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Economic performance amongst English seaside towns

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ABSTRACT

Within urban and tourism studies, although much research has focused on uneven city prosperity and competitiveness, little is known about factors influencing seaside town economic performance. We adopt a place-based approach to understand its determinants amongst 58 of England's largest seaside towns drawing on a bespoke database. Through Partial Least Square analysis, Spearman's Rank Correlation and general linear regression modelling for panel data with random effects, we identify the 'leaders' and 'laggers' along with a set of associated socio-economic characteristics. These insights enhance understanding of how and why economic performance differs amongst these towns. We highlight implications for addressing such socio-economic disparities across seaside towns, which has wider destination relevance, and use these findings to inform policy which seeks to raise the productivity potential of 'lagging' towns.

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Economic performance; productivity; leading; lagging; seaside towns

Introduction

Economic performance and productivity are persistent problems facing the tourism sector globally, with ongoing concern highlighted for example by the Organisation for Economic Cooperation and Development (2001). The UK is no exception since both are of public policy concern, evidenced by the UK Government's Industrial Strategy (IS) (HM Government, 2017), 'Build Back Better' and 'Levelling Up' strategies (HM Treasury, 2021). While this policy focus was designed to help 'left behind' areas such as deprived coastal towns, due to a lack of clarity and detail (including clear objectives and targets), an emphasis on regional economic growth and infrastructure development as opposed to the underlying causes of socio-economic disparities, combined with insufficient funding, it falls far short of what is required to address the deep rooted economic and social challenges that many are experiencing (House of Commons Levelling Up, Housing and Communities, 2023). Equally elusive is the question of how levelling up can be woven into all the government's policy programmes to ensure they have a positive impact on those most in need.

Within the academic community, debates of uneven economic prosperity and divergence are abundant in regions and cities, focused on understanding the nature, extent, causes and effects of these disparities, and on the identification of appropriate responses (Pike et al., 2016). This work has been primarily undertaken within urban studies, in North American and Japanese contexts, with some focused upon Europe and the UK; attention is directed at non-coastal primary and second-tier cities. In contrast, except for a handful of studies investigating the economic

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efficiency of coastal towns (Yang et al., 2019), the productiveness of coastal tourism (Guo et al., 2020), coastal economic development, all set in China (Wu, 2020), and the contribution of tourism to the coastal economy in Poland (Dutkowski, 1995) for example, rarely do international studies of coastal development incorporate economic perspectives.

Within the UK, there are a small number of seaside town studies investigating labour markets (Beatty & Fothergill, 2003), socio-economic conditions (Beatty et al., 2008, 2014; ONS, 2020), economic linkages (Agarwal, 2012), disadvantage (Agarwal et al., 2018) and the impact of Covid-19 (Corfe, 2019), but these do little to explain why over-time, some have fared better than others. Further confounding this issue is limited understanding of coastal town economic performance. The bulk of coastal development studies across the global north and south focus on their evolution, internal dynamics and development (Clavé & Wilson, 2017; Ji & Wang, 2022), on climate change and environmental protection (Lehmann et al., 2021), on sustainability (Goffi et al., 2019) and competitiveness (Pike & Mason, 2011), and their diversification and regeneration (Benur & Bramwell, 2015; Ward, 2015). Without detailed knowledge of the determinants and characteristics influencing the productivity of the 'leaders' and 'laggers', the design of evidence-informed policy mechanisms and interventions is difficult.

For this reason, our study focuses on English seaside towns and whilst being a very British concept, these environments relate more broadly to any international coastal destination which developed over time due to the growth of tourism and the visitor economy. Given the policy context, while a focus on their competitiveness might enhance understanding of the economic performance, sustainability and resilience of their visitor economies, due to the lack of comparable, longitudinal tourism data available for all seaside towns included in this study, this is not possible. Instead, we seek to identify which seaside towns should be targeted for interventions to increase their productivity as part of a state-led policy addressing socio-economic inequalities. We examine factors shaping economic performance across 58 of England's large to medium sized seaside towns, through a multi-level approach, employing Partial Least Square analysis, Spearman's Rank Correlation and general linear regression modelling for panel data with random effects. Informed by the existing literature, this study utilizes a unique seaside database comprising a range of socio-economic variables drawn from publicly available sources.

In order to avoid co-linearity, it begins with an initial focus on 16 economic, social and environmental variables to assess their influence on three economic performance elements – productivity, employment and labour market participation. Their influence is ranked against economic performance, enabling identification of 10 'leading' and 10 'lagging' seaside towns. Then, an analysis of the means difference across 97 human, economic and environment factors was undertaken to distinguish characteristics most associated with the 'leaders' and 'laggers'. Since this study's focus is an investigation of the determinants of economic performance amongst the UKs largest seaside towns which do not encompass significant tracts of rural areas, combined with paucity of international research of coastal localities *per se*, the study is couched within a literature review of economic performance and divergence in urban areas generally and UK seaside towns specifically. The methodology is outlined, and the results and implications for urban and tourism analyses and development theories, and for policy are discussed.

Economic performance, divergence and seaside towns

Early interest of uneven economic performance and divergence focused on why some non-coastal cities have been more successful (Wolman, 1987), on the geographical distribution of decline and its consequences for local residents (Squires et al., 1989). More recent studies have sought to explain differential economic performance of city, metropolitan and urban areas at country, regional and local levels (Dijkstra et al., 2013). Given the wealth of such studies combined with the fact that coastal development is a global phenomenon, it is surprising that investigations of its uneven economic performance are absent.

