A strategic model for opportunity recognition and entrepreneurship within rural and agricultural regions

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ABSTRACT

PURPOSE

This paper establishes a strategic model of how opportunity recognition should be interpreted within a rural economic region, with the view of providing entrepreneurs with a tool which can support venture creation and business growth. The resources available which can help support and improve regional competitiveness are heavily dependent on the characteristics of that region. The core factors used within the model are Regional Capital, Decision Making Institutions, Regional Connectivity, Natural Capital, Provenance, Social Networks, Educational Base, Innovation Agents, Economic Structure and finally Entrepreneurial Ecosystem.

KEYWORDS

- Entrepreneurship
- Agripreneurship
- Rural development
- Agricultural diversification
- Opportunity recognition

1 INTRODUCTION

The development of the rural economy is widely understood to be the best strategy to increase the livelihoods of the majority of people in developing nations around the world (World Bank, 2007). The United Nations reports that "Extreme poverty today is concentrated and overwhelmingly affects rural populations." and that around 79% of the world's poor live in rural areas (UN, 2019) with people three times more likely to be poor in rural areas than in their urban counterparts. There is considerable research which has shown that in developing nations, where the majority of the population's income is determined through agriculture, an improvement in this economic activity has the greatest positive effect on poverty reduction (Ravallion, & Datt, 1999; Ravallion, & Datt, 2002; Pham, & Riedel, (2019); Amare, Balana, & Ogunniyi, 2020).

In addressing this issue of rural economic development, the delicate balance between the long term aims of economic development needs to be balanced with the short term goal of reducing hunger and poverty. This long term aim will require cultural, economic and social structural changes which require careful planning if this population is to be included (Proctor, 2014).

Agripreneurship: the exploitation of opportunities within farms, especially in developing nations is poor; however there are opportunities to build more sustainable and economically viable ventures. Typically, the most unproductive or unsustainable farms (Proctor, 2014) will find other ventures to pursue. This may be for example through on-farm diversification or off-farm work which in developing nations is critical in the development of the rural economy. The requires the development of a series of pathways for these farms (De Roest, Ferrari, & Knickel, 2018) which includes developing skills in how to improve farm competitiveness; diversifying income streams through household members and ultimately some or all members of the household gaining employment within the knowledge economy in these rural regions (Brooks & Secretariat, 2010).

The fundamentals of developing new opportunities in rural regions is through education (Lockheed, Jamison, & Lau, 1980; Dabson, 2001), primary healthcare (Merwin, Snyder & Katz, 2006) and government investment in infrastructure such as rural transportation and location based agricultural research such as those needed to combat local climate change. Brooks & Secretariat (2010) has also called for support in stabilizing the agricultural prices and subsidies as core policies in addressing the need for long term planning within farms and therefore reducing poverty and encouraging long term economic development.
This then allows rural areas to build a sustainable rural economy. Even in the developed world this is a very mixed picture, the EU GDP per capita on average is lower in rural areas. For example, the data from 2014 shows that GDP in rural areas was at 72% of EU average whilst urban regions were at 121%. If we study those countries with less urbanization, we see that countries such as Bulgaria, Latvia and Romania were 40% below EU average, whereas in the Netherlands it was at 113% (EC, 2021).

At a single business level, research has shown (Onoh, 2011; Li et al., 2016) that the success rate of startups is determined by the available resources and subsequently by the location selected to start the venture. Therefore, this paper addresses the research question: What are the critical rural regional characteristics which support rural entrepreneurial business growth? Therefore developing a strategic model of how opportunity recognition should be interrupted within a rural economic region provides a basis for increasing the livelihoods of the majority of people in developing nations around the world.

This research is answering calls by scholars such as (Busenitz, et al., 2003; Autio, et al., 2014; Zahra et al., 2014) who called for further regional or social contextual research on entrepreneurship. Cavallo and colleagues (2019), called for further research into the critical entrepreneurial ecosystem subsystems that policymakers should give greater priority to. Boschma (2017) in studying regional diversification strategies calls for more clarity on concepts of capabilities and the significance of local capabilities together with the role economic and socio-institutional agencies play in supporting it. This work also builds on the agripreneurship research of Bairwa et al (2014) who proposed its role in economic growth and Tripathi and Agarwal (2015) who researched the challenges faced by agripreneurs in rural areas.

