COVID & INNOVATION WITHIN EDINBURGH'S FESTIVALS

POST-COVID-19 RECOVERY, INNOVATION, TECHNOLOGY

DIGITAL TRANSFORMATION AND COMMUNITIES AND SOCIETAL CHALLENGES

Hannah Stewart MSc
Prof. Jane Ali-Knight
Dr. Gary W. Kerr
Prof. Kristen Holmes

Edinburgh Napier
UNIVERSITY

Curtin University

1 - Executive Summary

1.1. Project aim

The COVID-19 pandemic created a global hiatus for events and festivals. The requirement for whole countries to stay at home and avoid contact with other people led to numerous events and festivals being paused, cancelled or redeveloped into a virtual format. With many cancelled events at risk of permanent cancellation, the pandemic has also reinforced the value of festivals and events to both society and to destinations.

The closure of businesses, festivals and cultural activities due to COVID-19 has imposed a significant social and economic loss to the City of Edinburgh. Edinburgh Festivals consists of 11 recurring events held in Edinburgh each year. The most famous of these events are the August festivals, which include the Edinburgh International Festival (EIF), Edinburgh Festival Fringe, Edinburgh International Book Festival, Edinburgh Art Festival, and the Royal Edinburgh Military Tattoo. For the first time in 74 years, the need to prioritise the safety of audiences, artists, participants and staff resulted in live versions of all five festivals being cancelled for 2020 and some festivals moving to either an online or a hybrid format in 2020 and 2021.

This project extends existing work done to establish a new model for examining the festival and event lifecycle using a case study of Edinburgh's festivals (Holmes & Ali-Knight, 2017). This research examined the impacts of COVID-19 on festivals in an eventful destination and how festival managers have responded to the ongoing pandemic.

The research was funded by The Business School at Edinburgh Napier University as part of the Post-COVID-19 Recovery, Innovation, Technology and Digital Transformation and Communities and Societal Challenges funding call and was a collaboration between Edinburgh Napier University and Curtin University in Perth, Australia. Research was undertaken throughout the summer and autumn months of 2021.

1.2. Who is this report for?

This research is intended to offer guidance to industry partners on how – when appropriate and feasible – to pivot events to a virtual/hybrid delivery model or execute them within COVID-19 or other hiatus planning and staging guidelines. This research evidences the benefit of the festival and event lifecycle concept as a tool to aid flexible and adaptable festival and event delivery and provides future insight into the resilience and innovation of the events and cultural sector within Scotland and beyond.

1.3. Review of policy and practice

Policies and practices that were relevant to the safe opening of festivals and events were reviewed in Autumn of 2021. Research and data collection took place from June 2021 to November 2021 and will therefore omit some recent innovations and developments in relation to the escalation of the COVID-19 crisis in the UK at the end of 2021 and the subsequent return to festival and event delivery with minimal restrictions in place in spring 2022.

1.4. The research

The project used a mixed methods approach, which consisted of participant observation of events, and in-depth interviews with key Edinburgh Festival Directors, managers and city stakeholders to identify how they initially responded and continue to respond to the ongoing COVID-19 situation. The fieldwork data are supported by content analysis of key narratives focusing on festival and event cancellation and post COVID-19 recovery within reliable media sources and news items. The methods are detailed in section 6.

1.5. The research team

Hannah Stewart, MSc is the research consultant for this project and works within The Business School at Edinburgh Napier University. She has been involved in several multidisciplinary research projects. Recent projects include examining festival and event accessibility for people living with dementia and a University of Edinburgh DDI Project modelling mobility and infection for festivals and events during COVID-19. She is a festival manager and creative content developer with over a decade of experience and has designed, produced and managed festivals across Canada, the UK and the Middle East. Hannah is a PhD Candidate at the Institute for Dark Tourism Research (iDTR) with the University of Central Lancashire (UCLan) specialising in Dark Event Tourism.

Dr. Gary W. Kerr is an Associate Professor in Festival & Event Management within the Tourism & Languages Subject Group of Edinburgh Napier University Business School. Gary has facilitated several multidisciplinary research projects which examined how festivals, events, visitor attractions and cultural venues can become more accessible for people living with dementia through co-creation and collaboration. Gary is a festivals and events practitioner and undertakes practical roles within industry to keep his skills relevant. He delivers consultancy and training to festival managers across the world including the Gulf Region, Mexico and in South Asia.

Professor Kirsten Holmes is a Professor in the School of Management and Marketing at Curtin University and a member of Curtin's Tourism Research Cluster. She is an internationally recognised expert in the study of volunteering, particularly in events, leisure, sport and tourism contexts. She also has expertise in developing sustainable events and festivals and is the lead author of the Routledge textbook Events and sustainability (2015). Kirsten has carried out research for the International Olympic Committee on Olympic volunteer legacies; and tracking event skills and knowledge legacies to create eventful cities.

Professor Jane Ali-Knight is a Professor in Festival and Event Management at Edinburgh Napier University's Business School. A recognised academic, she has presented at major international and national conferences and has published widely in the areas of destination development, wellbeing, and accessibility, festival and event marketing, management and lifecycles. She has recently been involved in multidisciplinary research projects including an examination of how festivals, events, visitor attractions and cultural venues can become more accessible for people living with dementia through co-creation and collaboration and a University of Edinburgh DDI Project modelling mobility and infection for festivals and events during COVID-19.

1.6 The partners

Festival partners

Festival and event organisation partners

Research partners

2 - Key Findings

- Festivals are integral to Edinburgh's economic and cultural ecosystem as they animate spaces, encourage regeneration, support hospitality and encourage tourism.

- Since March 2020, 10 out of 11 of Edinburgh's major festivals have successfully delivered programming in a live or digital format.

- All participants reported having to restructure their organisations' business and delivery models in response to COVID-19.

- Organisational restructuring included re-defining organisational roles, re-negotiating contracts and workable hours, introducing redundancies, rotating furlough schemes, and re-allocating budgets to accommodate digital delivery requirements.

- Festivals were forced to shift their primary funding avenues from a ticket sales and revenue-based focus to securing funding from sponsorship, donations and COVID-19 recovery support.

- Several organisations trialled a digital 'pay what you can' model for access to online events, championing and maintaining financial accessibility in an economic crisis.

- The majority of participants reported that the urgency of the crisis posed by COVID-19, accelerated innovation and allowed organisations to respond to challenges at unprecedented speed, allowing most to achieve in weeks what would have taken months or years in the past.

- Digital programming was not a viable option for all organisations – a festival's ability to digitise depends on programming content and volume of performers required.

- Digital events were found to provide an opportunity to connect communities from remote and international locations, expanding audience reach and accessibility.

- All festival organisers reported staff health and wellness as a priority throughout the pandemic and have provided platforms to help support and respond to issues including mental health, sustainability and social justice causes.

- All participants acknowledged the importance of safeguarding freelance workers' livelihood in terms of providing financial support where possible and providing collaborative platforms for artists to workshop new content to feature in a digital capacity.

3 - Recommendations

COVID-19 has forced social enterprises, cultural organisations, resident communities, local authorities and economies world-wide into immediate action to rebuild these social and economic ecosystems. Innovation and creativity have been integral to the way local governments and social enterprises have responded to the host of challenges posed by the pandemic. Presently, the term 'business as usual' is extinct and has been replaced by 'the new normal', where cities and individual economic sectors have been pushed to explore solutions and experiment on how to successfully integrate these solutions out of a necessity for survival.

