Tourism and Hospitality industry resilience during the Covid-19 pandemic: Evidence from England

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Abstract

The tourism and hospitality industries have been particularly impacted by the Covid-19 pandemic, with widespread closures and later re-opening times than other areas of economic activity. However, little is known about the resilience of these industries in light of the current pandemic, within the context of English towns. This paper surveys businesses dependent on tourism located in English towns, to explore perceptions of resilience in this crisis context. We consider the nuances involved in resilience to disturbances such as Covid-19, revealing the temporal dimensions of resilience. Moreover, we identify influences informing differing resilience levels within and between industries. The paper also contributes a novel Business Resilience Composite Score, which enables academics, practitioners and policy-makers to draw comparisons between tourism and hospitality industry resilience and other economic activity in urban locations.

Keywords:

Covid-19; Tourism, Hospitality; Temporality; Seasonality; Urban Resilience; Industry Resilience

Introduction

The Covid-19 pandemic suddenly disrupted people and places on a global scale, with huge social, psychological, and economic impacts. The consequences have been described as 'catastrophic', and no industries have, arguably, been as hard-hit as tourism and hospitality (Dube et al., 2020; Legrand, 2020; Nicola et al., 2020). Although some tourism and hospitality businesses were already in a precarious state pre-pandemic (Baum et al., 2020; Grimsey, 2020), these industries have been particularly disrupted by the pandemic, echoing Sands et al.'s (2016, p. 2447) forewarning that places 'dependent on travel and tourism will be more vulnerable to economic disruption from potential pandemics'. The initial 'lockdown' in England, beginning on 23rd March 2020, saw flights grounded and tourism and hospitality businesses closed. Upon the gradual easing of restrictions, these businesses had to adapt to new social distancing and capacity guidelines, operating curfews, a second four-week national lockdown beginning in November 2020, and, at the time of writing, now a third national lockdown, resulting in falling revenues, job losses, and widespread uncertainty, which is expected to endure (Carr, 2020).

As Prayag (2020, p. 179) states, however, 'pandemics are not new'; and the impacts of previous crises, such as SARS, on the tourism and hospitality industries have been investigated (Chen, 2011; Chien and Law, 2003; Tse et al., 2006; Zeng et al., 2005). An emerging literature concerning the impacts of Covid-19 on tourism also exists, exploring issues such as negative economic impacts, employee uncertainty, business innovations, and what the future of tourism might look like, post-Covid (e.g. Carr, 2020; Dube et al., 2020; Foo et al., 2020; Gong et al., 2020; Higgins-Desboilles, 2020; Knight and Reddy, 2020; Mao et al., 2020; Niewiadomski, 2020). However, there is limited research on this within an English context.

Following observations that 'resilience' remains a concept fruitful for such research (Gong et al., 2020; Prayag, 2020), this paper draws on insights gathered from over 1000 businesses located in English Business Improvement Districts (BIDs). Our dataset of 340 tourism-dependent businesses is part of broader research, commissioned by the High Streets Task Force - a government-funded programme to provide support across England for those working to revitalise town centres (Institute of Place Management, 2020). We assess perceptions of resilience to Covid-19 among these businesses and contribute novel insights into the temporal aspects of resilience informing the pandemic's differential impacts on these industries, relative to others. An original mechanism for calculating business resilience is also contributed, which can be adopted by academics, practitioners, and policy-makers to compare resilience of town centre tourism-dependent businesses with those in other industries.

Urban resilience: Definitions and conceptual tensions

Here, the concept of *urban* resilience is important. We thus begin by briefly outlining this concept, before addressing specifically tourism and hospitality *industry* resilience, within the context of Covid-19 and other crises. Academic and policy interest in 'resilience' is growing, owing to increasing uncertainty within urban environments (Gong et al., 2020). However, there is no single definition of resilience, nor is its meaning static (Coaffee, 2013), since the concept is adopted across multiple disciplines to study multiple urban disturbances (Cutter et al., 2008; Meerow et al., 2016; Wardekker et al., 2020). Thus, the urban resilience concept is dynamic and has 'fuzzy' boundaries (Meerow et al., 2016: 39; see also Wardekker et al., 2020). Acknowledging its inherent interdisciplinarity, Meerow et al. synthesise existing conceptualisations to define urban resilience as:

> ‘the ability of an urban system - and all its constituent socio-ecological and socio-technical networks across temporal and spatial scales - to maintain or rapidly return to desired functions in the face of a disturbance, to adapt to change, and to quickly transform systems that limit current or future adaptive capacity’ (2016, p. 45).

