The development of a new framework for assessing major events informed by systems thinking

Debbie Sadd and Gary Evans
The Bournemouth University Business School, Talbot Campus, Fern Barrow, Poole, Dorset, BH12 5BB
Email: gevans@bournemouth.ac.uk and dsadd@bournemouth.ac.uk
Webpage: http://www.bournemouth.ac.uk

Abstract

This paper sets out how Viable Systems Methodology (Beer, 1979) was used for modelling purposes to inform the design and development of the Framework for the Assessment of Major Events (FAME). We assert FAME has a strategic advantage over other events frameworks, such as In England and Tourism Southeast, because these frameworks lack the requisite variety to reconcile the complexity of events planning and management and fail to recognise recursion in organisational decision-making. We also had concerns with how the frameworks engage communities, partners, and stakeholders. We present data from three destination case studies to show the effectiveness of FAME and make the case FAME can uplift the strategic planning and management for events to add value to destinations. In doing so, how Systems Thinking and Systems Practice (Checkland, 1981) can significantly enhance organisational methodology. Further, the use of models for visual impact and give context and structure to the decision-making processes of organisations, as argued by Bryson et al. (2004).

Keywords: assessment, case studies, destinations, events management, Framework, models, stakeholders, systems thinking, and viable systems methodology.

Introduction

This paper was prepared before the onset of Covid-19 and thus is written on the assumption that events will restart sometime in the future from 2021. The Government have announced their 'Festival 2022' (https://www.gov.uk/government/news/2022-festival-update) and other encouraging signs of an events rebuild, thus this paper and the resultant findings will help in the rebuilding of destinations event portfolios. The study relates to the need for a sustainable portfolio of events in towns and cities beyond purely economic considerations, yet also being planned and organised during times of budget constraints for local and regional authorities.

The appeal of Viable Systems Methodology (VSM) (Beer, 1972) is because we recognise its cybernetic theory of Organisation may help events organisations to uplift their adaptability and Organisation, to survive the demands of an ever-changing business environment. VSM promotes the logic that event organisations are viable system based on five higher and lower ordered systems and are recursive and systems nestled within systems, as illustrated in Fig 1. Such an approach should enhance the understanding of event planners and their decision-making processes underpinning this study's purpose. Their decisions form the basis for the agreement to run a portfolio of events and the bureaucracy/decision-making involved at every level. Furthermore, it looks at past criteria used to evaluate post, during and after event impacts, especially around evaluations of the event viability.

The study looks at three very different case studies of destinations and cities, with diverse events and stakeholders. Yet, commonalities have emerged as to the very ad-hoc and non-systematic evaluation methods that have been used in the past, resulting in unsustainable events and events agreed for the wrong reasons. None of the destinations used a robust softer systems approach to decision-making, yet they are now using an evaluative tool to reduce the levels of bureaucracy and to help make decisions more robustly and timely, while ensuring the events meet stakeholder needs.
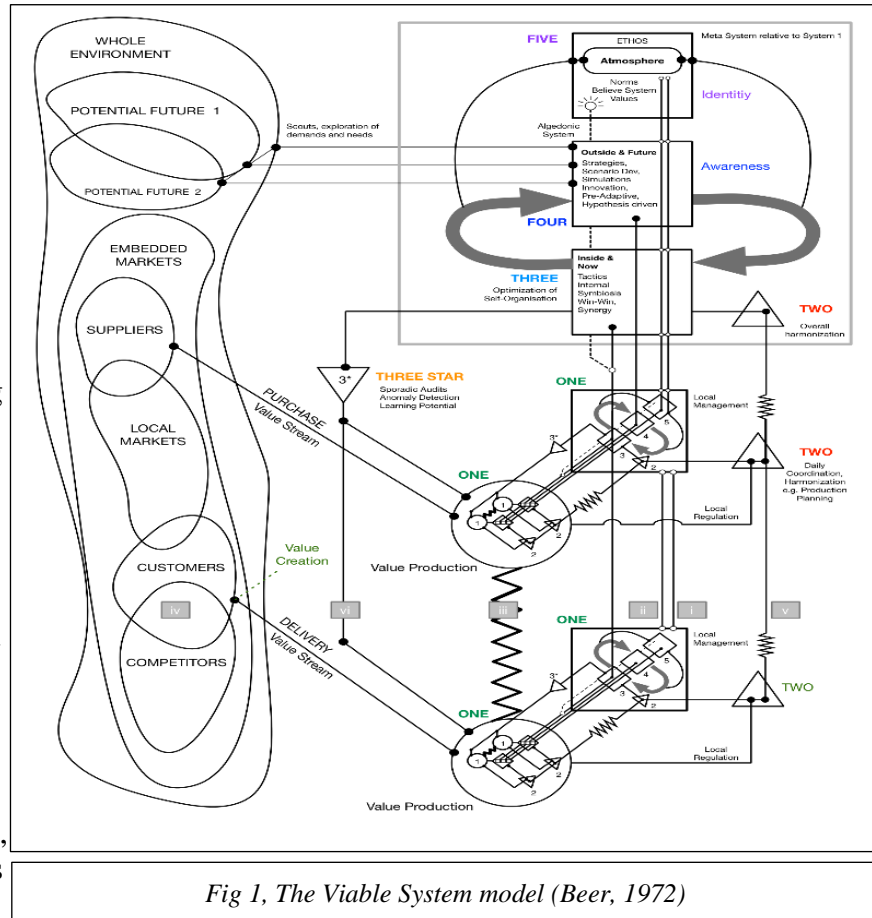

Fig 1, The Viable System model (Beer, 1972)

In the past, assessment of events tended to use the England Tourism Southeast (ETSE) framework. They assert their framework is appropriate because it focuses on minimising negative in favour of positive impacts, as Sustrip (2012) argued. However, from our perspective, it appears to be a 'one size fits all' design that does not consider the local level requirements or nuances. Their framework seems simplistic and lacks the requisite variety (Ashby, 1957) to reconcile local events partners' wants and needs. Ashby asserted that planners need an approach capable of dealing with the inherent complexities of a given situation for planners to make sense of their environments. Delivering events has multiple challenges and considerations, which we see as connected in some way that the ETSE framework fails to capture. Moreover, addressing negatives rather than minimising them will lead to learning for better events impact. Thus, we contest that the ETSE framework is incomplete in effectively planning and evaluating events that are complex activities. We make similar observations with the other popular events decision-making model, the ABCD model proposed by McKinsey (McKinsey.com).

