






Mapping festival adaptations to COVID-19: A quantitative review

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Background: The COVID-19 pandemic negatively affected the creative economy. With restrictions placed on live events, many festivals were cancelled. However, some festivals were able to adapt and survive the pandemic.

Objectives: The research tracked festival survival and responses to the pandemic for the period 2020–2022 at the national level in South Africa.

Method: Using 2019 as a pre-COVID base year, a database of South African cultural festivals was created, and their response to each pandemic year was captured. This dataset was then mapped using geographic information systems (GIS). To determine the factors that influenced festival survival during this period, an econometric model was created.

Results: Initially, virtual adaptation strategies were the most common. However, in 2021, lockdown measures began to ease, allowing for more hybrid and live responses. Despite this, approximately half of all festivals found in 2019 were cancelled over the period, and some did not survive. Results of the econometric modelling showed that the main factor determining survival was whether a festival pivoted to a digital adaptation strategy.

Conclusion: There has been a shift in festival responses to the pandemic over time. While undertaking a digital adaptation was important to festival survival because of continuity, there is a strong preference for live events. Festivals that invested in successful virtual adaptations will likely maintain a hybrid element going forward.

Contribution: Previous studies have taken an in-depth qualitative case study approach to understanding festival responses to the pandemic. This research quantitatively examined festival survival and adaptation strategies nationally.

Keywords: festival; digital; South Africa; adaptation; COVID-19.

Introduction

Studies focusing on the adaptation strategies of festivals and live events during the COVID-19 pandemic tend to follow a case study approach using in-depth, qualitative analysis of individual or a small number of festivals. There has been much less research at the national level, quantitatively analysing the determinants of those festivals that survived and those that did not. This is the gap the article aims to fill.

In their systematic literature review of the impact of COVID-19 on the creative industries, Khlystova, Kalyuzhnovac and Belitskia (2022) note the lack of research in developing countries, specifically African contexts, with most studies being focused on the Global North.

During the pandemic, many festivals internationally, including some in South Africa, shifted to online or hybrid formats as part of their business continuity strategy and as a means of continuing to provide some value to audiences, creatives and sponsors. Questions remain, however, about whether the pivot to digital, which had high costs, and challenges with reaching audiences in developing country contexts, was a successful survival strategy.

There is also some debate in the literature on whether digital (online) and hybrid festival formats were part of an existing trend related to business innovation and modernisation (speeded up by the pandemic), which will persist in the post-COVID-19 era, or if they are short-lived responses to the COVID-19 crisis that provided a poor substitute for live events (Hylland 2022).

Literature review: Digital and hybrid festival formats and place

During the COVID-19 pandemic, cultural festivals worldwide generally followed one of the three strategies: (1) cancellation, often with the intention to postpone until the COVID-19 restrictions on in-person gatherings were lifted; (2) a move to an entirely online format; or (3) a hybrid approach that combined smaller, COVID safety-compliant in-person events with online components (Rentschler & Lee 2021). The online or hybrid (online and in-person) formats were seen as a way of maintaining business continuity when restrictions on in-person gatherings were in place.

Several different business models were used, from completely free online access (for events with stable sponsorship) to tickets for individual shows, and subscription models to the whole or some parts of the festival. Some content was offered synchronously to both online and in-person audiences at the same time, which helped to maintain the feeling of community, while others used asynchronous formats, which allowed audiences to access content at a time that suited them (Smits 2023). Nevertheless, many festivals found it difficult to monetise their content in the very competitive online environment, and the financial sustainability of online formats was a challenge (Fernandes 2020; Howard 2020; Richards & Londoño 2022).

It is generally acknowledged that some of the experiences of in-person festivals are difficult to replicate online. For audiences, in-person festivals offer a unique, communal experience, with emotional elements (Chi et al. 2022; Smits 2023). For creative workers, festivals offer valuable networking and reputation-building opportunities, which are important not only for marketing of current work but also for future job opportunities (Richards & Pacella 2022). The tradition of premieres, where creative works such as films, theatre and fine art exhibitions are released first at festivals, is an important part of building their cultural (and market) value (Formenti, Pitassio & Sampietro 2022; Miedziak 2021; Smits 2023).

While online festival content can certainly expand audience reach, because no travel is required and costs are generally lower (Lee, Baker & Haywood 2020), in developing country contexts, the 'digital divide' can restrict access by poorer households who lack the equipment and expertise to join in (Aurelio et al. 2023). In South Africa, for example, only 14.5% of households have access to fixed line internet at home (Statistics South Africa, 2024), and mobile data prices are higher than in many other countries.

Hybrid formats were also often preferred by sponsors, who would still benefit from the wider coverage and acknowledgement of their contributions, capitalising both on the media attention often given to in-person events, as well as the ability of the online format to reach wider, sometimes international, audiences (Curran 2020; Fernandes 2020; Howard 2020).