They suggest this flexible definition enables ‘different perspectives and emphases to remain and flourish’ (*ibid*, p. 45), and acknowledge the concept addresses six key ‘conceptual tensions’, with the first relating to what constitutes urban itself. The second concerns distinctions between *single-state equilibrium* (i.e. capacity to revert to a previous equilibrium, post-disturbance); *multiple-state equilibrium* (i.e. transformation from one stable domain to another, post-disturbance); and *dynamic non-equilibrium* (i.e. constant change and no singular stable state). Grinberger and Felsenstein (2014) discuss similar tensions in terms of ‘bouncing back’ (to a former stable equilibrium) or ‘bouncing forwards’ (i.e. various potential new trajectories) from urban shocks. A third conceptual tension considers whether, if urban resilience refers to a return to a post-disturbance state, it is a positive concept. The fourth conceptual tension relates to the different ‘pathways’ to a resilient state: *persistence* (i.e. resist disturbance, to maintain the status quo); *transition* (i.e. incrementally adapt while retaining system function); and *transformation* (where resilience-building efforts seek to purposefully change an undesired system). The fifth conceptual tension refers to the nature of *adaptation*, contrasting specific adaptation to known threats with more generic adaptability. A final conceptual tension incorporates *temporality*, with an apparent consensus on the importance of rapid recovery post-disturbance. However, this may be contextually contingent on whether the focus is on rapid-onset disasters or more gradual factors (Meerow et al., 2016), with Leitner et

al. (2018) distinguishing between 'chronic stresses', where the urban system is weakened over time (e.g. climate change) and sudden 'acute shocks' (e.g. Covid-19).

Industry resilience: Tourism, hospitality, and urban shocks

According to Sydnor-Bousso et al. (2011), there is limited research into the impacts of disasters on specific industries, echoing Ritchie's (2004) view about the tourism industry specifically. Although travel, tourism, and hospitality industries are somewhat distinct, they significantly intertwine (Baum et al., 2020), and the World Bank (2020) notes the catastrophic impact of Covid-19 on the tourism industry's 'entire value chain... spanning airlines, bus and train companies, cruise lines, hotels, restaurants, attractions, travel agencies, tour operators, online travel entities, and others'. Indeed, urban areas, which incorporate a range of hospitality businesses, tend to be highly attractive destinations for both international and domestic tourists (Postma and Schmuecker, 2017).

We thus focus on tourism and hospitality industry resilience to crises, more specifically. Within a tourism context, Buultjens et al. (2017, p. 84) define industry resilience as 'the capacity of the industry to deal effectively with disasters and self-inflicted crises in order to maintain... stability... whilst also ensuring the flexibility and diversity necessary for innovation and further development'. Various studies have reported the 'crippling effects of crises on tourism' (Khalid et al., 2019, p. 315), indicating a lack of industry resilience to major external shocks (Chowdhury et al., 2019). Extant research into tourism and hospitality industry resilience have tended to focus on specific types of crises, for example climate change (Becken, 2013) and natural disasters (Aleffi and Cavicchi, 2020; Henderson, 2007; Sydnor-Bousso et al., 2011), economic crashes (Khalid et al., 2019), and terrorist attacks (Chen, 2011). There is also nascent literature investigating the impacts of disease outbreaks, including Ebola

(Kongoley, 2015) and, most extensively, the SARS outbreak (Chien and Law, 2003; Chen, 2011; Tse et al., 2006; Zeng et al., 2005).

The scale and rapid-onset of the Covid-19 pandemic – with travel bans, quarantine restrictions, closures of borders and tourist accommodation, and the worldwide grounding of flights – has had devastating economic impacts on the tourism sector (Gössling et al., 2020). Additionally, there are social impacts due to associated furloughing and job losses, as the tourism and hospitality industries are very labour-intensive (WTO, 2020), with projections that technology may play a more important role in a post-pandemic tourism world, potentially leading to further job losses (Gretzel et al., 2020). For Baum et al. (2020), however, the pandemic's impact on tourism and hospitality resilience is merely an amplification of normal practices (e.g. rapid-fire recruitment and retrenchment of staff based on demand), accelerated by the speed of the virus and the (in)ability of government schemes to address the social vulnerabilities of the workforce and communities in which tourism is the main industry. Jamal and Budke (2020) further observe that pandemics are likely to become a common feature of the tourism industry, requiring greater stakeholder collaboration to plan for and manage resilience.