Figure 1 establishes a new way for the events sector to approach risk management within festivals and events; it can be implemented as a tactical response to a global pandemic, acts of terrorism, natural disasters and other unique disrputive scenarios beyond the sector's control. Festivals and events should focus on adaptations and contingencies around three key areas: responding to a crisis, building strategic resilience within the organisation; and reimagining business models and festival delivery methods.
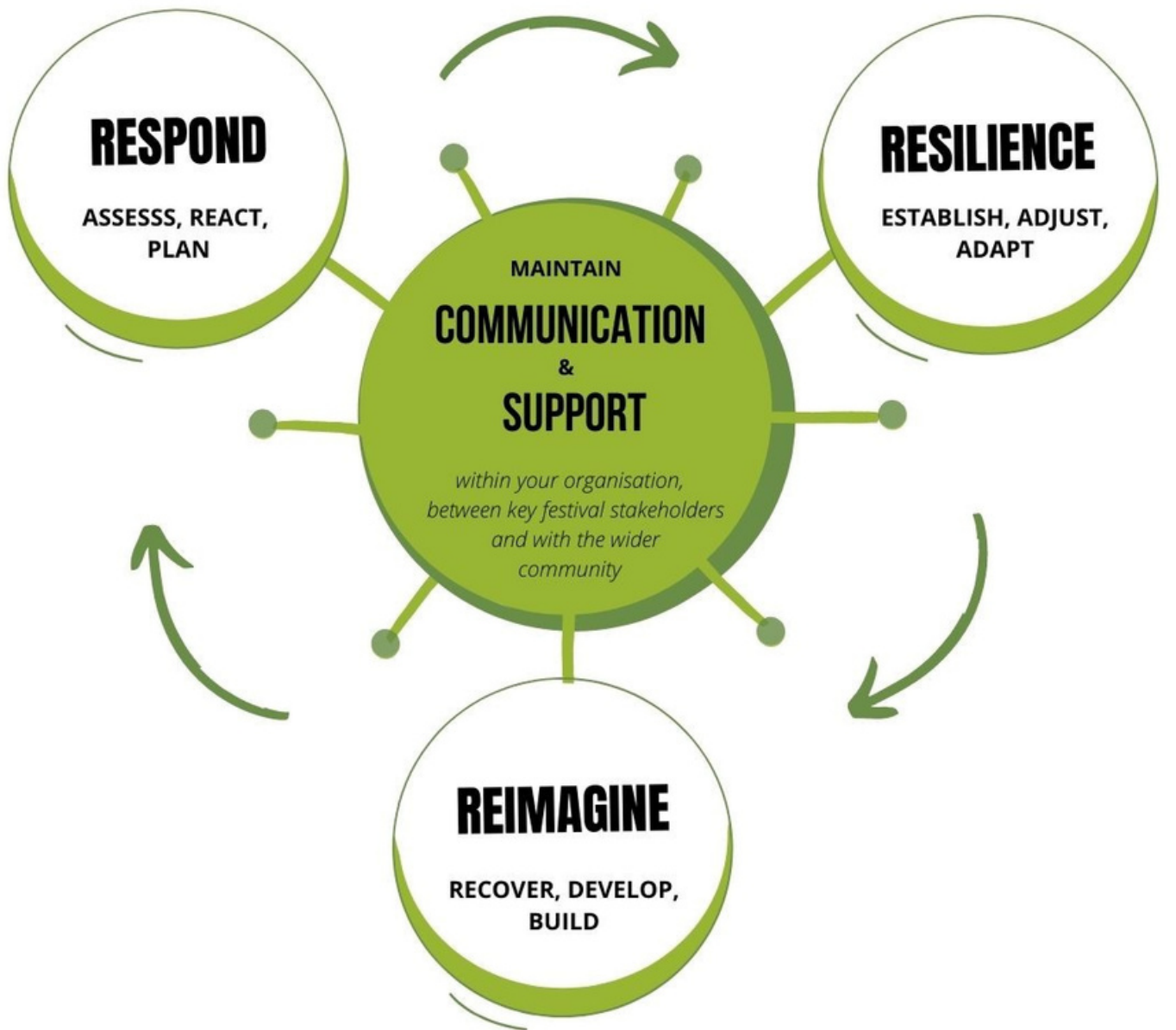
Figure 1: Overhauling risk management: how to deal with a global crisis

Respond

To safeguard the future of Edinburgh's festival sector, it is imperative for pre-existing lines of communication and support be maintained within each organisation, between key festival stakeholders and with the wider Edinburgh community. Communication and support are paramount to the success and future of the city's events sector. In the face of a global crisis, the first step is to respond to the emergency. This can be achieved through the following measures:

1) **Assess the situation** and research what is occurring elsewhere. This includes consulting field specialists and accessing data/reports from the likes of the World Health Organisation (WHO), Centre for Disease Control and Prevention (CDC), local health authorities (i.e. the National Health Service), local government websites (ie. GOV.UK, VisitScotland) and global events resources (i.e. Business Visits and Events Partnership (BVEP) and International Festivals and Events Association (IFEA)) on how the situation is evolving locally, nationally and globally.

2) **React** to evolving customer needs and behaviours by offering new types of experiences, products, and services. This could be through the provision of digital events, increased budgetary allowance to facilitate higher-quality production value for digital entertainment, reimagining festival spaces or increasing accessibility through restructured revenue generating strategies.

3) **Strategically plan your next steps**. To cope with high uncertainty, the strategic planning process must be flexible and adaptable. Research suggests that organisations who plan boldly in the wake of a crisis are more likely to succeed as the industry recovers (McKinsey, 2021).

Resilience

Although the virus has catastrophically affected the events sector, it has also provided a unique window of opportunity for festival and cultural organisations to expedite plans regarding sustainability, accessibility and innovation trends that existed pre-pandemic. COVID-19 has highlighted the critical importance of business model innovation and forced organisations to assess their functionality and value of strategic output. These external stressors have undoubtedly bolstered the resilience of festivals and events through the implementation of the following measures:

1) Establish new partnerships both inside and outside of the industry. This has helped organisations gain perspective and foster relationships to share good practice for resilience.

2) Adjust business and delivery models and supply chain to manage risk. Identify areas of weakness within the organisation's strategic resilience plan and ascertain how resistant the festival business model and competitive position with the global market is against disruption.

3) Adapt and change business and event delivery models to suit the current climate. Festivals must approach their recovery plan with the understanding that this is a long-term solution, not a patchwork fix.

Remember – pre-pandemic budgets, projections and organisational targets are obsolete and festivals have an opportunity to reallocate resources where they are needed most because no one requires convincing of the need for a rapid response strategy.

Reimagine

Edinburgh's festivals have been astoundingly innovative in response to the COVID crisis. This innovation has provided opportunities for the sector to reimagine the future of Edinburgh as a festival city, and in the wake of catastrophe, organisations have improved their costs, reworked and enhanced their customer experience, developed new business models and products and found the means to retain and support freelance talent. However, the events sector must tread carefully as it navigates a post-COVID economy:

1) Recover dynamically by reviewing organisational successes and areas for opportunity since the onset of the pandemic; be flexible in how the organisation approaches the coming months of uncertainty and change as the impact of the virus evolves. The recovery strategy is an opportunity to reflect on lessons learned and implement tactical strategies within business and delivery models moving forward.

2) Develop potential future scenarios – not forecasts – on how to plan for the unknown with pre-established resources.

3) Build a flexible and dynamic strategy. Resources-depending, organisations would benefit from creating a small, high-performing team of people to plan ahead and create resource-rich strategies that are stress-tested against various scenarios.

The goal is to ensure that the arsenal of plans has the potential to effectively respond to extremes and can succeed in a range of potential outcomes. Festival organisers should work alongside their internal finance team and wider funding bodies to develop scenarios and strategy functions to ensure all relevant perspectives are considered. Once a robust portfolio of strategic moves – such as rescaling the size of an event, decreasing capacity, re-inventing the delivery model of an event or restructuring the business model – has been created, festival organisers and stakeholders are able to dynamically develop plans as the situation develops.

Without a cure for COVID-19, any recuperation in sector and business activity could atrophy in the wake of a virus mutation or another lockdown. Consequently, progress can be easily offset by another round of respond, resilience, reimagine; it is paramount for event teams to quickly assimilate lessons learned and integrate sustainable changes and adaptability into both business and operating models. First, organisations must ascertain precisely where and how COVID-19 has compromised existing organisational models and where risks and opportunities lie as a result (Kaizen, 2022).

The current global impact of the pandemic is still evolving. Although comprehensive, the following review is based on an assessment of diverse publications as they relate to the current and potential future impacts of the disease on the creative industries sector within the United Kingdom during 2020/2021. According to WHO (2020, 2021), COVID-19 is a novel infectious disease caused by a newly discovered coronavirus. COVID-19 differs from previous pandemics, as it has a longer incubation period and is characterized by less discernible symptoms, ultimately making it easier to spread (Chinazzi et al., 2020). Research suggests the weight of the virus prevents it from traveling farther than one metre through the air, hence the two metre (six feet) social distancing rule that had been enforced where possible worldwide (Rox Event Staff, 2020). However, it is also assumed the virus may spread to hands through contact with contaminated surfaces and then to eyes, nose or mouth, subsequently causing infection (CDC), 2020). As such, personal prevention practices (including handwashing, wearing a facemask and isolating for a minimum period when sick) and environmental prevention practices (such as regular cleaning and disinfection) are imperative in curtailing the spread of the virus (WHO, 2021).