It was also apparent that online or hybrid formats were not possible or successful adaptation strategies for all festivals (see Table 1). In the South African context, research by the South African Cultural Observatory (SACO) showed that the attributes of cultural festivals impact strongly on both their decision to shift to online formats, and their success in doing so (SACO 2021a). Based on interviews with the managers of 13 cultural festivals across South Africa (including in the Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Mpumalanga and Western Cape provinces), and online media tracking of others, the report found that larger festivals, with national reach and brands, were more likely than smaller, community-based festivals to be able to maintain their continuity by using online formats. Larger festivals had better access to the funds, hardware and expertise to manage the online shift, and some of them already had good websites and had started to develop online content. Their established brand helped them to continue to attract audiences (although many admitted that monetising the content was a challenge). Smaller festivals that were known largely to local audiences were less likely to have stable sponsorship that would provide them with the resources needed to make the pivot to digital formats. Those who attempted it were less likely to be successful because they were not able to attract audiences or to provide the high-quality formats needed to compete in the online environment.

In the context of film festivals, De Valck (2021) also theorised that the choice of adaptation strategy and its success depended on the main purpose of the festival. If the main focus of the festival was primarily on high-quality creative content (in this case, presenting a marketplace, and being gatekeepers for film), then they were more likely to shift online. On the other hand, if the main focus was on the community aspects of the collective festival experience, then the event was less likely to shift online. De Valck (2021) also notes that content-focused festivals were more likely to be larger, formalised events with stable sponsorship and international reach, while festival experience focused events were more likely to be smaller, less formal events with ad hoc sponsorship. These attributes also affected their ability to shift successfully to online formats.

TABLE 1: Festival attributes that contributed to the potential for successful online shifts.

Potential for successful online shift	Less potential for a successful online shift
Larger, more established festivals	Smaller, community-based festivals
Bigger, better-established festival 'brands'	Only known locally
Able to attract audiences and sell tickets	Audiences not engaged online (technology and costs)
Managed to retain sponsors (established relationships)	Smaller local sponsors in trouble themselves and unable to continue supports
More resources and expertise for online shift	Few resources and expertise made online shift difficult
Often already had good websites and online offerings	Seldom had established website or any online offerings
Lockdown speeded up shift to hybrid already in progress	Mostly not able to compete in online environment.

Source: South African Cultural Observatory (SACO), 2021a, *The challenges of pivoting to digital: The COVID-19 shut down and cultural festivals and events*, SACO, Gqeberha, viewed 22 March 2023, from <https://www.southafricanculturalobservatory.org.za/download/comments/1007/d7322ed717dedf1eb4e6e52a37ea7bcd/The+Challenges+of+Pivoting+to+Digital+The+COVID-19+shut+down+and+cultural+festivals+and+events>

Another dimension of the value of in-person festivals is their relationship with a particular place. For some festivals, the attributes of the location in which they physically take place is an important part of their unique identity. While there are ways to incorporate some of this in online formats (Snowball et al. 2023), it is not always effective. Hanzlik and Mazierska (2022) argue that festivals also have important social and non-market roles in expressions of the identity and culture of the place in which they occur, but Lynch and Quinn (2022) argue that place also has an impact on the festival itself: it is the interaction between festival curators (the 'artistic process of festival-making') and place (geographic, artistic, cultural, etc.) that gives festivals their uniqueness, and that this is likely to be very difficult to capture in online formats (Lynch & Quinn 2022:258).

Festivals also have an economic impact on their host cities or towns, attracting tourists who spend in local establishments, and who help to build the reputation of the place, which can be good for investment and local establishments, such as schools and universities, and local businesses. Compared to other kinds of tourists, Rentschler and Lee (2021) found that cultural tourists are more likely to be willing to travel further, stay in host cities and towns for longer, and have higher spending. Research on a festival in Indonesia also emphasised the importance of the livelihood opportunities that live festivals offer for local residents, and how important these can be in developing country contexts (Aurelio et al. 2023).

Rentschler and Lee (2021) track how South Australian festivals followed an adaptation strategy of localisation during the pandemic. By this, they mean that even traditionally large festivals that had attracted international audiences and headlined international artists in pre-COVID times, focused much more on offerings for local tourists and in showcasing local artists. This was partly mandated by various travel bans but was also needed to support local artists and technical services workers who would otherwise have been unemployed. Local audience development was also part of localisation strategies, and the authors suggest that a new focus on balancing curating festivals for both international and local audiences may be a good post-COVID strategy:

'Supporting local artists' development becomes an intrinsic outcome that arts festival organisers should plan for, but also, if planned strategically, arts festival organisers can capture the data from such programs to justify funding from government, sponsors and philanthropy' (Rentschler & Lee 2021:45).

Smits (2023) suggests that, in the case of film festivals, online formats were only used when restrictions on gathering were very severe (and cinemas were closed completely). Hybrid formats were preferred and quickly implemented where possible, while completely online formats were used as a back-up to mitigate the risk of the sudden implementation of

stricter COVID-19 measures. Rather than seeing hybrid formats as a threat to traditional festival formats, Smits (2023:13) suggests that they are part of a process of 'innovation and modernisation' in the creative industries and that all the pandemic did was speed up a shift that was already taking place. In this case, hybrid events can be seen as an extension of in-person festival activities, that is, a complementary activity, rather than being in competition with them. Rentschler and Lee (2021), in their study of festivals in South Australia, agree that shifts to online formats played an important part in the business continuity strategies of festivals, and was a continuation of a trend towards online and hybrid festival formats (a 'digital transformation') that was already taking place before the pandemic began.