This is not to say that poor economic performance is not a recognized feature within tourism studies. Butler's Tourist Area Life-Cycle (TALC) (1980) drew attention to the potential for a weak visitor economy, evidenced by stagnation and decline particularly amongst those that had reached post-maturity (Berry, 2006). However, whilst it highlighted several indicators of these stages, such as economic, social and environmental problems, they relate solely to the impact of declining visitor numbers on the tourism industry as opposed to the consequences of decline for the destination and its resident population. Other broad explanations of uneven coastal destination have been couched within the core–periphery theory, and of its internal domestic tourism relationships (Kennell & Chaperon, 2010).

Withstanding existing research, much controversy surrounds the generalizability of studies of economic performance and divergence, particularly in relation to the issues *of* cities as opposed to the issues *within* cities (Allen, 2015). Nevertheless, there is scholarly agreement that structural change is a common trend impacting struggling areas. Population loss, economic contraction and high unemployment within many post-industrial former manufacturing powerhouses are associated with America's mid-west legacy cities (Mallach, 2012) and Germany's shrinking cities (Haase et al., 2014). Long term dependence on industries affected by decline and/or economic restructuring such as tourism, defence and fishing account for the demise of many UK, Belgium, French, Mediterranean and Baltic coastal and seaside towns (Agarwal et al., 2018; Baidal et al., 2013; Groth et al., 2005).

Decline is thus accepted as being a 'fairly normal' pathway of urban development (Bernt, 2009; p. 754) and of coastal destination evolution, though some are able to adapt successfully (Butler, 1980). Cheshire (2006), Martin et al. (2014) and Pike et al. (2016) for example draw attention to cities which have experienced a resurgence and a raft of research explores the success of urban regeneration interventions and strategies (Martin et al., 2019). For international post-mature coastal destinations, economic diversification and creative place-making through culture, are common regeneration strategies (Jarrett, 2015; Ward, 2015; Zebracki, 2018).

Uneven economic performance is clearly non-uniform and best understood to be multi-dimensional, reflecting the interaction between many mutually reinforcing economic, social and environmental factors (Martin et al., 2019; Pike et al., 2016). Whilst it is reasonably well understood in relation to non-coastal urban areas with several economic performance studies identifying a multitude of influential economic, social and environment factors (Martin et al., 2019), knowledge of its determinants in a coastal context is partial, with research limited to a handful of socio-economic studies, set exclusively within UK seaside towns.

Factors influencing urban and seaside town economic performance

Economic factors influencing economic performance in urban areas and seaside towns include innovation (HM Treasury, 2021), with Kim et al. (2019) noting the negative impact of poor broadband on entrepreneurship. Of equal importance is the extent to which there is specialization and diversification in the local economy or a combination of both, termed as diversified specialization (Martin et al., 2014) and of the existence of knowledge-driven industrial clusters (HM Treasury, 2021). Notably a lack of economic diversification has contributed to the demise of many UK seaside towns (Agarwal et al., 2018).

Employment notably job type, participation rate, status (i.e. full- or part-time) and unemployment also affects both urban (Martin et al., 2014) and UK seaside town economic performance (Beatty et al., 2008, 2014), with Beatty et al. (2008) also revealing a link between unemployment and high in-migration. Furthermore, an ONS (2020) study of 169 English and Welsh seaside and coastal towns reveals that the former possessed more self- and part-time employed and less qualified residents than non-coastal towns. In addition, labour productivity, is a key indicator of economic performance, with a below average sub-regional Gross Value Added per head incidence being detected in UK seaside towns (Beatty et al., 2008). It in turn influences other economic variables

such as access to housing, housing affordability, house prices (Coles & Shaw, 2006; Glaeser & Saiz, 2004), quality of life and living standards (Shapiro, 2006).

Social factors are important to urban and UK seaside economic performance as many studies link the presence of highly qualified, enterprising and skilled people with economic success (Martin et al., 2014). Thus, factors such as skill levels (Beatty et al., 2014; Glaeser & Saiz, 2004), educational attainment and entrepreneurship (Glaeser & Saiz, 2004) are found to be particularly influential. In non-coastal area, studies demonstrate that educational skills and attainment can be influenced positively or negatively by population change (Glaeser & Saiz, 2004), city size and density (Dijkstra et al., 2013), age (Gerőházi et al., 2011), and in-migration, including commuting (Martin et al., 2014). For UK seaside towns, the British Resorts and Destination Association (House of Commons CLG, 2007) however identified that size is not a significant factor.

The environment, especially location also influences urban and UK seaside town economic performance since the availability of natural and built resources affects the attractiveness of locations for tourism-related economic development (House of Commons CLG, 2007). However, their attractiveness depends also on their degree of physical connectedness to places within their locale (Kennell & Chaperon, 2010; McCann & Acs, 2011). Indeed, there is increasing evidence to suggest that poor transport and digital telecommunications infrastructure and peripherality are key factors affecting UK seaside towns (House of Commons CLG, 2007; House of Lords Select Committee on Regenerating Seaside Towns, 2019).

Methodology

A multi-stage approach is employed to examine determining factors of economic performance amongst English seaside towns. Given there is no standard seaside town definition, this study adopts Agarwal et al.'s (2018; see pg. 444 for further details) approach, identifying 58 largest seaside towns based also on pre-determined population, over 10,000 (with Swanage being the smallest of the medium sized resorts with 10,160 residents and Bournemouth being the largest at 183,491 residents), and tourism employment thresholds – above 21% – according to the 2011 Census. Due to the lack of granular data for coastal areas including seaside towns, a problem highlighted by the UK's Chief Medical Officer's coastal health report (Whitty & Loveless, 2021), a unique database comprising 97 socio-economic variables were compiled from the Office of National Statistics, the Land Registry and the Labour Force Survey. Data paucity explain why all UK seaside towns were not included and why a focus was placed on large to medium sized towns. Longitudinal data was also required so that the effects of time upon economic performance could be limited. For each of the 97 variables, data were collected which encompassed an eleven-year period (2001-2011) spanning the latest census points.

