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The Economic Value of a Place-Based Resource for Regional Development

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Abstract

Regional economic development has long been acknowledged as an important objective of government policy. Natural resources are also recognised as drivers of economic development. However, the importance of place-based resources such as peripheral coastlines and Harbour areas are less understood. This research provides insights into an industry based on its region's natural resource and the value it generates for sustainable economic development. Using the world's second largest natural Harbour region, the current research measures the economic activities associated with the Marine Leisure Industry in Cork Harbour, and estimates the economic impact on the local economy. The research establishes a multiplier specific to the industry, one that has the potential for use across Ireland. Cork Harbour, located in the south-west of Ireland generates approximately €6.6m direct expenditure by the industry. Based on the multiplier, the Marine Leisure Industry is estimated to account for approximately €11m of output supporting 29 direct jobs and 290 indirect jobs. With potential to grow berthing capacity, the region has real opportunities to increase the economic impact of this indigenous industry for the city, its hinterland and beyond. Our findings challenge policymakers to consider creating an enabling environment for the marine leisure industry to flourish and recognise the value of place-based resource as a driver of regional development.

Key Words: Multiplier, Regional Development, Economic Impact, Natural Resources

Introduction

Regional economic development is an important part of public policy. Natural resources have the potential to contribute favourably to an economy's development. However, the importance of place-based resources such as peripheral regions, coastlines and harbours are less understood. The research provides insights into an industry based on its region's natural resource and the value it generates for sustainable economic development. Using the world's second largest natural harbour region, Cork, in southern Ireland, the current research measures the economic impact generated from the Marine Leisure Industry.

The remainder of the paper is as follows: the next section provides a background to the regional and economic literature and the specific details of the Cork Harbour area. This is followed by the methodology section outlining details of the data, the multiplier and methods used to calculate the economic impact of the industry. A discussion on the findings, followed by recommendations for policy and future research concludes.

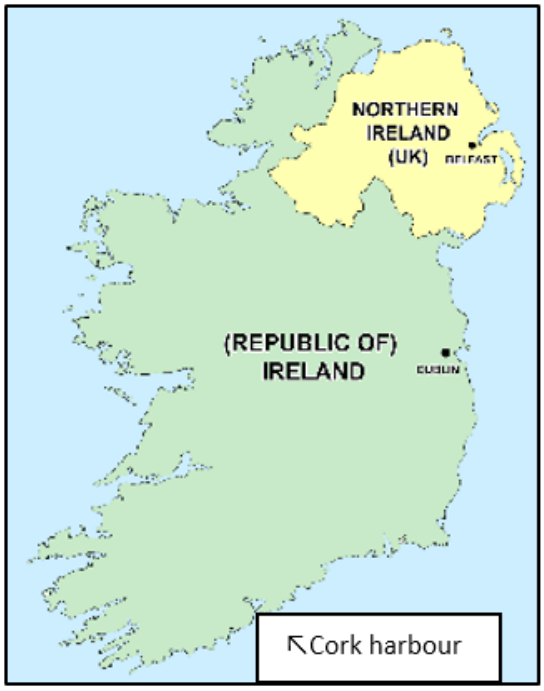
Background to the study

Regional economic growth has, for many decades, focused on the expansion and upgrade of infrastructure such as roads, rail, broadband connectivity and sanitation. Coupled with public policy programmes to attract foreign direct investment are examples of headline catching, 'one-size-fits-all approach' (Barca, McCann and Rodríguez-Pose, 2012). Driven by globalization and competition between regions, slow economic growth following the financial crisis (circa 2010) has led to challenges for regions and imbalanced regional development (Pike, Rodríguez-Pose and Tomaney, 2017). The contemporary 'place-based paradigm', which indicates that places can grow when policy making recognises spatial differences, has been considered by the literature as an effective alternative to the more tangible, compensatory approaches to regional development, and has been presented by some as a more effective alternative to this 'old' approach (Barca, McCann and Rodríguez-Pose, 2012; OECD, 2011; Pugalis and Gray, 2016). A place-based approach calls for the identification of local potential and the need to employ unused economic potential (Tomaney, 2010; Pugalis and Gray, 2016). Furthermore, all places have development potential (and constraints) specific to the particular area, highlighting the need for a tailored approach to economic development (Pugalis and Gray, 2016). Many authors (Iammarino, Rodriguez-Pose and Storper, 2018) argue for the need to maximise the local and aggregate potential for economic and regional development. The sustainable activity and the natural advantage unique to Cork Harbour has potential to progress regional development in the area (Potts, 2010). Conflict over space can arise between use of such natural resources and can constrain development (Funck, 2006; Penn *et al*., 2016).