More positively, Niewiadomski (2020, p. 4) suggests that 'temporary processes of de-globalisation are giving the global tourism industry a unique chance for a re-boot... to re-develop in line with the tenets of sustainability'; for example, through opportunities for more domestic 'staycations' (Prayag, 2020). Similarly, this hiatus could lead to a pause in the global tourism system that enables a rethink of how it operates (Sigala, 2020), and an agenda for a more sustainable and resilient future that is more democratised (Carr, 2020), inclusive, and offering more opportunities for social justice with less exploitation (Higgins-Desbiolles, 2020).

However, there is limited work comparing the resilience of the tourism and hospitality industries to Covid-19, relative to others. Thus, acknowledging Lew's (2013) stress on the

importance of taking context into account when researching resilience, alongside Fromhold-Eisebith's (2015, p. 1676) more specific contention that 'resilience dynamics differ between industry sectors', this paper investigates tourism and hospitality industry resilience to Covid-19 in English town centres, and draws comparisons with other sectors. It further considers business *perceptions* of resilience, as they can also influence the impacts experienced. As Sands et al. (2016, p. 2443) state, 'in a media-saturated world, fear spreads faster than any disease, and it is fear that drives behavioural change and in turn, economic impact'. Lankao and Qi (2011, p. 145) further note, 'resilience is always contested and conflict-ridden; it is a function of power around which winners and losers emerge'. This paper seeks to investigate this phenomenon.

Methodology

Urban destinations are favoured by both inbound and domestic tourists (Ashworth and Page, 2011); and hospitality businesses play a 'vital role in the public life of cities', bringing 'sociability to urban spaces' (Mand and Cilliers, 2013, p. 211). This paper analyses perceptions of resilience of managers in English town centres running businesses dependent on the tourism industry, to Covid-19 during the lockdown period, beginning on 23 March, as part of a broader multi-sector study to answer two research questions. First, how does business resilience vary across sectors in a pandemic situation? And second, what are the factors influencing the perceived resilience of tourism-dependent businesses?

To address these questions, we adopted an embedded design approach - a variant of mixed methods research combining the collection and analysis of data stemming from quantitative and qualitative research (Creswell and Plano Clark, 2011), but with data collection being single-phased and concurrent, rather than multi-stage. Our research design comprised an online survey of businesses located within a range of English towns, comprising the jurisdictional

areas of BIDs that are members of UK-based place management representative organisations. The survey was primarily quantitative, but also sought, through open-ended qualitative survey items, to address the specific issues that businesses faced at the time of study, and also how they might operate in what has been described as 'the new normal'. This enabled understanding of the 'importance of context and the need to reflect multiple perspectives, positions and insights to address complex issues and phenomena' (Truong et al., 2020, p. 1571). Thus, we addressed our research questions by analysing two types of data: quantitative analysis of business resilience across multiple sectors; and the adoption of a business resilience composite score providing the context for qualitatively examining the factors and challenges that tourism-dependent businesses are facing during the Covid-19 pandemic.

The survey instrument (designed using Qualtrics) was distributed through the membership/contact lists of approximately 300 BIDs. It contained questions relating to: (1) the current situation of the respondent's business; (2) the effect of Covid-19 on trade (compared to the same time period last year); (3) the level of take-up of government and additional assistance available for businesses (and its perceived efficacy); and (4) whether businesses have continued paying business rents, business rates, business loans, etc. Respondent classification data related to: Type of business structure; Main product/service sector (using Standard Industry Classification codes); Business Ownership type: Number of staff employed in full-time equivalent (FTE) units; Approximate annual turnover (2018/2019); and Location (first 3-4 digits of postcode). The survey period was 17-27 April 2020, as a key purpose of the research was to produce a 'snapshot' of business opinion after one month of 'lockdown' to inform policy-makers, consistent with the rationale of the broader project.

Data were obtained from 1016 respondents and analysed using SPSS. Free-text comments provided by 488 respondents were subject to qualitative thematic analysis (Crang, 2005).

Acknowledging issues of unitisation, inter-coder reliability and agreement (Campbell et al., 2013), and consistent with Denzin's (1978) notion of 'investigator triangulation', themes were refined following iterative discussions between researchers, and in accordance with the main variables affecting business resilience. All investigators immersed in the process of investigator self-questioning, based on the juxtaposition of data sets that led to alternative epistemological explanations regarding tourism and hospitality resilience. Here, the unique characteristics of tourism-dependent businesses arose from analysis of both quantitative and qualitative data, and a dialogical tension between the methods used to assess industry resilience ('scoring' versus 'interpreting') was created, which highlighted the issues of temporality and seasonality by synthesising the main challenges of the industry at that point in time (Archibald, 2016).