Stage 1: seaside town economic performance

Partial Least Squares analysis is a commonly used technique and productivity and economic performance were calculated as the ratio of gross domestic product (GDP) to hours worked. A similar modelling approach to that previously employed by Agarwal et al. (2009) was adopted, whereby a two Stage Least Square method was employed to assess the influence of economic, social and environmental factors across 58 seaside towns on productivity and on rates of labour market participation and employment, as the latter are closely linked to the former. Three models were therefore devised with the selection of dependent and independent variables informed by theoretical insights derived from the urban economic performance literature. In addition, to ensure policy relevance, we were cognisant of Her Majesty's (HM) Treasury studies (2000, 2001), the Office of National Statistics (ONS, 2016) findings, and the Government White Paper (HM Government, 2017).

Given peripherality appears to be a key issue affecting seaside towns highlighted by the House of Lord Select Committee report (2019), it was included in all three models. The equations themselves

(i–iii) seek to determine the influence of independent variables contained in the right-hand side of the equation on the dependent variables of productivity, employment rate, and labour participation rate (on the left-hand side of the equation) for each of the 58 seaside towns across the period 2001–2011.

(i) Productivity

$$lnY_{Pit} = \alpha_P + \gamma_P \ln Y_{Eit} + \sum_{j=1}^{2} \alpha_{Pj} lnX_{ijt} + \sum_{k=1}^{3} \beta_{Pk} lnZ_{ikt} + \sum_{m=1}^{3} \delta_{Pm} lnL_{imt} + \varepsilon_P$$

(ii) Employment rate

$$lnY_{Eit} = \alpha_E + \gamma_E \ln Y_{Pit} + \sum_{j=1}^{5} \alpha_{Ej} lnX_{ijt} + \sum_{k=1}^{3} \beta_{Ek} lnZ_{ikt} + \sum_{m=1}^{2} \delta_{Em} lnL_{imt} + \varepsilon_E$$

(iii) Labour market participation rate

$$lnY_{Ait} = \alpha_A + \gamma_A \ln Y_{Pit} + \sum_{j=1}^{7} \alpha_{Aj} lnX_{ijt} + \sum_{m=1}^{2} \delta_{Aj} lnL_{imt} + \varepsilon_A$$

$_i$ represents the respective seaside town, $_t$ *is time, Y* indicates the dependent variables and $_{P, E}$ and $_A$ denote productivity, and the employment and labour participation rates. The final selection of the dependent and independent variables was heavily influenced by longitudinal data availability (i.e. 2001–2011) at the appropriate spatial scale, and the need to avoid multi collinearity. Given these limitations, of the 97 variables comprising the 'seaside town' database, 16 economic, social and environmental variables were selected. Table 1 outlines the specifics of the dependent and independent variables used in this study. As in Agarwal et al. (2009, p. 314) 'α, β, γ and δ are the parameters to be estimated; ε is the error term; and *ln* is the natural logarithm'.

Stage 2: identification of 'leading' and 'lagging' seaside towns

Having gained insights into the underlying factors affecting economic performance across all 58 English seaside towns, stage two entailed the identification of the 'leaders' and 'laggers', achieved by employing Spearman's Rank correlation coefficient. All 16 variables used in stage one of the modelling were ranked, with the positive factors (e.g. productivity), given the highest value of 1, whilst for the negative factors (e.g. sickness, % LLTIs), the highest value was allocated the lowest rank (i.e. 58). An average rank for each observation was derived by dividing the total rank values by 16 for each seaside town. This method was deemed the most suitable as it considered their individual rank for each variable and for each year, thereby tackling the dynamics of change in economic performance. Following this, the 16 variables were organized under economic, social or environmental dimensions from which separate rankings were calculated. The rankings change for each dimension type, highlighting those areas where the towns are well performing and are under-performing. Spearman's rank correlation was also undertaken between each category of ranks to assess correlations between each of the dimension types.

Stage 3: 'Leading' and 'lagging' seaside towns' socio-economic characteristics

Stage three involved a more detailed comparative analysis of the 10 'leading' and 10 'lagging' seaside towns' socio-economic characteristics, to establish whether there were significant differences. All 97 socio-economic and environmental variables comprising the seaside database were used, and individual regression models for panel data with random effects were applied since

conventional means comparison tests are invalid for panel data. The general linear regression model with panel level random effects for the *i*th variable in time *t* was specified as follows:

$$xtreg\ Y_{it} = \alpha + \beta X_{it} + v_i + \varepsilon_{it}$$

xtreg refers to the regression model, Y_{it} is the variable of interest in time and X_{it} is the dummy variable representing 'leading' or 'lagging' seaside towns (i.e. value is 1 i 'leading', 0 otherwise). α and β are coefficients, v_i is the random element known as *IID,* N (0, σ_v^2) and assumed to be independent of ε_{it} and X_{it}, and ε_{it} is observed as *IID* (0, σ_ε^2) independent of the v_i.

Results

Stage 1: seaside town economic performance

The primary purpose of stage one was to evaluate the influence of a range of economic, social and environmental factors on the overall economic performance of 58 English seaside towns. The Hausman specification test (1978) (Tables 1 and 2) informed the modelling technique. Following this, a Likelihood Ratio test was employed to explain any resulting variations revealed by the modelling (see Appendix A1). Only five out of a possible 16 correlation coefficients were 0.50 or above, thereby suggesting no significant multi-collinearity, and that no violation of the test assumptions associated with the multivariate analysis had occurred. In addition, within the variables used where casual relationships might exist, the Likelihood Ratio test also demonstrated that no correlation coefficients were significantly different from zero and the direction of causality was as expected.

