Culture, Entrepreneurship and Uneven Development: A Spatial Analysis

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Abstract

Interest in the proposed connection between culture and entrepreneurship has grown significantly in recent years. However, less attention has been given to the nature of the overall impact of this proposed association on development outcomes, particularly at a local level. In response, this paper analyses the relationship between the nature of the culture, entrepreneurship and development experienced across localities, proposing that the link between culture and development is mediated by entrepreneurship. It focuses upon the concept of community culture, as well as embracing a notion of development incorporating both economic and social well-being outcomes. Drawing upon a multivariate spatial analysis of data from localities in Great Britain, the findings indicate that differences in rates of entrepreneurship are strongly influenced by the community culture present in these localities. Furthermore, a bidirectional relationship is found to exist between entrepreneurship and economic and social development outcomes. It is concluded that the embeddedness of local community culture presents a significant challenge for those places seeking to promote entrepreneurially-driven development.

Keywords: entrepreneurship; culture; community culture; context; uneven development; localities; well-being.

This is an Accepted Manuscript of an article published by Taylor & Francis Group in Entrepreneurship & Regional Development: An International Journal on 6/12/2014, available online: http://www.tandfonline.com/10.1080/08985626.2014.985740.

To cite this article: Robert Huggins & Piers Thompson (2014) Culture, entrepreneurship and uneven development: a spatial analysis, Entrepreneurship & Regional Development: An International Journal, 26:9-10, 726-752, DOI: 10.1080/08985626.2014.985740

1. Introduction

Evidence linking entrepreneurship to development has been highlighted by a number of studies (van Stel et al., 2005; Beugelsdijk, 2007). Other studies have suggested that cultural differences across places subsequently impact on entrepreneurial activity rates (Blanchflower, 2000; Freytag and Thurik, 2007). However, although researchers have applied a variety of techniques to investigate possible connections between specific elements of culture and entrepreneurial activity (Beugelsdijk and Maseland, 2011; Krueger et al., 2013), few studies have considered the nature of the overall consequences for development, particularly at a local spatial level.

The primary aim of this paper is to analyse the association between culture and the unevenness of development at the local level. It proposes that this association is one mediated by the underlying rates of entrepreneurship across localities. Furthermore, it seeks to incorporate a notion of local development that goes beyond the traditional focus on local economic outcomes to one that also embraces factors relating to rates of social development and well-being. The paper focuses upon the concept of community culture, which is considered to refer to the broader societal traits and relations that underpin places in terms of prevailing mindsets and the overall 'way of life' within particular places. As others have indicated, the notion of 'community' is a slippery concept, and can relate to societal grouping that may, or may not, be place-based (Miller, 1992; Storper, 2008). The notion of 'community culture' used in this paper principally refers to the social structure and features of group life within regions and localities that can generally be considered to be beyond the economic life of such places. In essence, community culture consists of the overarching or dominant mindsets that underlie the way in which localities function, i.e. the ways and means by which individuals and groups within communities interact and shape their environment.

Given the above aims, the paper focuses on addressing the following principal research questions: (1) to what extent is the unevenness of local development associated with the types of community culture in existence across localities?; (2) to what extent is the unevenness of local development associated with differences in rates of entrepreneurship across localities?; and (3) to what extent does entrepreneurship act as a factor that mediates the impact of community culture on local development? With regard to the nature and measurement of such local development, there is a growing recognition that economic outcomes may not only be relatively weakly connected to social outcomes and well-being (Diener and Biswas-Diener,

2002), but may even have negative consequences (Deaton, 2008). This means that a broader conception of what is regarded as local development needs to be considered (Pike et al., 2007). This paper, therefore, seeks to address the fact that local development cannot be considered to relate only, or even necessarily, to the economic growth of local places, but consists of a more complex conception concerning how places improve and get better with regard to a wider socio-economic tapestry of factors (Pike et al., 2007).

The paper further builds on the growing interest in the role of context as part of the entrepreneurial process (Boettke and Coyne, 2009; Audretsch et al., 2011). In particular, it addresses previous research identifying social norms and 'class' as an important factor influencing these processes (Anderson and Miller, 2003; Meek et al., 2010). The paper seeks to add to these contributions by adopting a more all embracing notion of socio-spatial context. Similarly, it seeks to contribute to the emerging evidence base suggesting that patterns of spatial uneven development stem from the underlying entrepreneurial milieu (Audretsch and Keilbach, 2004a; 2004b). In this case, however, the paper engages with a conception of development that goes beyond the economic factors upon which most studies focus, to include the more social aspects of spatial development indicated above.

To achieve the above aims, the paper draws on an analysis of data from localities in Great Britain. A number of indices are developed based on those elements identified within the existing literature concerning community culture, entrepreneurship and development. Importantly, studies have shown that there is a lack of clarity in terms of the direction that relationships may run between these elements. In most cases, there is an argument for causal relationships to run in both directions (Beugelsdijk and Maseland, 2011). This means that the methods utilised must allow for bidirectional relationships to exist between each element studied. Therefore, given the potential for multiple, multidirectional relationships to exist, the relationships suggested by the data are investigated using a system of equations that allow culture, entrepreneurship, and the elements of local development to be endogenously determined.

The remainder of the paper is structured as follows. Section 2 outlines the conceptual framework upon which the paper is founded, and the proposed associations between culture, entrepreneurship and development. Section 3 presents the methodology used to empirically investigate the relationships between the key concepts along with the variables used to

represent them. Section 4 presents the results of the empirical analysis, with section 5 providing a discussion of these results and the conclusions reached.

2. Culture, Entrepreneurship and Development

From a conceptual perspective, this paper seeks to explore the link between culture, or more specifically community culture, entrepreneurship and development at the local level. In particular, it proposes that local entrepreneurship is a factor that mediates the relationship between local culture and development. Furthermore, as indicated by Figure 1, local development is proposed to be a dual concept incorporating the nature of development in terms of not only economic outcomes but also outcomes relating to social development and well-being. In this section the association between the three underpinning concepts of culture, entrepreneurship and development are discussed, along with a conceptualisation of the nature of community culture.

Please insert Figure 1 about here

2.1 Culture and Development

In his seminal contribution, Tylor defines culture as 'that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society' (Tylor, 1871:1). At its most fundamental level, therefore, the concept of culture generally refers to the way in which people behave, often as a result of their background and group affiliation. Rather than concerning individual behaviour it relates to shared systems of meaning within and across ascribed and acquired social groups (Hofstede, 1980). Van Maanen and Schein (1979) suggest that culture can be defined by the values, beliefs and expectations that members of specific social groups come to share, while Hofstede (1980) famously refers to it as the collective programming of the mind, which distinguishes one group or category of people from another.