2 Characteristics of a Rural Regional Economy

Marks et al (2008, p. 23) defines a region as "a coherent territorial entity situated between local and national government which possesses institutions that engage in binding decision making". A rural region has the added complexity of being defined in a number of ways, (1) population thresholds, e.g. settlements with less than 10,000 resident population; (2) population density e.g. Less than 1,000 per square mile; (3) land use e.g. an airport does not have people living at it, yet should not be classified as rural and (4) distance e.g. areas close to or between urban clusters should not be considered rural (Ratcliffe et al., 2016). Rural regions, both within nations and across the globe, are more diverse than their urban counterparts. This diversity is in terms of the dispersion and concentrations of resources which in turn requires greater spatial analysis (Korsgaard, et al., 2015) when selecting a place to base an entrepreneurs' startup.

This follows through when we consider that the normal macro view of the rural economy overlooks the critical micro information and linkages which are important in understanding the true regional economy (Porter et al., 2004; Nilsson et al., 2014). The rural economy therefore, both within nations and across the globe, is disparate and comprises many contrasting industry sectors. The industry traditionally associated with rural regions such as agriculture and forestry are still present, however, the rural economy also has much in common with other areas of a nation, with a high number of the population employed in the service sector, such as education, health and transportation (Defra, 25th March 2021).

Analysis of the economic regions in the USA reveals that rural counties have a surprising number of micro-regions which are adding jobs at a faster rate than their neighbouring metropolitan area. These rural regions have a great deal of diversity. Bender, L. D. (1985) proposed there are seven noticeable characteristics of rural (non-metro) economies which can be grouped follows:

1. Counties primarily dependent on farming (agriculture),
2. Counties primarily dependent on manufacturing,
3. Counties primarily dependent on mining,
4. Counties specializing in government functions,
5. Persistent poverty counties,
6. Federal lands counties, and
7. Retirement settlements.

From this analysis we can derive that each rural district has a number of economic characteristics which are critical in understanding the structure and opportunities of entrepreneurship. The first such characteristic is that agriculture is predominantly the foundation stone for the rural economy for most of the world as it provides the range of capitals (social, cultural, natural, financial) required for entrepreneurial development. The smallest social-economic unit being the farming household has a range of entrepreneurial options within what are termed, diversification of the farm. Studies have shown that the regional geographical context plays an important determinant in the outcome of the diversification strategy (Boncinelli et al., 2017, Meraner et al., 2015). This core farm adaptation strategy since the 1960s has been reported widely in the literature (Libery 1991, McNally 2001, Chaplin et al 2004, Vik & McElwee 2011). Barnes (2014) has provided clarification on three categories of on-farm businesses.

1. Developing new products for the farm’s existing market (Agricultural diversification, deepening)

2. Launching an existing product to a new customer group (Business diversification)

3. Initiate new products to new customers (Farm diversification, broadening)

Farmers do not always pursue the goal of profit maximization. The motivation for diversification can be employing family members, social aspects of the business, and the long term sustainability (in all aspects) of the business. Taylor and Adelman (2003) states that a farm household maximizes household farm profits in order to maximize household consumption, by choosing between on-farm and off-farm labour allocations, depending on the income potential.

In developing an understanding of the regional economy and how this supports farm diversification we should also explore the linkages between agricultural and other rural industries which may or may not support farm diversifications. Haggblade et al. (2007) highlighted these localities through a series of linkages; production, consumption, seasonality, labour, financial, productivity and infrastructure. As rural regions have a more diverse economy, these linkages between sectors, clusters and businesses have been shown to foster regional growth (Allen, J. C., 2007; Haggblade et al., 2007; Proctor, 2014).

At this regional level, the term mesoeconomics has also been used to describe the economic activity and forces at a regional level, the middle ground between the entrepreneur’s business with microeconomics and the national level with macroeconomics (Dopfer, 2012). At this regional level this economy is made up of the businesses within the regions and the integration they have between each business and up and down their supply chains together with the local population who consume these products or services.

Rotemberg & Saloner (2000) have shown that the importance of the national economy in relative terms is diminishing whilst the economic role of the rural regions and the metropolitan cities has grown. The normal view of business competition is based on the work of Porter (Krugman 1994, Krugman & Obstfeld, 2002); however the characteristics of interregional competition differ from those of national competitiveness and also that of a business. Therefore, rural regions and metro-cities compete by developing a business ecosystem which facilitates productivity improvement. Productivity is directly related to international trade (Alcalá & Ciccone, 2004) and also business growth and long term sustainability.

This competition between regions and urban areas, both at a national and international level is fundamental to economic performance. The UK government defines regional competitiveness as “the ability of regions to generate income and maintain employment levels in the face of domestic and international competition’ (Regional Competitiveness Indicators of UK., DTI 2002). The EU defines competitiveness as the means to “sustained rise in the standards of living of a nation or region and as low a level of involuntary unemployment as possible” (European Competitiveness Report, EC 2008, p. 15.).