Identifying tourism-dependent businesses

During the recruitment process, we included any business that could potentially be part of an urban BID, reflecting the broader remit. However, as the aim was to highlight resilience perceptions of tourism-dependent businesses, a subsample of relevant respondents was then identified. We selected businesses that constitute the bulk of tourism expenditure in England, based on the 2019 GB Tourist Annual Report (Visit Britain, 2020a):

- Accommodation/Hospitality (Hotels, Hostels, Other Accommodation) (38% of total expenditure)
- Food & Beverage (restaurants, pubs) (eating out and drinking) (22% of total expenditure)
- Selected retail sales of non-food (such as clothing, cultural and recreation, communication, etc.) (12% of total expenditure)
- Arts, Entertainment & Recreation (Performing arts, libraries, museums, sports facilities, etc.) (6% of total expenditure).

We also assessed location data (first 3-4 digits of postcode) to identify businesses within already established tourist destinations (e.g. historic or coastal towns) or have high visitation numbers. The regional distribution of inbound visitors for 2019 (Visit Britain, 2020b) was used to identify the big regional markets that attract most visitors. Respondents also provided details about their business through short comments etc., and by this means businesses that complement the tourist experience (e.g. tour guides, travel agents, attractions and theme parks etc.) were added. Consequently, 340 businesses were classified as 'tourism-dependent' from 46 out of 72 locations across England (table 1). From those businesses, 162 (47.6%) belong to the 'food and beverage' sector, followed by 76 (22.4%) in the 'entertainment and leisure' sector, and 58 (17.1%) in the 'accommodation/hospitality' sector. The rest of businesses included belong to the 'support services' sector (n=22) (e.g. tourist agencies and guides) and retail of non-food and other service activities (n=22). Within this subsample, a total of 192 qualitative responses were analysed thematically, with this high response rate (56%) indicative of the level of concern regarding the future of businesses during the Covid-19 pandemic.

[Table 1 near here]

After briefly outlining characteristics and reported performance of the 340 respondents, we outline a score for inter-sectoral comparative business resilience, before identifying possible reasons for the relative weakness of tourism and hospitality businesses, as well as differing resilience levels of businesses within this industry (drawn from our qualitative data).

Respondent characteristics and business performance

The majority of respondents (77.1%, n=262) were independent businesses (i.e. 1-9 outlets), with 50.6% (n=172) employing 1-9 FTE staff and a further 22.9% (n=78) employing 10-49

FTEs. Consequently, most are classified as small businesses – in terms of turnover: 28.5% (n=97) had an annual turnover of less than £100,000, with a further 18.2% (n=62) with a turnover of £100,001-£250,000, and 18.8% (n=63) with a turnover between £250,001-£500,000.

Only 2.6% of respondents (n=9) noted their business premises were open and operating normally at the time of the study. Indeed, 83.8% (n=285) stated their premises were closed and the business not currently operational, although 13.6% (n=46) indicated that whilst their premises were closed, the business was operating in some other way (e.g. from home via internet/phone orders, or as a takeaway business). This evidences what Meerow et al. (2016) refer to as 'particular adaptations', with those innovating in this way building resilience more quickly. At the time of the survey, only one respondent's business had ceased trading permanently.

The implications for business takings are obvious – 81.8% (n=278) of respondents stated they had seen an 81-100% decrease compared to the same period last year, and only 2.4% (n=8) had increased takings. If these lockdown arrangements were to last up to 3-4 months, then 33.6% (n=114) of respondents indicated they would have to permanently cease trading. A significant element of tourism-dependent business costs is rent on business premises, and 65.6% (n=223) of respondents rented premises. Of these, 52.5% (n=117) paid all their due rent for the last rental period, with only 27.6% (n=94) expecting to pay all of their next rent payment.

When asked, with no additional income, how long would existing financial resources cover ongoing business costs, 72.9% of respondents (n=218 out of 299) indicated they could carry on for up to four months, with a further 17.4% (n=52 out of 299) stating between 4-6 months. Thus, financial assistance packages (e.g. staff furloughs) provided by government were

important in ameliorating the situation: only 2.6% of respondents (n=9) had not already applied for such assistance (or did not intend to do so).

Assessing business resilience

It was clear from our analysis that not all businesses have equal capacity to absorb the crippling effects of the pandemic's systemic shock. The tourism industry in particular is highly susceptible to potential disasters, and their compounding long-term effects can be very disruptive for business viability and livelihoods (Calgaro et al., 2014). In the current pandemic, it can be theorised that the tourism system is more vulnerable than other industry systems where the socio-political, economic and environmental links between resilience and sustainability are more developed (Espiner et al. 2017; Hopkins and Becken, 2015).