4.1. The COVID-19 economy

The global economy has suffered extensive damage because of the COVID-19 pandemic. Since government-initiated lockdown measures were implemented in 2020, irrevocable and devastating damage has been sustained by businesses and industries across the world. Understandably, some industries have been affected more than others, the most vulnerable of which being hospitality, tourism and leisure, and arts and culture. This is because of their dependency on person-specific travel, in-person attendance and gross spend (Douglas et al., 2020; Oxford Economics, 2020). To mitigate the long-term effects, governments and global organisations are trying to provide financial aid to those businesses worst hit by the virus; nevertheless, global unemployment levels have reached staggering highs. In the United States, June 2020 saw an unemployment rate of 17.98% as a direct effect of the crisis (Parlapiano, 2020). Similarly, in the UK, June 2020 saw an unemployment rate of 11.25%. Internationally, economic forecasts have experienced substantial downgrading as many countries face the threat of recession. The festival and events sector is also experiencing skills and staff shortages due to the drain of people leaving and seeking other more stable forms of employment.

International travel is still subject to restrictions and casts an apprehensive shadow of uncertainty over potential future travel plans and destination- specific cultural consumption. A dynamic stochastic general equilibrium (DSGE) modelling of the coronavirus outbreak shows that "longer and greater risk of health disasters pushes the tourism sector and the overall economy into an abyss" (Yang et al., 2020, p. 5).

Traditionally, DSGE models use macroeconomic theory to explain and predict co-movements of aggregate time series over a business cycle to perform a policy analysis. With the application of this model to COVID-19 researchers can evaluate the impact of coronavirus on the tourism sector (Yang et al., 2020).

However, as travel bans began to lift, many places onboarded the recommended standard preventative guidelines in an attempt to mitigate the risk of further outbreaks and preserve jobs by trying to reopen. The World Health Organisation (WHO) (2020, 2021) announced recommended guidelines for holding events. These included:

- Pre-entry lateral flow tests, check-in apps and vaccination passports;

- Stocking up on enough supplies ahead of time;

- Having enough hand sanitizer and tissues, and enough surgical masks;

- Requiring everyone involved to provide contact information and agreeing this information to be shared with health authorities if a participant becomes ill;

- Keeping this information for at least a month after the event for contact tracing if it becomes necessary;

- Having plans in place in case someone develops symptoms at the event;

- Ensuring adequate spacing within the venue, such as arranging seats at least one metre apart, space providing;

- Providing adequate ventilation by having windows and doors open when possible to increase ventilation.

Studies have shown a high risk of transmission between people who spend 15 minutes or more near one another, which makes a case for the benefit of outdoor or semi-outdoor events where transmission rates are much lower due to a lack of surfaces to touch and greater ventilation (Jonze, 2020).

5 - Arts and culture

5.1. A global perspective

Events and festivals are tourist attractions that are characterised by their temporal nature (Getz, 2013). While many events and festivals are one-off attractions, there are many recurring events, with some - such as mega-events – changing location for each iteration. Like tourism destinations, recurring events and festivals move through a life cycle, passing through different phases of development. We have previously identified seven different pathways for event and festival trajectories (Holmes & Ali-Knight, 2017). These pathways include redevelopment, where an event can substantially change location or format; hiatus, where an event is temporarily paused; and cancellation, where an event is permanently stopped. This research shows that events and festivals can be very resilient and those experiencing a redevelopment or hiatus can survive substantial change including a new venue, destination, or even skipping one or two iterations but subsequently recovering. Successful events are those with strong ties to their communities and their destination. While there is limited research on event and festival innovation, event survival depends on the ability of event managers to adapt and innovate their offerings (Carlsen et al., 2010).

On 6 March 2020, the United Nations World Tourism Organisation (UNWTO) massively underestimated the effect of COVID-19 on the tourism sector when it initially projected a 2-3% drop in foreign travel relative to 2019 figures. Three weeks later, this projection was adjusted to reflect a 20-30% reduction (Gössling, Scott & Hall, 2020), which highlights how a lack of knowledge restricts the tourism industry's ability to prepare for and manage unforeseen risks and uncertainty (Williams & Baláž, 2015). A survey conducted by a panel of UNWTO experts expected the demand for domestic travel to recover faster than that for international travel. There is undoubtedly a connection between tourism consumption and an elevated risk of potential virus transmission and, accordingly, this resulted in government-imposed travel bans to and from large numbers of destinations (Gössling et al.,2020; Yang et al., 2020).

5.2. A UK perspective

Since entering lockdown in March 2020, the United Kingdom predicted 7.4 million jobs— or 24% —of its workforce to be at risk (Allas et al., 2020). As one of the UK's most important economic sectors, the creative industries contributed £111.7 billion to the UK economy in 2018 and employed more than iIn 2019, the number of jobs in the Creative Industries sector stood at employed just over 2.1 million, an increase of 3.0% from 2018. Oxford Economics (2020) warned of a country-wide "cultural catastrophe", predicting a loss of more than 406,000 creative jobs, a projected decrease in revenue of £74 billion within the UK's creative industries and a GVA drop of £29 billion by the end of 2020 (Creative Industries Federation, 2020). Outwith the UK's Job Retention Scheme, the report also predicted that 119,000 permanent creative positions will be made redundant and over 287,000 freelance roles terminated by year- end (Oxford Economics, 2020). Relative to the size of the creative industries in 2019, it was expected that Scotland would endure the greatest impact of all with a projected 39% drop in creative GVA (Oxford Economics, 2020) and a loss of more than 7,000 permanent arts and culture jobs (Ferguson, 2020).

A survey titled *The Shape of Events to Come* was conducted in May 2021 by BVEP that garnered responses from event professionals from across the UK events sector. Findings revealed that from April 2020, 55% of operators reported that event-related business was down more than 95% for compared to the previous year. A total of 83% of operators reported using freelance workers and sub-contractors less within the same timeframe (BVEP, 2021). It was estimated that the loss of business for the UK event industry in 2021 could total £57 billion of the £70 billion pre-COVID-19 value (BVEP, 2021). The UK Government's Department for Digital, Culture, Media and Sport (DCMS) estimated that 17.5% of event and exhibition businesses permanently closed during 2020 and saw approximately 126,000 job losses by the end of August 2020 (DCMS, 2021)

Within the creative industries, outdoor music events and festivals are the greatest contributing factor to the UK economy. These types of festivals and events not only promote overnight stays with local (or mobile) accommodations, but support consumption of food and drink within local hospitality establishments, encourage extended travel within the destination and offer a platform for merchandise suppliers (BVEP, 2020; Swanson, 2020; Gallego & Font, 2020). Major events may either facilitate broader social impacts or environmental effects directly or serve as catalysts for these. The social impact of an event pertains to its overall influence on the individuals and/or communities affected by its staging, including expansion of one's skills, inspiring volunteer work and delivering overall satisfaction (BVEP, 2020). Event culture perpetuates a certain level of social wellbeing, as it provides social- connectedness, fosters individuals' physical and mental stimulation and facilitates communitas and community enrichment, all of which are extremely important to nurture in the face of a global pandemic.

Since the easing of restrictions, there has been an increase in domestic tourists to the UK which bodes well for the series of major celebratory events planned for 2022 (DCMS, 2021). Such events include Her Majesty the Queen's Platinum Jubilee, Unboxed and the Birmingham Commonwealth Games, all of which aspire to bring people together again and provide an opportunity of renewal for the UK as the country continues to navigate its way out of the pandemic. Today, the UK must not only confront the impact of the coronavirus crisis but must determine its strategy to drive businesses back to their operational peak and forge a new and resolute position within the global market as it navigates life outside the European Union. As with the monumental success of the 2012 Olympic Games hosted in London, the UK events sector will play an integral role in realigning the country's commercial footprint as a prominent nation with strong economic and cultural traditions (BVEP, 2020). This endeavour will highlight the importance of the UK's event industry to its national agenda, as events play a crucial role in fostering tourism, facilitating international trade and attracting inward global investments (BVEP, 2020). Additionally, business events drive exports and promote scientific research and medical advancement and are crucial to the development of professional team building. Before COVID-19, the UK's event sector was worth £42.3 billion to the economy (Eventbrite, 2018). As a result of their vast monetary and cultural wealth, the events industry will play a monumental role in uniting the country and asserting the UK's future international position on the global stage.