Four variables were revealed as being the most influential in the productivity model: (i) car/van ownership, (ii) workforce skills, (iii) resort job density and (iv) place competitiveness. With respect to the employment model, five variables were highly influential on employment: (i) occupational health; (ii) car/van ownership; (iii) workforce health; (iv) out-migration; and, (v) resort job density. In comparison to the productivity model, car/van ownership had the strongest influence on employment. Meanwhile, seven variables were highlighted in the labour market participate rate model: occupational health, household size, car/van ownership, workforce health, working age poverty, out-migration and workforce skills, with occupational health having the greatest influence. Overall, these results highlight several common areas that appear to be negatively impacting the economic performance of some seaside towns. Further probing of these issues is vital in order to identify which seaside towns are the most affected and the extent to which these issues are influencing their economic performance. These tasks are the focus of stages 2 and 3.

Stage 2: identification of 'leading' and 'lagging' seaside towns

Of the 58 English seaside towns included in this study, this stage sought to identify those that are 'leading' and those that are 'lagging' in terms of economic performance. The results demonstrate that overall performance is highly correlated with social and environmental factors. All correlations are significantly different from zero at the 5% level of significance or higher (Table 3). Moreover, the results reveal that those grouped into the upper quartile of 'leading' seaside towns, were all located in the northwest, southwest and southeast of England. Other than the absence of any towns located in England's northeast, there does not appear to be any discernible spatial pattern. The majority of seaside towns in the lower quartile (i.e. 'lagging') were located along the northwest and southeast coast of England.

Stage 3: 'leading' and 'lagging' seaside towns' socio-economic characteristics

Following the identification of 'leading' and 'lagging seaside towns in stages 2, stage 3 entailed a comparative analysis of socio-economic characteristics amongst the 10 best and worst performing

Table 1. Terms and key statistics.

Dependent variables	Factors	Variable	Symbol	Parameter	Definition	Mean	Standard deviation
Economic	Productivity: Earnings	Productivity	Y_P	γ_P	Gross value added per head at constant 2015 prices	25,679.68	2,683.22
Economic	Employment: Employment rate	Employment rate	Y_E	γ_E	No. of employed people expressed as a % of the resident population aged 16–64	70.42	4.67
Social	Labour force	Labour market participation rate	Y_A	γ_A	% of working-age population in employment or are unemployed (those available and actively seeking work)	75.21	3.96
Explanatory variables							
Social	Workforce demography and health	Occupational health	X_1	α_3	% of population with limiting long term illness	22.36	2.51
		Household size	X_2	α_3	No. of persons per household	2.20	0.09
		Car/van ownership	X_3	α_3	No. of households with access to a car or van as a % of all households	28.22	6.49
		Workforce health	X_4	α_3	% of population of working age claiming incapacity benefit/ severe disablement	9.04	2.25
		Working age poverty	X_5	α_3	% of working age population claiming income support	8.43	4.31
		Outmigration	X_6	α_3	Rate of outmigration as % of residents	9.07	2.07
		Workforce Skills	X_7	α_3	% of working age population with higher level tertiary education	20.64	7.24
Economic	Economic characteristics	Public sector employment	Z_1	β_1	% of working age population employed in the public sector	32.81	6.34
		Tourism employment	Z_2	β_2	% of working age population employed in hotels and restaurants and tourism related jobs	46.23	12.54
		Resort job density	Z_3	β_3	No. of employee jobs in the resort as % of resident population of working age	0.59	0.16
Environmental	Spatial factors	Peripherality	L_1	δ_1	Distance (km) from resort centre to nearest city with population over 250,000	99.63	54.06
		Resort size	L_2	δ_2	Resort area as % of local authority area	20.31	30.92
		Place competitiveness	L_3	δ_3	Average house price at constant 2015 prices of all dwellings	194,582.50	56,363.34

Note: Table format adapted from Agarwal et al. (2009).

Table 2. Determinants of English seaside towns' economic performance.

		Models		
Variables	Category	Productivity	Employment rate	Labour market participation
Constant		12.79***	2.15	8.01***
Endogenous variables				
Productivity	Economic	–	0.36*	−0.14***
Employment	Economic	−0.99***	–	–
Workforce demography and health				
Occupational health (LTTI)	Social	–	−0.16***	−0.34***
Household size	Social	–	–	−0.77***
Car/van ownership	Economic	0.22***	−0.31***	−0.15***
Workforce health	Social	–	0.12***	0.09***
Working age poverty	Economic	–	–	−0.01***
Outmigration	Economic	–	−0.21***	−0.07***
Workforce Skills	Social	0.16***	−0.04	−0.05***
Economic characteristics				
Public sector employment	Economic	−0.21***	0.10**	–
Tourism sector employment	Economic	−0.08**	0.01	–
Job density in resort	Economic	0.07***	0.09***	–
Spatial factors				
Peripherality	Environmental	−0.00	0.01*	0.00
Resort size	Economic	0.00	0.00**	0.00
Place competitiveness	Economic	0.12***	–	–
Model diagnostics				
F value		45.87***	29.18***	73.09***
Degrees of freedom				
Hausman estimation test f (3SLS vs 2SLS) Chi-square (9 degrees of freedom)		205.60***		
Decision		Reject 3SLS and accept 2SLS		
Likelihood ratio test, Chi-square (29 d.f)		696.40***		

Note: *** = significant at 1 percent level ($p < 0.01$); ** = significant at 5 percent level ($p < 0.05$); * = significant at 10 percent level ($p < 0.1$).

Table 3. Ranked 'leading' and 'lagging' English seaside towns.