However, there is some debate in the literature as to how much of the shift to digital formats will be retained after the pandemic has passed. Hylland (2022) argues that, for festivals in Norway, the shift to online platforms was a temporary measure to cope with a crisis. It was not driven by business logic and was only viable when in-person events were mostly not possible. From the point of view of artistic producers, Hylland (2022) shows that, while a few better-known creatives were successful in attracting large audiences in the early days of the pandemic, this very quickly declined as the novelty wore off. Monetisation of online offerings became increasingly difficult as time went by, as the supply of online offerings far exceeded demand, with digital events being regarded by audiences as a poor substitute for live events.

Similarly, Khlystova et al. (2022) regarded live cultural events, including music, festivals, and theatre, as having very limited ability to use digital means to adapt to the COVID-19 crisis. In their extensive literature review, festivals are placed in the 'Constancy' category, which indicates low digital capabilities (both in terms of the required knowledge and expertise needed, as well as the ability to provide a good substitute for audiences, creatives, and supporting technical services workers). Ali and Balme (2022) also question whether festivals' shift to digital platforms, and the institutional changes that accompanied these, are likely to survive in post-COVID times. They argue that this is because:

'A digital model destabilises the traditional understanding of what festivals are – the coming together of people, the direct exchange between performers and live audiences cocreating together a moment that is fundamentally temporal and site specific' (Ali & Balme 2022:340).

Context: COVID-19, the creative industries and festivals in South Africa

Increasingly, the cultural and creative industries (CCIs) discourse has been taken up by countries in the Global South such as Brazil, China, Indonesia and South Africa, who have recognised their economic potential (Cunningham & Swift 2019). On the African continent, South Africa has the most developed creative economy and the CCIs have been identified as the country's 'new gold' based on their potential

to create jobs and spur economic growth (Mzansi's Golden Economy Guidelines 2022). In 2020, the CCIs accounted for 2.97% of South Africa's gross domestic product (GDP) (SACO 2022). Using the creative trident method to calculate total cultural and creative employment, this sector accounted for 6% of employed South Africans (1 million jobs) in 2019 (SACO 2022). The CCIs have thus been an important contributor to South Africa's stagnating economy as it has been grappling with comparatively low economic growth levels since the 2008–2009 Global Financial Crisis, as well as high unemployment rates.

However, this positive economic contribution has been curtailed recently by the COVID-19 pandemic. The South African government implemented one of the most severe lockdowns in the world over 2020 and 2021. Although the strategy was successful in curbing the spread of the virus, it was also very costly in economic terms. The shutdown of CCI activity caused an estimated fall of 50% in the direct and indirect contribution of the CCIs to South Africa's GDP in 2020 from its 2019 contribution (SACO 2021b). While 2021 did begin to show a slow recovery, the GDP contribution of the CCIs in 2021 was still down by 44% as compared to 2019 (SACO 2021b). Moreover, between the fourth quarters of 2019 and 2020, it is estimated that 85 000 cultural jobs were lost as a result of the pandemic (SACO 2022).

The lockdown had an immediate impact on the South African creative economy; however, the impacts were not symmetrical as some sectors fared better than others. Snowball and Gouws (2023) calculated a vulnerability score for each cultural and creative sector in South Africa and found that the performing arts was the most vulnerable. This was based on the sector's reliance on a face-to-face mode of operation and a high proportion of freelance labour. Limits on public gatherings meant that theatres closed their doors and live events such as festivals were cancelled. This was not unique to South Africa as globally, the performing arts, including festivals, have been profoundly affected by COVID-19.

Visser (2005) identified 211 annual festivals (including arts, music, culinary and lifestyle) in South Africa, and just before the COVID-19 pandemic, it was estimated that South Africa hosted more than 600 festivals annually across all categories (Van Heerden & Saayman 2018). However, many festivals were experiencing declining audience numbers and visitor spending associated with a decline in household incomes in a climate of slow economic growth and high unemployment (Van Heerden & Saayman 2018). Spatially, these festivals are unevenly distributed with most of the country's festivals being held in the Western Cape, followed by Gauteng and KwaZulu-Natal (Visser 2005). In terms of festival research in South Africa, the main themes to have been explored include audience surveys and spending patterns, reasons for attendance, attendee satisfaction and visitor experiences, local economic impact, festival tourism and social dynamics at festivals (Rogerson & Harmer 2015).

Festivals play an important role within the cultural and economic development of South Africa (Saayman & Rossouw 2011; Snowball et al. 2023). They support thousands of livelihoods and local economic development in many locations (Saayman & Rossouw 2011). Moreover, festivals also link to fine arts and crafts as many festivals include galleries and craft markets (Stander, Sandham & Visser 2021). They are thus not just important for generating income and exposure for performing artists, but visual artists as well.