5.3. COVID-19 and Scotland

Approaching its third year, the COVID crisis has highlighted the catastrophic social and economic impact of an Edinburgh without live events. The pandemic not only forced some of Edinburgh's core festivals into event hiatus but demanded the extreme reimagining of festival planning and delivery throughout 2020 and 2021. It harrowingly tested Edinburgh's resilience, encouraged innovation, and fast-tracked organisational planning for the uncertain future of festivals in the world's leading festival city.

The Edinburgh Festivals are intrinsically linked to the city's identity as a 'festival city' and are a key part of the fabric of the destination (Ali-Knight, 2020). The festivals transform Edinburgh into the world's leading cultural destination every summer. Together, the five August festivals comprise over 5,000 events across Scotland's capital, welcoming audiences of 4.4 million and over 25,000 artists, writers and performers from 70 countries, making this the second biggest cultural event in the world after the Olympics (Festivals Edinburgh, 2020).

The cancellation and repurposing of the festivals, however, also gives Edinburgh, amid recent criticism of overtourism and resident disquiet, the opportunity to rethink the festival delivery model. Fergus Linehan, Festival Director EIF, said in early 2021 that those in charge of the city's major events had no excuse for not coming up with "brilliant thinking" to reshape them in time for their comeback, which he said could deliver their "most exciting year yet" in August 2021. There is a growing realisation in Edinburgh and beyond that "the old approach is no longer sustainable either environmentally, or in terms of the real value of the arts, which are much more than just a branding exercise." (Linehan, 2020). During and post COVID-19, there will be more innovative festival delivery models emerging and a different imagining of festival space. Examples include the erection of large outdoor covered venues, hybrid delivery outputs, development of remote audiences and Hollywood-style production quality for digital events.

This project contributes to and extends current research examining the event lifecycle and examines how festival managers have responded to the current hiatus; it highlights the successes and challenges of Edinburgh's festivals, collectively, in re-imagining and re-developing the future of festival delivery and ultimately surviving in a post-COVID economy. Through the innovative use of technology and digital transformation, Edinburgh's festivals have adapted and expanded to return live events to the community as well as to the global stage. Key findings offer guidance to event and festival managers on how, when appropriate and feasible, to pivot events to an online delivery model or deliver within imposed restrictions such as with COVID-19.

6 - Methodology and data collection

This study focused on the way Edinburgh's festivals have responded to the event hiatus caused by COVID-19. It has captured the challenges of, and constructive feedback from, festival managers, organisational partners and key city stakeholders involved in developing, producing, delivering, funding and supporting these iconic festivals.

Our methods comprised a mix of qualitative approaches:
- Observations and attendance in person, and virtually, at Edinburgh Festival events in 2021 where extensive field notes were taken by the researchers;

- Undertaking in-depth semi-structured interviews conducted both in person or using a digital meeting platform;

- Content analysis of media related to Edinburgh's festivals.

6.1 Direct observation by researchers at events

Researcher(s) attending festival events virtually, and in-person, collected notes to provide first-hand accounts of event formats, application of social distancing and government guidelines, content and attendee dynamics. These fieldnotes provide insight into the effectiveness of the adaptation of traditional festival delivery models to accommodate COVID guidance, accessibility and the level engagement and interaction between festivalgoers and event content.

6.2 Semi-structured interviews with event organisers

In terms of social scientific research, interviews are the most widely used method of data generation within qualitative investigations (Edwards & Holland, 2020). Interview types range from structured to semi-structured, reflective to narrative and expert to episodic. Semi-structured to episodic formats provide qualitative researchers the flexibility required to access the authentic interior of participants' experiences, perceptions and feelings (Flick 2019, Whitaker & Atkinson, 2019). Festival organisers and key event stakeholders were invited to partake in a semi-structured interview to discuss the impacts and long-term effects of COVID-19 on Edinburgh's major festivals. Semi-structured interviews were carried out with each of the participating Edinburgh Festivals directors and/or executives, the organisational partners from Festivals Edinburgh and Creative Scotland and key stakeholders from the Scottish Government, Edinburgh Chamber of Commerce and City of Edinburgh Council.

To accommodate Scottish Government guidelines on physical social contact, 12 out of 13 interviews were conducted through online platforms such as Zoom and Microsoft Teams while one interview took place in-person in a socially distanced outdoor setting. Undoubtedly, there are benefits to conducting qualitative research in-person. However, digital data collection helped mitigate the challenges posed by the timeline over which this project took place and government restrictions surrounding COVID-19. There are, however, several proven advantages to facilitating digital interviews including:

- Increased accessibility and greater geographical reach.
- Reduced costs of travel for in-person interviews.
- Reduced risk of COVID-19 infection.
- Greater contributor control in terms of participation.
- Increased contributor participation due to scheduling flexibility and ability to participate remotely.

The interviews queried how each organisations' delivery and/or business model had to adapt to accommodate the effects of COVID-19 including redundancies and furloughs, financial support and/or budgetary constraints, steps taken to ensure the wellbeing of staff throughout the duration of the pandemic and beyond, oversight into the health of Edinburgh's festivals as a whole, community and best practice reflections and the future plans for Edinburgh as 'World's Leading Festival City'. All participants provided consent for sessions to be recorded, and transcripts provided evidence on event organisers' and stakeholders' perspectives on adapting and supporting Edinburgh's festivals.

6.3 Content analysis of media relating to Edinburgh's festivals

Content analysis was used with articles in local and national media and online media platforms to give insights into views presented by the festival directors and managers, local community and the public sector. Content analysis was used to allow the researchers to make use of individual meanings expressed through the media output and to examine external views on how the festivals had managed their reaction and subsequent festival delivery in response to COVID-19.

7 - Results and Discussion

7.1. Interviews with event managers, key festival stakeholders and policy makers

Event organisers, facilitators and policy makers were selected as key stakeholders in this project. In total, 13 interviews were conducted, nine with major festival organisers, two with local policy makers and two with key national funding bodies.

All specialists in their field, these individuals held managerial titles relating to 'executive director', 'external affairs', 'producer', 'cultural relations' and 'strategy'. All participants were forthcoming about their experience navigating the challenges of a global pandemic as festival and policy-making figureheads, all of whom maintained the same outlook throughout – "this is our war that we've never had, and we need to share our learnings from that" (*Participant 2*).

7.1.1. Innovating to survive

For the events sector, necessity has been the inertia of strategic plays and decision-making throughout the pandemic. Whether that is in relation to organisational restructuring to achieve more sustainable operating costs, asset management, or prioritising the sustainability agenda to foster more localised content, COVID-19 has provided a unique window of opportunity to expedite innovation and change. Participant 4 reflects, "...*arguably, we were going to have to arrive at this point anyway, but COVID basically poured accelerant on the process and forced us to make it happen more quickly.*" A member of City of Edinburgh Council further explains that "in terms of planned activity, the festivals had plans spanning 5-10 years, aligning to various strategic plans within the city and they've all been fast-tracked now because of the circumstances" (*Participant 11*).

Key ways in which Edinburgh's festival organisations innovated included:

- re-developing organisational structures and business models;

- evaluating, analysing and restructuring staffing requirements and workload allocations;

- re-thinking and adapting future event delivery models and programming;

- re-focusing and expanding target audiences by making programming more accessible (financially, digitally and with profound accessibility considerations including BSL, closed captions and subtitling).