The theory of comparative advantages (Grossman & Helpman, 1989) provides a basis to review the assets and resources within a region and compare these to understand what unique or advantageous assets are available to support further opportunities. These may be based on land, labour, capital and enterprise specialization (Dorobat & Topan, 2015).

This then fosters economic differences from one region to another within a nation as long term performance develops striking differences within a nation (Terluin, 2000; Andersson et al., 2009; Muilu, 2009). We have recently seen this requires national interventions such as in the UK, which has been termed the Levelling Up Agenda (Tomaney & Pike, 2020), if these regions are not deploying their assets or capitals accordingly.

The planning and effective implementation of rural development (Bender, 1985; Hodge, & Midmore, 2008) is contingent on unbiased data and analysis of the region's social and economic structure. Due to these regional unique characteristics, national government policies do affect rural economies in different ways and therefore local decision making is seen as an important factor in regional development.

Hodge and Midmore (2008) presented the four predominant models for rural development policies and how these may be implemented. The ability of the region to follow these models is dictated by the local, regional and national government structure.

Table 2: The evolution of rural development policies

General Policy Orientation	**Predominant models of rural development**	**Policy Implementation**
Agricultural Policy	Sectoral	Community Support
	Multisectoral	Diversification
	Territorial	Rural Development
Rural Policy	Local	Local Community Development

Source: Hodge, I., & Midmore, P. (2008). Models of rural development and approaches to analysis evaluation and decision-making. *Économie rurale. Agricultures, alimentations, territoires*, (307), 23-38.

The structures needed for the development of a progressive regional policy which will lead to an increased performance of the region should be tuned to the rural regional assets and factors. The complexity of the rural regional economy and its relationship to that of the (macro) nation and the (micro) business environments have been presented to develop an understanding of the factors which favour rural regional economic performance.

3 Opportunity Recognition

In broad terms there are two opposing views of how opportunity recognition occurs. The first is where it is discovered or exogenously recognized. This is where an individual is alerted to an opportunity (Kirzner, 1997). The other viewpoint is where an opportunity is created or recognized endogenously. This is where an individual uses their imagination and/or effectuation (Sarasvathy, 2001) to create this opportunity. Some scholars see a third way in which the process of opportunity recognition involves both the creation and discovery of opportunities, viewing both of these simultaneously occurring to provide opportunity recognition (Sarasvathy & Dew 2005; Guard & Giuliani 2013; Alvarez & Barney, 2013).

Opportunity recognition is held within the process and subject discipline of entrepreneurship. Entrepreneurship has several definitions and therefore within the scope of this paper we will use the definition proposed by Bozward & Rogers-Draycott (2020) "Entrepreneurship is finding and developing opportunities to create value". This is drawing on a broader literature (Bruyat & Julien 2001; Fayolle 2007; Savasvathy & Venkataraman 2011; Lackéus 2016; Shane & Venkataraman, 2011; Moberg, Stenberg & Vestergaard, 2012) as it allows a broad set of ventures to be encompassed within it and also fits within our rural regional and sustainable development context. The development of agribusiness opportunity recognition has been explored by Uneze (2013) and Nain et al (2019) who both propose incorporating this skill development into rural education.

Eckhardt and Shane, (2003, p. 336) extended the work of Shane and Venkataraman (2000) and Venkataraman (1997) to define entrepreneurial opportunity recognition as "situations in which new goods, services, raw materials, markets and organizing methods can be introduced through the formation of new means, ends, or means–ends relationships". If we look at this definition together with that provided by Ardichvili et al. (2003, p. 106) who provided the view that entrepreneurial opportunity recognition can be seen as 'identifying and selecting the right opportunities for new businesses are among the most important abilities of a successful entrepreneur'. We can place entrepreneurial opportunity recognition as a core skill within entrepreneurship and one which has a set of dynamic circumstances based on those of the entrepreneur, their resources and positioned within a locale which fosters venture creation. Entrepreneurship research literature shows that the competences required to start and grow a business develop as the business moves through the stages. It is also clear that the competencies needed are dependent on the context. Gartner (1985) proposed five dimensions to understand the focal competencies needed to create a venture, these being:

1. Entrepreneur
2. Business Opportunity (Idea)
3. Contextual Organizational
4. Regional Resources
5. Local Business Environment

These five dimensions allow us to base the context by which the new venture can be developed. Venture creation is defined by Hans Eibe Sørensen (2016) as the "tasks and processes concerning analytical preparation of potential growth opportunities, and the support and monitoring of the implementation of growth opportunities". This connection between the internal and external business environments is a core part of understanding and creating value within a new venture.