Considering the unique resources to a local region and its potential to contribute to sustained economic growth, this is the main focus of this research. It is this potential, for a place-based approach to regional development, which this research contributes.

The analysis is based on the economic activities associated with the Marine Leisure Industry in the Cork Harbour region, as illustrated in Figure 1. Located in the southwest coast of Ireland, this region boasts the second largest natural Harbour in the world (second to Sydney Harbour in Australia) and the second largest shipping port in Ireland (second to Dublin Port). The aim of this paper is to quantify the economic contribution of the place-based activity of the marine leisure industry on the local economy of Cork Harbour and the wider Cork region.

Figure 1: Cork Harbour



Cork Harbour region, stretching from Cork city (Ireland's second largest city) to the Atlantic Ocean, and is the location of many indigenous and international firms and is served by a network of roads, rail, air and sea transport. The Harbour has many habitats of conservational interest such as tidal mudflats, salt meadows, and tourist attractions including the award winning Spike Island (Europe's leading tourist attraction) and the Titanic experience in the Harbour town of Cobh.

The marine infrastructure in the Cork Harbour area include both leisure and commercial landing/Harbour facilities. In 2009, the total contribution of Port of Cork was estimated to be €286.7 million, linked to approximately 1,849 full time equivalent jobs (Moloney, 2011). Commercial marine activity in the area accounts for approximately 10% of total commercial marine traffic arriving into Ireland (CSO, 2017). Luxury cruise-liner traffic has dramatically increased by approximately 30% between 2017 and 2018, and is worth €12 million per year to the local economy (English, 2017). Marine related businesses in the Harbour area include chandlers, boatyards, sail making, boat sales and passenger boat/ferry services.

For the purposes of this research, the marine leisure industry is based on definitions used by (ConwayLenihan and McGuirk, 2017, p. 6) "All leisure boating activity – capturing marine activity from the traditional residential and visiting yachting/cruising activities to the domestic/local dingy racing activities. Yachting (racing and cruising), dinghy sailing, kayaking, water skiing, diving, sea angling from boats, sailing, rowing boats, cruising power boats, RIBs, or boats with in-board/outboard engines and whale/dolphin watching boat trips." The next section provides details of the data and the methodological approach employed to estimate the economic impact of the marine leisure industry.

Methodology

This research employs both primary and secondary data. Primary data included semi structured interviews with users (local marina owners/managers and Port of Cork representative) of Cork Harbour to quantify the usage of the marinas in Cork Harbour. Based on the literature, this research adopts the multiplier method to measure the economic impact of the marine leisure industry to the local economy. The multiplier refers to a final increase in income following an initial injection of spending in the economy. Leddin and Walsh (2013) calculated a multiplier of 1.11 for the Irish economy and more specifically (Government-of-Ireland, 2011) established a multiplier of 1.60 for the Tourism Industry in Ireland (ITIC, 2015). A Scottish study established the economic impact of the sailing tourism market in Scotland and they applied a multiplier of 1.68 (EKOS, 2016). The British Marine Federation (BMF) commissioned a study to generate the economic impact of United Kingdom (UK) boating tourism. (BMF, 2014) identified a multiplier of 1.60 for the recreational services sector, where marinas and moorings reside. This paper employs a multiplier based on the literature of 1.60, suggesting for every €1 million of output/ expenditure generated by the marine leisure industry, it would raise National Income by €1.6 million. That is, a further €0.6 million of output is created in the remainder of the economy (Leddin and Walsh, 2013).

Berthing and Mooring Capacity

This paper establishes the berthing (fixed berth) and mooring (swing mooring) capacity in Cork Harbour in 2016, which contributes to the estimated expenditure in the findings section. Berths, broadly defined as a boat/vessel's allotted place at a wharf or dock and moorings (swing) for boats alongside the shore or riverbank with one or more secured anchors with buoyed riding chain. As stated in the background section, Cork Harbour is home to six marinas. Table 1 details the annual resident berths (available and occupied) in Cork Harbour.