Hidden benefits

Although unintentional, several positive outcomes have arisen from the pandemic which stand to benefit the events industry. These include:

- **Collaboration and cohesion.** Industry has come together in a more collaborative and cohesive way. For example, Festivals Edinburgh created a committee to allow key stakeholders from all of Edinburgh's major festivals to meet and discuss industry-wide data and strategies on planning the return and future of festivals for Edinburgh, as a world leading festival city. EventScotland, Scotland's national event agency also initiated the Event Industry Forum with festival representatives onboard to provide guidance, lobbying, advocacy, information and support to the sector throughout the pandemic.
- **Business relationships**. Although fewer live events have managed to take place since March 2020, relationships have been strengthened between organisations and freelancers, sub-contractors and third-party suppliers. Edinburgh Festivals made it part of their COVID-19 mandate that all outsourced event contributors would still be compensated for their time, artistry and contribution. Additionally, flexible and collaborative funding opportunities were created and offered to freelancers to provide gainful employment throughout the pandemic.
- **Customer relationships**. Edinburgh's festivals are a global institution and even with the event hiatus, the outpouring of familial and monetary support from the wider community saw many personal donations with messages of prosperity and hope. The digitisation of festival content saw events being offered free of charge (or for a nominal PWYC fee), in turn increasing accessibility and widening the audience reach.
- **Solidarity and awareness.** Several campaigns and movements were at the forefront of preservation efforts for the events industry including We Make Events (Plasa, 2022) and wecreateexperiences (One Industry One Voice, 2022), which included a diverse collective of international events professionals to bring awareness to the importance of the industry.
- **Government engagement**. The live event industry has done a better job than previously of engaging with local, provincial and national governments to emphasise its role in the tourist economy, however, further strategic involvement is required.
- **Reflection and diversification**. The pandemic has provided an opportunity for the industry as a whole to reflect on the efficacy and approach to daily operations, event programming, event execution and social matters (i.e. Climate Change, Black Lives Matter and issues of gender equality). It has encouraged diversification of organisational structures and business models and has accelerated the renewal and reinvention process. Participant 5 states:

"COVID-19 is actually driving the climate change agenda rather nicely. We have to get away from flying orchestras around the world and having five people come over from Sydney to put on a show for four nights in a cupboard to 20 people."

7.1.2 Asset management

On 19 March 2020, everything in Scotland the UK stopped, particularly for live events. Organisations were forced to evaluate their financial positions and react with extreme urgency. Based on early epidemiological reports, it was evident the effects of COVID would be long-lasting:

> "We went through the process of drawing up an emergency budget which we enacted rapidly. We made hard cuts from the start and then more and more sources of money have appeared throughout the year… I think at our year end, financially, it's going to end up ok" (Participant 5).

Out of necessity, organisations prioritised asset management, cutting costs, and preserving workforce wellbeing where possible. Some festivals adjusted their annual budget to span across 24 months to allow for equitable dispersal of the assets long-term:

> "The normal approach to an annual budget no longer made sense. Effectively, we created a 24-month budget, wherein we'll effectively record a £2 million deficit within the calendar year which will be made up of rolling money forwards from previous years" (*Participant 4*).

The primary function of this 'rolling budget' approach is to give certainty for festival planning and organisational longevity.

Funding and revenue generation

As a result of the COVID-19 crisis the arts and culture sector undoubtedly sustained the greatest impact. An influx of arts organisations found themselves needing monetary support more than ever before. Certain organisations with access to black box theatres or studio spaces were in a favourable position to establish revenue-generating relationships with other festivals organisations. While this supplemented budgetary requirements, all of Edinburgh's festivals turned to external funding sources. Funding bodies including Scottish Government, UK Government's Department for Digital, Culture, Media and Sport (DCMS), the Arts Council of England, Creative Scotland, EventScotland, and Edinburgh Chamber of Commerce provided emergency and resilience funding opportunities to support those working within the arts and creative industries, entertainment venues, and larger event companies:

"The Performing Arts Venue Relief Fund support delivered through Creative Scotland and the Scottish Government made the essential difference between us going bust and being able to get through the year and have a festival" (*Participant 3*). As applications were processed and funds allocated, some organisations found themselves in interesting financial positions: *"I don't think* [our organisation] *ever had so much money thrown at it in a time when we can do nothing...and it's worrying because long-term, that money is going to go down; it's all about the balance moving forward"* (*Participant 9*). Additional funding included the Grassroots Music Venue Fund and Independent Cinemas Recovery Fund, which were established to stabilise sector-specific areas.

In response to the pandemic, Creative Scotland – one of Scotland's major arts funding bodies – refocused their work to deliver over £90 million of additional funding. Over a period of 18 months, they allocated approximately 12,500 grants, ten times more than what would be awarded in a normal year according to Participant 13. The Scottish Government provided roughly £175 million in support to Scotland's cultural sector, which was substantially more than what the UK Government offered in consequentials (according to Participant 14). Award criterion ranged from general 'needs-based' to business-specific eligibility.

Sponsorship

Emergency funding allocations, however, were not the only viable solution to the budgetary constraints caused by COVID-19. The pandemic offered festival organisations an opportunity to reimagine business models, approaches to programming and digital outputs, and to establish new or strengthen existing business relationships. As a result of the local and sustainable work executed within various Scottish and international communities, one organisation established a new, long-term sponsorship opportunity which should help them navigate a post-COVID economy (according to Participant 3).

Support networks

In November 2020, the Chief Executive of Edinburgh Chamber of Commerce established the Edinburgh Business Resilience Group to help shape economic and business priorities for the city and to proactively strengthen relationships between businesses and policymakers, and to positively contribute to the rebuilding of the city's economy. As of August 2021, the group was 60 businesses strong, and in a collaborative effort, the group published a 'Prospectus for Growth' which views Edinburgh as a recovering, growing and international city. While this group does not exclusively support Edinburgh's festivals, its founder has been *"...pushing businesses to recognise they have to contribute to support the recovery of the festivals and help in whatever way they can, whether that's pre-buying a bunch of tickets for their staff or offering varying degrees of sponsorship"* (*Participant 12*).

Festivals Edinburgh was established to bring together the directors of Edinburgh's 11 major festivals in a dialogue to discuss wider festival agendas including reputation, brand and communications, community engagement, and environmental sustainability. The organisation became an integral support system as the pandemic developed. With the Edinburgh Festivals Forum, "...*we found that we could be a really useful conduit between our members and the government... we began working closely with Creative Scotland and Scottish Government civil servants and are part of the Events Industry Advisory Group*" (*Participant 10*). This network has played a critical role in its members understanding future festival strategy and increasing the collaborative nature of what the forum does, increasing the depth rather than breadth of Edinburgh's festivals.

Organisational structure: staffing and business models

As organisations gained a deeper understanding of their financial situation and where to turn to for support, their focus shifted towards organisational structure and business model(s) and addressing how to adapt these to the current climate. For most participants, this involved finding a means to guarantee income generation that would allow each organisation to continue to support their cultural, social and charitable mandates. This included:

1. Auditing staff levels and making hard decisions regarding furlough and/or redundancies –

"Pre-pandemic, we had established underlying structural problems – our costs were too high in the UK. COVID came along, and as we acted to solve that problem, we moved closer towards solving our underlying structural problem. We did a numeric piece of analysis about how much time people spent on different projects and how much time was just sort of in a bucket that was called 'I'm being busy', but perhaps 'being busy' on projects that were nice to have but weren't 'must-haves'. Our structural analysis provided a very clear view of how much time we could afford into each bit of what we do and how many full-time employees we needed in each part of the organisation. A consequence of that restructure was that most staff, the director included, went from full-time contracts to permanent seasonal ones … we haven't quite gotten to the end of that process, but the landing place will be a more sustainable cost base that we had to put in place anyway" (Participant 5).

2. Championing employee welfare by offering additional support and resources. From welfare check-ins to socially distanced walks to digital cocktail making sessions and financial support to procure suitable equipment for at-home working, employee wellbeing was at the forefront of organisations' COVID response efforts;

3. Strengthening the technical capacity of freelance and third-party supplier support – "...oneour big objectives getting through this period was to continue to support those communities of freelance creators because without them, our centre, our festival, our general operations can't happen" (*Participant 3*). This also ensured the preservation of community engagement programmes across Edinburgh.

4. Expanding festival delivery and programming outside of traditional venues. Participant 3 shares that COVID allowed for the enhanced development of an existing role in relation to place/space work – "...*our business model became virtually non-existent; we only survived because we were successful, and this is where we can disentangle the venue as the base of* [our festival]."

Event staging and delivery

The forced reimagining of festival venues saw theatre spaces and libraries transformed into recording studios and technical bases. Car parks, cafes and green spaces became live delivery venues. Festival delivery mixed small scale, live outdoor events with digital content and distribution to maintain audience engagement and reach. As a result of this approach, the key interfaces of most of the festivals were kept alive both nationally and internationally and – for some – even permitted the commissioning of new festival content, which gave work to creative constituencies, continued community engagement and maintained international reach. Although some organisations established revenue-generating relationships with other festival groups, none of Edinburgh's festivals allowed for the commercial hire of their venue space, but did in fact allow existent creative networks to use these spaces free of charge to continue and develop work.

