standard, which in its second edition from 2024 replaces the 2012 version, defines the requirements for an event sustainability management system and is based on the Plan–Do–Check–Act (PDCA) cycle, which is essentially a cybernetic feedback loop. The updated edition explicitly places greater emphasis on the social legacy of an event, inclusion, human and children’s rights, stakeholder engagement and the contribution to the Sustainable Development Goals.

The standard thus addresses the three dimensions of sustainability – economic, social and environmental – which, in the proposed model, correspond to the set of impacts and the balancing loop B1. For the IRDO conference, dedicated to social responsibility, it is important to note that sustainable and socially responsible event management are not an add-on to the organisation, but rather its underlying logic: an event that systematically monitors and responds to its impacts on the community and the environment is both more sustainable and more resilient.

6 Case study: The Škofja Loka Passion Play

The Škofja Loka Passion Play is the oldest surviving dramatic text in the Slovenian language, written in 1721 by the Capuchin friar Romuald (Lovrenc Marušič). It is staged as a procession through the medieval town centre of Škofja Loka and, in twenty scenes, depicts the Stations of the Cross and scenes from the Old and New Testaments. In 2016, it was inscribed on UNESCO’s Representative List of the Intangible Cultural Heritage of Humanity. (Note: the event is classified as part of the intangible cultural heritage of humanity and not as a World Heritage Site in the narrower sense, which encompasses monuments and sites; both categories are governed by UNESCO, but under separate conventions.)

From the perspective of the proposed model, the Škofja Loka Passion Play is an instructive example precisely because its sustainability does not depend on visitor numbers, but on the structure of co-creation. The performance is based on the participation of a very large number of local people – in individual productions, more than 900 performers and around 400 volunteers – which means that the local community is simultaneously the custodian of the heritage, a co-creator of the event and its audience. In the model, this corresponds to a strong, positively oriented node of value co-creation, which feeds the reinforcing loop R1 whilst simultaneously acting as a damping factor on the balancing loop B1: as the event originates from the community, the burden on the community is internally balanced.

Another important systemic element is the temporal structure: the Passion play is not staged every year, but at intervals of several years (including in 1999, 2000, 2009, 2015 and 2021). This ‘rest’ between cycles acts as a balancing mechanism that prevents the exhaustion of volunteers and the heritage resource, whilst preserving the event’s exceptional nature. From the perspective of system dynamics, this is a built-in time lag that protects the system from excessive commercialisation and from overburdening its carrying capacity – precisely the risks described by loop B1.

Evaluation following each performance (organisational, artistic and community reflection) acts as a learning feedback loop: the experiences of one cycle are incorporated into the planning of the next, enabling gradual improvement without any loss of authenticity. The Škofja Loka Passion Play thus illustrates how a heritage event can contribute to the development of a destination without exploiting the destination or the community – in other words, in a sustainable, innovative and socially responsible manner.

7 Discussion

A comparison between the conceptual model and the case study reveals three key findings. Firstly, the long-term sustainability of a heritage event depends on the balance between the reinforcement and

balancing loops, not on maximising visitor numbers. Secondly, co-creation of value, particularly the involvement of the local community, is a lever that simultaneously enhances the event's appeal and mitigates its negative effects; it is therefore a rare node with high systemic value (following Meadows, 2008, the so-called 'lever point'). Thirdly, built-in time lags and evaluation loops are legitimate instruments of sustainable management and not a sign of organisational inefficiency.

For destination management practice, this leads to the recommendation that performance indicators for a cultural event should not be limited to attendance and revenue, but should also include community support, environmental impact and the quality of co-creation. Only such a systemically balanced set of indicators enables decision-making that is consistent with the ISO 20121:2024 standard and the principles of social responsibility. A limitation of this paper is its conceptual nature; in further research, it would be useful to operationalise the proposed cause-and-effect model into a system dynamics simulation model and to test it quantitatively using empirical data from selected heritage events.

8 Conclusion

This paper has demonstrated that the shift from linear to systems thinking fundamentally alters our understanding of cultural event management. A systems approach, supported by cybernetics and system dynamics, enables us to understand an event as a network of interdependent elements and feedback loops, rather than as a sequence of separate tasks. The proposed conceptual model links the destination's vision, the event's objectives, value co-creation and evaluation as a learning loop, and places the balance between growth (R1) and carrying capacity (B1) at the heart of sustainable decision-making.

The example of the Škofja Loka Passion Play confirms that a heritage event, rooted in the local community and guided by evaluation and built-in time lags, contributes to the development of the destination in a sustainable, innovative and socially responsible manner. Systems thinking is thus not merely a theoretical framework, but a practical tool for the management of cultural events, which preserves precisely what makes a destination attractive – its heritage, environment and community.

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