Table 1: Annual Resident Berths (available and occupied) for Cork Harbour 2016

Marina	Available Berths	Occupied Berths	Occupancy Rate
Royal Cork Yacht Club	220	215	0.98
Crosshaven Boat Yard	100	90	0.90
SalveMarine	65	56	0.86
Cork Harbour Marina Monkstown	90	40	0.44
Cork City	N/A*	N/A	N/A
Marnogue (East Ferry)	80	40	0.50
Total	**555**	**441**	**0.79**

Source: Analysis of statistics by authors.

* Cork City Marina have visitor berths up to a maximum of 6 nights and long term resident berths are not available

[1]This does not include the cruise liner business

As referred to in Table 1 above, the occupancy berth rate is the number of occupied berths expressed as a proportion of the available capacity. Of the 555 berths available across the six marinas in Cork Harbour in 2016, 441 were occupied (79% occupancy rate). The Royal Cork Yacht Club has the highest occupancy rate whereas Cork Harbour Marina Monkstown has the lowest capacity. The Cork City Marina has visitor berths up to a maximum of 6 nights and long term resident berths are not available. Table 2 details the number and location of moorings for 2016, the number of moorings have not changed between 2007 and 2016.

Table 2: Annual Resident Moorings (available) for Cork Harbour 2016

Marina	Available Moorings
Crosshaven area	457
Monkstown	122
East Ferry area	107
Aghada	96
Passage	71
Whitepoint	57
Glenbrook	40
Carrigaloe	32
Blackrock	15
Cobh	12
Rushbrooke	11
Ballinacurra area	10
Ringaskiddy	6
Total	**1035**

Source: (Kopke et al., 2008)

The occupancy mooring rate is the number of occupied moorings expressed as a proportion of the available capacity. Of the 1,035 moorings available in 2016, 1,000 were occupied (97% occupancy rate). Moorings are not restricted to the six marinas as there is thirteen locations for moorings in Cork Harbour. Similar to berths, moorings are concentrated in the Crosshaven area with 44% of Cork Harbour moorings located there. Crosshaven is home to the oldest sailing club in the world, Royal Cork Yacht Club, and has a number of sailing related services in the area.

Findings (Economic Impact of the Marine Leisure Industry)

This section estimates the economic impact of the marine leisure industry and its contribution as a place-based approach to the region's economic growth. The annual expenditure and associated output of both residents and non-residents in Cork Harbour is estimated for 2016. For the purposes of this research, residents are persons who berth or moor their vessel annually within Cork Harbour. Non-residents are visiting vessels to Cork Harbour. The direct and indirect employment associated with the marine leisure industry in Cork Harbour is reported below.

Annual Direct Expenditure and Total Output by Cork Harbour Residents

The total number of occupied berths and moorings is 1,441 (1,000 moorings and 441 berths) as reported in the data section above. To estimate the economic impact of berths and moorings, it is necessary to establish the expenditure by the users. The Cool Route Traffic Study (Cool-Route, 2016a) found cruising vessels within the Cool Route have an average standing cost of €6,800. This cost includes marina fees, insurance, repairs and maintenance, launching and storage fees. As the average boat size in Cork Harbour is smaller than the cruising vessel in the Cool Route Traffic Study (Cool-Route, 2016; Cool-Route, 2016a), the current research employs a lower average standing cost (€4,500) for Cork Harbour. This figure (€4,500) was established in consultation with marine leisure users in Cork Harbour. There are 400 day sailors/dinghies located in Cork Harbour with an estimated annual expenditure of €400, resulting in total expenditure of €160,000.

*Annual Direct Expenditure = (€4,500 * 1,441) + (€400 * 400) = €6.64m*

*Total Output = Multiplier * Annual Direct Expenditure of Cork Harbour Residents*