In their examination of the role of culture in economic thinking, Beugelsdijk and Maseland (2011) consider culture to be the collective identity of communities, suggesting that cultural analysis is traceable back to anthropological work such as Mauss's (1925) cross cultural study of economic processes in *The Gift*. Anthropological approaches have often taken the perspective of highlighting how the culture of under-developed societies itself constrains this development. More economic approaches such as the work of Hirschman (1965) criticise the cultural constraint approach as being ethnocentrically biased, suggesting the question: can

communities and societies have the ‘wrong culture’? Others, such as Williamson (2000), view culture as the ultimate source of constraints. From a spatial perspective, therefore, culture can be considered as an element of the bounded rationality of places. As Fayolle et al. (2010) note, the connection between culture and development can be traced back to the seminal work of Landes (1953). Others trace it to the work of Weber (1930), which suggests an endogenous relationship between culture and development (Frederking, 2002; Tabellini, 2010).

Culture can be generally considered to form part of the place-based development systems linking economic performance with societal well-being (Tönnies, 1957; Easterlin, 1974; Beugelsdijk et al., 2004; Johnstone and Lionais, 2004; Huggins and Thompson, 2014). It is the cultural attributes of places that act as the glue forming the interdependency between the economic logic and societal logic of places (Knack and Keefer, 1997; Keating et al., 2003; Moulaert and Nussbaumer, 2005; Storper, 2005). In some localities this cultural glue may be a facilitating force enabling economic development and relatively enhanced levels of well-being, while in others it may be a factor impeding the development of places in an economic sense, as well as pushing down relative levels of well-being.

With regard to the specific concept of community culture, it is important not to conflate the conception of ‘community’ with that of ‘place’, which are analytically distinct – although strong communities are often embedded in specific places (Miller, 1992; Storper, 2008). Like culture, the meaning of the term community is ambiguous, often referring to either a morally valued way of life or social relations in a discrete geographical setting (Agnew 1989, Miller, 1992). The notion of community is associated with the nature of social ties and interaction, as well as the nature of the morality and behavioural norms present and practiced within localities (Gerson et al., 1977; Smith, 1999). A ‘stronger’ community culture, however, may in itself not always lead to a stronger economy. An over reliance on community, rather than formal institutions, can open a community up to the dangers of rent seeking by individuals at the expense of the group as a whole, as well as the existence of insider-outside problems whereby the existing community benefits at the expense of those who are not members (Trigilia, 1992; Farole et al., 2011). Also, whilst trust may be developed within communities, it may not be the type of generalised trust required for economic development (Rodríguez-Pose and Storper, 2006). As such, not all close-knit communities may have positive effects on development (Rodríguez-Pose, 2001; Martin and Sunley, 2003; Storper, 2005).

It should be borne in mind that no particular prevailing community culture across places should necessarily be seen as superior (Miller, 1992; Syssner, 2009; Huggins and Thompson, 2014). It is not necessarily clear that the success of a locality should be entirely based upon economic measures of success, and whilst some place-based cultures may not encourage the development of a complementary thriving economy, they may provide lifestyle benefits captured only by broader well-being measures (Layard, 2005).

Needless to say, measuring place-based culture is a somewhat difficult and controversial undertaking. Isolating particular measures from indicators that could be considered the outputs or outcomes of local and regional development presents a range of issues in terms of identifying potential causality and endogeneity.

2.2 The Duality of Development

Research on local and regional development has historically concentrated upon economic growth, with measures such as Gross Value Added (GVA) per capita and employment rates often emphasised (Armstrong and Taylor, 2000). However, the value of traditional measures of economic development can be questioned where localities have similar levels of income, but where populations enjoy differing standards of living (Sen, 1999); for example, where particular paths to economic success have longer-term ramifications in terms of pollution and path dependency (Power et al. 2010). As such, therefore, it is important that theory considers what should be the overall objectives of local development. These objectives are likely to be context specific, as well as being underpinned by the universal principles and ideals of democracy (Pike et al., 2007; Victor and Rosenbluth, 2007; Dolan et al., 2011).

New concepts and measures relating to well-being, or ‘happiness’, are emerging as useful constructs to better understand not only the social condition of communities, but also the social welfare of development (Layard, 2005). Outcomes for citizens can take a number of forms, and while much analysis has concentrated on pure financial outcomes, clearly this does not capture all aspects of welfare. Happiness or well-being provides other measures of outcomes, with the nonfinancial aspects of well-being being associated with factors such as greater physical and mental health (Huggins and Thompson, 2012). Place-based development, therefore, should encompass broader notions concerning how places improve and get better in relation to more widely encompassing socio-economic variety of elements (Pike et al., 2007). In other words, place-based development represents a change for the better for those living and working in particular places, which may come in a range of differing forms.

2.3 Entrepreneurship and Development

Theories linking entrepreneurial activity to economic development are long-standing, with Schumpeter (1934) most prominently noting the role played the creative destruction of entrepreneurs in generating new products, new methods of production and identifying new markets. Against this background, the empirical evidence linking entrepreneurship to greater economic growth at the national, regional or local level remains somewhat contested (van Stel et al. 2005; Kirchhoff, 1996; Wennekers and Thurik, 1999; Wong et al., 2005).

Alongside economic development, growing evidence suggests that entrepreneurship may provide considerable value in terms of well-being beyond that achieved indirectly through the higher rates of growth (Eden, 1973; Naughton, 1987; Schjoedt, 2009). Carree et al. (2002) note that, along with the economic and business reasons for the resurgence in the role of small businesses within the economy, a desire for greater self-actualisation is also important. Although many firms may not create employment or generate innovative outputs, these more lifestyle oriented businesses may lead to greater well-being. This may be in practical terms through the provision of flexible employment that works around other familial objectives (Buttner and Moore, 1997). Studies have repeatedly found that autonomy and independence are cited as motivations for engaging in entrepreneurial activities rather than pecuniary reasons (Hundley, 2001). Furthermore, the opportunity to use the creative sides of personalities may also feature in motivations for business ownership (Marcketti et al., 2006; Prottas and Thompson, 2006; Schjoedt, 2009).

Conversely, some studies suggest that rather than boosting the well-being of society, entrepreneurship may result in the further marginalisation of those who are already among the most marginalised (Thompson et al., 2009). Studying the links between self-employment and happiness at the aggregate level, El Harbi and Grolleau (2012) find that higher self-employment levels have a negative direct effect on life satisfaction. Edwards and Field-Hendrey (1996) have noted that those looking to use flexible working arrangements provided by self-employment, such as the ability to work from home, are often heavily penalised in financial terms.

In general, studies mostly assume that entrepreneurial activities and economic success positively influence well-being. However, Graham et al. (2004) suggest that the relationship could also run in the opposite direction. They find evidence that individuals with higher residual happiness are likely to earn more and enjoy better health in the future. They suggest

that self-esteem and optimism may be positively linked not only to well-being but also economic outcomes. Understandably those enjoying greater well-being may be more optimistic about the future, and therefore causality could flow in both directions.