Methods and data: The Future Festivals South Africa project

'Future Festivals South Africa: Possibilities for the Age of COVID-19' was an international research collaboration funded by the UK Arts and Humanities Research Council (AHRC). The research aimed to investigate the impact of COVID-19 on cultural festivals in South Africa and to build a new knowledge base and network to enable festivals to build resilience during a challenging time. Part of the work of the Future Festivals South Africa project was to track the impact of the lockdown and social distancing measures put in place, as well as the adaptation strategies used by festivals that did continue.

Using a combination of webscraping and manual web searches, a database of South African festivals was created for 2019. Social media searches were also conducted as many smaller South African festivals do not have their own website and communicate mainly through Facebook and Instagram. A limitation of the study is that some festivals may have been missed in the data collection process, especially smaller festivals without an online presence.

Categories of festivals related to the creative economy and thus included general arts and culture, music, comedy, film and literary festivals. Using 2019 as the base year, the survival and adaptation strategies implemented by South African festivals during the COVID-19 years (2020 and 2021) and a recovery year (2022) were tracked. The festival name, category and COVID-19 response were captured in the database for each year. For festivals that survived, responses to the pandemic included virtual (online), hybrid (combination of virtual and in-person) or COVID-19-compliant live event. Those who did not survive were captured as cancelled. This includes festivals that communicated their decision to cancel as well as those for which no information could be found for 2020, 2021 or 2022 as it was assumed that they had not survived.

Festival survival rates and adaptation strategies were then mapped using GIS (Geographic Information Systems). QGIS software was used to represent both the number of festivals and festival responses to the pandemic per province in South Africa through proportional circles and pie charts for the period 2020–2022, using 2019 as the base year. Geographic Information Systems as an analysis tool is becoming increasingly popular in studies on the CCIs, as it is capable of

simplifying complex data sets and visually highlighting relationships within and between data sets and/or variables (Brennan-Horley et al. 2010). In order to assist with the visual analysis and interpretation, the two sets of maps were animated using Graphic Interchange Format (GIFs) so that changes over time were easier to observe.

To investigate the statistical significance of the factors that influenced the probability of festival survival over the COVID-19 period, a Logit model was used (see Equation 1):

$$\text{Logit}(P(Y=1)) = \ln \frac{p(Y=0)}{p(Y=1)} = B_0 + B_1X_1 + B_2X_2 + \dots \quad [\text{Eqn 1}]$$

where:

- $P(Y=1)$ is the probability that the dependent variable Y equals 1 (i.e., festival survival)
- $\text{Logit}(P[Y=1])$ is the log-odds of Y being 1 (festival surviving the COVID-19 period)
- B_1, B_2, \dots are the coefficients for independent variables X_1, X_2, \dots

The model aimed to determine whether the probability of a festival surviving the pandemic in 2022 (Survive22) was associated with the variables listed in Table 2. The variables in the model included whether a festival adopted an online or hybrid strategy in 2020/2021 (C19Digital) and thus continued through the pandemic; whether the festival was a performing arts festival (Type PA) and thus more reliant on face-to-face modes of operation for production and consumption; whether the festival was located in a metropolitan area (Johannesburg, Pretoria, Cape Town or Durban) and thus likely to have access to larger markets and better support and infrastructure; whether the festival receives funding from the national government under the Mzansi Golden Economy framework as a flagship festival; and the age of the festival. Figure 1 represents the age of festivals in age group categories. In this case, older festivals are thought to be more stable with more established brands, audiences and sponsors and thus should be more resilient to the effects of the pandemic.

Results and analysis

In total, 223 festivals were found in South Africa in 2019 across the five categories (see Table 3). Corroborating

Visser's (2005) study, there is an uneven geographical distribution of festivals across South Africa's provinces. In 2019, the majority of the country's festivals were hosted by the Western Cape (94 festivals or 42%) and Gauteng (62 festivals or 28%) provinces. These are the country's two main metros and hubs of economic activity, where higher levels of disposable income in densely populated and developed areas may translate into greater demand and support for festivals. On the supply side, these provinces also have better cultural infrastructure and may not be as reliant on government funding. KwaZulu-Natal and the Eastern Cape host 21 and 18 festivals, respectively, while the remaining provinces, which tend to be more rural, host fewer than 10 festivals each.

Of all the cultural festivals that occurred in 2019, 130 (55%) took place in 2020 and only 112 festivals (47%) continued in 2021. A recovery can be seen in 2022 as 172 festivals (70%) occurred. The responses of festivals for each year are given in Table 4 at the national level. It should be noticed that in 2019, all the festivals had live in-person events with only a very small number including a limited digital component. These results were mapped using GIS (see Figure 2) at the provincial level using pie charts to show the breakdown of COVID-19 responses used by the festivals in each province over the course of the pandemic. Proportional circles are also used to represent the total number of festivals that occurred in each province, using 2019 as the base year. This serves to illustrate the uneven festival geography in South Africa as well as the impact of COVID-19 on festival survival and the responses of festivals that continued through the pandemic.