Why this study focuses on Systems Thinking (Checkland, 1981), it is crucial to define what Systems Thinking means. Checkland seems to define such thinking as "an attempt, within the broad sweep of science, to retain much of that tradition but to supplement it by tackling the problem of irreducible complexity via a form of thinking based on wholes and their properties which complements scientific reductionism" (p.74). More recently, McKey (2019, p.126) adds to this by asserting for a system to exist, "there must be interconnections and a purpose and function". In the context of this study, while mindful of the positions of Checkland and McKey,

we perceive Systems Thinking (Checkland, 1981) as a holistic approach to events management and its system boundary, as called for by Midgley (2000, pp.137-146), as follows:

> (A system to plan, deliver and evaluate) cultural events involving multiple stakeholders in the conurbation of interest for positive economic and sustainable impacts.

We assert Systems Thinking (Checkland, 1981) is necessary because there is little evidence to suggest such an approach exists in the field of events management; thus, limited cognisance by planners of the complex synthesis of events interconnections, subsequent behaviours, and outcomes. We argue that their lack of appreciation of events feedback loops to uplift decision-making in interconnected environments results in ineffective event planning, delivery, and evaluation. We interpret their behaviour as a single or classic negative feedback loop that Sterman (2000, p.14-19) warns is deficient for organisational learning. It is far better for planners to acknowledge the causal structure of relationships, the implications of behaviour if stakeholders operate in isolation, and how they reduce events' economic and sustainable impacts. If planners adopt a System Thinking (op cit) approach, it enables the causal relationships to be better understood and interpret events' emergent properties more quickly. In other words, what Sterman calls double loop feedback for deeper learning is necessary for systemic change.

Here, we are attempting to prove cultural events decision-making traditionally involves many tiers that can be potentially enhanced for efficiency and effectiveness if adopting a System Thinking (Checkland, 1981) approach. Our focus is on the relationships between all the relevant stakeholders and their needs and involvement in the decisions at each level of the hierarchy of the proposed cultural events Viable System (Beer, 1972) model. It is opposite to the domination of events organisation being predominantly by planners. Planners must be alert to the levels of recursion and interconnection of functions. Through three case studies, we will evidence how a Systems Thinking (op cit) approach benefitted each destination using our VSM-inspired Framework for the Assessment of Major Events (FAME).

Historically cultural events

For many destinations, especially those with a tourism portfolio, they have recognised the need for regeneration strategies to re-invent the destinations or the consequence could result in suffering a decline in visitors and diminished local spend. This is increasingly apparent in a global world where travel was internationally focused (Agarwal, et al 2018). A strategic approach is often needed to draw visitors to any future tourism portfolio and to establish which marketing programmes to undertake. Therefore, a good, well-planned events portfolio is vital for the marketing approach used. Andersson et al (2020), advocate those events are important when maturity levels have been reached when resorts are in permanent state of development, when innovative ideas to support resort growth become more important than ever to thwart off decline. Any initiative should be formulated to keep the resort/destination popular with returning visitors but also to encourage new market groups. These events do not have to be focused on sport and education but also to focus on history and culture. Smith (2005) argues for the inclusion of 'resort reimaging' and the role events can play, although he does focus on larger scale events including hallmark and major events, but his arguments hold true for smaller events too. To support resort/destination long-term sustainability, Benedict and Houghton (2009) suggest that the diversification of the economic base is a suitable strategy, thus supporting the argument that a suitable portfolio must consider the triple bottom line approach.

Therefore, environmental, and social impacts must also be part of the decision-making process, beyond just the economic goals.

Infrastructure legacies and community impacts

Organisations that represent destinations and resorts need to learn and adapt through strategic planning which events best meet the strategic aims of their destination/resort (Getz, 2008), and that those organisations prepared to adopt this approach are more likely to survive. This is especially true for those who forward plan with respect to their infrastructure and event viability through using robust decision-making systems. Sadd et al (2017) argue that the less an event is tied into purely profit making commercially and therefore short-term, the less likely it will succumb to old age or competition as argued by O'Reilly (1986), Lindberg et al. (1997) and Getz (2008). (This is important in the building of new infrastructure, although not a focus of this study). Destinations naturally go through lifecycles (Agarwal, 2018); however, from the residents and local communities' point of view, it is the overall portfolio that is of a greater importance for the sustainability of a location (Getz, 2008; Getz and Andersson, 2009).

Agarwal (2002; 2018) argues that a greater sense of place distinctiveness is needed within resort/destination in that natural facilities in contrast to man-made infrastructure can have a significant role to play in overcoming resort decline. More contemporary applications of these theories can be seen from Dickinson et al. (2016), Garcia-Ayllon (2016) and Heuwinkel et al. (2018), all of whom still show the importance of considering this theoretical approach to viability and sustainability. Furthermore, the importance of community involvement in decision-making and future planning, encourages the community buy-in Haywood (1988) previously argued by saying that responsible and responsive planning in tourism development, including the community through citizen involvement, advocates better support than centralised government decision-making, yet it is not a common place initiative.

A system developed that incorporates the views, wishes and requirements of key stakeholders within a destination/resort location, agreed through a series of seminars, involving representatives of all these key stakeholder groups, can support the decisions around a viable and sustainable event portfolio moving into the future. The development of FAME is one such approach.

The theory

Because of our cultural events management experiences and applied research, we recognised a hierarchy of decisions involved in planning, delivering, and evaluating events. Yet, planners seemed to give scant regard to the decision levels at the expense of cultural events' economic and sustainable impacts. Their thinking is more reductionist, compounded by events evaluation frameworks, such as the ETSE, that lack the requisite variety (Ashby, 1957) to reconcile the events management complexities. We also observed that the events assessment evaluations restrict boundary judgements to a few planners resulting in the marginalisation of others that Midgley (2000, pp.142-146) warns about, who could offer invaluable insights on how to improve the events management processes. From our events systems analysis, we identified policy, external environment, organisational, coordination and delivery decision levels they inadequately cover in the events evaluation frameworks. Thus, we were determined to address this deficiency by promoting a Systems Thinking (Checkland, 1981) approach to consider all the events levels by engaging a range of stakeholders who could offer a view to uplift events planning, delivery, and assessment. Our perceived benefits of a Systems Thinking (op cit)

approach are it offers an iterative learning process when searching for new solutions, creates a shared dialogue amongst stakeholders, and promotes holistic or *total systems* thinking (Beer, 1984).