We therefore calculated an original Business Resilience Composite Score (BRCS) indicating the relative resilience of tourism-dependent businesses during the Covid-19 crisis. Past literature highlights that vulnerability is a consequence of a business's characteristics and economic capital, such as current assets, business size and fiscal resources (Song et al., 2016; Stafford and Renaud, 2019), which highlight preparedness for hazards. In addition to these established variables, the level of assistance needed during Covid-19, the current business status, the impact on turnover compared to last year, and the cease trading period estimation for each business were deemed to be significant resilience indicators, and thus included in the BRCS (table 2). In England, tourism-dependent businesses normally belong to sectors vulnerable to Covid-19 that have fewer financing options (Bank of England, 2020). It is therefore important to examine how such businesses were equipped to navigate the crisis.

[Table 2 near here]

As the main goal of the BRCS was to examine the direct effects of the measures imposed in response to Covid-19 (taking into account existing business operating capacity, financial situation, and the level of assistance needed and sought), we adopted a balanced weighted average approach, where each variable contributes equally to the overall BRCS (Hahn et al., 2009). Each variable was averaged using the following equation:

$$M_{sec} = \frac{\sum_{i=1}^{n} Indexed\ Variable_{sec^i}}{n}$$

As variables were measured on different scales, they were standardised as an index value using the following formula (Ahsan and Warner, 2014):

$$Indexed\ variable\ score_i = \frac{x_i - x_{min}}{x_{max} - x_{min}}$$

Where,

x_i = original value of variable for each business

x_{max} = the highest value of variable for each business

x_{min} = the lowest value of variable for each business

The BRCS was calculated for 787 of the 1,016 businesses, as the purpose of the wider project was to assess the overall situation in England, which serves to locate tourism-dependent businesses in a broader sectoral context. In all cases, the highest value was assigned to the category that has a more negative effect on business resilience. For example, a business that had significant loss of income (impact on turnover - TRN indexed variable) was assigned the maximum value in the original data set, which after indexing, was equal to 1. Similarly, if

respondents estimated their business would cease operations (CTE indexed variable) or their financial resources would last less than two weeks, a maximum value was assigned, with a similar process of indexing unfolding. Ultimately, the BRCS was determined by averaging the scores of all variables, as shown in the following equation:

$$BRCS_{sec} = \frac{BUS_{sec} + BS_{sec} + TRN_{sec} + CTE_{sec} + EGA_{sec} + AAN_{sec} + FRES_{sec} + RP_{sec}}{8}$$

Using the formulas above, we calculated and compared the BRCS scores of tourism-dependent businesses with all other businesses. Table 3 presents the mean scores of all variables for all sectors, and Table 4 presents the mean scores, sample sizes and standard deviation for the BCRS for all sectors. An ANOVA test was conducted to determine any significant difference between broad sectors. There was a significant difference between groups ($F(6, 780) = 11.193$, $p < .001$). The post hoc tests further revealed that businesses within the professional services sectors are significantly less affected than tourism-dependent businesses.

[Table 3 near here]

[Table 4 near here]

From the calculation of the BRCS (table 4), it is evident that, with a score of 0.593, tourism-dependent businesses are highly vulnerable; however, they fared somewhat better than the retail (0.613) and personal services (0.639) sectors. A small sample (n=15) of hospitality, leisure and entertainment businesses estimated to not rely on tourism also fared worse (0.631) than the tourism-dependent businesses. Even though survey respondents in tourism-dependent

businesses suffered the most in terms of loss of income (n=278 out of 340, 81.8%), their BRCS is very similar when compared with all other businesses (0.588, n=543). Indeed, the evidence here seems initially to counter the accepted perceived wisdom (reported in the literature review) regarding the particular vulnerability of the tourism and hospitality industries to the pandemic, because other sectors appear equally impacted, at least in these early stages of the UK 'lockdown'.

However, the qualitative data highlighted more nuanced detail regarding resilience levels, which perhaps explains such perceptions regarding the vulnerability of tourism-dependent businesses, longer-term. For example, the location where the business was situated was considered an issue for some businesses:

> *'As a coastal destination business, I feel we are already struggling before the Covid 19 outbreak to sustain profitable business due to our location and the reliance on people travelling to the area. If going forward the landscape changes and people don't travel outside of their near area, we will struggle to maintain the business. Hospitality is a difficult sector to be in without the added pressure of the virus.'*

However, the *key* influence on resilience among tourism-dependent businesses was the impact of temporality; hence Meerow et al.'s (2016) aforementioned temporal tensions within urban resilience. Of particular importance was the inherent seasonality of demand:

> "*Situated in the centre of Birmingham, I am worried the annual Frankfurter Christmas market may not go ahead this year and this is vital to our Christmas trading period, which in turn is vital to our annual profitability*".

