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Hospitality SME Innovation. Responses to Multi-faceted Crises

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Hospitality SME Innovation. Responses to Multi-faceted Crises

Abstract

Purpose: This research investigates the multi-faceted effects of Covid-19, Brexit and climate change on SMEs in the hospitality sector. Specifically, we evaluate the main opportunities, challenges and implications that hospitality businesses face in times of crises, ~~investigating how these businesses adapt strategically and innovate as a response.~~

Design/methodology/approach: The research adopts a mixed methods approach firstly analysing quantitative data from the Business Insights and Conditions Survey (BICS). Secondly qualitative where data is gathered from interviews with a range of hospitality SMEs. The data are analysed independently and then triangulated to gain a deep understanding of the issues faced by hospitality SMEs and their responses.

Findings: This research contributes to knowledge on the impact of economic challenges on the hospitality sector. This research underlines that hospitality businesses face multiple challenges. The findings show that sector has responded with innovations to meet requirements and regulations, some which were forced upon the industry due to changing regulations and some unforced innovations based on the strategic intentions and entrepreneurialism of the business owners.

Originality: The paper embeds the pandemic with Brexit and climate change challenges, identifying two distinct types of innovation as SME responses in the hospitality sector. Survival in the hospitality industry is reliant upon adaptations, some brought about by the pandemic and others by Brexit and climate change.

Keywords: Hospitality, Covid-19, Brexit, Climate Change, Strategy, Innovation, ~~UK~~

1. Introduction

Arguably, the economy even when lives are in peril owing to the Covid-19 pandemic, remains central and of paramount importance (Michie, 2020). Governments faced Covid-19, responded with lockdowns, introduced measures to promote public safety, including regulations specific to trading in the hospitality sector. For the sector, the effect of Covid-19 has been exacerbated by Brexit, the United Kingdom's departure from the European Union, and climate change. The interaction of Covid, Brexit and climate change has seen effects on supply chains, consumer demand and staffing across the hospitality sector.

Time scale demands, digital use and lifestyle/regulatory responses to Covid-19 are influencing people's demand for food products (Yela Aránega *et al.*, 2022). Furthermore, the ability to produce food, through both trade issues and food security concerns have been highlighted as more difficult and unclear by Brexit (Lang, 2019). Food security brought about by climate change is an issue with whole food systems under threat (Wheeler and von Braun, 2013), Brexit has also impacted upon this (Lang, 2019) and Covid also having an impression (Aday and Aday, 2020). Somehow, with pressure on supply chains (Aday and Aday, 2020), staff (Ramos *et al.*, 2020) and regulations to be complied with, the hospitality industry must adapt – and

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3 work with a more demanding consumer. Despite the range of issues, the current literature
4 provides neither a map of the issues in an integrative manner, nor solutions which are being
5 practised in spite of them.
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8 Covid-19 has left a lasting impact on the hospitality sector in the UK, as highlighted by a House
9 of Commons report on the sector by Hutton (2022). Before the pandemic, in 2019 the sector
10 was worth £59.3bn, around 3% of UK economic output, with 2.53 million jobs, representing
11 7.1% of UK employment. The hospitality sector saw one of the biggest economic declines of
12 all sectors during the pandemic, particularly as hospitality businesses were initially closed
13 during lockdowns and later reopened with operating constraints, due to limits on dining
14 numbers and social distance. The consequences of this were that hospitality economic output
15 over 2020 was 42% lower than 2019, and 2021 output was 21% lower than 2019. Although
16 2.13 million hospitality jobs were furloughed, the number of workers in the sector was 90,000
17 less by the end of 2021 compared to March 2020 and by February 2022 there were 166,000 job
18 vacancies in the sector (Hutton, 2022). With high levels of foreign-born workers in the
19 hospitality sector, Brexit is also an issue that adds to the challenges in the sector in the post-
20 Covid period.
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23 Thus, research is required to develop an understanding of the current state of the food
24 hospitality sector, regarding the broader environment and responses from businesses. ~~The aim~~
25 ~~of this research is to both understand challenges and the innovative responses.~~ The aim of the
26 research is twofold. First to understand the challenges and issues facing the industry. Second,
27 to see how innovation is being undertaken in the industry. Hereafter, the paper discusses
28 literature relating to the hospitality sector, viewed through a resource bricolage lens. The
29 subsequent section presents the methods and data approach of this research, before the findings
30 are discussed leading to conclusions of this research. In doing so, the paper contains a review
31 of current practices which are being used to work through a time of formidable challenges, and
32 sets out where academics and policy makers can make further contributions.
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40 2. Literature Review