As Table 4 and Figure 2 illustrate, just under half (45%) of all festivals were cancelled in 2020. This had a knock-on effect on the creative economy because it meant that performing

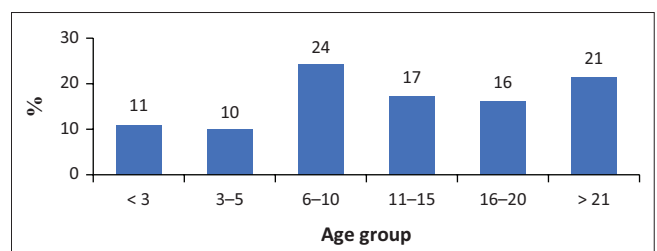


FIGURE 1: South African festivals by age group.

TABLE 2: List of variables included in the binary logit model of festival survival.

Label	Description	Summary statistics for festivals retained in the sample (%)
Survive22	1 if festival occurred in 2019 AND 2022; 0 otherwise	71.2
C19Digital	1 if adopted an online or hybrid strategy in 2020 and/or 2021	37.5
Type PA	Performing arts festival = 1; 0 otherwise	78.6
Metro	1 if festival based in a metropolitan area; 0 otherwise	57.3
Flagship	1 if funded by national government as a flagship festival; 0 otherwise	17.7
Age	Age of the festival (since founding) as of 2022 in 6 categories where 1 = < 3 years old (founded post-COVID-19); 2 = 3–5 years old (founded before COVID-19); 3 = 6–10 years old; 4 = 11–15 years old; 5 = 16–20 years old; 6 = > 21 years old	-

TABLE 3: Number of festivals by location (2019–2022).

Province	2019	2020	2021	2022
Eastern Cape†	18	9	11	13
Free State†	5	3	2	4
Gauteng†	62	39	39	52
KwaZulu-Natal†	21	15	14	17
Limpopo	5	3	1	3
Mpumalanga	8	2	4	5
Northern Cape	7	4	3	6
North West	3	0	1	3
Western Cape†	94	55	37	69
South Africa	223	130	112	172

†, Provinces that have a metropolitan area of the cultural festivals that occurred in 2019.

artists and technical crew lost work and, as the pandemic progressed and festivals continued to cancel, work opportunities were limited. With only 13% of festivals having occurred before the lockdown in 2020, adaptation strategies included having smaller COVID-19-compliant in-person live events (9%), a hybrid event (3%) or moving online to have a virtual digital festival, which was the most common response (30%). This was linked to the strict lockdown restrictions, which left festivals with little choice, offering only two options: to cancel or go online. Festivals adapting digitally were important as their continuation meant that artists and crews could earn some income during a time when most other live events were cancelled and theatres had closed their

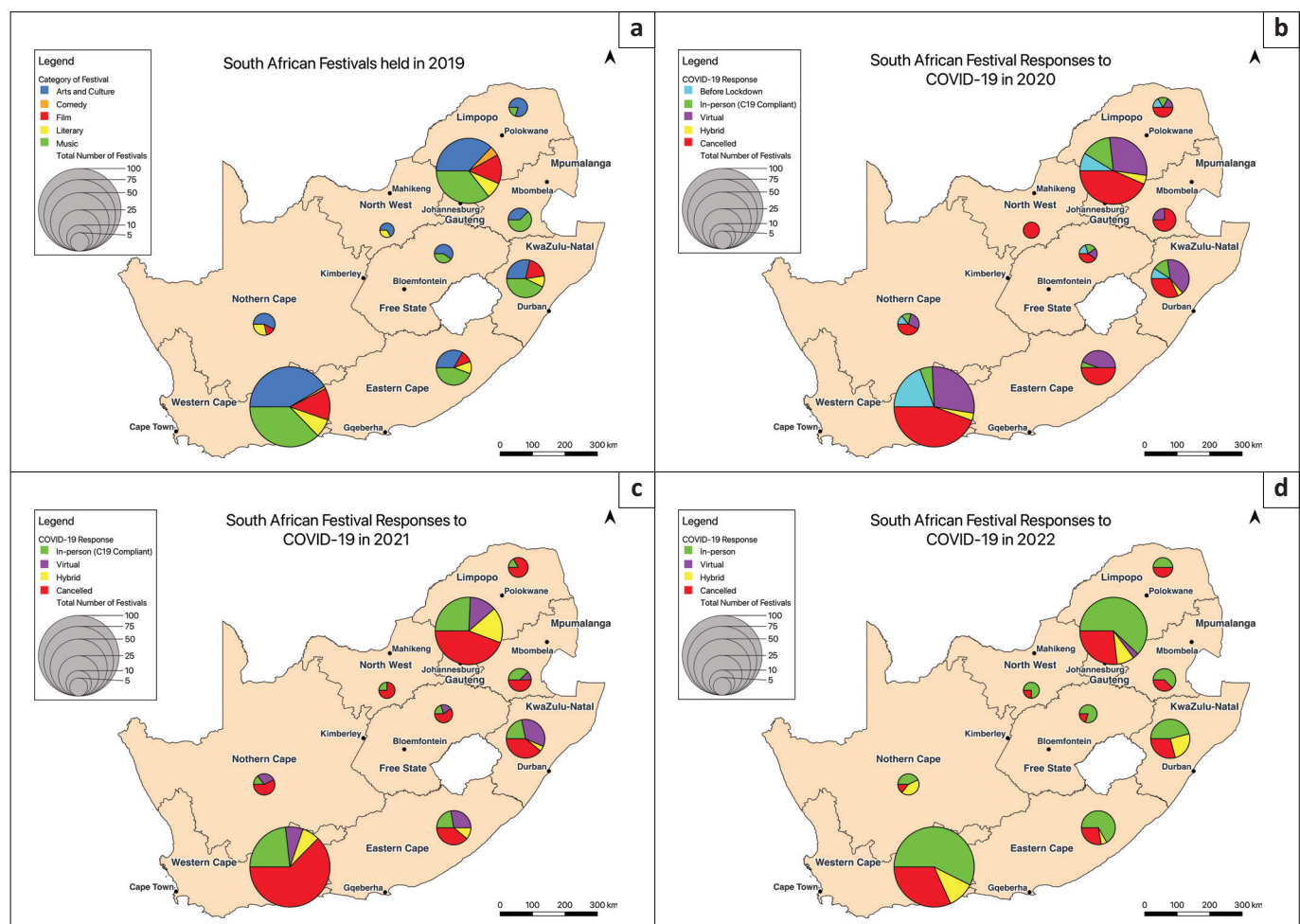
doors. The most common response being a virtual adaptation strategy aligns with the international qualitative research approach that documents virtual festival responses to the pandemic in a descriptive case study format (Hanzlík & Mazierska 2022; Smits 2023; Snowball et al. 2023).