This was exacerbated by the specific timing of the first English lockdown around the Easter period, and continuing into the summer months, with an uncertain timescale for potential reopening, thereby shortening the peak season for many businesses, as well as creating additional cost:

> *'...we are very seasonal; we rely on our summer months to help us get through the winter - if this carr[ies] on for too long, with not being able to trade, it will have a massive impact on our business - perhaps having to reduce staff hours or lay off or potentially close the business permanently.'*

> *'Hotels are different from a lot of other businesses as not only are we not taking money but at what would have been the start of the peak season we are paying multiple refunds and issuing credit notes which will have a knock-on effect on next year's profits.'*

> *'We are in a visitor economy and our out of season trade has fallen off massively and incrementally in the last three years. We rely on Spring and Summer takings to see us through the Autumn and Winter months. Our issue therefore will not be about reopening which shouldn't be a problem. It's about surviving next Winter with significantly less cash in the bank'.*

Consequently, the uncertainty over temporally-related issues, including the lack of information about the lockdown's duration - was at the forefront of respondents' concerns:

> *'A lack of clarity in the information from government is making this harder than it should be. We need dates, even approximate dates would help, a plan, anything to work*

to. We're a pub, we'll be the last to open, but can we go in and refurbish the premises before we're allowed to open to the public?'

Moreover, respondents felt that, as their businesses would most likely be some of the last to return to some degree of normality, they would require additional ongoing assistance:

'There must be longer term financial support mechanism for businesses in our sector as clearly our sector will be the last to return to any kind of opening, and even then, it will be a long time before we get back to anything like normal business levels.'

Businesses within the tourism and hospitality industries, therefore, perceived themselves to be less resilient to Covid-19 than other sectors, in part owing to the perceived 'slow process' of recovery and being 'one of the last to return', meaning it would take 'a long time' before pre-Covid-19 business levels are achieved. However, we also found differing temporalities between businesses within the industry itself, dependent, for example, on how much their trade was dependent on seasonal peaks, which reveals the importance of considering the nuances involved in resilience, as well as making broader cross-sector comparisons.

Concluding Comments

In conclusion, the Covid-19 pandemic represents an 'acute shock' (Leitner et al., 2018) on a global scale. Some tourism-dependent businesses were struggling even before the pandemic, indicating an inherent vulnerability (Baum et al., 2020; Grimsey, 2020), and the tourism and hospitality industries have been identified as particularly vulnerable to the current crisis (Dube et al., 2020; Legrand, 2020; Nicola et al., 2020). However, despite emergent literature regarding tourism and Covid-19 (e.g. Foo et al., 2020; Gössling et al., 2020; Niewiadomski,

2020), there has been limited academic research exploring resilience to the pandemic in an urban English context.

Our paper addresses this by drawing on a survey of 1016 businesses located in English towns, including 340 categorised as tourism-dependent businesses. Applying our Business Resilience Composite Score, we find that, relative to some other sectors such as professional services, tourism-dependent businesses are more vulnerable to the pandemic, but other sectors, such as retail, were actually more vulnerable. Qualitative responses revealed the specific perceived vulnerabilities tourism-dependent businesses faced due, in particular, to temporal contextual factors arising from demand seasonality, longer lockdown durations, and more uncertain timeframes for reopening, which might indicate a greater vulnerability for tourism-dependent businesses over the longer-term.

The implications of this research more broadly for policymakers could include an indication of the relative prioritisation of initiatives across industry sectors to ameliorate the impact of such events based on their relative resilience, derived on the basis of the BRCS. More specifically for individual industry sectors, this research indicates the existence of a series of spatio-temporal considerations which could inform prioritisation of measures to enhance resilience *within* the different types of businesses that comprise a sector.