			'Leading' seaside towns			
Resort	Region	Mean	Economic rank/58	Social rank/58	Environmental rank/58	Overall economic performance/58
Formby	North West	185.63	16	38	3	1
Christchurch	South West	216.79	19	14	10	2
Hoylake	North West	223.62	32	15	51	3
Whitstable	South East	231.46	41	48	57	4
Swanage	South West	235.58	22	57	23	5
West Kirby	North West	235.84	53	49	46	6
Sidmouth	South West	237.25	51	44	21	7
Clevedon	South West	246.24	34	51	52	8
Southend-on-Sea	South East	258.60	57	50	16	9
Southport	North West	260.11	31	41	54	10
'Lagging' seaside towns						
Skegness	East Midlands	448.18	21	42	58	58
Clacton-on-Sea	South East	405.71	4	24	15	57
Ramsgate	South East	401.99	35	31	47	56
Penzance	South West	399.53	38	40	34	55
Fleetwood	North West	395.91	36	12	30	54
Heysham	North West	392.00	42	17	37	53
Morecambe	North West	388.24	44	33	29	52
New Brighton	South East	387.25	20	53	22	51
Blackpool	North West	382.42	45	2	9	50
Margate	South East	376.29	18	27	50	49

seaside towns, revealing significant differences between the 'leaders' and 'laggers' across 48 of the 97 variables (Table 4). In terms of economic factors, the data demonstrated that the number of resident people in employment is significantly higher in 'leading' seaside towns. However, despite exhibiting greater proportions of part-time and self-employment (ONS, 2020), those employed on this basis as well as in full-time work, are not characteristics that differentiated seaside towns, a similar finding cited in previous research (Beatty et al., 2008) which found no connections also to unemployment and seasonality. Regarding work type, the percentage of resident people in managerial and professional jobs is significantly higher in 'leading' seaside towns and those in manual and other manual occupations is significantly lower. Moreover, the labour market participation rate is significantly higher in 'leading' seaside towns, the unemployment rate and the percentage of the population of working-age claiming welfare is significantly lower. These findings are consistent with existing research (Beatty & Fothergill, 2003; CLG, 2007; Beatty et al., 2008, 2014; MMO, 2011).

Additionally, in comparison to studies undertaken by Beatty and Fothergill (2003) and the House of Commons CLG (2007), resort size does not explain significant differences between 'leading' and 'lagging' seaside towns, but economic structure does, as he percentage of jobs in banking, finance and insurance was significantly higher in 'leading' seaside towns. Specialization is important in explaining differential economic performance (Martin et al., 2014). Additionally, such knowledge-based jobs (MMO, 2011) can overcome issues of peripherality and distance to markets due to their digital nature, providing there are no issues with broadband connectivity (Kim et al., 2019). Moreover, despite the fact that economic diversity has been associated with economic performance (Martin et al., 2014), in this study, it did not account for any significant differences between 'leading' and 'lagging' seaside towns. In contrast, key indicators of productivity such as mean price (£) for all dwellings, median annual household income, local authority GVA per (£) head and GDHI per head (£) are significantly higher in 'leading' seaside towns.

Several social factors accounted for significant differences between 'leading' and 'lagging' seaside towns. In addition, some have made a legitimate choice to trade a reduced income for a higher quality of life and so life-style factors in 'lagging' seaside towns may be a hidden factor (MMO, 2011). Overall, average age, the percentage of the total population aged 65 and over, demographic dependency and the number of retired people expressed as a percentage of those economically inactive are significantly higher in 'leading' seaside towns. Although these characteristics have traditionally been associated with low productivity (Beatty & Fothergill, 2003), increasingly, retirees are choosing to continue with self-, full- or part-time employment and/or are relocating by the coast for lifestyle reasons, bringing significant wealth with them (MMO, 2011).

In contrast, the percentage of the total population aged 0–15 and 16–64 years old, and population density are significantly higher in 'lagging' seaside towns. At first glance, these results suggest that these seaside towns have a greater pool of economically active people, however, the benefit claimant rate was much higher in 'lagging' seaside towns, thus explaining their poor economic performance. These contentions are reinforced by the fact that the percentage of dependent children receiving child tax-credit in out-of-work families, the percentage of the working age population claiming income support, and the percentage of the population of pensionable age claiming Pension Credits were found to be significantly lower in 'leading' seaside towns. Benefit dependency is a widely recognized characteristic of many seaside towns (Beatty et al., 2008, 2014; MMO, 2011; House of Lords Select Committee on Regenerating Seaside Towns, 2019).

Migration appears to play an important role too in the economic performance of 'leading' and 'lagging' seaside towns, with the rate of in-migration and out-migration being significantly lower in 'leading' towns. This finding mirrors those presented in previous studies (e.g. Beatty et al., 2008; Beatty & Fothergill, 2003; House of Lords Select Committee on Regenerating Seaside Towns, 2019) which connects migration to unemployment, and highlights the fact that 'leading' towns have less transient communities. Moreover, household living and composition are important in accounting for differential economic performance. The number of households in shared dwellings, in social rented, in the private sector, one person households and the number of one family lone

Table 4. Significant mean comparison tests (<10%) between 'leading' and 'lagging' seaside towns.