2.4 Culture and Entrepreneurship

Culture has long been linked to entrepreneurship, stemming back all the way to Weber's (1930) work on the Protestant work ethic. Research examining the relationship in a more systematic manner has increased greatly in recent years (Hayton et al., 2002). Some of the earliest work is attributed to McClelland (1961), who examined the links between the need for achievement and entrepreneurial involvement. Other studies have investigated entrepreneurial activity from the perspective of: the level of trust (Neergaard and Ulhøi, 2006); individualism (Shane, 1993); locus of control (Mueller and Thomas, 2000); and uncertainty avoidance (Wennekers et al., 2007). The general implication is that those societies with a greater proportion of the population bearing these traits will also have higher levels of entrepreneurship (Uhlaner and Thurik, 2007).

Culture may also make entrepreneurial activities more acceptable and better rewarded through a process of legitimation (Etzioni, 1987; Jack and Anderson, 2002; Anderson and Smith, 2007; Wennberg et al., 2013). As noted above, entrepreneurship may be a route to greater independence and freedom. Where disparities are greater in the attitudes within the population, a group may be pushed out by the majority and engage in entrepreneurship as a means of expressing themselves (Baum et al., 1993; Noorderhaven et al., 2004).

Although changes in rates of entrepreneurship over time are often attributed to economic conditions (Blau, 1987), along with longer run changes in technology (Carree et al., 2002), differences between nations appear to be relatively persistent (Grilo and Thurik, 2006; Wennekers et al., 2005). However, it is not just at the national level that differences have been found in entrepreneurial activity rates, but also across regions (Reynolds et al., 1994; Armington and Acs, 2002; Bosma and Schutjens, 2009), and even within regions differences have been found that persist over time (Gould and Keeble, 1984; Mueller et al., 2008). One explanation that has been proposed is the presence of differing cultures that are more or less suited to the encouragement and propagation of entrepreneurial activities (Blanchflower, 2000; Freytag and Thurik, 2007).

Importantly, as well as influencing the quantity of entrepreneurs present in locality, culture may also influence the nature of entrepreneurial activity. Studies such as Benz (2009) and Hamilton (2000) highlight the role played by both pecuniary and non-pecuniary rewards in decisions relating to entrepreneurship. As indicated above, non-pecuniary rewards may include factors such as greater flexibility to accommodate other activities and the pleasure of being your own boss (Hundley, 2001; Moskovitz and Vissing-Jorgensen, 2002; Benz and Frey, 2003). For some cultures, the importance of these non-pecuniary rewards may be relatively greater, which could potentially make them less susceptible to changes in economic conditions. Gimeno et al. (1997) also note that participation in entrepreneurial activity is not only related to changes in the returns to entrepreneurship, but also to the changes in the alternative rewards, effectively the threshold of returns that entrepreneurship must out-perform for individuals to enter and continue their participation.

2.5 Community Culture

In order to further conceptualise and empirically analyse the potential association between community culture and entrepreneurship and development at the local level, we draw inspiration from Hofstede's (1980) seminal work on developing different dimensions of culture, which has led to the establishment of a stream of literature examining this issue in considerable depth. Whilst Hofstede's work was based around a specific survey of individuals within one large international organisation, IBM, the findings from his work have been adapted and applied to a variety of settings, especially at the national level (see Klyver and Foley (2012) for a review). The difficulty with transferring Hofstede's findings from an organisational to a place-based setting is that there is often greater within group (community, country) variation than between group variation, and outside the like-for-like comparison of individuals undertaking the same roles within the same organisation in different nations, contextual elements are likely to have a substantial effect. This is likely to be further influenced by any self-selecting elements of the occupational and non-occupational roles that individuals choose.

Whilst acknowledging these limitations, as a pragmatic starting point for the empirical assessment the current study seeks to establish an original typology of local community culture as means of configuring a series of indicators allowing broad measures of different facets of such culture to be measured. With this in mind, the framework employed consists of five measures of community culture consisting of: embracement of work and education;

social cohesion; femininity and caring activities; risk and adherence to social rules; collective action and equality. Each of these is discussed in turn.

Embracement of work and education - is in many ways related to the extent to which individuals place a strong emphasis on self-sufficiency and making a contribution to society (Gregson et al., 1999; Brennan et al., 2000). However, in order to accomplish this, the correct investments in human capital must be made and this requires a long-term orientation. Societies and communities often face a constant struggle to transmit values regarding employment and education from one generation to the next, with the failure to do so leading to the development of institutions that are more suited to economies with fewer incentives for activities such as entrepreneurship (Bénabou and Tirole, 2010).

Social cohesion - the trust formed within a community may be strongly influenced by the extent to which there is a cohesive and uniform group that makes up the majority of the community population. Some evidence has suggested that group membership symbolizing this is correlated with stronger economic growth (Knack and Keefer, 1997; Zak and Knack, 2001; Beugelsdijk et al., 2004; Guiso et al., 2004). Equally, if groups within a community are deeply divided this can hold back economic growth, as generalized trust will be reduced (Easterly and Levine, 1997; Aghion et al., 2004). However, there is potential for groups to be too inwardly looking where bonding ties are strong, limiting access to new ideas from outside the community (Portes and Landolt, 2000; Florida, 2002a; Levie, 2007).

Femininity and caring - although individualist and competitive societies may achieve greater economic success, this is not necessarily the case if competition is too great. Conflict and violence can result, with fractures appearing within the community. The market offers an opportunity for this competition to be used in a less destructive manner than could be the case. However, there is still potential for resources to be wasted, e.g. the desire to possess certain goods without regard for the generation of negative externalities on others (Hirsch, 1977), or where higher income levels do not necessarily lead to greater well-being (Easterlin, 1974). This means that although many of the traits associated with entrepreneurial and business activities are often thought to be masculine in nature (Bennett and Dann, 2000; Bruni et al., 2004), in order to achieve higher levels of well-being and greater work–life balance, lower working hours and greater flexibility may also be beneficial (Hundley, 2001). Social norms and expectations may result in contrasting effects on male and female welfare, as differing domains take precedence for each gender (Parasuraman et al., 1996).

Adherence to social rules - within communities, social conventions reinforced by reputational effects are required often as coordination tools for maintaining accepted social norms (Lorenzen, 2007). There is a danger that if unchecked subversive activities could become the 'new' social norm and be seen as acceptable forms of behaviour (Kearns and Forrest, 2000). Where this is the case, the level of trust within the community is likely to fall, plus it may be harder to form bridging ties to other communities, as individuals from within those communities are likely to suffer from a stigma effect (Atkinson and Kintrea, 2001). Although there is evidence from studies such as Noorderhaven et al. (2004) that creativity can often be an outlet where social rules are too constraining, there is also evidence that adherence to social rules, such as respect of authority and traditional values increases the level of trust present, allowing interactions for mutual benefit, such as in the case of entrepreneurship (Hechavarria and Reynolds, 2009). In particular, social conventions and reputation are important coordination tools for information gathering activities (Lorenzen, 2007).