Given the limitations associated with the 'snapshot' nature of the current survey, we call for future research to longitudinally explore the longer-term impacts of Covid-19 on tourism and hospitality businesses in urban locations, since urban systems are complex, dynamic entities (Desouza and Flanery, 2013; Meerow et al., 2016). This is especially important given the ongoing uncertainties relating to potential further localised restrictions on businesses (and particularly tourism and hospitality businesses) in England at the time of writing (December 2020). Our study was undertaken at the time of the first nation-wide lockdown and the

cumulative impact of successive waves of restrictions (characterised by a local/regional tiering system of regulation) will inevitably have a more complicated and nuanced spatio-temporal impact. Further investigation is urgently required into the extent that this dynamic series of circumstances will impact on a more localised basis, potentially enabling businesses within this industry to 'bounce back', or potentially 'bounce forwards' (Grinberger and Felsenstein, 2014), from the crisis on a longer-term basis.

Disclosure Statement

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Table 1: Respondent locations

Town/City	Frequency	Percent	Cumulative Percent
Bath	20	5.9	5.9
Birmingham	13	3.8	9.7
Blackpool	6	1.8	11.5
Bognor Regis	5	1.5	12.9
Bournemouth	12	3.5	16.5
Bradford	5	1.5	17.9
Brighton	1	0.3	18.2
Bristol	2	0.6	18.8
Cambridge	3	0.9	19.7
Canterbury	18	5.3	25
Chester	7	2.1	27.1
Chichester	6	1.8	28.8
Coventry	2	0.6	29.4
Derby	10	2.9	32.4
Doncaster	4	1.2	33.5
Durham	1	0.3	33.8
Exeter	8	2.4	36.2
Gloucester	9	2.6	38.8
Guildford	3	0.9	39.7
Hemel Hempstead	5	1.5	41.2
Hull	1	0.3	41.5
Ilkley	1	0.3	41.8
Isle of Wight	2	0.6	42.4
Kendal	2	0.6	42.9
Leamington Spa	6	1.8	44.7
Leeds	14	4.1	48.8
Leicester	5	1.5	50.3
Liverpool	26	7.6	57.9
London	19	5.6	63.5
Manchester	1	0.3	63.8
Minehead	2	0.6	64.4

Northampton	8	2.4	66.8
Norwich	7	2.1	68.8
Nottingham	2	0.6	69.4
Plymouth	3	0.9	70.3
Portsmouth	15	4.4	74.7
Preston	14	4.1	78.8
Salisbury	7	2.1	80.9
Southampton	6	1.8	82.6
Southend-on-Sea	12	3.5	86.2
Tunbridge Wells	7	2.1	88.2
Warwick	1	0.3	88.5
Wolverhampton	5	1.5	90
Worcester	8	2.4	92.4
Worksop	6	1.8	94.1
York	20	5.9	100
Total	340	100	

Table 2: Variables included in the Business Resilience Composite Score

Variables	**Question**	**Note**	**Anticipated direction of effect**
Business Size	Number of staff employed in full-time equivalent (FTE) units (Sole trader, 1-9 FTEs, 10-49 FTEs, 50-249 FTEs, 250+ FTEs)	Transformed into 3-scale variable, Businesses under 10 FTEs are considered micro businesses, 10-49 FTEs as small, 50-249 FTEs as medium	Smaller businesses have increased vulnerability (Song et al., 2016)
Business Situation	Please choose one of the following that applies to your current situation	Businesses ceased trading were excluded from the analysis - 3-scale variable (Closed but operating, Closed and not operating, Open and operating)	Businesses not operating at any capacity most vulnerable
Impact on Turnover	Can you give an estimate (%) of the impact on takings for your business in comparison with the same period last year?	Comparison to the period of March-April 2019 vs 2020 - 10-scale variable, starting from 81-100% decrease to more than 100% increase	Loss of turnover increases vulnerability
Cease Trading Estimation	How long would the current lockdown need to last before you (or someone else) would take the decision to permanently cease trading from the premises?	6-scale variable (0-2 weeks, 3-4 weeks, 1-2 months, 3-4 months, 4-6 months, more than 6-months), with I don't know/not my decision as missing variable	Less resilient if cannot hold for longer time without income (Webb et al., 2002)
Eligibility for Government Assistance (Over 51K Rateable Value)	If you have not applied for any of the Government's business assistance measures, why is this?	2-scale variable, not eligible/eligible for businesses with over 51K Rateable Value	Not eligible businesses increase vulnerability
Additional Assistance Needed	Are you considering any other forms of financial assistance?	2-scale variable, yes/no	Businesses seeking additional assistance more likely to fail in the future
Financial Resources	With no additional income, how long would your financial resources cover your ongoing costs for the business?	6-scale variable (0-2 weeks, 3-4 weeks, 1-2 months, 3-4 months, 4-6 months, more than 6-months), with I don't know/not my decision as missing variable	Fewer financial reserves increase vulnerability (Bank of England, 2020)
Renting premises	Do you rent your premises?	2-scale variable, yes/no	Renting premises reduces fiscal resources thus increasing vulnerability (Song et al., 2016)