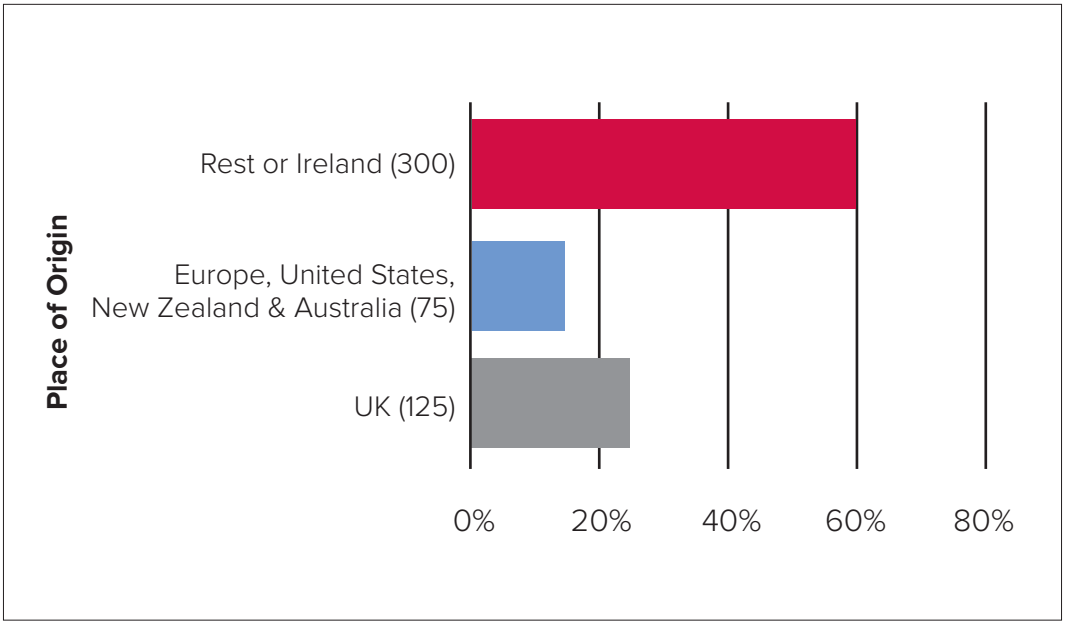
*1.60 * €6.644m = €10,631,200*

The estimated annual direct expenditure by resident berths and moorings is €6.64 million and the estimated annual total output is approximately €10.631 million.

Annual Direct Expenditure and Total Output by Non-Cork Harbour Residents

Non-residents include any visiting vessel to Cork Harbour in 2016. This includes Irish visitors from outside Cork Harbour and foreign visitors to Cork Harbour in 2016. In 2016, 500 private leisure vessels visited Cork Harbour. 85% (425) were Irish and UK visitors and the remaining 15% (75) travelled from Europe, United States, New Zealand and Australia (Figure 2).

Figure 2: Percentage of Visitors to Cork Harbour 2016 by Place of Origin



Source: Analysis of statistics by authors.

The Cool Route Traffic study (Cool-Route, 2016a) estimated the average expenditure per visitor boat night is €130 (€50-€1,000 per night) with an average of three persons on board. On average, the minimum spend per night is €50 and the maximum spend per night is €1,000. The Cool Route Cruising Preferences Survey (Cool-Route, 2016b) found on average, visitors spend three nights (1 night – 5 months) at a final destination. On average, the minimum stay is 1 night up to a maximum stay of 5 months in Cork Harbour.

*Annual Direct Expenditure = (3 * €130) * 500 = €195,000*

The estimated annual direct expenditure from non-residents of Marine Leisure activities is €195,000 and estimated annual output is €312,000.

*Total Output = Multiplier * Annual Direct Expenditure of Non Cork Harbour Residents*

*1.60 * €195,000 = €312,000*

Total Output = Cork Harbour Residents Output + Non-Cork Harbour Residents Output

€10,631,200 + €312,000 = €10,943,200

Therefore, the total current output generated by resident and non-resident vessels in Cork Harbour is an estimate of €10.94 million. This is based on the number of occupied berths (441) and moorings (1000).

Cork Harbour Employment – Direct and Indirect

This section reports the jobs directly and indirectly supported by the marine leisure industry in Cork Harbour. The data for this section was estimated following semi-structured interviews with users of Cork Harbour. 29 direct jobs (full-time equivalent) were supported by the Marine Leisure industry in Cork Harbour in 2016. Direct employment includes marina engineers, marina staff, general manager, administrative staff and boat repairs staff.

Direct Employment = 29

British Marine Federation (2014, 19) found that "for every job directly employed in the boating tourism sector, there are an additional 10 jobs supported in the wider economy through the direct and indirect effects of expenditures of boaters and boating tourism businesses". Based on the British multiplier, the estimated indirect employment is 290 jobs for Cork Harbour. Examples of indirect employment include bars, restaurants, tour operators etc.