Collective action and equality - it is unclear whether a more individualistic or collective cultural approach is most conducive to entrepreneurship and economic development, with there being potentially benefits from both cultural systems (Thomas and Mueller, 2000; Kirkman et al., 2006; Hayton and Cacciotti, 2013; Wennberg et al., 2013). In more individualistic systems, although less trust may be built up within the community, the community may possess a greater propensity toward market activities. More collective systems can create greater trust within groups, but any 'aggressive' tendencies must usually be directed outward at other groups (Greif, 1994; Casson, 1995; Ettlinger, 2003). Closely associated with collective action is a desire for equality or greater equity, and where this is the case the rewards achieved by successful businessmen and women, or other successful agents, may be viewed less positively by the remainder of the community. Community enterprises may be viewed as one way of boosting all community members' welfare, providing an equity driven collective approach that can be twinned with incentives for greater enterprise (Casson, 1995).

3. Methodology

The data used within this study is measured at the local authority district level, for which there are 380 local areas across Great Britain, providing access to a much wider range of data than alternative disaggregations such as travel to work areas or counties. For the analysis conducted within this study, two local authority districts are excluded, the City of London

and the Isles of Scilly, since there are data availability issues with both. Also, they are atypical of the rest of the nation, with both being extremely small in terms of geographical area and population. The Isles of Scilly are remote and heavily reliant on the tourist industry for the success of the economy. The City of London on the other hand is at the heart of the London financial sector with an exceptionally high GVA per capita.

The operationalization approach adopted in this paper has sought to draw upon a relatively wide range of indicators that can be usefully considered to be relevant for understanding the particular aspect of community culture they are seeking to measure. Such an approach provides a means for establishing measures of cultural concepts that are relatively robust, and in line with established methods. In this respect, the secondary data variables used to create each of the aspects of community culture are outlined in Table 1. The weightings are designed to provide equal significance to each major component of the different aspects of community culture.

In summary, the key indicators covered are as follows: (1) embracement of employment and education - male economic activity rates; proportion of population with NVQ4 plus; proportion of population with no formal education; primary school absenteeism; secondary school absenteeism, (2) social cohesion - ethnic similarity; religious similarity; proportion of the population identifying with a religion; gross migration as a proportion of the population; proportion of the population which is UK born; proportion of the population perceiving themselves as bearing the nationality of resident country; proportion of the electorate voting in the general election; (3) feminine and caring activities - female economic activity; female part-time employment; unpaid care provision of 1 hour or more a week; (4) risk and adherence to social rules - age standardised alcohol related deaths; under 18 years old conceptions; non-sexual violent crimes; crimes by deception; and (5) collective action and equality - trade union membership; proportion of the population voting for left of centre parties. Indices for each of the cultural components are formed using logged terms to reduce the influence of outliers and skewed distributions. Indices for each measure are formed on the basis of the UK average value.

Please insert Table 1 about here

Although it is perhaps limiting to restrict entrepreneurship to new business starts, excluding entrepreneurial activity within existing businesses, this has been the most commonly used definition in the enterprise literature (Kao, 1989; Binks et al., 2006). Here, entrepreneurial

activity levels are defined as the rate of new firm creation scaled by using the number of new business starts per 10,000 population, and as a proportion of the existing business stock. Each of these measures is recorded as an index with the average UK rate equivalent to 100. The business start indices are given an equal weighting in a combined entrepreneurial activity index. A third component included within the combined entrepreneurial activity index is the proportion of the firm stock that is less than 10 years old. This reflects the on-going dynamism present within the existing business stock. This measure of business dynamism is given an equal weighting with new business creation in the overall index. All measures used here are drawn from the UK Office for National Statistics (ONS) Business Demography publication and used in combination with the mid-year population estimates from the ONS.

The model developed in earlier sections, based on the existing literature, suggests that there are four dependent variables of interest. The first of these dependent variables represents the fact that as well as working as a mediating factor in the model presented in Figure 1, entrepreneurial activity (*Entre*) will also be influenced by the other variables. The second dependent variable will reflect different aspects of community culture (*Community*). Local development is captured by the more traditional measure of gross value added per capita (*GVA*), but to account for the broader concerns outlined earlier a societal well-being (*WB*) measure is also included. Given the connections noted in the previous sections, a multivariate approach is adopted using regression analysis. It is assumed that the dependent variables are endogenous and each dependent variable appears on the right hand side of the equations for the other three dependent variables. In order to estimate such a system of equations, a three-stage least squares approach is utilised (Zellner and Theil, 1962). Exogenous variables are used to create instruments to represent any endogenous variables appearing as dependent variables in one equation and on the right hand side of another equation. A consistent estimate of the covariance matrix of equation disturbances is produced from the residuals of the estimation of each equation, and is used to perform a generalised least squares estimation.

A number of additional factors are likely to have common influences on most or all of these variables, in particular connections to other areas represented by the relatively close proximity of primary maritime ports and airports. For domestic travel, rail connections represented by the gross number of train journeys (both in and outbound) scaled by the population of the locality is one potential measure. This data is drawn from Department for Transport/Office of Rail Regulation. As noted above, the energy intensiveness of a locality

may influence both economic and well-being outcomes (Huggins and Thompson, 2012; Haughton and Counsell, 2004). Here, we capture this through the 2009 carbon dioxide (CO_2) emissions per head using data from the AEA (2011). This vector of exogenous independent variables (***X***) appears in each of the equations. However, in order to identify the equations within the system, exogenous variables need to be included in each individual equation that theoretically should not be related to the other dependent variables. These additional independent variables, therefore, differ between each of the equations. The relationships that are estimated in an attempt to capture the linkages suggested by the theory outlined above are each discussed in turn below.

The first equation estimated (equation 1) uses gross value added per capita (*GVA*) as the dependent variable to represent more traditional measures and conceptions of local development (Armstrong and Taylor, 2000; Storper, 1997). Although data on GVA per capita is not available at the local authority level, productivity per employee is available at the Nomenclature of Territorial Units for Statistics (NUTS) level 3. Each NUTS3 area usually represents one or a number of local authority district areas. In order to estimate GVA per capita in each local authority district it is assumed that productivity is uniform across the NUTS3 area. The GVA per capita per head is estimated by multiplying the productivity per employee by the ratio of district employees to district population. In equation 1 the identifying independent variables used are the proportion of the workforce employed as senior managers or directors (*Management*) and the proportion employed with research and teaching positions (*Research*), as defined at the major employment group level in the Standard Occupation Classification (SOC) 2010. Carter (1994) defines workers such as managers, who are not directly involved in production as ‘agents of change’. Those employed in these occupations are seen as key inputs into the knowledge creation system that drives economic growth (Bradley and Taylor, 1996; Huggins and Izushi, 2007). This data is obtained from the Annual Population Survey (APS) for 2010.