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42 This literature review identifies and discusses the key issues facing the hospitality sector. The
43 body of literature relating to Covid-19 issues in the food and beverage sector is relatively sparse
44 and mostly occurs in the trans-crisis phase. However, research exists across a range of settings,
45 including the USA (cf. Liu-Lastres and Wen, 2022; Sönmez *et al.*, 2020), UK (cf. Ntounis *et*
46 *al.*, 2022; Tajvidi and Tajvidi, 2021), China (cf. Hu *et al.*, 2021), Spain (cf. Crespí-Cladera *et*
47 *al.*, 2021; Palau-Saumell *et al.*, 2021), and several other countries. Systematic literature reviews
48 have been conducted by Gursoy & Chi (2020), and Park *et al.* (2022). Literature relating to this
49 sector has identified a range of ongoing issues relating to the Covid-19 pandemic, notably the
50 impact of Covid on the sector (cf. Park *et al.*, 2022), business resilience in the face of Covid-
51 19 (cf. Hemmington and Neill, 2022; Pillai *et al.*, 2021), technology adoption (cf. Bivona and
52 Cruz, 2021; Chou *et al.*, 2021; Marinković and Lazarević, 2021), innovation (cf. Breier *et al.*,
53 2021; Hemmington and Neill, 2022), and labour issues (cf. Chen *et al.*, 2022; Sönmez *et al.*,
54 2020).
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3 A significant issue discussed in the literature is access to labour in the hospitality sector. Chen
4 et al. (2022) highlight job insecurity in the sector and point to the dilemma of staff in working
5 in an environment where they are at risk of becoming infected with Covid-19, as well as facing
6 the risk of losing their jobs. These factors led to increased job stress and staff turnover (cf.
7 Chen and Eyoun, 2021). Further labour issues were observed in the USA, where hospitality
8 staff experienced occupational disparities, a lack of protection, and the absence of vital social
9 security (Sönmez *et al.*, 2020). Literature points to the impact of Covid-19 on the hospitality
10 sector as a whole, which included food and beverage businesses. The Covid-19 pandemic has
11 shown that the hospitality sector is highly vulnerable to economic shocks of this nature (Hu *et*
12 *al.*, 2021).
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17 Strategies to combat the spread of Covid-19, including social distancing, lockdowns, and
18 mobility restrictions led to unprecedented challenges for businesses across the hospitality
19 sector (Gursoy and Chi, 2020), and a decrease in demand (Bartik *et al.*, 2020), as consumers
20 showed hesitations towards visiting hospitality businesses (Liu-Lastres and Wen, 2022).
21 Furthermore, hospitality businesses experienced increasing expectations on implementing high
22 health and safety measures in order to operate (Gössling *et al.*, 2020). The effects of the
23 pandemic have led many hospitality businesses to move away from sustainable operations and
24 place more of a focus on maintaining their business operations (Elkhwesky *et al.*, 2022). The
25 lockdowns and related strict regulations have challenged existing business models for SMEs
26 and pursuing established normal business models is not always possible, thus rapid response is
27 required to respond to the crisis (Clauss *et al.*, 2021). The flat structures and uncomplemented
28 ownership structures make change possible for SMEs (Juergensen *et al.*, 2020). Allied with
29 external support, particularly from government innovation is a way for SME's to survive.
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35 Given the challenges of the Covid-19 pandemic, literature investigated business resilience in
36 the hospitality sector. Ntounis *et al.* (2022) discussed in the context of UK hospitality
37 businesses, pointing to resilience within the sector due to businesses being accustomed to
38 seasonality and uncertainty of demand, however, less resilience was also felt due to the slow
39 nature of the recovery of the sector from Covid-19. Within crisis management literature, small
40 businesses are considered more susceptible to economic shocks (Lu *et al.*, 2020) and
41 government support is an important factor that influences decision making in operational
42 responses to the crisis (Chou *et al.*, 2021). The experiences of the pandemic were more difficult
43 for smaller hospitality businesses, especially in rural areas, as their business activities stopped
44 and they were unable to engage with customers (Palau-Saumell *et al.*, 2021). Due to the extent
45 of the challenges experienced by hospitality businesses, their survival was dependent on their
46 financial strength (Crespí-Cladera *et al.*, 2021). In many countries, the sector was supported by
47 government funding, through grants, loans, or tax reductions, (Hemmington and Neill, 2022).
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53 While the Covid-19 pandemic brought unprecedented challenges for the hospitality sector, it
54 also brought a variety of opportunities (Gursoy and Chi, 2020), developing more innovative
55 practice (Hemmington and Neill, 2022). Indeed, crises can act as a trigger event for business
56 model innovation (Breier *et al.*, 2021). Disruptive responses are required to business
57 environment changes such as Covid-19 (Bertello *et al.*, 2022). Opportunities were observed by
58 Hemmington and Neill (2022) among hospitality businesses in New Zealand, who were able
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3 to make use of social media and revised business models, such as offering takeaway services,
4 or placing more emphasis on locally sourced produce. Further examples of diversified business
5 operations include distilling businesses producing ethanol needed for medical purposes during
6 the pandemic, or breweries supporting restaurants to ensure mutual benefit for the businesses
7 (Bivona and Cruz, 2021). This aligns with arguments that SMEs should be flexible, adaptable
8 and efficient, and able to react to market changes (Santoro et al., 2018). The pandemic led some
9 hospitality businesses to evaluate how they operate in a more sustainable way, in placing more
10 emphasis on social responsibility (Elkhwesky *et al.*, 2022). Changes to the business model
11 depend on the mobilisation of resources within the business (Bivona and Cruz, 2021;
12 Hemmington and Neill, 2022). Resource-based view theory points to the possibility of deriving
13 competitive advantage through leveraging valuable, rare, inimitable and non-substitutable
14 resources (Barney, 1991). The mobilisation of resources could be seen through the lens of
15 resource bricolage, derived from the work of Levi-Strauss (1966, p. 17) on resource-scarce
16 innovation processes, referring to the action of making do with 'whatever is at hand'. Research
17 on business resilience during the Covid-19 pandemic has been explored through resource
18 bricolage, as businesses relied on relational capabilities, building financial capabilities, and
19 making use of support to develop resilience (Kuckertz *et al.*, 2020).