The decision levels we identified, and the version of Systems Thinking (Checkland, 1981) we are proposing is Viable System Methodology (VSM) (Beer, 1972). Beer argues for an organisation to survive and thrive in its environment, it needs to be adaptable to safeguard its future state. To realise viability, Beer specifies five higher and lower ordered systems, with his Systems 1 to 3 focusing on an organisation's operations, and Systems 4 and 5 on the external environment and policy decisions, as illustrated in Fig 1. Beer refers to Systems 1 to 3 as *here and now* and System 4 as *there and then*. System 5 as balancing the needs of Systems 1 to 4.

His System 1 is the operational delivery of an organisation's products, services, or other vital transformational processes. It is the 1st level of recursion and is readily detectable in organisations. System 2 is the control, coordination, and communications crucial to S1's performance and prevents it from oscillating. It is the 2nd recursion level and is sometimes difficult to detect in organisations. System 3 is the broader Organisation that implements the structures, rules, resources, rights, and responsibilities for S1 and S2. It is also the conduit to Systems 4 and 5 and the 3rd level of recursion and is more apparent to detect when applying VSM. System 4 is the environmental scanning function that attempts to identify future demands for the Organisation and satisfies the data requirements of S1, 2 and 3. It is the 4th recursion level and, again, difficult to detect in organisations. System 5 is the policy and strategy function of the Organisation tasked with maintaining the Organisation's overall variability and steerage of the *total system*. It is the 5th and final level of recursion and often an organisation's board, leadership, and governance.

Beer (1972) asserted that for an organisation to be a viable system, it must have Systems 1 to 5 to have the architecture to respond to the dynamics of the external business environment. He used a human biology metaphor to express his viable system, viewing Systems 1 to 3 as the ancient brain or autonomic nervous system and System 4 as cognition. System 5 the higher brain thinking functions. Beer further stressed that a system could be part of a metasystem, and each system in the viable system model could be a possible system.

Here, we used VSM to determine how to match the evaluation criteria to Systems 1 to 5. System 1, the resources utilisation criteria, and System 2, to evaluate the flow of resources to System 1 and its services to events customers. From System 3, the evaluation of the delivery processes of System 1 and the ongoing monitoring, control and causes of resource deviations. Also, from the auditing function of System 3, the criteria call for recommendations from System 4 to address any resource deficiencies. Finally, from System 5, the criteria for determining which resources and how to prioritise those resources. Table 1 shows how we used the criteria to determine how they relate to VSM to inform our design of FAME. Fig 2 illustrates FAME as an evaluative process for events.

Beer (1972) further established five rules for applying VSM users should note, as summarised here. Firstly, the *regulatory aphorism* that a user needs not to enter the black box to understand the nature of its performance or calculate its variety. Secondly, the *principles of Organisation* need to equate and designed in such a way that happens, and the management, operation and directional channels should have higher communications transmitting capacity. The variety of the transducer at the system boundary must also be equal to the variety of the communications channels. Thirdly, the *recursive theorem* that a viable system contains and is part of a viable

system. Fourthly, *axioms* that horizontal variety should equal the system's vertical variety. Lastly, the *law of cohesion for multiple recursions* that the variety of System 1 is accessible to Systems 3 and is equal to the variety of the total system for each system's recursion.

Table 1, How VSM influenced the design of the FAME evaluation criteria

| The viable systems 1 to 5	VSM influence on the design of FAME
S1, concerned with implementation	Tweak and amend any anomalies that emerge through repeated testing, and soft launch framework on new event proposals
S2, coordination of S1	Revisit weightings and test through the framework with existing events
S3, control function and internal stability	Test weightings with stakeholders, place weightings on the criteria in relation to precedence in meeting objectives, and determine the criteria to therefore be evaluated
S4, intelligence gathering and reporting	Determine key drivers within destination of an events portfolio
S5, policy and strategy	Determine key destination stakeholders and determine the key objectives to be met.

Source: authors

In addition to the appeal of Beer's (1972) viable systems model and its five higher and lower ordered systems that influenced FAME's approach to evaluation is his method for measuring System 1's performance. Here, Beer (1972, pp.163-165) views performance as a calculation of the actuality, capability, and potentiality of System 1.
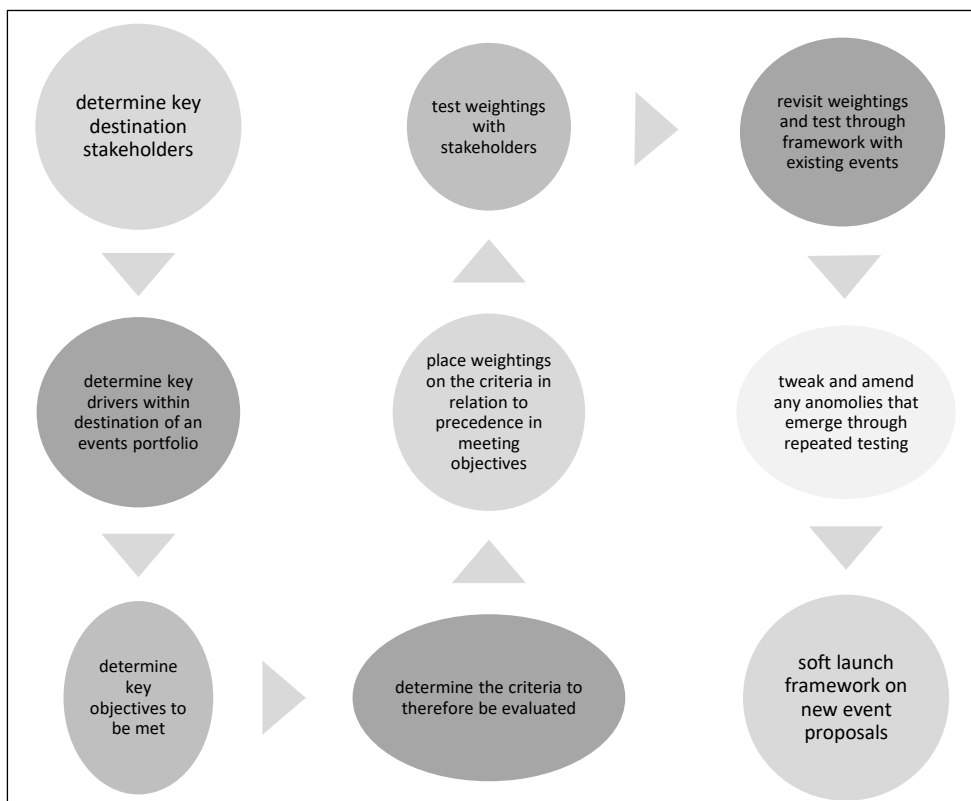
He defines these as "actuality, what we are managing to do now with existing resources and constraints… capability as what we could be doing with existing resources and constraints… and potentiality, what we ought to be doing by developing our resources and removing constraints" (p.163).

