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**‘No longer Business as Usual: The Changing Management Landscape to 2030’**

**Comparing Policies and Firm-Level Survival Strategies for Crises Management in Low-tech Industries: A Wales, Denmark and Ireland Case Study**

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* **Keywords**

Regional Innovation, Regional Policy, Craft Beer Sector, Micro Breweries,

* **Introduction**

Regional innovation policy in many countries became popular around the year 2000, having been pursued from a systems perspective (Christensen and Fagerberg, 2021). As such, the innovation systems approach to policies implies enhancing, knowledge-providing entities, knowledge-diffusing organisations, and the users of knowledge, including links between key actors. Following an emphasis on the national, regional, or technological innovation systems, currently, there is an interest in studying ‘micro’-systems. This study focused on one such micro-system where food and drink are essential components of local economies (Danson et al., 2015), where links between sub-industries and activities have been horizontally developed in three different environments, Denmark, Wales, and Ireland; places chosen for their regional similarities of mixed rurality and urbanisation. It examines regional change on the ‘micro’-system of the craft beer sector from the combined effects of COVID; and in the case of Wales, Brexit, whilst investigating the multiple ways in which firms in the industry individually and jointly changed their practices and strategies to adapt to the different economic and social environment. In particular, it examined how regional policy facilitated (or not!) the survival and development of firms in the sector. Whilst, innovation is key in changing such practices and strategies, the traditional way of thinking about innovation, new products and production processes, is only part of the picture. Findings highlighted that firms in this industry innovated their packaging and distribution, sales and marketing, and generally, their business model; and that some ‘crises-induced’ innovations had lasting effects on how firms operated post-COVID-19.

* **Background**

The 2020 COVID-19 pandemic lockdowns caused a significant reduction in sales to pubs, bars, and taprooms, as well as cancellations of festivals and similar events. This response had a disproportionate impact on the hospitality industry, according to the Brewers of Europe Association (2021) the pandemic resulted in a 42% decline in beer hospitality sales in Europe in 2020, and a 35% decline in 2021 (Brewers of Europe, 2022), relative to beer volumes in 2019. Subsequently, the business pressures on the industry were alleviated by a combination of policy support and firms’ strategic changes or ‘pivots’ in collaboration, distribution, internationalisation, products, sales etc. Investigating the recovery of these activities as well as the lasting effects on the business models of the microbreweries warranted special attention in terms of what the COVID crisis did to the links between key actors in the beer industry and between this industry and its related industries, food, and tourism. Regional policy in part participated in the re-establishment of these complementary activities, the said links between actors, and firms' pure survival. This paper, specifically questions both the role of policies and what firms did to cope with the global COVID-19 pandemic in terms of crisis and sudden changes in demand from exploring firm-level strategies.

* **Aim**

This paper aims to provide a detailed and nuanced analysis of how low-technology firms in a Regional ‘micro’-system adapt to external economic shocks, by conducting a thorough examination of all aspects of the business, including business systems and processes, supply chains, collaboration networks, and local and international integration. In addition to the systems perspective on innovation, our analyses are grounded in theories on industry shakeouts, regional and organisational resilience, and low-tech industry dynamics.

* **Methodology**

From a comparative case study method (Yin, 2009) the research uses multiple levels of aggregation. It used resultant qualitative methodologies to examine at the micro level how small-scale businesses in the craft beer sector are embedded in their localities and use such assets, especially as SMEs have scarcer resources than large multinational companies (Lofti et al., 2022; van Rijnsoever et al., 2017). Such assets can include symbolic marketing and branding (Clifton, 2014), including provenance with association to place, local culture, authenticity and Protected Geographical Indicator (PGI) status (Tregar, 2001; Bowen and Miller, 2022). Comparing and contrasting adaptations across three case contexts makes it possible to enrich the validity of the findings (Eisenhardt & Graebner, 2007). It questioned the low-tech firms preferred strategies and actions for building resilience where owner-operator managers were responsible for such decisions (Lofti et al., 2022; Granata et al., 2017), particularly regarding system threats or 'shocks' and how fast these could be implemented? Examples include local resources (Andersen and Christensen, 2022), collaborations and networks; re-purposing, re-packaging, re-framing and re-distribution, such as online sales, new business partners or new opportunities, and also what remained i.e. what became the status quo. At a more aggregated level of analysis, it focused on the role of regional and national policy as a response to the exogenous shocks in which the activities unfolded.

* **Contribution**

This paper follows previous literature in this field (Cabras et al., 2023, Waehning et al., 2023) and the study contributes to the range by initially examining innovation policy in a low-technology industry through a case study of the 'micro'-system of the craft beer industry in three different regions. From looking through the lens of two economic shocks (COVID-19 and Brexit for Wales) it investigated the ensuing firm-level effects and uniquely examined both regional and firm-level resilience strategies, embeddedness, and how these strategies were linked. It also provides a theoretical framework for understanding these dynamics, whilst it adds to an empirical contribution.