$$GVA_i = \alpha_1 + \beta_{12} WB_i + \beta_{13} Entre_i + \beta_{14} Community_i + \boldsymbol{\psi_1} \mathbf{X}_i + \gamma_1 Management_i + \gamma_2 Research_i \quad (1)$$

The second equation takes a similar form, with a variable representing the broader societal well-being (*WB*) elements of local development acting as the dependent variable, and the other three dependent variables appearing as endogenous variables on the right hand side of the equation. Although no measure of subjective well-being is currently available at the local

authority level in the UK, a number of alternatives are available that have been used by studies in the past including: feeling of belonging in local community; satisfaction with home area; physical health (as health satisfaction is found to be strongly correlated with overall satisfaction) (Deaton, 2008; Knabe et al., 2010); proportion of the population seeking mental health treatment (Fordyce, 1988); and male suicide rates, reflecting the preponderance of extreme unhappiness (Charlton et al., 1992; Oswald, 1997). Within this study we utilise suicide rates as these reflect a holistic measure of well-being, or more precisely a lack of it, regardless of source and nature of this unhappiness. Within the mainstream literature concerning well-being, suicide rates are an acknowledged and recognised measure of societal well-being (Oswald, 1997; Wilson and Walker, 1993; Fordyce, 1988; Charlton et al. 1992). The data relating to male suicide rates is based on that published in *Health Statistics Quarterly* and represents age adjusted suicides per 100,000 male population of the locality over the period 1998-2004 (Brock et al., 2006). Male suicide rates are used in preference to overall rates due to missing data relating to female suicide rates.

Those variables used to identify the equation are drawn from previous research. The percentage of income support claimants who are lone parents (*Lone*) is one such measure. Shields et al. (2009) note that a higher prevalence of lone parents in a community is associated with lower levels of well-being. The other influence on well-being is drawn from work connecting climate to well-being (Brereton et al., 2008), with weather data obtained from the Met Office providing information on average daily rainfall (*Rain*) and average hours of sunshine (*Sunshine*) for the period 1961-1990.

$$WB_i = \alpha_2 + \beta_{21} GVA_i + \beta_{23} Entre_i + \beta_{24} Community_i + \boldsymbol{\psi}_2 \mathbf{X}_i + \gamma_3 Lone_i + \gamma_4 Rain_i + \gamma_5 Sunshine_i \quad (2)$$

The identifying variables in equation 3 considering the determinants of entrepreneurship include the percentage of the population in the prime age category 35-44 years (*Prime*). Studies have shown this group to have the highest involvement in entrepreneurial activities within the UK (Harding, 2007). Another factor often associated with entrepreneurial activity is unemployment, although the influence is disputed and may depend upon whether the unemployment is personally experienced or reflects lower aggregate demand from higher prevailing unemployment rates (Ritsilä and Tervo, 2002; Thompson et al., 2007). In particular, recession push theories suggest that higher levels of unemployment result in greater acceptance and involvement with entrepreneurship, as opportunity costs have been

reduced and the unemployed look for a refuge (Blau, 1987; Evans and Jovanovic, 1989; Evans and Leighton, 1989). However, it would be inappropriate to include the localities' absolute level of unemployment as this is also likely to be related local development, in particular the more traditional GVA measure. Instead, to capture this push into entrepreneurship from increases in unemployment, the localities' 2010 unemployment levels relative to their average unemployment rate for the previous five years is used (*Unemp*). This is captured using the claimant count for those applying for job seekers allowance, measured as a percentage of the locality's population.

$$Entre_i = \alpha_3 + \beta_{31} GVA_i + \beta_{32} WB_i + \beta_{34} Community_i + \boldsymbol{\psi}_3 \mathbf{X}_i + \gamma_6 Prime_i + \gamma_7 Unemp_i \quad (3)$$

Finally, following Heydemann's (2008) suggestion that culture is constantly being negotiated and formed, as well as Hall and Soskice's (2001) suggestion that culture and institutions adapt to fit and serve the activities being undertaken in the community, the fourth equation allows for the influence of local development measures and entrepreneurship on community culture. The variables included to identify the equation are the proportion of pensioners in the population (*Pensioner*), drawn from the mid-year population estimates, to represent the speed that community culture adapts to changing needs of younger generations. The second identifying variable is the population density of the area (*PopDensity*), reflecting theories indicating that the prevailing culture is a consequence of the environment within which the community exists.

$$Community_i = \alpha_4 + \beta_{41} GVA_i + \beta_{42} WB_i + \beta_{43} Entre_i + \boldsymbol{\psi}_4 \mathbf{X}_i + \gamma_8 Pensioner_i + \gamma_9 PopDensity_i \quad (4)$$

4. Results

As shown by Table 2, the most entrepreneurial localities are found in the economically dominant London region (Table 2), and although these localities are not necessarily the highest ranked in terms of GVA per head, they are in the top half of the 378 local areas analysed. However, in terms of community culture, these localities rank lowly for social cohesion, adherence to social rules, and feminine or caring activities. This suggests that whilst the most entrepreneurial locations in the UK are often prosperous, this may be achieved at the expense of other social development outcomes. As also shown by Table 2, the least entrepreneurial localities are found in the devolved regions of Wales and Scotland,

particularly the more rural and peripheral areas of these regions. These localities perform poorly in terms of both local economic and social development outcomes, although they do display greater social cohesion, caring activities, and adherence to social rules than their counterparts at the other end of the top end of the local entrepreneurship rankings. Overall, high levels of entrepreneurship appear to be associated with relatively high rates of economic development, as measured by GVA per capital, with broader societal well-being also appearing to be highest in those locations that are relatively entrepreneurial and prosperous, but not the highest ranked on these measures.

Please insert Table 2 about here

Although the above provides an impression of the associations between culture, entrepreneurship and development, it is clearly necessary to control for other influences and bidirectional causality. Although the analysis allows for other relationships, for clarity, the discussion below concentrates on the mediating role played by entrepreneurship as outlined in Figure 1. In other words, the associations representing the influence of community culture on entrepreneurship, and entrepreneurship on development. Space constraints preclude a presentation of the regression results for each of the community culture variables, and Table 3 provides an example using the social cohesion aspect of community culture, with significant relationships in this regression being typical of those appearing most frequently throughout all the regressions. Indeed, the relationships found between entrepreneurship, local development, and the independent variables remain largely consistent throughout the different specifications. Overall, the results confirm the existence of a strong and significant relationship between rates of local entrepreneurship, community culture, and well-being, once a host of relevant variables have controlled for. Similarly, economic development, as measured by GVA per capita, is strongly associated with rates of entrepreneurial activity and well-being.