Beer (1972) stresses that it is System 4's responsibility to realise System 1's performance improvements. He indicates that potentiality, capability, and actuality can be measured in terms of latency and productivity, resulting in improved performance. The ratio of actuality and capability is his measure of productivity—the ratio of capability and potentiality for latency, and latency and productivity as the measure of performance. We perceive learning as derived from attempting the calculations on the first instance and then understanding the nature of deviations because something went less well, especially under actuality and capability measures. It is the focus on potentiality where we feel FAME can help improve the performance of events organisations. However, it continues as an area of inquiry for us as each event thus far has different costs and income drivers. Fig 2 illustrates the triple vector of System 1 performance, with planning switching from normative to strategic (SMART objectives) to programming (tactical decision-making) as calculations progress from left to right when viewing the model.

Fig 2, the triple vector of System 1 performance

Source: Adapted from Flood and Jackson (1991, p.93).
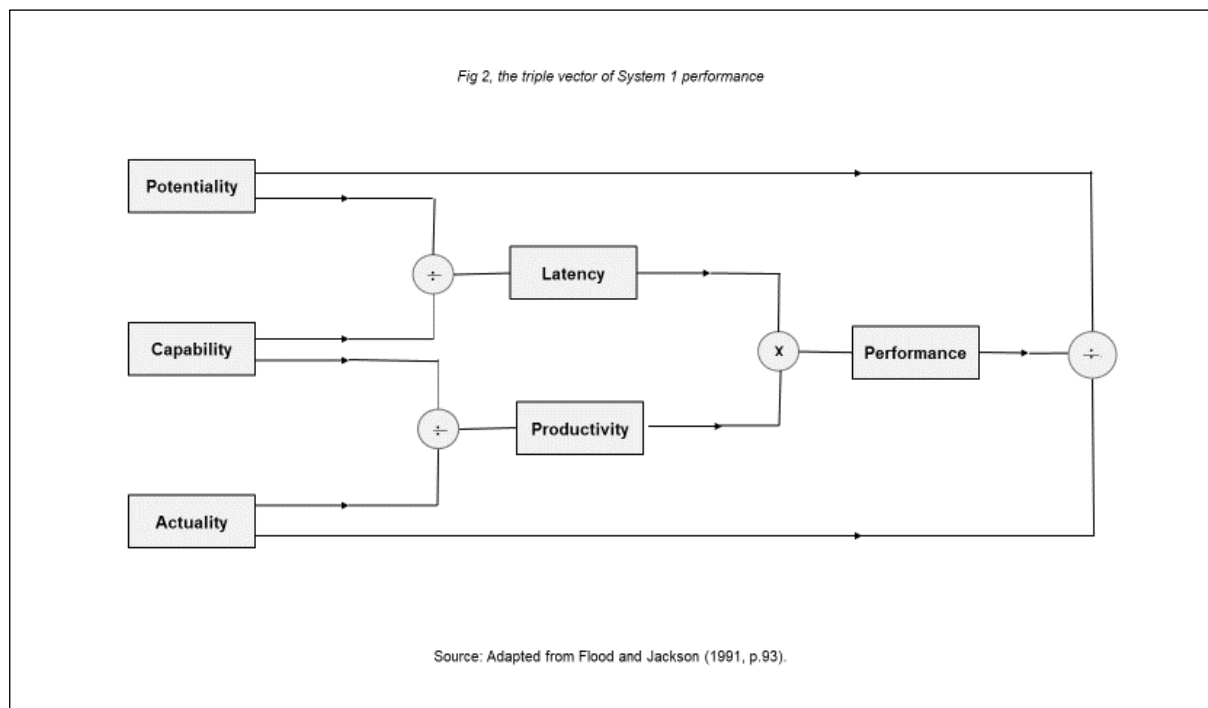
Tepe and Haslett (2002) argue that because of the enormous amount of paperwork often associated with decision-making, including compliance regulations, policies and procedures, the process sometimes fails to give the governance and validity needed. However, with a viable system (Beer, 1972) approach, the physical paperwork and policy compliance users can simplify if they design their system accordingly. They need to organise their systems to be effective and allow for corporate governance based on the work of Beer (1972), as Tepe et al. recognised the valuable insights that VSD gave to information needs and communication flows through complex organisations. It is like the issues discussed in this paper - by engaging the client and stakeholders in discussing the problems and formulating the solutions, it appears

systemic changes have a better chance of being implemented. The larger the decision-making tree, the more difficult it becomes to show accountability and responsibility, hence, the need to engage people.

Further, Tepe and Haslett's study emphasises the importance of stakeholder engagement in designing the governance system to ensure effective organisational structures and information flows. Macdonald, Burke, and Stewart (2006) asserted the need for effective governance and leadership systems, especially for people and their involvement in organisational decision-making processes. In the Tepe et al. article, the Russian doll analogy of systems within systems resonates with the decision-making levels; thus, all have systems that need some central organisation within the system hierarchy. We assert organisation around the principles of the viable system (Beer, 1972) model, especially in second-order cybernetics mode (Espejo and Harnden, 1989). Espejo et al. differentiate first-order and second-order cybernetics with first-order as the world and a system within and second-order when the focus switches to the observers as the system. Espejo et al. also argue for a paradigm shift from objectivity to subjectivity to understand the viewpoints of the system actors to arrive at a better truth of their reality. We propose the second-order paradigm shift to engage planners and stakeholders within the FAME process to evaluate their governance and event systems for improvement.