Outcomes and audience reach

Audiences are integral to a festival's lifecycle – without attendees, festivals would cease to exist. Initially, as event delivery shifted to digital outputs, festival organisations saw an astronomical increase in international audience reach and engagement; organisations were reaching people and communities that had not previously engaged with the festival. The 2020 delivery of one organisation's festival saw digital engagement with all but five countries worldwide! However, as organisations prepared to deliver a 2021 festival, trends began to show a substantial decrease in digital participation. Not only were organisers presented with the novel challenge of how to address 'digital fatigue' with audiences, but with a shift to hybrid delivery models, they were also forced to find ways to reassure festivalgoers that COVID-19 safety considerations had been put in place for in-person attendance at venues.

7.1.3 Social equity, accessibility and community engagement

Social equity

According to an Edinburgh Festivals report, the 2019 season saw record local attendance across the city's 11 major festivals with 1.8 million [37%] of attendances from Edinburgh. A further 1.1 million [23%] of attendances came from other parts of Scotland, and in keeping with annual statistics, most festival audiences were Scottish residents [60%], while 30% came from the rest of the UK and 10% from international destinations (Edinburgh Festival City.com, 2020). With organisers forced to reimagine festival spaces and delivery outputs from March 2020, not only were attendance numbers affected, but it was made apparent that venue locations can also play a pivotal role in social equity and barriers to accessibility.

Three festival organisers commented on the noticeable attendance differences in hosting events at the Royal Botanic Gardens versus at the Royal Museum Edinburgh because of its geographical location within the city. One organisation partnered with several community groups to ensure families from disparate areas of Edinburgh were taxied into performances to remove as many attendance barriers as possible (as noted by Participant 2). The decision for some organisations to relocate to different outdoor venues was necessitated by COVID-19, centering around event viability and festival preservation. As a result, organisations were able to provide opportunities for a diverse range of freelancers and creative content developers to create programming specific to these new outdoor spaces. One organisation even transformed a school playground into a performance set, although most performances were met with harsh weather conditions. Audience attendance and support, however, remained strong.

COVID-19 was not the only global issue with ownership of 2020. Amidst an unprecedented aseptic crisis, mass movements surrounding social equity, accessibility and gender equality took up arms on the frontline alongside its pandemic counterpart. These social movements alongside the enormous disruption caused by COVID-19 prompted festival organisers to re-evaluate and rethink festival programming. Participant 2 states:

"So much has happened around the Black Lives Matter (BLM) movement in the past year so we were very active and proactive with [artists] who submitted [programming] ideas. In the end, two thirds of our work had really diverse ethnic representation and for us, that was a massive increase over previous festival years."

The BLM movement championed the diversification of content development, programming and performance opportunities across many of Edinburgh's festival organisations. The way Edinburgh's festivals responded to these social issues prompted changes in programming and subsequently changes in audiences – though they are linked, one is designed to facilitate the other. Participant 2 continues:

"This year's festival was not international, and I think a lot of people found that surprising, especially since other international festivals maintained their internationality. But we wanted to create work for local artists…our festival was essentially 90% Scottish and I think there's an appreciation for what we do"

The pandemic has become a catalyst for social change, as it has thrust certain social issues further into the spotlight.

Accessibility and community engagement

Several organisations responded to the way COVID-19 aggravated existing inequalities through the adaptation of programming and delivery models. These inequalities included economic as well as access and disability/disabilities, and the way(s) in which public services were able to react to individual needs. One organisation maintained their working relationship with key disability access organisations including Euan's Guide and Attitude is Everything Key to ensure adapted content paid exemplary consideration to Equality, Diversity and Inclusion (EDI), including subtitles, closed captioning and British Sign Language (BSL) translators with digital content: "…*part of our long-term thinking has become about how we can offer multi-lingual subtitles and sign language interpreters for digital content*" (*Participant 8*). The pandemic has created a levelling out and heightened awareness of local communities:

"Schools who wanted to give every student access to the festival this year could because there were enough tickets, whereas in the past, we had to put limits on tickets because we just didn't have the capacity. We even picked up a school group in Nepal!" (Participant 2).

As a result of the shift to digital delivery models, content became more accessible than ever. While some organisations set their sights on expanding audience reach, others seized the opportunity to nurture relationships closer to home: "...*we staged performances in community garden spaces and in people's back gardens where individuals were shielding or isolated. We even put on some performances in the back courts of sheltered housing complexes*" (*Participant 3*). This same organisation created a new programme that will work in conjunction with community networks and associated minority groups to help support creative development alongside the people within them.

7.1.4 New/expanded delivery models

All Edinburgh's major festivals bar the Royal Edinburgh Military Tattoo have managed to stage some form of programming since the pandemic began. As festivals expanded their delivery models into the digital realm, organisations were forced to become multi-media experts; the developing digital landscape necessitating the creation of high-quality professional content similar to film production for market consumption worldwide. The challenge then becomes *what if your festival content does not easily (or cost-effectively) translate into a digital offering?* One organisation investigated operationalising a creative treatment that had been written for digital production using Edinburgh Castle as a backdrop.

Participant 7 reflects:

> "Our biggest challenge with digital is how do we make it pay? Part of our proposition is mass… if we're going to film something, we need it to be big and cleverly creative, which is more of a production and much more complicated… we're up for it, but we need to see how the business model can work because, for us, the upfront investments are much greater."

After a year and a half of recurring global lockdowns, the need to gather and experience collective cultural joy became paramount; the beauty of live events is the fact that they are an in-person experience. This factor was a guiding principle to some festival organisers when developing programming. Participant 3 states:

> "You've got to strike a balance between the offerings of digital and live performances and events – the public don't digest digital events in the same way they would a live festival when they're attending 3 - 4 shows per day."

However, the incessant confines of virtual business meetings, phone calls, television breaks and digital events shaped peoples' daily lives, causing an epidemic of 'digital fatigue'. This term is one born of the past 24 months, and all participants acknowledged its existence, identifying it as a challenge to overcome:

"Why does nobody ever talk about television fatigue? I think the problem people are talking about when they talk about Zoom fatigue in relation to festival events is that festival events haven't been very well produced. The question then becomes: 'how can we produce good enough online events that the idea of digital fatigue doesn't even enter peoples' minds?' We must make must-see, unmissable, once-in-a-lifetime, immersive, interactive online events and then we can forget talking about digital fatigue forever" (Participant 1).

This comment emphasises the perception that festivals are supposed to be professional organisations able to deliver this type and calibre of programming, which is completely different from attendees' work Zoom meetings. However, this is a new format for festivals and there may need to be some convincing of audiences.

Three festivals sought to build TV studios to increase the production value of their digital content. While some festival directors find the challenge worthwhile, others voiced concerns surrounding the potential introduction of a whole other arm of event staffing, funding, planning and development, likening the output to that of a "*budget Hollywood sitcom*" because "…*very few organisations have a silver screen budget to play with*" (*Participant 6*).

This poses an interesting issue around timing. Digital content can be played at any time, yet festivals' DNA and excitement is about their temporal limitations and one-off nature. It begs the question – how could this content be released for short intervals to spark interest? Can the festival sector move from a hybrid festival – where content has simply moved online -- to a blended festival model – which includes both digital, live streaming and in-person facets?

7.1.5 Festival lifecycles

COVID-19 has undeniably altered festival lifecycles worldwide; it has forced organisations to accelerate their development surrounding multiple areas including sustainability, technologies and the EDI agenda. However, festivals arguably exist in eras:

> "In the first 12-15 years, you get to a point of maturity, and then somebody with bright ideas comes along and says, right well we're going to change! So, you then have another bit in your 70-year history where there's a great leap forward, and then [the festival] changes again. It's cyclical" (Participant 7).

Of the eight organisations interviewed, Appendix 2 depicts each festival's lifecycle trajectory pre, during and post-pandemic.