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26 New opportunities in hospitality have been observed through technology. The pandemic led to
27 changes in food consumption habits, such increased purchases online (Marinković and
28 Lazarević, 2021). Technology was a vital tool in supporting hospitality businesses operations
29 during the pandemic, bringing opportunities for new business models, such as the development
30 of cyber communities (Tajvidi and Tajvidi, 2021). Technology is acknowledged as a source of
31 competitive advantage for hospitality businesses (Pillai *et al.*, 2021). This includes the
32 increased use of mobile apps for food delivery (Ramos, 2022; Wen *et al.*, 2022). Technology
33 enabled businesses to overcome restrictions of social distancing to connect to their customers
34 (Breier *et al.*, 2021). Furthermore, changing consumer habits saw increased support for local
35 food producers (Palau-Saumell *et al.*, 2021) enabled by disruptions within international supply
36 chains, while local supply chains were less impacted by the pandemic (Cappelli and Cini,
37 2020). Moreover, a lack of information technology is a major barrier to open innovation
38 (Bertello et al., 2022).

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44 Although the Covid-19 pandemic had a significant impact on the hospitality sector worldwide,
45 it is important to note that the UK hospitality sector has also been impacted by Brexit. In the
46 UK, separate labour issues exist to those that occurred from the Covid-19 pandemic, with
47 Brexit identified as a notable factor. Filimonau and Mika (2019) pointed to the important role
48 played by Eastern European workers in the UK hospitality sector, and acknowledged the return
49 of workers following Brexit. Issues existed in the sector before the Covid-19 pandemic,
50 regarding a shortage of labour across the food and drink supply chain, especially in light of
51 Brexit and the dependence of the sector of large numbers of EU workers, difficulties in
52 procurement, and the need for innovation (National Assembly for Wales, 2019). Thus, the
53 research question we aim to investigate is: what are the opportunities, challenges and
54 implications for the hospitality sector in times of crisis?

55 56 57 58 59 60 **3. Methods and data approach**

To investigate we use data drawn from two sources, quantitative data from the Business Insights and Conditions Survey (BICS) and qualitative data from interviews. The research complexity is pronounced, and multifaceted, where mixed methods allows a flexible technique to investigate a range of issues (Harrison and Reilly, 2011). Mixed methods research synthesises quantitative and qualitative research ideas, a mixing of approaches where the combination can increase the ability to gain insights and triangulation. The collective use of qualitative and quantitative provides better understanding of a research problem than simply using one or the other (Creswell, 2014). An explanatory sequential design, where first quantitative and then qualitative methods are used, allows qualitative insights to enhance the quantitative findings in more depth (Creswell, 2014). This approach allows generalisations using quantitative analysis, and then further deeper follow-up analysis with a second qualitative analysis (Harrison & Reilly, 2011).

For the quantitative analysis, secondary data was used The Business Insights and Conditions Survey (BICS) is a major UK survey of business, to examine ‘...responses on how their turnover, workforce, prices, trade and business resilience have been affected by current conditions, including the coronavirus (COVID-19) pandemic and the end of the EU transition period’ (Scottish Government, 2022). The survey is conducted fortnightly and was first conducted in March 2020. It has n=1095 respondents in Wave 54, which was collected on 4 April to 17 April 2022, which forms the primary source of evidence for this paper. BICS data is analysed across waves 1 to 54.

The qualitative research involves the use of semi-structured interviews. We selected participants based upon having experienced and working through the pandemic across a range of hospitality businesses. The number of interviewees was n=6, they ranged in experience from 5 years to 30 years of SME operation. The range of business was from hoteliers to fast food providers. Data was analysed through thematic analysis, a process of identifying, analysing and reporting patterns, which aims to identify common threads across different interviews (Vaismoradi *et al.*, 2013).

3.1.: Quantitative analysis

As reported in May 2022, 5.3% of the hospitality sector, compared with 1.3% for all sectors had experienced an over 50% decrease in turnover (Wave 53). In December 2021 these figures were 1.3% for the hospitality sector, and 11.9% for all sectors. In November 2020, 61.1% for hospitality and 16.9% for all sectors. Indeed, throughout the pandemic the sector was one of the hardest hit, despite the ability to trade in some capacity. Consistently more hospitality sector SMEs are reporting a turnover reduction when compared with the rest of the SME sector. Throughout the pandemic the hospitality sector has reported the highest levels of significantly reduced turnover.

Reasons for the downturn are seemingly interrelated and beyond Covid. In terms of the UK departure from the EU the hospitality industry was affected in terms of both labour and operations. In August 2021, 38.8% of business reported severe disruptions to the number of workers they had from within the EU, higher than any other sector (Wave 6). Despite this, the sector has had one of the lowest external vacancies rates across all sectors, right through the