In general, the South African festival landscape looked worse in 2021 with a recovery yet to kick in, despite the gradual easing of lockdown restrictions. South Africa, like many other countries, implemented various levels of lockdown to manage the spread of COVID-19. These lockdown levels were typically based on the severity of the pandemic and aimed to balance public health with the economic impact of restrictions. In 2021, restrictions were gradually eased, which allowed some types of CCI activity, including small in-person gatherings, to resume. However, with new COVID-19 variants being discovered and increases in infections, lockdown levels were periodically increased. This made for a challenging business environment as conditions were highly changeable. For example, when lockdown restrictions eased to allow small gatherings, some festivals could host COVID-compliant live events (Comunian et al. 2023; Snowball et al. 2023). However, other festivals were caught out by changing

TABLE 4: South African festival responses to the COVID-19 pandemic (2020–2022).

COVID-19 response	Year (%)		
	2020	2021	2022
Before lockdown	13	N/A	N/A
In-person	9	24	59
Virtual	30	14	1
Hybrid	3	9	11
Cancelled (including no information)	45	53	30
Total (number)	130	112	172

N/A, not applicable.



Note: Base year is 2019. Pane 1 shows the breakdown of festivals by category. To access the animated map of festival adaptation strategies, please visit: <https://youtu.be/z-K0cflPQB8>. COVID-19, coronavirus disease 2019.

FIGURE 2: South African festival responses to the COVID-19 pandemic: (a) 2019 base year by festival categories, (b) 2020 festival responses, (c) 2021 festival responses and (d) 2022 festival responses.

lockdown levels as they had planned for live COVID-compliant events with small audiences, which were suddenly no longer allowed as lockdown levels increased to prohibit live gatherings, forcing festivals to cancel, postpone or pivot to virtual-only events (Comunian et al. 2023; Snowball et al. 2023). This delayed the recovery of the sector, as forward planning was very difficult during the pandemic because of the policy environment and regulations being uncertain and changeable at short notice.

The uncertainty and changeability is reflected in the 2021 data as, despite the gradual easing of lockdown restrictions, which created windows of opportunity in which events could be held with the appropriate COVID-19 safety precautions in place, there were more cancellations compared to 2020. In this case, over half (53%) of all festivals that occurred in 2019 were cancelled. Furthermore, financial challenges associated with hosting a virtual festival meant that some festivals that implemented an adaption strategy in 2020 did not continue with it in 2021 and chose to cancel. Lastly, a few festivals were saved from the effects of the pandemic in 2020 as they occurred before the lockdown was implemented. Seeing the difficulties of implementing virtual adaptation strategies, some of these festivals also chose to cancel in 2021.

There was also a change in the adaptation strategies used by festivals. The number of COVID-19-compliant live events (24%) and hybrid events (9%) in 2021 increased from 2020 while there were far fewer virtual-only festivals (14% as compared to 30%). This illustrates the preference for live events among artists and audiences, which were held when restrictions were briefly lifted to create windows of opportunity (Hylland 2022; Snowball et al. 2023).