7.1.6 Festival futures in a post-COVID world

For Edinburgh's residents, the global pandemic has provided an opportunity for debate regarding what the purpose and value of culture is in itself – what it is that society values, the public realm values and enthusiasts value. For Edinburgh's festivals, it has encouraged organisations to redevelop and fine tune their offer – "...*the pandemic has given us an opportunity to hit a restart button*" (*Participant 2*). It begs the questions: how will this be reconciled and how is it going to evolve post-COVID?

> "Sometimes people run into change for the sake of change because they're panicked or feel as though they need to demonstrate immediate change. The experiences [Edinburgh's festivals] have been through in the last 18 months need a bit of deeper reflection before we decide which of those actually need to become part of the longer-term picture and which are things that may be temporary responses to circumstances beyond our control" (Participant 3).

Through the mass changes, one thing is certain for Edinburgh's festivals – they are resilient and owe their survival – in large part – to the peer support of other festivals and cultural venues throughout the city as well as the broader cultural sector of the country and beyond. "Our collective relationship became how can we work together in immovable strength to make sure our messaging is connected?" (Participant 6).

8.1. Challenges

Funding

The prospect of monetary support has been an exceptionally contentious topic for Edinburgh's festivals throughout the pandemic with one individual going so far as to say, "... *the pandemic has caused a financial basket case*" (*Participant 4*). Although funding bodies such as Creative Scotland, the Scottish Government, and EventScotland have drastically increased the volume of monetary support as an urgent response to the crisis, assistance has been restricted due to the sheer capacity of event organisations requiring help. As Participant 13 stated: "*Our organisation established a fund for digital pivot which allowed industry professionals to access support and have discussions with experts on providing digital quality and digital output for audiences,*" however, "*as far as* [our funding body] *is aware, we have come to the end of our exponential funding outputs*". As the sector slowly shifts into a post-pandemic economy, organisations run the risk of failing to secure the level of funding required to maintain and elevate progress made throughout the last 24 months.
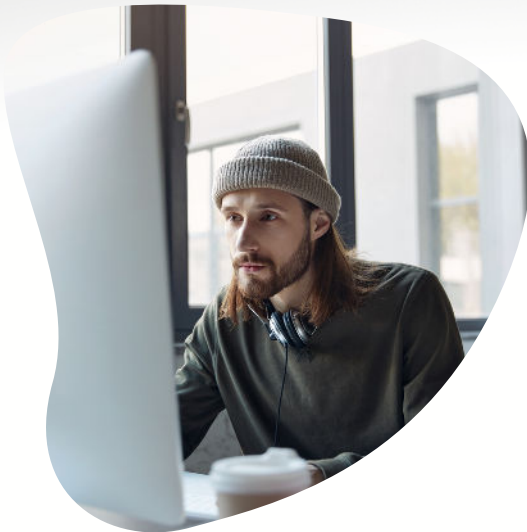
"There's an expectation that there will be a continued investment in digital outputs, but there's very little sponsorship or donors attached to facilitating this as we move forward... a lot of it is inevitably going to have to come from core funding" (Participant 6).

Building digital content

If an organisation's core funding spend is shifted to improve digital outputs, other areas of production and programming will undoubtedly suffer:

> "[Organisations] either need to find really innovative ways of generating revenue to support [digital] innovation or it'll become a bit of crisis management – if people aren't renting theatres and hiring stage managers and are instead spending their money on camera crews and web hosting companies, there's going to be a lot of very unhappy people...we need to strike a balance" (Participant 4).

8.2. Lessons Learned

While a hybrid delivery model may be one future for festivals and events, digital outputs cannot be onboarded simply for the sake of it. The following is a list of questions organisations can ask themselves through a redevelopment process:

1.How can I make digital outputs work best for my organisation?

> "Sharpen your rationale and reasoning for incorporating digital into your festival. Ask yourself – why are you doing it and what is it doing for you? Find your niche" (Participant 4).

2.What type of digital content should I create and how should it be used?

> "We've learned that you should involve people from the worlds of film and television much, much earlier and that if you make a piece, what goes on Facebook is not what should go on YouTube, which is not what should go on broadcast radio which is not what should go on Instagram... everyone assumes that digital [equates] to vast viewer numbers, but in reality, sometimes when you create a digital piece, it's actually about very heavy levels of engagement and community, not numbers" (Participant 4).

3.What is the best event delivery model for my audience?

Ascertain whether leisure or appointment viewing suits your content and/or audience best.

> "We've found that if people are going to access digital [events], they want to be able to watch it at a time that suits them, not when it's made available as a live event... moving forward, I probably wouldn't do so many of the live digital events because it's not what our viewers want (Participant 5).

4.How can I get online festivalgoers excited about a digital and/or hybrid event?

> "We tried to create a really great buzz around our events, especially during a live streamed performance. We encouraged people to use the chat feature on the digital viewing platform to share where they were tuning in from and what their beverage of choice was for the event. It created a sense of community and encouraged people to engage not just with the event, but with each other" (Participant 7).

5. What does it mean to run a 'hybrid event'?

"When you start to think about what a hybrid event means, there are lots of different ways in which one could be hybrid. Take hybrid audience: events could be both available in person and online, or some of them could be available only to people in person and others can be available only online. Or, participants could be there in person or not there at all and only participating online... you can have a mixture. Hybridity is quite fluid concept" (Participant 1).

6. How can I reimagine performance spaces and venues?

"We staged live performances in playgrounds, community squares and peoples' gardens... Anywhere can become a performance space; you just need to be creative, committed to your vision and flexible" (Participant 2).

9 - Conclusion

This report identifies the key findings and learnings from a comprehensive research project with festival organisers, policy makers and key stakeholders in Edinburgh. It evaluates their perceptions of the impacts of COVID-19 on the event lifecycles of Edinburgh's core festivals. The findings provide insights into a new way of thinking about festivals development, production, funding and risk management and surviving a pandemic by building strategic resilience within the organisation and reimagining festival delivery models. It is intended that this is the first step of wider research to examine the adaptability, resilience and innovation of festivals such as Edinburgh's as society moves towards a post-pandemic economy.

References

Ali-Knight, J. in Wade, M. (2020). Edinburgh's festivals cancelled. The Times, Thursday April 2nd.

Allas, T., Canal, M. & Hunt, V. (2020). COVID-19 in the United Kingdom: Assessing jobs at risk and the impact on people and places. *McKinsey & Company*. Retrieved from https://www.mckinsey.com/industries/public-sector/our-insights/COVID-19-in-the-united-kingdom-assessing-jobs-at-risk-and-the-impact-on-people-and-places.

BVEP. (2020). *The UK events report: Executive Summary* (pp. 1-11). London: BVEP.

Carlsen, J., Andersson, T., Ali-Knight, J., Jaeger, K. & Taylor, R. (2010). Festival management innovation and failure. International Journal of Event and Festival Management, 1(2), 120-131.

Centres for Disease Control and Prevention. (2020). Considerations for events and gatherings. Retrieved 26 June 2020, from https://www.cdc.gov/coronavirus/2019-ncov/community/large-events/considerations-for-events-gatherings.html.

Chinazzi, M., Davis, J., Ajelli, M., Gioannini, C., Litvinova, M., Merler, S.,... & Sun, K. (2020). The effect of travel restrictions on the spread of the 2019 novel coronavirus (COVID-19) outbreak. *Science, 368*(6489), 395-400.

Creative Industries Federation. (2020). *The projected economic impact of COVID-19 on the UK creative industries report*. Retrieved 26 June, 2020 from https://www.creativeindustriesfederation.com/news/press-release-cultural-catastrophe-over-400000-creative-jobs-could-be-lost-projected-economic.

DCMS. (2021). *The tourism recovery plan* (pp. 1-62). London: Department for Digital, Culture, Media and Sport.

Douglas, M., Katikireddi, S. V., Taulbut, M., McKee, M. & McCartney, G. (2020). Mitigating the wider health effects of COVID-19 pandemic response. *BMJ*. *369*, 1-6.

Edinburgh Festival City.com. (2020). *Edinburgh Festivals 2019 - Report & Numbers* (pp. 1-12). Edinburgh: Festivals Edinburgh.

Ferguson, B. (2020). Nearly 7000 Scottish culture jobs predicted to be lost in 2020. *Edinburgh News*. Retrieved 26 June 2020, from https://www.edinburghnews.scotsman.com/whats-on/arts-and-entertainment/nearly-7000-scottish-culture-jobs-predicted-be-lost-2020-2886527.