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3 year 2020. Therefore, in spite of being able to trade, finding staff has proved more difficult for
4 the sector than the all-sector average.
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6 In addition, climate change is a factor. Climate change and food production are intricately
7 linked. Climate change is impacting upon business operations in the hospitality sector. In 2021,
8 of the hospitality sector surveyed, 25.4% indicated that implementing actions to reduce
9 emissions was too costly for the business, which compares with 18.7% for all SMEs in the
10 survey (Wave 41). Further, 11.6% of these hospitality SMEs indicated they were unsure of
11 how to measure emission outputs, compared to 8.5% in all sectors. In terms of having a lack
12 of expertise around options to undertake positive change, 7.6%, the second highest sector and
13 above the all-sector 6.8% indicated this was an issue. Therefore, we see financial issues, and
14 expertise problems for dealing with climate change.
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19 This makes operations of the SME's complicated by the hospitality sector's nature. The sector
20 was partially able to trade during lockdowns, and through several changes in the relevant
21 Covid-19 regulations. Most interestingly, in the UK SMEs were able to furlough staff. For
22 the most the options of homeworking and hybrid arrangements are unsuitable. That said, 21.9%
23 of SME's indicated that staff had undertaken training while on furlough, the third highest of
24 any sector (Wave 34), and despite a small drop in numbers, a later survey also indicated that
25 18.2% had conducted training, which is still the third highest for any sector. After the furlough
26 period, 53.6% of SMEs in the sector had trained staff, compared with 36.2% for all sectors
27 (Wave 40). The highest level of training was also true in two previous surveys, with the
28 hospitality sector having the highest number of SMEs engaged with training after furlough
29 (Waves 36 and 34). So, the sector has to be at work, and is undertaking the most training upon
30 return. This may be attributable to staff turnover, with the hospitality sector consistently
31 reporting higher staff turnover than the average of all sectors. Which is combined with 39.3%
32 of hospitality sector and an all-sector score of 35.2% worker shortage.
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38 The hospitality sector has been affected by Brexit, Climate change and Covid-19. We argue
39 that the interaction of these three must be understood to better address innovation decisions
40 made at the later stages of the pandemic. In terms of moving forward, the hospitality sector
41 has had high levels of capital expenditure when compared with other sectors. In March 2022
42 10.6% of the hospitality sector had indicated that capital expenditure was above average for
43 this time of year. Moreover, 72.4% indicated that this was owing to the pandemic. In terms of
44 costs, the supply chain has been affected with 55.7% of the hospitality sector indicating they
45 are paying higher prices compared to an all sector 53.4% (Wave 22). There is both a need for
46 capital investment owing to Covid-19 and a supply chain price issue. This during a period while
47 demand for the hospitality sector products is indicated to have increased by 14.4%, all
48 businesses have seen 17.8% of SMEs increased demand. In terms of performance, this is
49 perhaps best captured by confidence, 52.5% of hospitality were highly confident compared
50 with 75.1% across all sectors, thus there are far fewer confident businesses in the hospitality
51 sector.
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57 Despite the low levels of confidence and the effects on the business, innovation remains a
58 priority for many SMEs. Data was collected from 9 August to 22 August 2021. Specifically,
59 SMEs were asked '*How has your business's innovation changed since the start of the*
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3 *coronavirus (COVID-19) pandemic?* For the hospitality sector SME's 16.7% indicated they
4 had innovated more as a result of the pandemic, compared with 14.9% for all sectors. Further,
5 15.6% of the hospitality sector had no change and 2.6% reported less innovation. While no
6 change was well below the all-sector average (28.1%), the lesser innovation was slightly above
7 (2.1%). In many ways the three-way (Brexit, climate change and Covid-19) pressures, as well
8 as performance related issues, may have driven innovation, or this may simply be a response
9 to customer demands, or legislation. However, there are above average levels of engagement
10 with innovation in the sector.

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14 The types of innovations made are interesting. Only 11.5% of the SMEs in the hospitality sector
15 had adopted digital technology, against an overall 28.4% across all sectors. The use of third
16 parties and already high rates of adoption may explain this. 26.2% had introduced new products
17 and services compared with 19.4% for all sectors. Incremental changes to products and services
18 were 17.1% for the hospitality sector, and 22% for all sectors. 19.6% of hospitality SMEs had
19 innovated with regards to management practices, compared to an all sector 28.4%.

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23 The outcomes expected from these innovations is also interesting. 27.2% of hospitality SMEs
24 feel productivity will improve as a result of the innovations made (22.5% for all sectors). The
25 SMEs were asked if they will increase innovation compared to pre-pandemic levels in the
26 coming 12 months. The hospitality sector responded with 12.3% indicating they will increase,
27 25.7% will not change and the remainder unsure. This was below the all-sector 13.9% for
28 increasing innovation and also below the 33.6% for remaining the same. It is here where we
29 can perhaps see the uncertainty and lack of confidence emerging in the innovation intentions.

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33 In summary, the quantitative analysis yielded a number of insights, which are specific to the
34 industry, beyond Covid with climate change and Brexit forming part of the larger picture. The
35 quantitative picture indicates that while Covid-19 has had an immense impact on the day-to-
36 day operations of SMEs, the analysis was to identify the most pronounced trends in the
37 secondary data available. Only 52.5% of hospitality SME's have high confidence that they
38 will survive, well below 73.4% across all sectors (April 2022). With staffing issues, climate
39 change challenges innovation efforts are hampered.

40 41 42 43 3.2. *Qualitative analysis*

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45 To further investigate the issues raised in the quantitative phase a qualitative interview guide
46 was developed, with questions aimed at generating insights to complement and further unpack
47 the quantitative findings. Firstly, the complex environment, and then the effects on business
48 followed by the new nature of innovation and business practice changes findings are discussed
49 below.