* **Learnings for policy**

The learnings from this study are particularly relevant for knowledge of hidden innovation practices (Harel et al, 2019) of low-technology firms as an understudied group of businesses with equal value for policymakers and stakeholders. It provided a detailed narrative of how firms responded to the crises and adapted their business models which can support policymakers' decisions to best design and target support for firms.

* **Learnings for practice**

These findings have a learning value for food and drink sector businesses, in particular for ‘micro-sectors’ and their support industries. Albeit that firms’ resilience and adaptation strategies are known to be varied and context (Region)-dependent, many exemplars from the study are applicable within and across regions.

* **References**

# Andersen, P. H and Christensen, J.L. 2022. Industry evolution, resilience and regional embeddedness: the case of the Danish microbrewing industry, *Regional Studies*, 1-13 <https://doi.org/10.1080/00343404.2022.2131754>

Bowen, R. and Miller, M. 2022. Provenance representations in craft beer. *Regional Studies*, 1-11. <https://www.tandfonline.com/doi/full/10.1080/00343404.2022.2092088>

Brewers of Europe (2021) <https://brewersofeurope.org/uploads/mycms-files/documents/publications/2021/covid-impact-report-final.pdf>

Brewers of Europe (2022) https://brewersofeurope.org/uploads/mycms-files/documents/publications/2022/covid-impact-report-june2022.pdf

Cabras, I., Shakina, E., Waehning, N., Sohns, F. & Bosworth, G. 2023. Brewing at the time of COVID: the impact of the pandemic crisis on UK craft breweries and its implications for the sector and local economies. *Regional Studies***,** 1-17. https://doi.org/10.1080/00343404.2023.2170343

Christensen, J.L. Fagerberg, J. 2021. The emergence of innovation policy as a field: The international context and the Danish experience. [Globalisation, New and Emerging Technologies, and Sustainable Development](https://www.taylorfrancis.com/books/mono/10.4324/9781003037750/globalisation-new-emerging-technologies-sustainable-development?refId=8aa7ed57-0664-42f0-a1cd-e9d06d173491&context=ubx), Routledge. eBook ISBN9781003037750.

Clifton, N. 2014. Towards a holistic understanding of county of origin effects? Branding of the region, branding from the region. *Journal of Destination Marketing & Management*, 3(2) 122-132, ISSN 2212-571X, <https://doi.org/10.1016/j.jdmm.2014.02.003>

Danson, M., Galloway, L., Cabras, I., and Beatty, T. 2015. Microbrewing and entrepreneurship, The origins, development and integration of real ale breweries in the UK. *Entrepreneurship and Innovation*, Vol.16, no.2, pp. 135-144.<https://doi.org/10.5367/ijei.2015.0183>

Eisenhardt, K.M. and Graebner, M.E., 2007. Theory building from cases: Opportunities and challenges. *Academy of management journal*, *50*(1), p.25-32. <https://doi.org/10.5465/amj.2007.24160888>

Granata, J., Lasch, F., Le Roy, F. and Dana, L.P. 2018. “How do micro-firms manage coopetition? A study of the wine sector in France”, *International Small Business Journal*: *Researching Entrepreneurship*, 36(3), 331-355. [https://doi.org/10.1177/026624261774041](https://doi.org/10.1177/0266242617740412)

Harel, R., Schwartz, D., & Kaufmann, D. (2019). Small businesses are promoting innovation!! Do we know this? *Small Enterprise Research*, 26(1), 18-35. <https://doi.org/10.1080/13215906.2019.1569552>

Lotfi, M., Kumar, M., Rodrigues, V.S., Naim, M and Harris, I. 2021. A relational view of horizontal collaboration among micro and small enterprises: a study of the brewery sector in Wales, *British Food Journal.* 124 (4), 1254-1273 <https://doi.org/10.1108/BFJ-03-2021-0266>

Tregear, A.E.J., 2001. *What is' typical Local Food'?: An Examination of Territorial Identity in Foods Based on Development Initiatives in the Agrifood and Rural Sectors*. Centre for Rural Economy, Department of Agricultural Economics and Food Marketing, University of Newcastle upon Tyne.[AES 00 DraftFinal (ncl.ac.uk)](https://www.ncl.ac.uk/media/wwwnclacuk/centreforruraleconomy/files/typical-local-food.pdf) Accessed 30th May 2023.

van Rijnsoever, F.J., Kempkes, S.N. and Chappin, M.M.H. 2017. “Seduced into collaboration: a resource-based choice experiment to explain make, buy or ally strategies of SMEs”, *Technological Forecasting and Social Change*, 120, 284-297.<https://doi.org/10.1016/j.techfore.2017.03.015>

Waehning, N., Bosworth, G., Cabras, I., Shakina, E. & Sohns, F. 2023. Resilient SMEs and entrepreneurs: evidence from the UK craft brewing sector. *International Journal of Entrepreneurial Behavior & Research,* 29**,** 665-686. <https://doi.org/10.1108/IJEBR-06-2021-0496>

Yin R.K. (2009). Case Study Research. Fourth Edition, Sage Publications Inc., London.