Please insert Table 3 about here

Table 4 seeks to unpack the relationship between community culture and entrepreneurial activity in more detail, before considering the impact of the entrepreneurial activity on local development. The first column of Table 4 presents the estimates for the entrepreneurship equation, with the relationship for each of the dimensions of culture appearing in the first row. All the relationships between culture and entrepreneurial activities are found to be significant, but understandably differ depending on the dimension of culture under consideration.

Negative relationships are found between entrepreneurial activity and engagement with employment and education, and adherence to social rules. This is consistent with Noorderhaven et al.'s (2004) finding linking dissatisfaction and entrepreneurial activity, where entrepreneurship forms an outlet for those frustrated within the limitations of more traditional roles in society.

Counter to expectations that the greater trust associated with more homogenous populations will increase the efficiency of transactions (Knack and Keefer, 1997; Zak and Knack, 2001), a negative relationship is found between social cohesion and entrepreneurship. This result is more consistent with the perspective that social cohesion potentially limits access to new ideas and the benefits that a fresh perspective with 'new eyes' may provide (Portes and Landolt, 2000; Florida, 2002a; Levie, 2007). This could be a difficult problem for those localities with relatively low levels of gross migration and stagnant economies to overcome. Given the traditional perspective of entrepreneurial activity being more closely associated with 'masculine', competitive and pecuniary motivations (Bruni et al., 2004), it is perhaps no surprise to find that the femininity and caring attitudes dimension of culture is negatively associated with entrepreneurial activity. Conversely, a positive link is found between collective action and entrepreneurial activity, indicating that cooperation is potentially a contributing factor to entrepreneurial success (Francis and Sandberg, 2000; Hayton and Cacciotti, 2013), and community based competition (Casson, 1995).

The factors influencing local development are captured by the second and third columns of Table 4. The relationship between the other endogenous dependent variables and gross value added (GVA) per capita, representing a more traditional measure of local development based around economic outcomes, are shown in the second column. This more traditional measure of development is found to be positively associated with the rate of entrepreneurship for all of the sets of results, with the exception of that for the femininity and caring attitudes dimension of culture. Within three of the five sets of calculations the relationship also holds for the opposite direction of causality. Higher rates of entrepreneurship are found in localities with higher levels of gross value added per capita, which can be linked to a prosperity pull effect (Storey, 1991; Storey and Johnson, 1987). This self-reinforcing cycle of entrepreneurial activity highlights the problems faced by struggling localities in promoting development.

The third column of results indicates the relationship between the other endogenous dependent variables and the broader aspects of local development, as reflected by social well-

being. The coefficient for entrepreneurship is consistently negative although insignificant in two of five regressions. As the well-being measure is the male suicide rate, this means that higher entrepreneurial activity rates are positively associated with local well-being. This may reflect business creation, and the ownership it leads to, allowing more of the population to achieve higher levels of self-fulfilment and self-realisation (Carree et al., 2002; Uhlaner and Thurik, 2007). It may also result in employers that are more strongly embedded in the local community, which then promotes the development of civic associations and increases trust (Tolbert et al., 1998). Interestingly, the reinforcing cycle present for entrepreneurship and the economic measures of local development also have a counterpart in the association between broader local social development and entrepreneurship. Those localities with higher well-being are also those that have higher entrepreneurial activity, which may potentially reflect Graham et al.'s (2004) suggestion that greater happiness boosts confidence and optimism, and are underlying factors that are likely to encourage greater entrepreneurial engagement.

Please insert Table 4 about here

5. Discussion and Conclusions

The results presented above indicate the relationship between the community culture of localities, the rates of entrepreneurship and the level of economic and social development in these localities. Overall, there is very strong evidence to suggest that the community culture present within a locality has a significant influence on the prevailing rates of entrepreneurship. This indicates that entrepreneurship is as much a product of the social and community cultural values present across places as it is of the more economic and business-oriented values of such places (Lee and Peterson, 2000; Audretsch et al., 2011; Krueger et al., 2013; Rauch et al., 2013). In this regard, whilst national studies have alluded to similar differences (Thomas and Mueller, 2000; Uhlaner and Thurik, 2007; Wennekers et al., 2007; Shneor et al., 2013), the findings presented here point to the existence of a cultural-entrepreneurial association at a much more micro-spatial level. This is potentially important in understanding the long-term causes of spatial differences in entrepreneurial performance, and the mechanisms for supporting initiatives to address unevenness. Most pertinently, it indicates the requirement, highlighted by others (Dolan and White, 2007; Andersson, 2008; El Harbi and Grolleau, 2012; Hayton and Cacciotti, 2013; Spigel, 2013), to move studies of spatial entrepreneurship and development to an area that considers more both the social and the economic, or the socio-economic, determinants and outcomes of development.

To address the issue of the socio-economic outcomes of local entrepreneurship, the analysis presented in this study incorporates the dual nature of development encompassed by both traditional economic performance measures of local development and measures of social development and well-being. Overall, the association between entrepreneurial activities and local development measures is mostly found to be positive, regardless of whether considering traditional economic or broader well-being based measures. As maybe expected, however, the relationships are somewhat stronger for the entrepreneurial-economic associations. Also, these relationships are bi-directional, with entrepreneurship and local development appearing to create a reinforcing cycle. Coupled with the findings on the relationship between culture and entrepreneurship, the analysis as whole indicates: (1) the unevenness in rates of entrepreneurship across local places are likely to emerge as a result of differences in the community culture present in these places; (2) the prevailing rates of entrepreneurship in local places will partly determine unevenness in economic and social development across these places; and (3) differences in rates of development across local places will have a reinforcing impact on future rates of entrepreneurship in these places.

The importance of the bi-directionality of relationships suggests that making entrepreneurship a method for achieving convergence between higher income locations and lagging areas is potentially hard to achieve, with a similar relationship also appearing to be present between entrepreneurship and rates of well-being. As well as the bi-directional nature of the relationship between development and entrepreneurship, it is likely that the community culture of localities will also have a more direct association with particular aspects of development, alongside the indirect relationships mediated by entrepreneurship. For instance, more socially diversified and open localities are likely to have a community culture receptive to innovation-led economic development (Florida, 2002b; Page, 2008; Niebuhr, 2010 Østergaard et al., 2011). Similarly, a community culture that does not tolerate either anti-social behaviour or a lack of adherence to social rules is likely to be more conducive to promoting high rates of well-being (Shields and Wheatley Price, 2005; Lelkes, 2006).

Given the existing research linking entrepreneurship with more masculine and pecuniary oriented motives (Bruni et al., 2004), it is perhaps predictable that entrepreneurial activity is lower in those localities that place a greater emphasis on feminine and caring activities. However, three other dimensions of community culture also stand out as negatively influencing entrepreneurial activity within a locality after controlling for economic development: social cohesion; adherence to social rules; and embracement of work and

education. In terms of social cohesion, this may suggest that entrepreneurship and innovation activities within communities are highly reliant on the 'importing' of new ideas and novel methods for examining the problems and opportunities within local economies (Levie, 2007).