Advocating the second-order cybernetics (Espejo et al. 1989) method accords with action research favoured by Checkland (1998) to systemic inquiry to capture knowledge and prior experience of system actors in an action-oriented decision-making cycle. As an alternative to hypothesis-testing research of the hard sciences, Checkland (1998, p.22) explains soft action research as:

> An alternative view is that social reality – what counts as 'facts' about the social world – is continually being constructed and re-constructed in dialogue and discourse among human beings and in their actions. Researching social reality then becomes an organised discovery of how human agents *make sense* of their perceived worlds and how those perceptions change over time and differ from one person or group to another.

Thus, the resultant actions are formulated from using prior knowledge and experience and the actions taken can then be reviewed considering the decisions made. Also, consulting stakeholders to play a role in the construction of the decision-making process leads to the formulation of solutions and allows these same stakeholders to take a degree of ownership in the outcomes. This becomes an iterative process of using these decisions to inform the next round of decision-making and the resultant outcomes best described as learning for action (Checkland and Poulter, 2006). Any formulated framework, designed with corporate governance at its core, becomes a source of information flow that allows an organisation to learn, adapt and remain viable (Sadd et al 2017). This internal information flow includes, policy requirements, accountability, audit data and performance feedback, (Tepe and Haskett,2002; Sadd et al, 2017).

Furthermore, by making the designed FAME flexible, it can support and respond to rapidly changing complex environments. By ensuring all units and structures involved in the information gathering as part of the decision-making are involved and have access to the information, data and intelligence needed, this will allow them to deal with and manage issues and problems through the roles they undertake. It is important to recognise that this does allow for the adaptability mentioned already in response to rapidly changing organisational situations, as argued by Scott et al. (2007).

Kawalek and Wastell (1999) argue that whilst the original intention of VSM (Beer, 1979) was in the study of cybernetics within management science, their focus on sales teams and database management highlighted how VSM (ibid) helped to challenge assumptions and allowed the company to question on how to capture the diagnostic capabilities for future developments. More recently, Burgess and Wake (2012) suggested that whilst a lot of attention in relation to VSM (Beer, 1979) is via larger organisations and corporate entities, it can also benefit SME's as shown in their study and this applicable to any organisation, including public and local government as shown in this paper. Further, we found the tourism and manufacturing VSM case studies offered by Jackson (2000, pp.166-169) and Flood and Jackson (1991, pp.96-109) to be extremely helpful.

Thus, this research analyses the development needs of three destinations and how the develop of bespoke systems thinking frameworks has enhanced their processes around decision-making and portfolio design. All three destinations are at different stages of the lifecycle of development.

The event management case studies

Here, three case studies are being used to highlight the importance of systems thinking for Local Government and NGO's. All three examples are at varying stages in the development of systems adoption but worthy of inclusion to highlight the important contribution that Systems Thinking (Jackson, 2003) can add to their decision-making processes. This is needed more than ever, as the decision-making process in all three examples involve internal and external stakeholders, with several levels of bureaucracy.

Case study 1
One is a local government/council with a year-round event portfolio comprising of a diverse range of events from local community to major international hallmark events. Historically, they had arranged events predominantly to enhance their tourism offer. Decision-making was ad-hoc based around a limited budget supplemented by sponsorship from a diverse range of sponsors. Events were not considered on a range of criteria to meet stakeholder needs but to meet tourism needs. However, it was decided that due to the development of one major event, the level of expertise gained in-house warranted the exploration of other major events. However, the decision-making process was engulfed with so many internal and external stakeholders all becoming involved in many different decision-making levels and struggling to reach consensus of decision-making. Consequently, events were designed for and with the support of a limited number of stakeholders and the resultant opposition often meant lack of engagement with some of the event ideas. The process was in danger of over-whelming the original objective of exploring the possibility of other larger events, whilst also satisfying the complex requirements of the area's major stakeholders. Multiple layers of bureaucracy were preventing lean and agile decision-making, so a working group was formed from industry, local government, and academia. Its purpose was to develop a smart system, using System Thinking (Jackson, 2003) to collate and make decisions based on pre-defined important information gleaned from a collective list of stakeholder requirements. This was trialled and launched to great success and one of the most successful events in the area was only sanctioned after the system developed gave a detailed report to the ultimate decision makers. This event has subsequently won national awards for best new event concept.

Case study 2
Two is an NGO tasked with developing an events portfolio in an historic city that again has a diverse set of stakeholders. In addition, they have a range of historic events they are tasked to organise but with a very limited tourist portfolio. Traditionally the residents in the surrounding area do not visit the city to support the normal events organised as they do not see them meeting their needs. A thorough event portfolio overhaul was needed. Their primary remit is to develop events to encourage the local community who live around the city but rarely venture into the centre to spend money. This Organisation has just adopted a bespoke system, based around the same stages of development mentioned above, in bringing together the key stakeholders to develop an agreed viable system, which was launched for usage just as C-19 Pandemic struck, so has been put on hold. However, it is now being used to assist decision-making to become leaner as events begin to emerge. This NGO, whilst controlling a budget on behalf of local stakeholders, is controlled by a county organisation, which has conflicting demands on its resources, so additional levels of decision making. However, the adoption of the viable system has their support and ratification.

Case study 3
Three is an NGO not based in an historical tourism destination, rather a travel and transport hub and therefore, traditionally not recognised as an events destination. However, the need to develop an events portfolio for the local community for social and political reasons has emerged from several key stakeholder groups. Thus, as an NGO, they are tasked with bringing together the various stakeholders and funders to develop a new events portfolio. The Local Government do not have a tourism/events division and therefore, the events portfolio receives not funding from Local Government. It was an imperative, then, that they are choosing the right event portfolio to meet the major stakeholders' objectives, especially in the coming years. They were to participate in the viable systems workshops to design their system, but this was placed on hold by C-19. However, they have been included here as an example of the complexity of the historic decision-making process challenging the NGO.