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52 There was a consensus that the economic climate of Covid was complex, with one respondent's
53 short response: *'So there were multiple factors taking place.'* (R1). *'We did show some*
54 *recovery from Covid, but there were lingering issues from Covid, and then obviously lingering*
55 *issues from the Brexit factor'* (R2). Beyond the malaise of Covid and Brexit, there was also
56 concern for the environment, with issues such as waste reduction noted by respondents and
57 even discussion about increased concern over plastic usage. One respondent stated: *'And*
58 *obviously no detrimental effects on the environment. So yeah, I would say, I am*
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3 *environmentally conscious in that respect. I try and do what I can. The only thing I can do*
4 *anything about is the amount of fuel I use, and the energy of the ovens, and things like that'*
5 (R1) which typifies the complex situation faced by SMEs in the hospitality industry. Given
6 the complex business environment changes to business models and innovation have proved
7 essential, yet difficult.
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10 Theme 1: Covid

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12 Covid-19 brought both challenges and opportunities for SMEs in the hospitality sector. First,
13 Covid lowered customer numbers with a priming effect, *'First of all Covid came and it became*
14 *more prominent on the news, and the first effect I suppose we saw was less people coming into*
15 *the restaurant itself'* (R2). Across business as interest and fear of Covid grew, numbers of
16 customers were reduced. Moreover, there was fear and in some cases public opinion towards
17 businesses being open was a challenge: *'it became apparent really that the situation with Covid*
18 *was getting significantly worse, and we were conscious also of public opinion in terms of*
19 *businesses remaining open and operating, and people's concerns about the spread of Covid,*
20 *not that we were targeted, but we could see some businesses were potentially being targeted*
21 *on social media about being irresponsible to be open'* (R2). Thus, before lockdowns and
22 government action, businesses were challenged by the environment.
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28 Public opinion also parlayed with the introduction to lockdowns. However, food outlets had
29 varied operating restrictions, limiting them to take-away only at times. The regulations were
30 also paralleled by social pressure: *'as our restrictions increased and the severity of Covid*
31 *increased, we were very much aware of the public opinion and a lack of demand. So, we were*
32 *more or less forced to shut down then with government regulations in Wales'*. (R2). There was
33 a feeling that the takeaway outlets were part of the covid spreading 'infrastructure' with one
34 respondent stating *'... what if our staff was spreading Covid even though it was minimal contact*
35 *in terms of takeaways.'* Here the respondent was speaking to public inquiry and worries about
36 the SME being part of a super spreading event.
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40 Theme 2: Brexit

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42 The lingering effects of Brexit were often mentioned in the interviews. When asked, one
43 respondent physically recoiled and stated: *'I don't like looking into it too much because it just*
44 *it gives me a headache, whatever is going on.'* (R3). Across each of the interviews there was
45 an acknowledgement that Brexit had made operations harder, in terms of price, staff, and also
46 supply. Covid and Brexit interacted to make operations difficult: *'...that was partly Covid, to*
47 *a large degree, and I suppose the effects of Brexit'* (R2). Furthermore, another added: *'If we're*
48 *not in the EU and it becomes more expensive for people in this country to travel.'* (R4) adding
49 that Brexit had lowered demand and changed the opportunities for business.
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53 Theme 3: Climate change

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55 Even with the pressure of Brexit and Covid, the environment was a consideration for the SME
56 operators interviewed. Climate change poses unique challenges for the hospitality sector. The
57 move towards takeaway from traditional dine in as well as changes based on regulations around
58 staff contact forced the use of plastics and other products that businesses would not normally
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3 use. Interestingly the interviewees when asked about this focused on recycling: *'I recycle*
4 *anything that's plastic or anything that can be recycled'*. (R1) One respondent also indicated
5 that even the recycling was more difficult: *'Recyclable and recycled packaging before...got*
6 *more expensive than the non-recycle ones'* (R3). Also cutting down waste was a theme which
7 emerged: *'we also looked at unnecessary wasteful activities within the restaurant and how we*
8 *could improve.'* (R2), with reductions of waste being a way to save on costs: *'the whole waste*
9 *thing is all to do with saving money'* (R3). In general, the following summarises the attitudes
10 across the interviewees: *'in terms of sustainability, we were always conscious of that, especially*
11 *as directors being farmers' sons, we knew the agenda, we'd try to promote reducing our waste,*
12 *really limiting, or even getting rid of all the use of plastic.'* However, the changes in the
13 business environment make this a challenge.
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18 Theme 4: Operations impact staff

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20 Covid and Brexit had a profound impact on staff hire and retention, but also in making the
21 business resilient early in the pandemic. In the early period of uncertainty, one respondent
22 stated: *'we kept staffing low'* (R5) and across each of the interviews the combined effects of
23 Brexit and Covid impacted upon recruitment and retention. One respondent indicated: *'The*
24 *biggest barrier really is that staffing is the big headache potentially'* (R6) when referring to
25 the effects of Covid and Brexit. Another indicated staff had moved away from the industry
26 and the skill shortage had led to interesting competitive behaviour: *'everybody else were*
27 *fighting over a very small local pool of staff, and what became apparent was that there was a*
28 *skills shortage, but also some businesses were willing to pay a ridiculous amount of money for*
29 *some of the staff'* (R2). Moreover, *'but surprisingly, even though they were shutting, those*
30 *employees weren't remaining in hospitality, they were looking elsewhere'* (R2). Another
31 interviewee also added that the government backed furlough programme had been used, but on
32 the owner *'so I was furloughed'* (R5), meaning that time away from the business and innovation
33 was taken. As such the staffing impacts have played a significant role with respect to operations
34 in the hospitality sector.
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41 Theme 5: Operations impact supply chains