The findings highlight a range of issues for underdeveloped and less entrepreneurial localities, in terms of the extent to which they are likely to benefit from shifting from a caring and cohesive community culture to values associated more with atomistic, individualistic, and 'less caring' traits, as perhaps typified by more developed localities. Pragmatically, the most effective course of action is likely to be balance of policies that support the positive values of local community cultures as well as facilitating entrepreneurially-driven local development. In particular, policymaking has to consider the combining of community resource strengths with strengths that emerge when new entrants – in the shape of individuals, entrepreneurs, and firms – enter a locality. In essence, high rates of local entrepreneurship and development will be fostered through the presence of community cultures that are open but also allow local resources to be pooled and accessed for the greatest benefit of the population.

To some extent, the associations found between community culture and entrepreneurship are consistent with the findings of other studies, whereby more open and perhaps tolerant locations tend to achieve higher levels of entrepreneurship (Levie, 2007). This is not to suggest that entrepreneurs should be given incentives to operate within their local community (Simmie and Martin, 2010). Rather, it is important for localities to provide the amenities and resources, such as desirable housing and cultural amenities, to attract creative and entrepreneurial individuals to a locality (Florida et al., 2011; Mellander et al., 2011). Although the negative relationship with adherence to social rules indicates the double-edged nature of development, a willingness to adopt new approaches need not have detrimental effects, and educational institutions may need to encourage future generations to think in a more flexible manner, especially given the calls for more entrepreneurial graduates to meet the needs of both existing employers as well as creating new ventures (Mintzberg and Gosling, 2002; Taatila, 2010). Unfortunately, however, those localities in most need of increased development are also those with the least prospect of being able to break out of their cycle of underdevelopment.

Clearly, it is difficult for government at any spatial level to influence culture (Robinson, 2007; Rodriguez-Pose and Storper, 2006), but creating the correct institutional environment may encourage desired behaviours that are reinforced over time to become ingrained in the

community culture of localities. In this regard, it is important to note that whilst changing community culture is not an impossible task, it is unlikely to be achieved in the short-term and policymakers will need to consider the outcomes of such changes to both the economic and broader well-being aspects of development.

In conclusion, this paper has sought to present a fuller understanding of the link between the culture of places and the rates of entrepreneurship, and the resultant development experienced by localities. Separate studies have recognised that there are potentially links between the underlying community culture and the extent to which the population engages with entrepreneurial activity (Beugelsdijk and Maseland, 2011), as well the association between entrepreneurship and economic development (van Stel et al., 2005; Beugelsdijk, 2007). These two relationships, however, have rarely been considered together. Furthermore, although research has often suggested a bidirectional relationship between entrepreneurship and development conditions, these have not been incorporated into most analyses. Also, the growing literature on well-being has cast doubt on the overall objectives for economic activity (Easterlin, 1995), but policy largely still strives for greater economic development (Pike et al., 2007).

Future research has the potential to expand upon the analysis presented here in a number of ways. One extension that could be considered is the multidimensional nature of entrepreneurship. As previously indicated, it is perhaps 'unfair' to regard entrepreneurship as a homogenous phenomenon. Although studies have noted that autonomy and flexibility are prime motivations for business ownership, there are clearly different combinations of these motivations which may differ across localities. Similarly, one issue with studies concerning the relationship between culture and entrepreneurship is that culture is often assumed to be unchanging and constant, or at least so slowly evolving as to treat it as static (Landes, 1998; Guiso et al., 2003; 2006; Freytag and Thurik, 2007). Heydemann (2008), however, suggests that culture is being constantly negotiated and constructed. Empirically, Foreman-Peck and Zhou (forthcoming) find evidence that there is a persistence of entrepreneurship rates across different ethnic groups in the USA, so that more entrepreneurial groups at the beginning of the 20th century remain more entrepreneurial at the end of the century, although there is also some evidence of convergence over time. In this respect, there is need for regional and local studies to further consider the evolutionary nature of culture and the changing relationships with entrepreneurship and development.

In terms of the measures of community culture used by this study, these are acknowledged as being necessarily imperfect due to the limitations of data availability, and other potential measures of culture could provide further valuable insights. Currently it is not possible to include all five aspects of community culture within the same system, as the variables required to identify the equations are not available. Primary data collection specifically examining community culture could overcome these issues. A further extension that could be examined is the possibility that a non-linear relationship exists for some aspects of community culture with the level of entrepreneurial activity and the local development measures that these may lead to. Although not examined here in depth, it was evident that neither the most entrepreneurial or least entrepreneurial localities displayed the highest levels of broader societal well-being. This could imply that there may be some thresholds beyond which certain community cultural aspects become detrimental if they are either lacking or present in excess, but this requires further examination.

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Figure 1: Community Culture, Entrepreneurship and Development: A Basic Framework

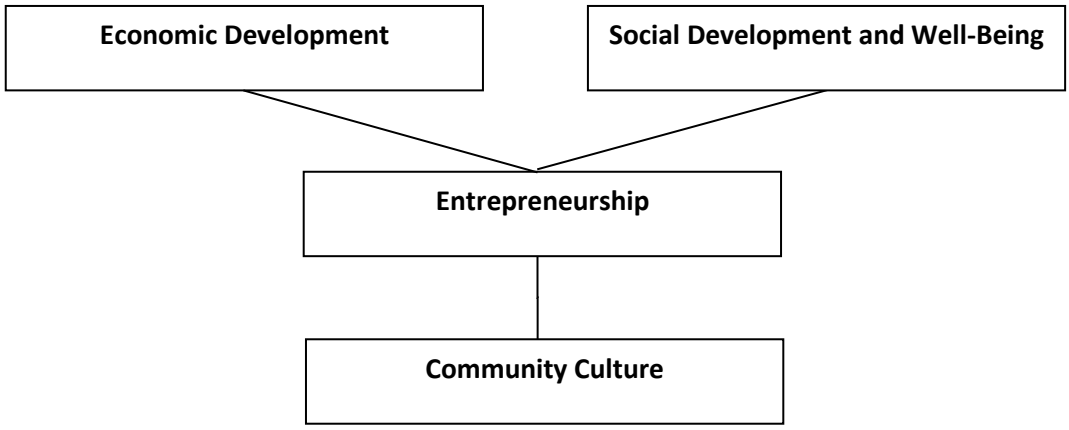

Table 1: Community Culture Measures

Construct	Measure	Source	Indices Weighting
Embracement of Work and Education	Male economic activity rates	Annual Population Survey (APS)	0.5
Embracement of Work and Education	Proportion of population with NVQ4	Annual Population Survey (APS)	0.125
Embracement of Work and Education	Proportion of population with no formal education	Annual Population Survey (APS)	0.125
Embracement of Work and Education	Primary school absenteeism, proportion of half day sessions	Schools Statistics	0.125
Embracement of Work and Education	Secondary school absenteeism, proportion of half day sessions	Schools Statistics	0.125
Social Cohesion	Ethnic similarity	Census	0.1
Social Cohesion	Religious similarity	Census	0.1
Social Cohesion	Proportion of the population identifying with a religion	Census	0.2
Social Cohesion	Gross migration as a proportion of the population	National Health Service Central Register	0.1
Social Cohesion	Proportion of the population which is UK born	Annual Population Survey	0.1