Value creation is the primary objective of any business entity. The value created can be measured in various ways including; enjoyment, economic, influence, social or harmony (Lackéus, 2018). It's the role of the entrepreneur to understand how a business can create value for its stakeholders.

According to Bruyat and Julien (2001), value creation requires interaction with the surrounding environment, leading to the individual influencing and being influenced by a networked community. Value creation is therefore based on community interactions which are dynamic in nature and multi-dimensional in its scale. These can be broadly split into monetary worth, rights arising from ownership, customer's perception of the worth and finally community or public benefit.

It should also be highlighted that opportunity recognition is a continuous process within every business Singh et al. (1999) and that the entrepreneur is required to develop opportunities for current and new products for the business to survive. This normally requires a focus on current resources and how to maximise their value (Hills & Singh, 2004).

It is this contextualisation of entrepreneurial opportunities within a rural region that we seek to explore.

4 Rural Region Competitiveness Models Review

In the formulation of the model, using the theoretical lenses of entrepreneurship and opportunity recognition we seek to find the factors which influence venture creation and growth. The approach taken in developing this strategic model was to synthesize literature on rural regional competitiveness, regional economic development strategies and entrepreneurial ecosystem design. In this section we will highlight some of the critical papers used in constructing this model.

The five capitals presented by Viederman in 1994 have had a major influence on developing a sustainable strategy and also regional development. These capitals were Natural Capital, Social Capital, Human Capital, Manufactured Capital, and Financial Capital. These capitals form the basis for many subsequent models.

H. M. Treasury (2004) developed a set of characteristics which are important when meeting the challenges of regional development within the UK. These were Enterprise, Competition, Investment, Innovation, and Skills. This connection between Investment, Innovation and Skills is important when looking for the resources needed to start a business (Agarwal, et al., 2009).

Kitson, Martin, & Tyler (2004) developed further regional competitiveness using a capitals based approach constructing a model using six capitals; Infrastructure Capital, Social-Institutional Capital, Cultural Capital, Human Capital, Productive Capital, and Knowledge Creative Capital. Rural regions normally lack infrastructure which their urban counterparts have yet have stronger Social-Institutional Capital.

Stathopoulou, Psaltopoulos, & Skuras (2004) looked at this through physical factors, socio factors and economic environment factors. The Physical factors were: Location, Natural Resources, Landscape; Socio factors were: Social Capital, Governance, Cultural Heritage and Economic Environment factors were: Infrastructure, Business Networks, ICTs. Many rural regions have strong Cultural Heritage which together with Natural Resources and Landscape provides strong opportunities for businesses.

Martin (2005) again broke this down into several themes. The first was drivers of Regional Competitiveness containing Innovation, Investment, Skills, Enterprise, Connectivity, Economic diversity/specialisation, Quality of life, and Strategic policy. The policy aspect was further developed using three Key Policy Foci for Building Dynamic Regional Competitive Advantage which contained firstly; Educational base, Infrastructure, Social capital, Business culture, and Capital markets, secondly; Innovation, New firm formation, Training and skills, Institutional reform, and Market and technology intelligence, and lastly; Knowledge networks, Labour market, Supplier networks, Clusters, and Supporting services. Whilst this paper draws on the previous models, it demonstrates the breadth of factors which should be considered.

Ručinska, & Ručinsky (2007) developed factors which supported regional competition which were Innovation, Accessibility, Work Force, Economic Structure, Social Structure, Decision Centre, Environment, and Regional Identity.

The Decision Centre is an important factor, given Marks (2008) definition and also a key asset in having the ability to compete with the metro-regions (Krugman & Obstfeld, 2002).

The rural web proposed by van der Ploeg and Marsden (2008) provides an approach to understand the region's economic, social, technological, institutional, infrastructural, environmental and cultural resources that comprise its development potential. This is done through six characteristics which support rural development based on local resources, these being: Endogeneity, Novelty production, social capital, institutional arrangements and governance of markets. This mobilisation of local resources (Onoh, 2011; Li et al., 2016) can only be done through the development of a socio-economic ecosystem (rural-web).