Each Organisation contacted us, the research team, through networking events and pre-existing relationships based around the knowledge of the capabilities of the University in designing and working with systems thinking to develop a smart thinking approach to decision-making. In 2012, a Higher Education Innovation Fund bid supported the project to develop, alongside the Local Council and key stakeholders (internal and external), a framework to support their events decision making, with the project concluding late 2018.

Research methodology

The methodology adopted here was structured around a similar approach to each Organisation, albeit over different timeframes. A systematic review of a range of paperwork from the three case studies, combined with the interviews and questionnaires distributed to the various decision makers in each of the three destinations, formed the research undertaken. Also, the methodological approach is deemed the most relevant as to investigate the processes and systems currently in use by these organisations, it involves a close examination of secondary materials already available. Further, the collection of primary data by hosting focus groups and meetings in the three event destinations. These focus groups contained representatives from the relevant stakeholders for the destination in question and the representatives of the key decision-makers and gatekeepers. They varied slightly from destination to destination, but the importance was that they were the main gatekeepers for the decisions being made and the spokespeople for the viable system (Beer, 1972) analysis.

The structure for the methodology follows the Viable System Model (VSM) (Beer, 1979) set up and investigates from the material and data collected the constituent parts of the model. The VSM (ibid) analysis also allows for the development of a database to be developed via the FAME framework of decision-making and combined with VSM (ibid). The first phase, the systematic reviews, were followed-up with scoping interviews and then meeting with stakeholders to discuss existing decision-making channels. The second phase was to revisit each destination and then hold focus group with representatives of all major stakeholder groups to discover the key drivers and requirements from an events portfolio perspective. This was the most challenging part as often it was impossible to try and align all the diverse requirements; however, *satisficing* was used to try and meet most of each stakeholder's requirement.

The opportunity to work with the three destinations was an iterative process as the first destination was an existing partner in a government funded project. The original funded project was part of a £9m injection into developing some strategic decision-making around resort development. The relevant part of the project for this work concerned the development of what was termed a *learning destination*. This involved the formation of a group of key stakeholders and gatekeepers in terms of the needs of the destination in capturing knowledge and decision-making principles in relation to major events. We put their views into the Framework to make informed judgements over event viabilities in meeting sets of predetermined requirements, hence, to meet the various stakeholders' needs.

As with all case study research, defined by Yin (2018, p. 13) as an "investigation of a contemporary phenomenon within its real-life context", there is an emphasis on an openness and transparency. We displayed multiple sources of evidence, such as the detailed documentation of extensive research notes and policy and strategy documents, throughout the duration of the research. So, extensive documentation was used as evidence and all meetings were recorded, transcribed and then minutes distributed for ratification by all stakeholders. Fourteen destination stakeholders were involved in the research process, with all sectors of the local tourism industry included at each stage of the research process.

Some of the elements in this system are the key stakeholders or the system actors as they are the participators of the systems thinking approach. The interconnections are the roles/functions they play; thus, bringing the overall system to life. So, in the case of events, their intangible and tangible roles within the overall event planning and management processes. The purpose or function is to make the decision-making processes more strategic, efficient, and effective, or making the right decisions in the right way. However, within this process, it is important to consider the interconnectedness and the process of synthesising and decision-making. Then, using this to feedback in a loop, iteratively, to improve and learn from the decision-making as they move forward. This decision-making process has become a *knowledge system* to the standard expressed by Midgley (2000, pp.76-88); it is a dynamic system.

Once the above had been completed for Organisations 1 and 2, the decision-making system was introduced and trialled in each Organisation. Organisation 1 has since implemented the approach and we consider them a viable system for events planning and management decision-making. Organisation 2 is continuing to trial the approach and will gather pace once their portfolio is fully established post-COVID. Organisation 3 is on hold until COVID allows us to meet and further scope their requirements.

The findings and discussion

All the case examples have shown that multiple levels of decision-making underpin any event decision(s) and each level of decision-making is bespoke to the destination in question and supports the findings of Sadd et al (2017). More specifically, depending on the existing structures of Local and Regional Government departments working with NGOs, will also impact on the number of different levels of decision makers needed, which aligns with the strategic approach asserted by Agarwal (2018) and Andersson et al. (2010). However, what is clear is the unnecessary levels of decision-making in each destination, so delaying and complicating the decision-making process, taking up valuable resources of time, manpower and money. In addition, the decision-making process is ignoring some of the key stakeholders who should be considered, as McKey (2019) warns.

All conceded that there are at present too many levels in place and the final say are often given at a level that is not really on the ground and actively managing and overseeing the portfolio of events. The levels add complexity and delays in making decision in an expedient manner. Further, to be able to adjust in a timely manner the nature and scope of the events they feel are lacking impact to satisfy the key local and regional stakeholders. Thus, consistent with the call of Antchat et al. (2019) and the need for systems to help evaluate events.

Each destination needs to learn and implement a viable system to be able to take away the unnecessary levels of bureaucracy. Systems thinking can undertake the initial scoping and presentation of viability to the committee that ultimately makes the final decision, as suggested by Sadd et al (2017). Thus, these committee decision makers will be satisfied that due process has been followed and the right decisions are being made based on sound judgements. Judgements informed by a system's interconnectedness and the consideration of all the components needed to make effective decisions. Decisions based on the needs of the key stakeholders as well having evaluated the different levels of decision-making stakeholders are involved with, as asserted by McKey (2019). However, a robust and inclusive process can only be feasible if the system's design is done with all stakeholders and approval then becomes a function of the system for all future event decisions (ibid, 2019). The viable system approach will need review at regular intervals in case the needs of stakeholders change but this should be on a pre-determined timeframe and not every time a small tweak is needed. Coincidentally, the latter was a recommendation of all three case study destinations. This then ratifies and gives credibility to the ultimate decision-makers, often council and other local government organisations, and applies to charities, funding organisations and the private sector. Thus, all could benefit from a viable system approach being incorporated into their events organisational decision-making processes and further recommendation of the case study destinations.