In 2022, when the lockdown lifted, this trend became more prominent. Only 1% of festivals were virtual-only events in 2022. Meanwhile, the proportion of hybrid festivals increased to 11%, and in-person events became the most common response, with 59% of festivals returning to this preferred format. The increase in the proportion of hybrid events is a legacy of the pandemic. As the 2022 map shows, festivals that invested in pivoting to relatively successful online strategies tended to keep an online component with a hybrid approach (Snowball et al. 2023). An online offering has thus become a part of regular festival programming so that artists and audiences can get the best of both worlds. This hybrid approach has opened up a range of opportunities, as new modes of production and business models are incorporated into what was done before the pandemic for festivals and artists alike (Snowball et al. 2023). Moreover, with a 30% cancellation rate and 172 festivals going ahead in 2022, a recovery was underway.

Overall, the data and maps illustrate a national pattern of the mass cancellation of live events and work and the emergency responses in 2020 to continue in some format, usually virtual; the slow and uncertain reopening of the economy in 2021 and the recovery in 2022 (though it may have been limited).

TABLE 5: South African festivals by type (2019–2022).

Category	Year (number of festivals)			
	2019	2020	2021	2022
Arts and culture	90	48	44	69
Comedy	4	5	2	4
Film	28	22	25	25
Literary	19	10	9	13
Music	82	45	28	61

Some festivals were better suited to the online medium than others and also found it easier to continue with a hybrid approach in the post-COVID-19 environment (SACO 2021a). Table 5 shows the number of festivals by category for 2020–2022 that continued, with 2019 as the base year. Film festivals were well suited to online adaptations as audiences could stream the films and log on to virtual discussions. Continuing with hybrid film festival offerings for audiences to stream participating films is also likely to be a legacy of the pandemic, as it increases audience access and distribution of films. This links to the international experience of film festivals finding success in online adaptations (De Valck 2021; Hanzlík & Mazierska 2022; Smits 2023). A similar experience existed for literary festivals where discussions with authors and readings could be performed virtually. In both cases, there was a loss of networking opportunities and the social enjoyment of the events, but the pivot to the digital environment was relatively easy given the format of the festivals. Comedy festivals also fared relatively well. This is likely because of audiences having become used to watching recorded stand-up comedy performances and the ease of filming one person at a time so that COVID-19 safety protocols were adhered to.

However, live audiences create an atmosphere that performers feed off, which cannot be easily replicated online. Consequently, arts and culture and music festivals did not do well in 2020 with 47% and 45% cancellation rates, respectively. In 2021, cancellation rates increased to 51% for arts and culture festivals and 66% for music festivals. This can be attributed to a combination of the preference for live events, screen fatigue, the digital divide and monetisation challenges (Comunian et al. 2023; Snowball et al. 2023). This meant that there were small audience numbers; poor ticket sales; and a lack of funding and resources to implement virtual and/or hybrid festival events, especially for smaller festivals (Comunian et al. 2023; SACO 2021a; Snowball et al. 2023). In 2022, there was a recovery for arts and culture and music festivals with numbers increasing significantly. Although there were still festivals that did not survive, cancellation rates dropped to 23% and 26%, respectively. This is likely explained by the hunger for live events and social opportunities demanded by audiences after 2 years of relative isolation.

Table 6 presents the results of the binary logit model, showing the statistical significance of the probability of a festival surviving the COVID-19 period.

Despite the inclusion of a number of different variables, the model had poor overall goodness-of-fit (the likelihood ratio was not statistically significant).

TABLE 6: Logit model results.

Variable	Coefficient	Standard error
C	0.15	0.60
Age	0.11	0.11
C19DIGITAL	0.77†	0.37
FLAGSHIP_TOURIST	0.01	0.49
METRO	0.01	0.34
TYPEPA	0.01	0.42
McFadden R-squared	0.03	-
S.D. dependent var	0.45	-
LR statistic	6.84	-
Prob(LR statistic)	0.23	-

†, Statistically significant at the 5% level.

The coefficient for C19DIGITAL is positive and statistically significant ($p < 0.05$). This suggests that festivals that used online or hybrid strategies to continue operating during COVID-19 were statistically significantly more likely to be still operating in 2022. Interpreting the odds ratio of the coefficient showed that adopting a digital strategy increased the odds of the dependent variable being 1 (survival) by about 117%.

The coefficient for the 'Age' variable is positive but not statistically significant ($p > 0.05$). This suggests that while there might be a slight positive association between the age of the festival and the likelihood of survival (holding all other variables constant), this association is not strong enough to be statistically significant.

Other variables included in the model, such as the festival being designated as a provincial 'Flagship', being based in a metropolitan area, and the type of festival, had coefficients close to zero and were not statistically significant.

The results, covering the whole population of arts and culture festivals in South Africa over the COVID-19 period, indicate that: (1) it was difficult to predict what would determine the survival of cultural festivals over the COVID-19 period and that some of the commonly suggested attributes in the literature were not, on their own, significant and (2) those festivals that were able to pivot to online or hybrid platforms, which ensured business continuity, if not very effective monetisation, were far more likely to survive.