*Indirect Employment = 29 * 10 = 290*

Discussion and Conclusion

There are two key contributions of this research. Firstly, it highlights the potential for a place-based approach to regional policy. That is, where a bottom-up, demand-side approach to public support for regions to promote local economic development. Secondly, it establishes and applies a multiplier to the marine leisure industry in an Irish context.

This research estimates the economic impact of a place-based activity (marine leisure industry) to the local economy in Cork. A 79% occupancy rate for berths and 97% occupancy rate for moorings was established. Kopke et al., (2008) also found almost full mooring capacity and that moorings in Cork Harbour are left unused in only exceptional situations. Berthing and mooring capacity is limited in Cork Harbour and as (Funck, 2006) identified, there is an issue of conflict for space and traffic. With potential to grow berthing capacity (currently 79%), the region has potential to increase the economic contribution of this indigenous industry for the Harbour, its hinterland and the wider region. Marine leisure contributes to the regional economy approximately €11 million and with expansion has the potential to improve region's growth and sustainability.

The total output generated by the marine leisure industry is €10.943 million. This is based on the number of occupied berths (441) and moorings (1000). If Cork Harbour was operating at full capacity, the number of available berths would be 555 and number of moorings would be 1035. Full capacity within Cork Harbour is likely to generate a further €1.073 million (approximately) per year. Taking account of the multiplier effect this will generate €7,200 per resident berth/mooring. If Cork Harbour was to attract an additional 100 visitor vessels per year, this would generate €62,400 (approximately), €390 per boat, based on a 3-night stay.

There is potential to grow berthing capacity and number of visiting boats in certain parts of Cork Harbour, evident in the planning application for additional berths at Cork City Marine

Monkstown. The Port of Cork (2009) identified Cork Harbour had significant potential for further development growth, while (Kopke *et al*., 2008) concluded the need for the development for more marinas and larger marinas within Cork Harbour. They found that Cork Harbour cannot accommodate an increase in moorings from its current capacity of 1035, the findings of this current research confirm this.

This research estimates that the marine leisure industry contributes approximately €11 million, supports 29 direct jobs and 290 indirect jobs to the local economy. On average, small companies (10-49 employees) in Ireland employ 19 employees contributing €15.1 billion to the Irish economy. On average each small company generates €973,000. In comparison, the marine leisure industry generates approximately €11 million and supports 29 direct jobs (European-Commission, 2017). National regional strategies (Government-of-Ireland, 2018) recognise that leisure opportunities exist around our coastal regions and the value of Ireland's marine territories. However, our research challenge policymakers, to consider creating an enabling environment for the marine leisure industry to be sustainable not just in Cork Harbour but all around our coast. Landry et al., (2016) found that Cape Hatteras coastline along the Outer Banks of North Carolina is a natural and recreational resource like Cork Harbour, which fuels the local economy through recreation and tourist activities.

Our findings highlight the value of such resources and its contribution to the Cork Harbour region. Such valuable use of resources in Cork Harbour is evidence that the contemporary place-based approach to economic development considered in the literature (OECD, 2011; Dubois, Kistensen and Teras 2017; Pugalis and Gray, 2016) is worth pursuing by policy makers. This heterogeneous approach to regional development and the place-based argument suggests a focus on building local capabilities and the promotion of innovation by all stakeholders (e.g., users, providers, residents and public agencies) to deliver such public policies (Grillitsch and Asheim 2018; Uyarra, Flanagan and Magro, 2017).

While a possible limitation of this report (beyond the scope and definition of the marine leisure industry), many 'non-boating' visitors contribute to the local economy. For example, the valuable impact of the many festivals and regattas enjoyed by land based spectators generates additional expenditure in the area. A sample of activities include the Royal Cork Yacht Club's Cork Week, Blackrock Race, Dragon Boat Challenge and Ocean to City Rowing race contribute economically to the region. Open water swimming events are also a growing activity which attracts visitors and contributes to the local Cork Harbour area and surrounding hinterland. This is a topic for further research and potential growth.

The regional collaborative initiatives (bottom-up) approach of the recently published 'Regional Enterprise Plan to 2020' (Government-of-Ireland, 2019, p.7), which includes the Cork Harbour region, and is cited as one of the six strategic objectives - "Support growth in the region's marine and maritime sector". This is a welcomed start for a place-based approach to regional policy where the value of the natural resources unique to a place is valued as a contribution to regional development strategies. This should focus on the untapped potential and developing opportunities for those living in places like coastal communities and Harbours (Rodríguez-Pose, 2018).

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