From the case study destinations, all three organisations now have the *five* higher and lower ordered decision-making levels influenced by Beer's (1972) Viable System model. However, the complexity of the different organisations means that the time frames and involvement of gatekeepers differ significantly. Yet, what is clear is that in each Organisation, at present, the final decision is being made by a different entity altogether, often based on the views of the level below and not through any insight from the key stakeholders and thus, not meeting their needs. Moreover, a body makes the decisions with different drivers and requirements, often economic; therefore, it does not help the destination satisfy its triple bottom-line measurements, as contested by Sadd et al. (2017) and Antchat et al. (2019). Table 2 presents the levels of decision-making now in place for each destination. Plus, for Systems 1 to 5, we indicate the

systemic changes for each case study due to applying the VSM-inspired FAME approach. Finally, a systemic analysis column also reflects on the implications for Systems 1 to 5.

The Viable System (Beer, 1972) model provides a blueprint for an effective organisation to uplift decision-making through Systems 1 to 5, so all five Systems have an input into the final decision-making process, as shown in all three examples above. We based our analysis on primary data from interviews and secondary data after reviewing documentation provided by each destination, where possible. All agreed that the development of a robust decision-making system that removes excessive levels and allows for the decisions to be more robustly taken and in a timely fashion is vital for measuring and maintaining a sustainable events portfolio, concurring with the positions of Sadd et al. (2017) and Andersson et al. (2020). As a representative from Case Study 2 aptly put it:

> "We often have to wait for county level decision making which considering how many other destinations they have to consider, mean that our needs from events often gets overlooked when evaluated against competing needs".

Any method developed to help remove many of these levels with the resultant time delays or complexities over competing needs can be personalised to meet the various stakeholders involved in the decision-making, such as FAME. By designing FAME using the logic of VSM (Beer, 1972), we have achieved what Harwood (2011) refers to as paradigmatic commensurability, which is also likely to help the destinations to develop self-sustaining or autopoietic (Maturana and Varela, 1980) events management systems. FAME also achieved double loop feedback (Sterman, 2000) necessary to promote deeper learning for systemic change.

Conclusion

It is clear from the successes seen in Organisation 1, that the adoption of a Systems Thinking (Checkland, 1981) approach to the decision-making process has been ratified and supported by all the key stakeholders. They have gained expediency in their decision-making processes and most importantly developed and helped design events that are worthy of national awards. Feedback included from the Events Director for Organisation 1 stated, "the award winning XX event would never have been supported at the highest level without the underpinning of the FAME method and Report". The FAME framework has now been used to evaluate four major events and the results from the systems thinking approach (ibid) showed areas that needed further development before they became viable events to meet their stakeholder requirements.

By using the systems thinking approach any issues around the future viability and on-going support of these events, including any financial underwriting, can be highlighted so that the events are developed in-line with the overall portfolio in mind. A sustainable events portfolio is now more important as ever with the re-emergence of events post the pandemic. A review of any destination's events strategy is crucial to align with the strategic direction the destination wishes to follow. The key objectives of the destination and its stakeholders will be central components of the event framework and any associated systems thinking approach, such as the use of VSM (Beer, 1979) with FAME.

Table 2, the levels of decision-making now in place for each destination

The viable systems 1 to 5	Case study 1	Case study 2	Case study 3	Comparative analyses
S1, concerned with implementation, consideration of competitors, customers, markets	Robust application process for events as Local Government controlled via an application process that covers S1 concerns, i.e., purchase, delivery, and evidence of value production	Centralised application process if financial support requested. Limited opportunity in organisations current design to specifically cover value production unless via funding application	Clear strategic drivers in place due to centralised approach to event portfolio, considering environmental scanning and future proofing through a more robust application system	The differences arise from the nature of the Organisation and the level of permissions required. If an NGO, rather than LGA, the implementation conditions vary. Thus, the transformation varies.
S2, coordination of S1	Controlled within central team as one point of contact to co-ordinate and control communication	As an NGO, powers limited in relation to event viability; however, controlled within central team as one point of contact to co-ordinate and control communication	Controlled within central team as one point of contact to co-ordinate and control communication	If the Organisation has the final say in the event viability, then the coordination is more easily centralised. As an NGO, without permission rights, this is less easy on events
S3, control function and internal stability – optimisation of the Organisation	Use of FAME that includes controls through structures rules, resources and responsibilities that must be met for event viability	FAME in existence, but limited application to date, yet optimisation of the Organisation is key	FAME to be developed to its full potential	FAME is the system to allow for control and stability. Without S3, S4 and S5 it is impossible to follow plans
S4, intelligence gathering and reporting	Pre, during and post event analysis reported, included environmental scanning and future proofing of event	Available for events only that fall under their remit; however, environmental scanning is a crucial part of future proofing.	Pre, during and post event analysis recommended	Information gathering is complex depending on the Organisation and must be considered as a part of the event permissions
S5, policy and strategy	Clear strategy for event development aligned to destination strategic drivers incorporated (reviewed) in FAME	Still a work in progress but it is becoming clearer what the strategic event drivers need to be	Clear strategy for event development aligned to destination strategic drivers	All are clear a strategic approach is needed, and policies to be implemented via FAME that can be adapted for strategic focus.

Source: authors

This paper has shown how systems thinking can help to design and more to bespoke approaches to events decision-making to make it more expedient, yet still designed to support the key stakeholders' objectives. A 'one size fits all' Framework, as offered by some destinations in the UK, will not meet the distinctive demands of these destinations as they often rely on their unique product offer.

References

Agarwal, S. 2002. Restructuring seaside tourism: 'The Resort Lifecycle'. *Annals of Tourism Research,* Vol.29, (1), pp.25-55

Agarwal S., Jakes S., Essex S., Page S. & Mowforth M. 2018. 'Disadvantage in English Seaside Resorts: a typology of deprived neighbourhoods' *Tourism Management,* Vol. 69, pp. 440-459

Andersson, T., Getz, D. & Jutbring, H. 2020. Balancing value and risk within a city's event portfolio: an explorative study of DMO professionals' assessments. *International Journal of Event and Festival Management*

Antchak, V., Ziakas, V. & Getz, D. 2019. *Event Portfolio Management*. Oxford: Goodfellow Publishers

Beer, S. 1984. "The Viable System Model: Its Provenance, Development, Methodology and Pathology". *The Journal of the Operational Research Society.* Vol.35, (1), pp.7-25

Beer, S. 1979. *The Heart of Enterprise*. Chichester: Wiley & Sons Ltd.