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43 Supply chains were inevitably hit by the pandemic, and this was magnified with Brexit. In
44 some ways the effects on supply chains were varied: *'So Brexit did have an effect, not so much*
45 *for us in terms of supply chain, because maybe that's where we did have a bit more resilience,*
46 *because we were using local suppliers, local meat, where I know that there's other restaurants*
47 *specializing in Spanish or Italian products had big issues, not just in the increased costs, but*
48 *also in the availability and bureaucracy of it all'* (R1). A local business focused on beer had
49 no real issues, after some initial minor issues: *'But quickly smoothed out'* (R5). A food focused
50 retailer stated: *'Where everyone was out 'cause it was so cheap, obviously, like they were*
51 *ordering steaks and things so like getting certain cuts of meat were quite challenging. But yeah,*
52 *that was only for a short period.'* (R6), which highlights a government policy had an impact
53 on consumer behaviour, and thus knock-on effects on the suppliers. In other areas there were
54 issues, pies and soft drinks for a takeaway store were in short supply and the vendor had to
55 change suppliers: *'because we're running out of them and there weren't many places that could*
56 *get them cause obviously the supply lines couldn't get them fast enough to where they were*
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3 *needed and obviously being in a small town in West Wales, they'd obviously got to big hubs*
4 *first.'* (R3). And smaller items which are not part of mainstream supply chains could also be
5 an issue: *'They decided to implement a queue system, so I needed one box of vegetarian*
6 *sausages from the last aisle, but they were doing a one-way system through the whole point.*
7 *Would it take me? An hour and a half to get them, so I had to quickly stop going'* (R4). So
8 dependent on the product and location, issues could be minor or more pronounced, but all
9 interviewees noted issues with suppliers.
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13 Theme 6: Demand (consumers)

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15 This is perhaps best summarised by the following quote: *'There's nobody in town, as you*
16 *remember, you know, there's just nobody in town.'* (R4). The demand from customers
17 switched as traditional markets dried up. The type of customer went from tourists and local
18 students to *'I was taking phone orders ... you know, a couple of those like ... the sparkies, the*
19 *electricians and things, and they were doing the field hospital down the leisure centre.'* (R4).
20 Not only has demand change but the way consumers have responded has been interesting: *'Uh,*
21 *it's in, you know, I make trade off of the jukebox as well, which is still a cash machine, you*
22 *know, and it's not taking the same amount of money. Because some people don't carry it.*
23 *However, over the bar, I would suggest bar sales are helped by a cashless society'* (R5).
24 Interesting here we see people using the juke box less as they don't have and cash, but the use
25 of card at the bar has been a boost for sales.
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30 Theme 7: Innovation forced

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32 Innovations were thrust upon SMEs within the hospitality sector. The government drove
33 innovation through both funding and policy directives specific to the hospitality sector. An
34 example was a basic change to the layout of the hotel which allowed more space and seating
35 room. Another change driven by regulation was a move from in-house dining to take away
36 food: *'We shifted focus to the takeaway business and continued that for a while, which worked*
37 *well'* (R1). However, the move to business models which would comply where not always
38 viable: *'we did look at doing the delivery side of it for a while, but when we looked into the*
39 *amount, you'd have to charge people extra to cover the delivery costs'* (R3). Also, hygiene
40 featured in the interviews, with changes to practices driven by regulation and interestingly care
41 for staff and customers. Interviewees expressed concern about virus transmission, and concern
42 for staff. One example was the instillation of screens *'I've got screens in between every table'*
43 (R4) and the interviewee indicated that these would be permanent as customers liked the safe
44 feeling – the *'privacy and their own little space'*. So, the forced innovation has been well
45 received by the customer base, and the innovation has been adopted going forward, not just a
46 temporary, but a permanent measure.
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53 Theme 8: Innovation opportunity

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55 Changes to the SMEs were not all drastic, and not always forced by the pandemic. For
56 example, one SME implemented a new digital ordering system: *'We've got new till systems*
57 *which make things a lot easier now for taking orders.'* This new technology led to new
58 processes and operating efficiencies. And even future plans for a better developed website, so
59 that the SME could move away from partners who undertook delivery at a significant charge.
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3 The pandemic was a chance to reset, to rethink the business operations and direction. One
4 interviewee noted *'But it was actually a good period for me because staff costs are my biggest*
5 *costs'* (R4), and then began to reflect on how busy the period was, but also giving a chance for
6 reflecting on the overall operations and preparing for the future: *'you know, we had a kitchen*
7 *done upstairs. We just refurbished the shop.'* (R4). Another indicated *'I've 'I felt it's kind of*
8 *reset a few uhm ... approaches to towards my business and I've I felt that we've been certainly*
9 *as busy if not a bit busier'* (R5). There was also a chance to reflect on sustainability and climate
10 change: *'my new fish and chip range about a sustainable range, so it has triple filtration*
11 *systems, things like that'* (R4). Thus, despite the challenges faced, Innovation has been
12 happening in SMEs in the hospitality sector.
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17 **4. Discussion**