Table 3: Mean scores, sample sizes and standard deviations of variables

Variables	Tourism-Dependent Businesses		Manufacturing Businesses		Retail Businesses		Other Hospitality, Leisure & Entertainment Businesses		Professional Services Businesses		Health & Education Businesses		Personal Services & Other Businesses		Total Businesses	
	Mean (N)	**Std. Deviation**	**Mean (N)**	**Std. Deviation**	**Mean (N)**	**Std. Deviation**	**Mean (N)**	**Std. Deviation**	**Mean (N)**	**Std. Deviation**	**Mean (N)**	**Std. Deviation**	**Mean (N)**	**Std. Deviation**	**Mean (N)**	**Std. Deviation**
Business Size	0.851 (340)	0.24427	0.8333 (22)	0.24427	0.9192 (293)	0.2138	0.807 (19)	0.24427	0.8528 (188)	0.2138	0.807 (38)	0.24427	0.9425 (116)	0.2138	0.8786 (1,016)	0.22519
Business Situation	0.8772 (338)	0.24757	0.5682 (22)	0.24757	0.7595 (291)	0.31413	0.9474 (19)	0.24757	0.4947 (188)	0.31413	0.6316 (38)	0.24757	0.8879 (116)	0.31413	0.7589 (1,012)	0.3052
Impact on Turnover	0.95 (340)	0.15221	0.8333 (22)	0.15221	0.931 (293)	0.18154	0.9064 (19)	0.15221	0.802 (188)	0.18154	0.9123 (38)	0.15221	0.9253 (116)	0.18154	0.9096 (1,016)	0.17458
Cease Trading Estimation	0.2937 (252)	0.24043	0.3556 (18)	0.24043	0.3418 (237)	0.24141	0.2933 (15)	0.24043	0.2564 (156)	0.24141	0.2759 (29)	0.24043	0.356 (100)	0.24141	0.309 (807)	0.24118
Eligibility for Government Assistance	0.0971 (340)	0.29647	0.0909 (22)	0.29647	0.0478 (293)	0.28673	0.2105 (19)	0.29647	0.1489 (188)	0.28673	0.1316 (38)	0.29647	0.069 (116)	0.28673	0.0925 (1,016)	0.2899
Additional Assistance Needed	0.426 (338)	0.49523	0.2727 (22)	0.49523	0.4124 (291)	0.49183	0.6316 (19)	0.49523	0.3777 (188)	0.49183	0.4737 (38)	0.49523	0.4138 (116)	0.49183	0.414 (1,012)	0.4928
Financial Resources	0.4896 (299)	0.28519	0.4286 (21)	0.28519	0.5162 (265)	0.28161	0.4941 (17)	0.28519	0.3349 (172)	0.28161	0.4222 (36)	0.28519	0.5385 (104)	0.28161	0.4698 (914)	0.28297
Renting Premises	0.6559 (340)	0.47578	0.7727 (22)	0.47578	0.8805 (293)	0.37471	0.7368 (19)	0.47578	0.7872 (188)	0.37471	0.7105 (38)	0.47578	0.8448 (116)	0.37471	0.7726 (1,016)	0.41933

Table 4: Mean scores, sample sizes and standard deviations of BCRS in broad sectors, including ANOVA post-hoc tests

Broad Sectors	**Business Resilience Composite Score (BRCS)**	**Std. Deviation**	**Comparing Tourism-Dependent Businesses with other businesses (ANOVA Post Hoc Tests)**
Personal Services & Other Businesses	0.6386 (93)	0.1359	-.04568, p = .058 (-)
Other Hospitality, Leisure & Entertainment Businesses	0.6311 (15)	0.13028	-.03816, p = 925 (-)
Retail Businesses	0.6131 (235)	0.1359	-.02014, p = .613 (-)
Tourism-Dependent Businesses	**0.593 (244)**	**0.13028**	-
Health & Education Businesses	0.5866 (28)	0.13028	.00635. p = 1.00 (-)
Manufacturing Businesses	0.5335 (18)	0.13028	.05947, p = .491 (-)
Professional Services Businesses	0.5231 (154)	0.1359	.06990, p < 0.001 (**)
Total Businesses	**0.5898 (787)**	**0.13412**	-

ANOVA Post Hoc Tests; significance level: - … p < .05; * … p < 0.05; ** …p < 0.0