Social Cohesion	Proportion of the population perceiving themselves nationality of resident country	Annual Population Survey	0.2
Social Cohesion	Proportion of the electorate voting in the general election	Electoral Commission	0.2
Femininity and Caring	Female economic activity	Annual Population Survey	0.333
Femininity and Caring	Female part-time employment	Annual Population Survey	0.333
Femininity and Caring	Unpaid care provision of 1 hour or more a week	Census	0.333
Risk and Adherence to Social Rules	Age standardised alcohol related deaths per 100,000 population	Health Statistics Quarterly	0.25
Risk and Adherence to Social Rules	Underage conceptions per 1000 women	Health Statistics Quarterly	0.25
Risk and Adherence to Social Rules	Non-sexual violent crimes per 1000 population	Notifiable Crimes Recorded by the Police	0.25
Risk and Adherence to Social Rules	Crimes by deception per 1000 population	Notifiable Crimes Recorded by the Police	0.25
Collective and Equality	Trade union membership	Annual Population Survey	0.5
Collective and Equality	Proportion of the population voting for left of centre parties	Electoral Commission	0.5

Table 2: Top and bottom five ranked localities in terms of entrepreneurial activity (378 localities)

Rank Entrepreneurial Activity	Local Authority	Region	Rank GVA	Rank Male Suicide Rate	Rank Employment and Education	Rank Social Cohesion	Rank Femininity and Caring	Rank Risky Attitudes	Rank Collective Action
1	Westminster	London	4	201	100	376	378	371	189
2	Tower Hamlets	London	22	278	178	372	367	351	140
3	Newham	London	54	124	303	378	342	375	71
4	Hammersmith and Fulham	London	2	152	119	366	375	370	179
5	Redbridge	London	147	58	253	363	156	293	156
374	Dumfries & Galloway	Scotland	324	363	219	17	192	214	54
375	Ceredigion	Wales	377	215	162	325	97	85	68
376	Powys	Wales	374	242	269	179	23	50	222
377	Shetland Islands	Scotland	284	377	26	100	160	194	203
378	Orkney Islands	Scotland	327	312	98	87	123	236	205

Table 3: The influence of entrepreneurship and culture on local development using the social cohesion element of culture

	Entrepreneurship	GVA	Well-Being	Culture
Culture (Social Cohesion)	**-0.6225** (0.000)	-0.1124 (0.129)	-0.0585 (0.280)	
Entrepreneurial Activity		**0.3190** (0.000)	-0.1193 (0.220)	**0.7387** (0.000)
Well-being	**-0.7065** (0.000)	**-0.3420** (0.005)		**1.8536** (0.000)
Gross Value Added	0.2820 (0.145)		-0.1100 (0.473)	-0.1616 (0.321)
CO_2 Emissions per heard	-0.0560 (0.571)	**0.1594** (0.038)	0.0042 (0.943)	0.1969 (0.083)
Rail Connections	0.0177 (0.141)	**0.0264** (0.003)	**0.0201** (0.002)	**-0.0388** (0.013)
Major Airport	**4.0263** (0.000)	-0.5019 (0.583)	-0.7552 (0.279)	-0.1925 (0.888)
Primary Port	**6.7926** (0.000)	-1.5513 (0.063)	**2.0328** (0.002)	**-4.0472** (0.012)
Employment as Managers		**0.3514** (0.003)		
Employment as Professionals		**0.2880** (0.000)		
Single Parent Households			**0.2637** (0.005)	
Hours of Sunshine			**-5.4300** (0.000)	
Average Rainfall			**0.9310** (0.007)	
Population in Prime Age Group	**3.0308** (0.000)			
Unemployment compared to 5 year average	**8.9037** (0.000)			
Population in Pensioner Age Group				**1.7107** (0.000)
Population Density				**-0.0044** (0.000)
Constant	**104.8159** (0.000)	21.8609 (0.105)	**55.1289** (0.000)	-18.1261 (0.527)

p-values in parenthesis

Table 4: The influence of entrepreneurship and culture on local development

		Entre'	GVA	Well-Being	Culture
Embracement of Work and Education	Culture	**-0.8061** (0.000)	**0.4364** (0.000)	-0.1074 (0.134)	
	Entrepreneurial Activity		**0.5092** (0.000)	**-0.2068** (0.048)	**-0.9690** (0.000)
	Well-being	**-0.7543** (0.000)	**0.3710** (0.037)		-0.5158 (0.150)
	Gross Value Added per capita	**1.8446** (0.000)		0.2297 (0.119)	**2.1925** (0.000)
Social Cohesion	Culture	**-0.6225** (0.000)	-0.1124 (0.129)	-0.0585 (0.280)	
	Entrepreneurial Activity		**0.3190** (0.000)	-0.1193 (0.220)	**0.7387** (0.000)
	Well-being	**-0.7065** (0.000)	**-0.3420** (0.005)		**1.8536** (0.000)
	Gross Value Added per capita	0.2820 (0.145)		-0.1100 (0.473)	-0.1616 (0.321)
Femininity and Caring Attitudes	Culture	**-3.0167** (0.000)	**-2.2269** (0.000)	**-1.2950** (0.000)	
	Entrepreneurial Activity		**-0.3053** (0.001)	-0.1469 (0.104)	-0.0389 (0.615)
	Well-being	**-1.5217** (0.000)	**-1.0004** (0.000)		-0.2370 (0.065)
	Gross Value Added per capita	-0.4438 (0.197)		**-0.6449** (0.000)	**-0.3761** (0.000)
Adherence to Social Rules	Culture	**-0.1960** (0.000)	**0.2491** (0.000)	**-0.0931** (0.000)	
	Entrepreneurial Activity		**1.2661** (0.000)	**-0.4571** (0.000)	**-4.8851** (0.000)
	Well-being	**-1.9485** (0.000)	**2.4742** (0.000)		**-9.4814** (0.000)
	Gross Value Added per capita	**0.7925** (0.000)		**0.3470** (0.000)	**4.1191** (0.000)
Attitudes towards Collective Action	Culture	**0.4505** (0.000)	**-0.2832** (0.000)	**0.1819** (0.000)	
	Entrepreneurial Activity		**0.6470** (0.000)	**-0.3896** (0.000)	**1.9713** (0.000)
	Well-being	**-2.3944** (0.000)	**1.4887** (0.000)		**5.5101** (0.000)
	Gross Value Added per capita	**1.4966** (0.000)		**0.5699** (0.000)	**-2.8228** (0.000)

p-values in parenthesis