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19 The research contributes to knowledge on the impact of Covid-19 on the hospitality sector.
20 This aligns with recent research on this topic, particularly in the context of the UK (Ntounis *et*
21 *al.*, 2022; Tajvidi and Tajvidi, 2021), however, this research builds on existing knowledge to
22 underline the combined influence of Covid-19, Brexit and climate change as significant issues
23 impacting the industry. Findings from this research support the notion that the hospitality sector
24 is highly vulnerable to economic shocks (Hu *et al.*, 2021). Findings also reflect trends across
25 the sector in the UK outlined in the Hutton report (2022).
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28 Concerns by hospitality businesses towards the spread of Covid-19 to customers and staff, as
29 outlined in the interviews, reflects findings by Chen *et al.* (2022), which impacted the turnover
30 of staff (Chen and Eyoum, 2021). In addition to staffing issues, a significant impact of the
31 Covid pandemic was the disruption to supply chains (Cappelli and Cini, 2020). These
32 challenges led to the questioning of the resilience of hospitality businesses to mitigate these
33 effects. However, hospitality businesses are seen to display resilience capabilities due to the
34 seasonal nature of the sector (Ntounis *et al.*, 2022).
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37 Despite the challenges in the sector, findings point to opportunities for hospitality businesses
38 (Gursoy and Chi, 2020), notably innovation (Hemmington and Neill, 2022), which was partly
39 forced upon businesses due to restrictions, but also proactively sought by businesses in seeking
40 to diversify their operations (Breier *et al.*, 2021). Interview respondents identified technology
41 as a vital tool in supporting businesses during the Covid-19 pandemic, enabling businesses to
42 engage in marketing through social media (Hemmington and Neill, 2022), or engaging with
43 technology to simplify operational systems within the business (Pillai *et al.*, 2021). Further
44 opportunities observed in the interviews was seen through increased cooperation between local
45 businesses, with the aim of developing business resilience and sharing resources. This is
46 underlined by Respondent 1 who sought to work with local businesses as a means of
47 diversifying customers during Covid, but also sought to overcome supply chain issues through
48 working with local suppliers. Businesses displayed elements of resource bricolage (Levi-
49 Strauss, 1966) in working in this way, as they were able to make use of specific local resources
50 to support their businesses during the pandemic, bringing mutual benefit to local businesses
51 (Kuckertz *et al.*, 2020).
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57 Unique findings from this research underline the challenges faced by the hospitality sector due
58 to the economic conditions brought about by Brexit, such as access to staff, as many hospitality
59 businesses had previously depended on EU staff (Filimonau & Mika, 2019; Hutton, 2022); as
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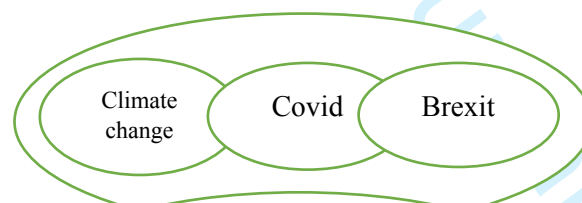
well as supply chain issues in procuring products (National Assembly for Wales, 2019). As outlined above, these issues were also consequences of the Covid-19 pandemic, but in the context of the UK, Brexit exacerbated the impacts of these on the hospitality sector. Furthermore, this research points to the impacts of climate change that hospitality businesses have been dealing with, including reducing food waste, and more specifically reducing the use of plastic. As Covid forced many businesses to adapt their activities towards takeaways, the use of packaging became a new challenge for hospitality businesses, especially in aiming to ensure sustainability (Elkhwesky *et al.*, 2022).

5. Conclusion

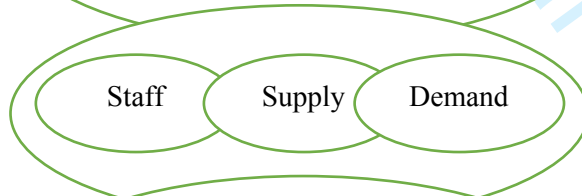
The research analysed innovation ~~during a pandemic in the~~ and the issues facing the hospitality industry. Covid was part one of three issues facing SMEs in the hospitality sector, including the others being climate change and Brexit, ~~with Covid influencing staffing, supply chains and consumer demand~~. It is these which SMEs have responded to with both forced and unforced innovations. Based on our findings we present Diagram 1, which underlines the themes derived from the research. The diagram points to overlapping issues of climate change, Covid and Brexit that have impacted the hospitality industry. These have led to issues for hospitality businesses in accessing and retaining staff, supply chain interruptions and impacts on consumer demand, either through being forced to close due to lockdown regulations, and due owing to consumers avoiding hospitality settings due to concerns over catching and spreading Covid-19. Findings identified innovation as a notable consequence of the triple pressures of Covid-19, Brexit and climate change, whether this was forced upon hospitality businesses through regulation, such as social distancing and hygiene measures, or unforced innovation in which businesses actively sought to innovate to overcome the challenges in the sector, such as introducing training or integrating new technology into the business.

Diagram 1: Conceptualisation of Findings

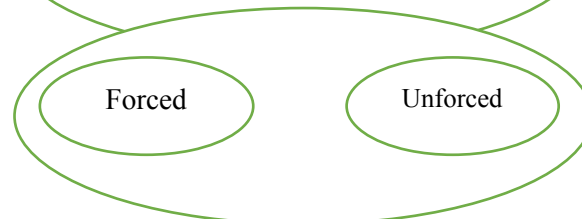
Issues



Effects/Challenges



Responses



This research contributes to knowledge on the impact of economic challenges on the hospitality sector. While the research focusses on the UK, findings point to issues that have previously