Category	Socio-economic variable	'Leading' mean	'Lagging' mean	Random effect regression coefficient
Most significant for 'leaders'				
Economic	Employment			
	No. of resident people in employment	74.58	66.28	8.29***
	No. of people travelling more than 10km to work	35.62	19.77	15.85***
	Economic inactivity			
	No. of retired people expressed as a % of those economically inactive	25.89	21.39	4.50*
	Economic structure – employee jobs per sector			
	% of jobs in banking, finance and insurance	13.96	10.81	3.15*
	Nature of employment			
	% of resident people in managerial / professional jobs	30.46	20.32	10.14***
	Economic structure – employee jobs per sector			
	% of jobs in banking, finance and insurance	13.96	10.81	3.15*
	Travel to work			
	Average distance (km) travelled to fixed place of work	18.58	14.67	3.91***
	Labour supply			
	Labour market participation rate	78.09	72.35	5.73***
	Household			
	No. of households in owner-occupied sector	78.91	66.49	12.41***
	No. of one family households	63.31	58.70	4.60***
	Place competitiveness			
	Mean price (£) for all dwellings	212693.70	121393.55	91300.15***
	Median annual household income (£)	27509.73	20442.91	7066.83***
	Productivity			
	Local authority GVA per (£) head	15237.86	13914.25	1323.61*
	GDHI per head (£)	14658.05	13076.94	1581.11***
Social	Population			
	Average age	46.69	42.19	4.50**
	% of total population aged 65 and over	28.40	23.57	4.82**
	Demographic dependency ratio	84.15	73.95	10.20*
	Population health and well-being			
	% of population in 'good' health	66.24	64.02	2.22**
	% of population supporting others because of long-term ill-health or disability or old age problems	11.91	11.19	0.72*
	Population skills			
	% of population over 16 years with formal higher tertiary qualifications	25.84	14.52	11.32***
	Workforce skills			
	% of working age population with higher-level tertiary qualification	27.49	15.54	11.94***
Most significant for 'laggers'				
Economic	Economic inactivity			
	% of people permanently sick/disabled expressed	4.97	9.54	−4.56***
	Unemployment			
	Unemployment rate	4.34	8.08	−3.74***
	% of working age population claiming Jobs Seekers Allowance (JSA)	1.81	3.72	−1.90***
	% of people claiming JSA for over 6 months	24.51	32.51	−8.00***
	% of working age population claiming out-of-work benefits	9.65	19.47	−9.83***
	Poverty			
	% of dependent children receiving child tax-credit in out-of-work families	13.02	26.18	−13.17***
	% of working age population claiming Income Support	5.40	11.49	−6.09***
	% of population of pensionable age claiming Pension Credit Guarantee Element	4.39	9.41	−5.02***
Social	Nature of employment			
	% of resident people in unskilled manual occupations	31.74	44.82	4.23***
	% of resident people in other manual occupations	31.74	44.82	−13.09***
	Migration			
	In-migration rate	8.01	10.01	−1.99***
	Out-migration rate	7.28	9.06	−1.78***

(*Continued*)

Table 4. Continued.

Category	Socio-economic variable	'Leading' mean	'Lagging' mean	Random effect regression coefficient
	Household			
	No. of households in shared dwelling	0.29	0.73	−0.44***
	No. of households in private-rented sector	12.58	20.90	−8.32***
	No. of households in social rented sector	8.52	12.63	−4.11**
	No. of one person households	31.80	35.36	−3.56***
	No. of one family lone parent households with children	5.09	8.21	−3.13***
	No. of other household types	4.89	5.93	−1.04***
	No. of households without access to van/car	20.31	33.16	−12.85***
	Population			
	% of total population 0–15 years old	16.91	18.82	−1.90**
	% of total population 16–64 years old	54.69	57.61	−2.92*
	Population density	14.16	31.56	−17.40***
	Population health and well-being			
	% of population with 'limiting long term illness'	20.90	24.88	−3.98***
	Population skills			
	% of population over 16 years without formal qualifications	22.59	33.11	−10.52***
	Workforce skills			
	% of working age population without any formal educational qualifications	14.67	24.49	−9.81***
	Workforce health			
	% of working age population claiming Incapacity Benefit /Severe Disablement Allowance	6.26	12.18	−5.92***
	% of working age population claiming Disability Living Allowance	3.94	7.31	−3.37***
	% of working age population with a limiting long-term illness	13.00	19.18	−6.19***

Note: *** = significant at 1 percent level ($p < 0.01$); ** = significant at 5 percent level ($p < 0.05$); * = significant at 10 percent level ($p < 0.1$).

parent households with children are all significantly lower in 'leading' seaside towns. Conversely, the number of households in owner-occupied dwellings and one family households are significantly higher in 'leading' seaside towns. These results replicate similar findings highlighted by the House of Commons CLG (2007) and House of Lords Select Committee on Regenerating Seaside Towns (2019) reports, which linked the issue of multiple occupancy housing (HMOs) to local authority placement practices involving the 'social dumping' of vulnerable people.

As highlighted in many academic and policy studies (House of Commons CLG, 2007; MMO, 2011; Beatty et al., 2014; House of Lords Select Committee on Regenerating Seaside Towns, 2019), low skills and educational attainment also account for significant differences between 'leading' and 'lagging' seaside towns. For instance, the percentage of the population aged over 16 years with formal higher tertiary qualifications and the percentage of the working age population with higher-level tertiary qualifications is significantly higher in 'leading' seaside towns. Meanwhile, the percentage of the population aged over 16 years without formal qualifications and percentage of the population of working age without any formal education qualifications is significantly lower in 'leading' seaside towns. Additionally, this study demonstrates that a poorly skilled workforce is associated with the type of work engaged in, with the number of people in managerial and/or professional jobs significantly higher in 'leading' seaside towns, and those in manual and other manual occupations higher in 'lagging' towns.

The health of the local population accounted for significant differences between 'leading' and 'lagging' seaside towns. For example, the percentage of the population in 'good health' is significantly higher in 'leading' seaside towns, whilst those who are economically inactive due to permanent sickness/disability is significantly lower. Meanwhile, the percentage of the working age population claiming incapacity benefit, disability allowances and those with a limiting long-term

illness is lower in 'leading' seaside towns, as is the percentage of the population with long-term limiting life illnesses and those supporting others because of long-term incapacitation or old age.

With respect to environment factors, reinforcing previous studies (MMO, 2011; House of Lords Select Committee on Regenerating Seaside Towns, 2019), peripherality and poor transport links appears to play an important role in economic performance in 'lagging' seaside towns, particularly when linked to lack of ownership and access to a car or van as this study demonstrates. Indeed, the average distance (km) travelled to a fixed place of work is significantly higher in 'leading' seaside towns.