Beer, S. 1972. *Brain of the Firm*. London: Penguin Press

Bryson, A., Willman, P. & Gomez, R. 2010. 'The End of the Affair' The Decline in Employers' Propensity to Unionise. In J. Kelly and P Willman (eds) Union Organization and Activity. Routledge, London, pp.129-149

Burgess, N. and Wake, N. 2012. The applicability of the Viable Systems Model as a diagnostic for small to medium sized enterprises. *International Journal of Productivity and Performance Management.* Vol. 62

Checkland, P. and Poulter, J. 2006. *Learning for Action: A Short Definitive Account of Soft Systems Methodology and its use for Practitioners, Teachers and Students*, Chichester: Wiley & Sons Ltd.

Checkland, P. and Holwell, S. 1998. *Information, Systems, and Information Systems: Making sense of the field*, Chichester: Wiley & Sons Ltd.

Checkland, P. 1981. *Systems Thinking, Systems Practice*, Chichester: John Wiley & Sons Ltd.

Dickinson, J.E., Hibbert, J.F. and Filimonau, V., 2016. Mobile technology and the tourist experience: (Dis)connection at the campsite. Tourism Management, 57, 193-201.

Espejo, R. and Harnden, R. J. 1989. *The Viable System Model: Interpretations and Applications of Stafford Beer's VSM*, Chichester: Wiley & Sons Ltd.

Flood, R. L. and Jackson, M. C. 1991. *Creative Problem Solving: Total Systems Intervention*, Chichester: Wiley & Sons Ltd.

García-Ayllón, S. 2016. Retro-diagnosis methodology for land consumption analysis towards sustainable future scenarios: Application to a Mediterranean coastal area. *Journal of Cleaner Production,* Vol.195, pp.1408-1421

Getz, D. 2008. "Event Tourism: Definition, Evolution, and Research". *Tourism Management*, Vol.29, (3), pp.403-428

Getz D, Andersson T. 2010. Festival Stakeholders: Exploring Relationships and Dependency Through a Four-Country Comparison. *Journal of Hospitality & Tourism Research,* Vol.34, (4), pp.531-556

Harwood, S. A. 2011. VIEWPOINT: Mixing methodologies and paradigmatic commensurability, *Journal of the Operational Research Society*, Vol. 62, pp.806-809
Haywood, K.M. 1988. Responsible and responsive tourism planning in the community. *Tourism Management,* Vol. 9, (2), pp.105-118

Heuwinkel, K. & Venter, G. 2018. Applying the tourist area life cycle within sport tourism: the case of Stellenbosch and German athletes, *Journal of Sport & Tourism*, Vol.22, (3), pp.247-263

Jackson, M. 2003. *Systems Thinking: Creative Holism for Managers*, Chichester: Wiley & Sons Ltd.

Jackson, M. 2000. *Systems Approaches to Management*, London: Kluwer Academic Publishers

Kawalek and Wastell 1999. *"A case study evaluation of the use of the viable system model in information systems development", Journal of database management*, Vol 10, No 4

Lindberg, K., & Johnson, R. L. 1997. Modelling resident attitudes toward tourism. *Annals of Tourism Research,* Vol. 24, (2), pp 402-424

Macdonald, I. Burke, C. and Stewart, K. 2006. *Systems Leadership: Creating Positive Organisations*, Aldershot: Gower Publishing Ltd.

Maturana, H. R. and Varela, F. J. 1980. *Autopoiesis and Cognition: The realisation of the living*, Dordrecht: Reidel Publishing Company

McKey, Z. 2019. *Think in Systems – the art of strategic planning, high efficiency problem-solving, and lasting results.* Independently Published, UK

McKinsey.com - https://www.mckinsey.com/business-functions/organization/our-insights/untangling-your-organizations-decision-making {accessed April 2021}

Midgley, G. 2000. *Systemic Intervention: Philosophy, Methodology and Practice*, London: Kluwer Academic and Plenum Publishers

O'Reilly, A.M. 1986. Tourism Carrying Capacity: Concept and Issues. *Tourism Management,* Vol. 7, (4), pp. 254-258

Rickey, B and Houghton, J. 2009. 'Solving the riddle of the sands': Regenerating England's seaside towns. *Journal of Urban Regeneration & Renewal,* Vol.3, (1) pp 46-55
Sadd, D., Fyall, A., & Wardrop, K. (2017). Evaluative event frameworks: a learning destination perspective. *International Journal of Tourism Research,* Vol. 19 (3), pp 339-348.

Scott, W. R. and Davis, G. F. 2007. *Organisations and Organising: Rational, Natural and Open System Perspectives*, New Jersey: Pearson and Prentice Hall

Shacklett, M. 2020 Most CIOs aren't comfortable with letting the AI take over decisions. But it does help them make better, less biased ones. TechRepublic.com online https://www.techrepublic.com/article/can-ai-replace-human-decision-making-most-companies-say-no-but-it-can-help/ {accessed Feb 2021}

Smith, A. & Fox, T. 2005 From'event-led'to'event-themed'regeneration: The 2002 Commonwealth Games legacy programme, *Urban Studies,* Vol.44 (5-6), pp.1125-1143

Sterman, J. D. 2000. *Business Dynamics: Systems Thinking and Modelling for a Complex World*, London: Irwin McGraw-Hill

Sustrip (2012). "Event impacts model". Retrieved from http://www. sustainabletourismresearch.eu/documents/sustainable-tourism/events-impact-model {accessed October 14th, 2013}

Tepe, S and Haslett, T. 2002. Occupational health and safety systems, corporate governance and viable systems diagnosis: an action research approach. *Systematic Practice and Action Control*, Vol.15, (6), pp59-63

Ulrich, D. 1983. Governing transactions: A framework for cooperative strategy. *Human Resource Management,* Vol. 22, (2), pp 23-39

Yin, R. K. 2018. *Case Study Research and Applications*, 6th Edn. London: SAGE