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3 been seen in other research contexts, such as staffing issues in the USA (Sönmez *et al.*, 2020).
4 This research underlines that hospitality businesses face multiple challenges. In the case of the
5 UK, this is evident in a combination of Covid-19, Brexit and climate change. As outlined in
6 Diagram 1, the effect of this is seen through staffing, supply chain and consumer demand
7 challenges, however, these can be managed through forced or unforced innovation. This focus
8 on forced and unforced innovation aligns with arguments by Santoro *et al.* (2018) that SMEs
9 should be flexible, adaptable and efficient to react to market changes. This is especially
10 pertinent as this research has outlined the complex challenges at present in hospitality through
11 the effects of the Covid-19 pandemic, Brexit and climate change.
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16 The focus on multiple challenges to the sector is limited within research on hospitality business
17 and merits further research, particularly in the context of the UK on the impact of Brexit on the
18 sector, but also globally, on the impact of climate change on hospitality businesses, and how
19 the sector can develop sustainable practice in the use of materials for packaging and reducing
20 food waste. Limitations are acknowledged in this research in understanding the longer-term
21 impacts of Covid, Brexit and climate change on the sector, as the research was conducted in
22 the immediate post-Covid period, however, future research on this topic would be necessary in
23 exploring the longer-term impacts, as well as exploring longitudinal research on the subject, in
24 order to evaluate the ongoing effects of hospitality sector issues.
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29 There are implications and suggestions that arise from this research. The results indicate that
30 no crisis can be considered in isolation. Covid, Brexit, and in particular climate change will
31 remain ~~present~~ and SMEs must consider them when confronting the next crisis. The ability to
32 innovate, either forced or voluntary is important to the business survival. SMEs who move
33 from their standard business model, who innovate must have a fuller understanding of the
34 labour implications. With Brexit and Covid induced shortages of labour any changes and
35 innovation need to be cognisant of this. Climate change will and is already influencing
36 movement of people through drought for example, so this will influence staffing. While these
37 implications would enable hospitality SMEs to better prepare for future economic shocks, this
38 research also draws attention to sector-specific matters that policymakers should consider in
39 supporting the development of the sector.
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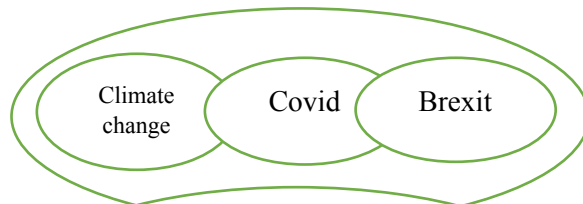
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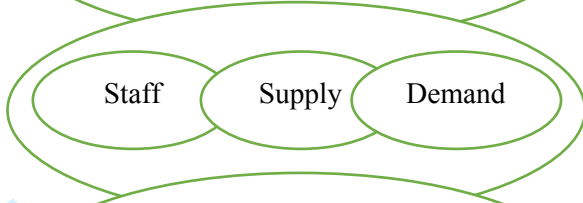
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Diagram 1: Conceptualisation of Findings

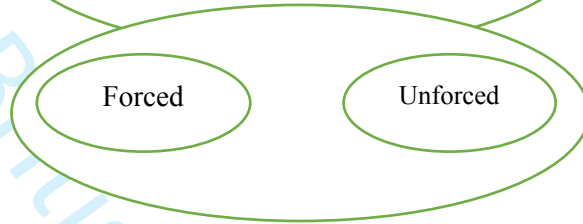
Issues



Effects/Challenges



Responses



British Food Journal

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3 Reviewer(s)' comments to Author:
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5 Reviewer: 1
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8 Recommendation: Minor Revision
9

10 Comments:

11 Thank you for your efforts in revising the manuscript. The paper has substantially improved, but is still
12 lacking in terms of its clear focus. The Introduction section is weak:
13
14

15 "The aim of this research is to both understand challenges and the innovative response"
16

17 Is this it? More clearly defined aims and objectives are needed, and these need to be addressed in
18 the discussion and conclusions of the paper.
19

20 Thank you for this comment. We discussed the comment in great depth and made numerous
21 changes to reflect the main issue raised here, a lack of clarity in the introduction and the conclusion.
22

23 We have subsequently re-written substantive parts of the paper to remedy this. We now feel the
24 paper is better in the area of aims and objectives, as well as linking back to these in the conclusion.
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30 Additional Questions:

31 1. Originality: Does the paper contain new and significant information adequate to justify
32 publication?: yes
33

34 Thank you
35
36

37 2. Relationship to Literature: Does the paper demonstrate an adequate understanding of the
38 relevant literature in the field and cite an appropriate range of literature sources? Is any significant
39 work ignored?: yes
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41 Thank you
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44 3. Methodology: Is the paper's argument built on an appropriate base of theory, concepts, or other
45 ideas? Has the research or equivalent intellectual work on which the paper is based been well
46 designed? Are the methods employed appropriate?: yes
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48 Thank you
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51 4. Results: Are results presented clearly and analysed appropriately? Do the conclusions adequately
52 tie together the other elements of the paper?: yes
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54 Thank you
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56 5. Implications for research, practice and/or society: Does the paper identify clearly any implications
57 for research, practice and/or society? Does the paper bridge the gap between theory and practice?
58 How can the research be used in practice (economic and commercial impact), in teaching, to
59 influence public policy, in research (contributing to the body of knowledge)? What is the impact
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3 upon society (influencing public attitudes, affecting quality of life)? Are these implications
4 consistent with the findings and conclusions of the paper?: yes
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6 Thank you
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9 6. Quality of Communication: Does the paper clearly express its case, measured against the
10 technical language of the field and the expected knowledge of the journal's readership? Has
11 attention been paid to the clarity of expression and readability, such as sentence structure, jargon
12 use, acronyms, etc.: yes
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14 Thank you
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16 Reviewer: 3
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18 Recommendation: Accept
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20 Comments:
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22 The paper is improved compared to the first version.
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24 Thank you
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26 Additional Questions:
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28 1. Originality: Does the paper contain new and significant information adequate to justify
29 publication?: Yes.
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33 2. Relationship to Literature: Does the paper demonstrate an adequate understanding of the
34 relevant literature in the field and cite an appropriate range of literature sources? Is any significant
35 work ignored?: The paper demonstrate an adequate understanding of the relevant literature.
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