Discussion and implications

Although there are studies of seaside towns providing a national picture of their 'health' and some comparative analyses against non-coastal urban areas (Beatty & Fothergill, 2003; Beatty et al., 2008, 2014; MMO, 2011), this is a first-in-the-field study which investigates how and why England's larger seaside towns' economic performance, expressed as productivity, differ amongst themselves. Based on this specific measure, it differentiates between those that are 'leading' and 'lagging' and highlights a set of socio-economic characteristics associated with the 'leaders' and 'laggers' (see Table 5).

Another important outcome of this study is that it highlights that productivity as a measure of economic performance amongst seaside towns isn't ideal as it fails to fully capture the contribution of the visitor economy. This is not an insignificant issue given that tourism is an important economic activity in all the seaside towns included in this study, with a threshold percentage higher than 21% of those employed in the tourism industry being a key criterion for selection. Many labelled as 'lagging' currently attract high numbers of tourists and public and private sector tourism investment, indicating anything but poor economic performance. Blackpool in Northwest England for example welcomed almost 19 million visitors in 2021 – despite losing the first four months of the year to COVID lockdowns and restrictions. It accounted for almost 40% of all visits to the county – Lancashire – in which it is situated in 2021, generating more than £1.4bn, and supporting in excess of 20,000 jobs (Marketing Lancashire, 2022). Skegness provides another good illustration. In 2021, the town attracted 21.1 million visitors and was recently awarded £24.5 million in UK government Town Deal funding, with projected benefits from just investment in the foreshore predicted to generate an additional visitor spend of £1.9 million (Connected Coast, 2022). Margate and Ramsgate have similarly attracted significant investment with the siting of Turner Contemporary, the Carl Freedman Gallery and 'Dreamland', a leading attraction.

Additionally, although the tourism and hospitality industry has lower productivity compared to other industries such as manufacturing or technology, it can generate significant employment opportunities particularly in regions with attractive tourist destinations; in Blackpool's case, its proximity to the Lake District National Park acts as an added draw. Moreover, increased employment leads to higher consumer spending which in turn stimulates other sectors of the economy creating a multiplier effect. A thriving visitor economy can also drive the growth of ancillary industries such as transportation, retail, entertainment and local services. These sectors may have higher productivity

Table 5. Common characteristics of 'leading' and 'lagging' seaside towns.

Common characteristics: 'leader'	Common characteristics: 'laggers'
Higher employment/less on welfare	Lower employment/more on welfare
More employed in managerial and professional jobs	More employed in unskilled and manual jobs
More employed in finance, insurance and banking	More single-parent households
More in 'good' health	More with long term illnesses and disabilities
Higher incomes; lower in-out migration rates	Lower incomes; higher in-out migration rates
Higher educational attainment and skills	Lower educational attainment and skills
Higher car / van ownership	Lower car / van ownership
Great proportion of the retired (65+ years old)	More living in social, private and rented housing

levels compared to the tourism and hospitality industry.. In addition, high visitor spending especially from international tourists, can boost revenue streams.

While the use of somewhat historical and 'static' census data may account for some of the differences between what is revealed here and what is experienced on the ground, combined with the fact that it is impossible to take account of all macro-economic and local/regional factors that might help or hinder the tourism industry (such as the closing of an attraction, a pandemic or travel restrictions) or their changing function, low productivity is an endemic characteristic of the tourism and hospitality industry. It contributes to socio-economic disparities due to the dominance of low skilled, seasonal, low wage employment, creating an uneven distribution of wealth amongst the resident population. Higher income earners such as business owners and property investors may benefit more from the visitor economy, while low-income residents, particularly those working in low skilled tourism jobs, struggle to make ends meet, leading to higher levels of deprivation among certain segments of the population. Seaside towns also often face housing challenges, including a lack of affordable housing and the displacement of its residents due to rising property prices driven by tourism demand. High housing costs, limited affordable housing options, and seasonal employment creates housing instability, also contributing to the socio-economic challenges that many are experiencing. Additionally, the lack of economic diversification and over-reliance on tourism makes many seaside towns extremely vulnerable to economic downturns and to changes in local and regional circumstances particularly in relation to the domestic tourism market such as the recent cost-of-living crisis or restrictions to overseas travel during the pandemic.

Further interrogation of the data for the 'leading' and 'lagging' seaside towns reveals that the economic structure of the 'leaders' exhibits a more diverse set of industries – agriculture and fishing, construction, transport and banking, finance and insurance – in addition to tourism and hospitality (see Table 6). In contrast, the 'laggers' are less economically diversified, have a notably larger tourism and hospitality sector, and perhaps more importantly, are characterized by a greater presence of employment in public administration. This finding is significant as such dependency is arguably not beneficial to productivity as it is largely concerned with non-traded goods, has limited supply chains and multiplier effects, and is associated with fixed salary structures, relatively lower paid jobs when compared with the private sector, and limited performance incentives.

When taken together, it therefore appears that 'lagging' seaside towns are the 'victims' of two economic sectors – tourism and public administration – which are responsible for skewing productivity measurements.

Emerging from this study are implications for urban and coastal development theory and policy. Theoretically, it firstly highlights the deficiencies of productivity as a metric for the economic performance of tourist destinations such as seaside towns, a finding reinforced by Visit Britain (2019) who argue that service productivity measurements (service quality, consumer satisfaction and the diversity of the industry) are more appropriate indicators but have yet to be effectively operationalized by government, industry or academic research. Co-designing metrics with practitioners and policymakers and the establishment of tourism data and analysis hubs would enable the productivity of seaside town economies to be better understood, facilitating the identification of opportunities to build and strengthen economic and social resilience. At present there is no way of knowing how different parts of the same industry are changing over time or whether and the extent to which firms within the tourism and hospitality sector have different productivity and

Table 6. Economic structure for 'leading' and 'lagging' seaside towns.