Festivals Edinburgh. (2020). Edinburgh's August Festivals Will Not Take Place in 2020. Available https://www.edinburghfestivalcity.com/news/1065-edinburghs-august-festivals-will-not-take-place-in-2020

Gallego, I. & Font, X. (2020). Changes in air passenger demand as a result of the COVID-19 crisis: using Big Data to inform tourism policy. *Journal of Sustainable Tourism*, 1-20.

Getz, D. (2013). Event studies: theory, research and policy for planned events, Routledge, Oxon, UK.

Holmes, K. & Ali-Knight, J. (2017). The event and festival life-cycle: developing a new model for a new context. *International Journal of Contemporary Hospitality Management*, 29(3), 986-1004.

Kaizen. (2022). *Survival in the Post-COVID: Rebuild, Reimagine, Reinvent*. [online] Available at: <https://uk.kaizen.com/products/article-survival-in-the-post-COVID-rebuild-reimagine-reinvent-uk> [Accessed 4 February 2022].

Linehan, F in Ferguson, B. (2020). International Festival chief says it's time to end 'never-ending growth' and reconnect with people of Edinburgh 13 April.

Oxford Economics. (2020). *The projected economic impact of COVID-19 on the UK creative industries* (pp. 3-35). Oxford: Oxford Economics Ltd.

Parlapiano, A. (2020). The Economic Pain That the Unemployment Rate Leaves Out. *The New York Times*. Retrieved 15 June 2020, from https://www.nytimes.com/interactive/2020/06/05/upshot/what-the pandemicunemployment-rate-leaves-out.html.

Rox Event Staff. (2020). How the COVID-19 virus is challenging the events industry [Blog]. Retrieved 26 June 2020, from https://roxeventstaff.com/corona-virus-in-the-events-industry/.

Swanson, I. (2020). Coronavirus has 'devastating' impact on Edinburgh's tourism sector. *Edinburgh News*. Retrieved 26 June 2020, from https://www.edinburghnews.scotsman.com/health/coronavirus/coronavirus-has-devastating-impact-edinburghs-tourism-sector-2546764.

Williams, A. M. & Baláž, V. (2015). Tourism risk and uncertainty: Theoretical reflections. *Journal of Travel Research, 54*(3), 271-287. World Health Organisation. (2020b). *Getting your workplace ready for COVID-19* [PDF] (pp. 3-8). Retrieved 27 April 2020, from https://www.who.int/docs/default-source/coronaviruse/getting-workplace-ready-for-COVID-19.pdf?sfvrsn=359a81e7_6.

World Health Organisation. (2021). Key planning recommendations for mass gatherings in the context of COVID-19. Retrieved December 10, 2021, from https://www.who.int/publications/i/item/10665-332235

Yang, Y., Zhang, H. & Chen, X. (2020). Coronavirus pandemic and tourism: Dynamic stochastic general equilibrium modelling of infection disease outbreak. *Annals of Tourism Research*, 1-22.

Appendix 1. Ethics and data management

- Data were collected and stored in a manner which is consistent with the ethics and data handling guidelines produced by the British Sociological Association and is consistent with the principles of research ethics in higher education.

- Research participants were verbally provided detailed information on the background of the Event Lifecycle research project and how findings would be shared; on the purpose of the interview; on which data were being collected; and how data were being analysed, anonymised and stored.

- Research participants were asked to verbally consent to their participation in this research for which they agree to data they provide being used in the final report.

- All participants were guaranteed anonymity ahead of the interview. Names have been removed wherever necessary and data in this report have been anonymised to protect research participants.

- Interviews and focus groups were transcribed verbatim by a member of the research team, adhering to EU and UK regulations on data protection and General Data Protection Regulation (GDPR).

- Audio files were destroyed once transcripts were completed and checked for accuracy by the research team.

- Transcribed word documents and other digital data relating to this project are held on a secure digital repository at Edinburgh Napier University and will be destroyed within 24 months of the data being collected.

Edinburgh Festival	Pre-COVID-19	2020	2021	Present	OTHER
International Book Festival	Growth/Maturity	Redevelopment - 100% Digital Offerings (at reduced output)	Redevelopment: Digital and In-Person Offerings (Hybrid Model)	Redevelopment/Continued Growth	Notes on Model Design:
	"From 2005 to 2018, the book fesetival had undergone a period of extreme growth; that was because the site was [the book festival's site] was at capacity, but we were still growing."			"The point about moving to the hybrid model is that we might diminish in physical terms but increase in online terms. We are anticipating that our audience and revenue growth will continue on the same upwards trajectory."	ON THE SHAPE OF THE MODEL: "Festivals don't necessarily follow such a simple curve. They have their ups and downs, but what they're much more prone to is very rough."
International Children's Festival	Growth	Growth	Postponed -- moved from May to May into June: Redevelopment: Digital and In-Person Offerings (Hybrid Model)	Consolidate/Redevelopment	Notes on Model Design:
	"For our 2020 festival, we extended our dates by three days to cope with the demand from schools and we got approval to continue doing so for the next three years."			"We are aware that we can't just keep going bigger, bigger bigger...we now need to consolidate."	Add consolidate into the trajectory depiction, which would be part of redevelopment
Scottish International Storytelling Festival	Somewhere above the maturity line and between stagnation and accelerated development	Redevelopment - 100% Digital Offerings (at reduced output)	Redevelopment: Digital and In-Person Offerings (Hybrid Model)	Redevelopment/Continued Growth	
				"The COVID Crisis has helped us focus on the necessary development that was due to take place internally, like environmental pressures on the future of events and the evolution of our organisational leadership."	
International Festival	Accelerated Area of Continued Growth	Redevelopment - 100% Digital Offerings (at reduced output)	Moved from June to August: Redevelopment: Digital and In-Person Offerings (Hybrid Model)	Redevelopment/Continued Growth	
	"There was a sense of novelty development -- we had a sense that if we could be doing more, the public would come and ther would be financial support for it if we came up with the right thing."				
International Science Festival	Maturity	Redevelopment - 100% Digital Offerings (at reduced output)	Postponed - Moved from April to July: Redevelopment: Digital and in-Person Offerings (Hybrid Model)	Redevelopment	
International Film Festival	Stagnation/Redevelopment	Redevelopment - 100% Digital Offerings (at reduced output)	Postponed - Moved from June to August: Redevelopment: Digital and In-Person Offerings (Hybrid Model)	Redevelopment	
		"We took the view that the 2020 festival was going to be a one-off festival while we did further review and development work before appointing a new creative director to lead activity from 2021 onwards."	"Being part of the August family of festivals meant that we were coming together to become a much stronger peer support network as well as initiating conversations about how can we do more things together long-term?"	"The pandemic has really helped us have an internal debate - we need to look beyond the notion that we have to have ongoing growth. Redevelopment is the priority, but it's a matter of what that looks like."	
Royal Military Tattoo	Growth	Hiatus	Hiatus	Continued Growth	"Have you ever seen the thing jumping the S-Curve? You know that, where you have a bright idea, and your current idea is doing this. So what you're trying to do is then before you then stagnate, you're trying to jump off to another one, you're trying to sort of reinvent your brand all the time"
	"Our strategy from 2021 was to doing an Edinburgh Tattoo and overseas Tattoo every year; we increased our numbers and expertise to service that. When COVID hit, we had a significant loss of liquidity, but we still have the same ambition."	"We'd been playing tactical whack-a-mole with 19 possible scenarios, but ultimately the decision to cancel the 2021 festival came down to the fact we couldn't get cancellation insurance."		"We are currently working on a 10 year model -- We want to end up with a model which is more like Cirque du Solei which has 44 gigs around the world. We have a strategy for growth which is all about diversification. And, if our costs go up, how do we diversify? We're presently much more financially vulnerble, but we're still growing."	
Festival Fringe	Maturity	Decline/Redevelopment - 100% Digital Offerings (at reduced output)	Decline/Redevelopment - Digital and In-Person Offerings (Hybrid Model)	Reimagining	
	"We have never wanted a growth agenda... people talk about vast numbers with the Fringe, but it's about the quality of the work and providing an opportunity to bring whatever they wish and have a good experience."		"There's certainly been a massive decline with going down to 15% of our normal delivery output."	"We're looking to build back balance and what our future narrative and the future of the Fringe looks like."	