It should be noted that this result does not prove causality. Festivals that were able to undertake a digital adaptation strategy tended to be those with the facilities to do so. These festivals were usually larger and better resourced in terms of funding and festival staff. As such, they were able to overcome some of the challenges of pivoting to online festival formats such as finances, expertise and attracting audiences (Snowball et al. 2023). Having invested relatively heavily in the pivot to digital, these festivals are also likely to keep an online element to the festival with a hybrid format (Snowball et al. 2023). This is supported by the 2022 map, which shows that hybrid formats have remained in the post-COVID environment. It is important to balance the physical and virtual elements of the festival to receive

the advantages of live experiences and increased accessibility through some digital offerings.

There are some practical implications from the research results for festivals. Shifting online during the pandemic was an important survival strategy, and for many festivals, it represented the only way to continue operating during lockdowns that prevented in-person gatherings. However, it has not been a sustainable long-term strategy, as the majority of South African festivals switched back to live-only events by 2022. This illustrates the importance of online programming as a good survival strategy, but that it is difficult to sustain. Online is not a substitute for the real-life festival experience (Radermecker & Angelini 2024), although some festivals did invest heavily in their online programming, websites and e-commerce facilities. Maintaining a hybrid approach is thus an important part of their future development. It is not easy to host a successful and profitable hybrid festival, but it could have benefits in reaching wider audiences, promoting festival content and maintaining contact with audiences. How hybrid festivals manage the benefits and costs of a hybrid approach, the sustainability of hybrid festivals and the experiences of virtual audiences provide avenues for potential future research.

Conclusion

The COVID-19 pandemic affected the creative economy, and especially live performing arts and festivals, very negatively. Studies that focus on the adaptation strategies of festivals and live events during COVID-19 tend to follow a case study approach using in-depth, qualitative analysis of individual or a small number of festivals. There has been much less research at the national level, quantitatively analysing the determinants of those festivals that survived and those that did not. With this in mind, a database of South African cultural festival responses to COVID-19 (2019–2022) was created using desktop searches. Using 2019 as a base year, 223 cultural festivals were held in South Africa. This dataset was then mapped using GIS to display the festival adaptations to COVID-19. Festival responses included cancelled, in-person, virtual and hybrid. Geographic information systems mapping results showed that there has been a shift in festival responses to the pandemic over time. Initially, virtual adaptation strategies were the most common, given that lockdown regulations in South Africa were particularly strict. However, in 2021, lockdown measures began to ease, and so festivals were able to move more towards hybrid and live responses, showing a strong preference for live events by audiences and artists. The mapping results show that instead of closing, pausing or giving up, during COVID-19, many festivals chose to innovate and adapt to the pandemic circumstances.

Despite this, approximately half of all festivals found in 2019 were cancelled over the period and some did not survive. To determine the factors that influenced festival survival during this period, an econometric model was created. Results showed that the main factor determining survival was

pivoting to a digital festival adaptation strategy. Being based in a metro area (geographic location) or having the status as a 'flagship' national festival were not (on their own) as good predictors of survival as using innovative online strategies, which were more important for festival continuity. Festivals that cease operation for too long may find it difficult to restart and compete in the post-COVID world by re-attracting sponsors, audiences and artists.

In South Africa, as in many other developing countries, an additional challenge is the digital divide. The mapping of South African festivals has shown that only half of the cultural festivals held in 2019 took place in 2020. Many of the smaller, locally based festivals have ceased operation. The communities they served may have few alternatives, especially if they do not have the equipment or the funds needed to access online content.

While it is clear that festivals have been heavily affected by COVID-19, they have also evolved because of it and shown resilience. Festivals have acted as a cornerstone of the creative economy during COVID-19, supporting artists and communities by taking new roles, innovating, sharing knowledge and acting as leaders (Comunian et al. 2023). In innovating through pivoting to new digital formats (virtual and hybrid), the role of festivals shifted from being primarily gatekeepers – showcasing selected works – to being co-creators of content, and advocates for the arts in South Africa (Comunian et al. 2023; Snowball et al. 2023). Festivals have taken risks, experimented and tested new online means of delivery and engagement, produced new outputs, used new technologies, reached new audiences, and will result in new business models in time.

For larger events, hybrid is probably here to stay, meaning that issues of intellectual property, business model adaptation and innovative ways of reaching across the 'digital divide', especially in a Global South context, will become increasingly important. While moving online, festivals remain anchored in specific localities and loyal to audiences and place-based communities. They must work on balancing their work with physical and virtual community. It is also important that they are supported in finding ways to think of their future work and presence in connection with a range of stakeholders, from international diaspora audiences to local communities.

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Competing interests

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Authors' contributions

The lead author (F.J.D.) analysed the data (GIS mapping) and wrote the article. The second author (J.D.S.) analysed the data (econometric analysis) and wrote part of the article. The third author (D.T.) assisted with conceptualization, data collection and was involved in editing and review. The fourth author (R.C.) was the original project PI and assisted with conceptualization, writing and review. The fifth author (J.G.) assisted with conceptualization, writing and review.

Ethical considerations

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Data availability

The data that support the findings of this study are available on request from the corresponding author, F.J.D.

Disclaimer

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