2011 year average	Agriculture and fishing	Mining, energy and water	Manufacturing	Construction	Distribution, hotels and restaurants	Transport and communications	Banking, finance and insurance	Public sector	Other services
Leading	1.7	0.2	5.3	4.8	27.1	4.7	12.9	29.0	5.6
Lagging	0.1	1.0	6.6	4.2	29.2	4.3	11.1	37.6	5.8

innovation capabilities. Given the Levelling Up and New Town Deal funds that some English seaside towns have been awarded, such a hub would also enable changes to their functions and implications for their economies to be more effectively tracked.

Secondly, this study contributes to understanding of coastal development dynamics, notably the dual influence of place and people attributes on economic performance and their influence on spatial socio-economic disparities. Much of the Social Sciences' efforts to understand spatial deprivation since the 1960s has adopted inner city and neighbourhood approaches, focused on urban blight. Analysis has ignored the problems of post-mature coastal and seaside towns, and more importantly, little attempt has been made to comparatively evaluate the drivers of, and extent to which socio-economic disparities are present amongst other declining international coastal destinations. Perhaps this is because unlike their rural and urban counterparts, the diversity of coastal development and the heterogeneity of coastal towns remains officially unrecognized. Coastal community classifications and/or typologies are non-existent thereby making it difficult to identify similarities and differences in attributes and characteristics across coastal urban areas elsewhere. From an intervention perspective, this knowledge is highly useful in identifying what works and doesn't work in similar seaside towns and can better inform the design of local place-based interventions that contain similar 'ingredients' but are co-designed according to local needs and priorities.

Thirdly, this investigation also contributes to international policy debates on the efficacy of place-based interventions. Rodriguez and Breach (2021) for example argue the most successful and highly productive cities are those exhibiting economic complexity, a term used to describe the amount of accumulated knowledge a place has. However, a singular focus on such interventions is controversial as some question whether the urban as a spatial unit of analysis is the most appropriate geographical scale to address socio-economic disparities (Di Cataldo et al., 2021). A regional approach dominating recent UK policy attempts to promote economic growth and productivity (i.e the Northern Powerhouse and Midlands Engine) has arguably not benefitted English seaside towns given the persistent challenges they face. Moreover, given the sheer complexity and interconnectedness of 'people' and 'place factors', the effectiveness of such broad approaches is questionable primarily because identifying the entry points for where intervention should begin presents the greatest policy challenge. Co-created and co-designed place-based projects addressing local needs and priorities thus presents the best intervention mechanism for English seaside towns, and certainly this appears to be the preferred approach through which the Levelling Up agenda is being pursued.

Fourthly, what is abundantly clear from our study is that while a visitor economy can be successful with low productivity, economic diversification particularly the growth of high-value products and knowledge intensive industries, improving infrastructure, investing in training and skills development, adopting technology and innovation, and enhancing operational efficiency can contribute to the long-term economic and social resilience of seaside towns.

Conclusion

This study reveals the complexity of factors shaping the economic performance of England's largest seaside towns and need for evidence based tailored, targeted interventions to tackle uneven productivity. The analysis set out in this paper demonstrates that understanding the role of seaside towns is a major policy challenge, particularly as the precarious economic position of UK seaside towns have been exacerbated by the impacts of Covid-19. According to the House of Commons Digital, Culture, Media and Sport Select Committee (2020), lockdown has incurred projected losses across all coastal towns, of around £17.9 billion in revenue. The success of coastal policy intervention clearly rests on decisive substantive, sustained and targeted investment. However, the economic performance conundrum for England's seaside towns, and indeed other international coastal areas experiencing differential economic performance pivots around the focus and starting point for policy action.

Several future avenues for research emerge from this study that are highly relevant not just to seaside towns across Europe, North America and beyond, but to all international urban areas that are experiencing economic divergence and lower productivity. There is a clear need for inter-disciplinary research, drawing on urban, rural and welfare geographies, sociology, health and wellbeing, epidemiology and economics, to inform multivariate analyses, designed to shed further light on the complex relationships that exist between productivity and economic performance. Moreover, a longitudinal comparative analysis of the economic performance of all coastal and non-coastal towns would be incredibly useful in highlighting productivity changes and the factors influencing this, and to account for why some types of coastal towns are doing better or worse than other inland towns and cities.

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Appendix

Appendix Table A1: Explanatory variables correlation matrix

	Education	Periphery	Resortsize	h-Price	Sick	Public	Tourism	Jobdens	Family	Outmigra	Workhth	Poverty	Carown
Education	1												
Periphery	−0.182	1											
Resort size	0.0917	−0.1445	1										
House price	0.6351	0.0595	0.0915	1									
Sick LTTI	−0.4843	0.2389	−0.229	−0.2931	1								
Public job	−0.0205	−0.0982	0.0389	−0.2234	0.1286	1							
Tourismjob	−0.0255	0.3975	−0.1761	0.1704	0.1069	−0.3482	1						
Jobdensity	−0.2216	0.1042	0.2052	−0.0041	0.0304	−0.3128	0.1189	1					
Family	−0.0214	−0.1852	−0.0087	−0.1105	−0.372	0.0521	−0.1492	−0.3336	1				
Outmigra	0.053	0.1649	0.2202	−0.0029	−0.409	−0.0356	0.071	0.2737	−0.1883	1			
Workhealth	−0.6028	0.1995	−0.0098	−0.6213	0.5945	0.2675	−0.0565	0.0159	−0.0501	0.0458	1		
Poverty	−0.5932	0.1242	0.0221	−0.6548	0.2156	0.0706	−0.0679	0.1112	0.0282	0.0716	0.5518	1	
Carown	−0.4269	0.1343	0.0758	−0.5293	0.0721	0.264	−0.1246	0.2186	−0.1421	0.484	0.6077	0.4757	1