Mehta (2011) looked at rural entrepreneurship and developed a framework with highlighted Infrastructure Development, Promote Research and development in rural area, Financing and other support: tax to loans, Training and Development Programmes, Marketing and Export-Import Assistance, Development of Professional Association, Development of Corporate Governance and E-Commerce, Rural Women Empowerment, and Establish and development of schools. Sharma, Chaudhary, Sharma et al., (2013) looked at the Impediments to the formation of rural entrepreneurship which included Ecosystem, Knowledge Gap, Finance, Technology, Human Resource, Management, and Marketing. These papers showed the importance of the development of skills, especially around Export-Import, Marketing, diversification entrepreneurship which are core for on-farm business sustainability (Barnes, 2014).

Rao and Kumar, (2014) proposed a model for agripreneurship development through greater understanding of the agricultural inputs, applied technology, farming processes, value chain relationships, output processing and marketing stages. This model uses entrepreneurial education, infrastructure facilities for R&D, Financial and Marketing Support and entrepreneurial business culture as the key drivers for development.

Elena, Sorina, & Rus (2015) developed four themes with firstly Entrepreneur Features: Motivation, Level of Education, Training, Financing Programs; secondly Internal features of the company: Field of Activity, Seniority of business, size of organisation, legal form, investments costs, turnover, development strategy. Thirdly External features of the company: Clusters and Associations, Collaborators, Consultancy, External Financing, Sources of funding, Stakeholders and finally Location: Location, Area Development.

A great number of the papers propose a social, cultural or institutional level, however, Sharma et al., (2013) and Elena, Sorina, & Rus (2015) start to draw this out further the needs of the entrepreneur. This starts to foster the role of the entrepreneurial ecosystem, which provides the basis for entrepreneurs to either discover or create opportunities (Alvarez & Barney, 2013) as well as role models, mentors and connectivity within the region.

Muñoz and Kimmitt (2019), by looking at the rural municipalities in Chile developed an entrepreneurial ecosystem framework with 11 dimensions which are based on 4 determinations. These were Rural entrepreneurial dynamics: Localized institutional support, Collaborative places for advancing rural enterprises, Place-sensitive trading; Entrepreneurial sense of rurality: Cultural positioning, Territorial embeddedness, Place-sensitive products; Entrepreneurial rural locale: Social locale of rural entrepreneurship, Cultural locale of rural entrepreneurship; and finally Rural built assets: Landscape imprinting, Rural natural capital, Rural built assets. The balance between regional connectivity and natural capital is an important one which this paper draws out through these factors.

Basco (2015) looked at family businesses and developed a theoretical model for regional development. This model contained: Institutional dynamics, Spillovers, Competition dynamics, Social Interactions, Learning Process, and Information Exchange. Family business development plays a central role in the development of rural venture creation and should be considered in the development of a rural based model.

From the models presented above, a set of five categories were developed. From the work of Marks et al. (2008) defining the region, together with the models presented by Hodge and Midmore (2008) for rural regional development, agripreneurship development infrastructure from Rao and Kumar, (2014) and physical factors from Stathopoulou, Psaltopoulos, & Skuras (2004), our first category is Rural Governance.

Rural Built Assets is the second category which follows models presented by Viederman (1994), Stathopoulou, Psaltopoulos, & Skuras (2004) and especially that of Muñoz and Kimmitt (2019) who looked at those dimensions needed for the rural region.

The third is Social Capital, which again builds on the work of Viederman (1994) with the capitals model by Kitson, Martin, & Tyler (2004), and regional competition factors presented by Ručinska, & Ručinsky (2007). The connection between the social and economic aspects on those models presented by Bender, (1985) and Hodge, & Midmore (2008) links creating value (Lackéus, M., 2018) with values held within a society.

The fourth category is Human Resources uses the models presented by H. M. Treasury (2004), Kitson, Martin, & Tyler (2004), Mehta (2011). This model brings together the dimensions of labour, innovation and training which were also presented by Martin (2005).

The final and fifth category is Business Environment which considers the economic factors which were presented in the models above Stathopoulou, Psaltopoulos, & Skuras (2004), Martin (2005), Ručinska, & Ručinsky (2007) together with the business entrepreneurial ecosystem which was presented by van der Ploeg and Marsden (2008), Sharma, Chaudhary, Sharma et al., (2013), Rao and Kumar, (2014) and Elena, Sorina, & Rus (2015).

These categories are now presented in Table 1 to highlight the development of the model based on the models presented above.

Table 2: Rural Region Competitiveness Models Review

	Rural Governance		**Rural Built Assets**		**Social Capital**		**Human Resources**		**Business Environment**	
Paper	**Regional Capital**	**Decision Making Institutions**	**Regional Connectivity**	**Natural Capital**	**Provenance**	**Social Networks**	**Educational Base**	**Innovation Agents**	**Economic Structure**	**Entrepreneurial Ecosystem**
Viederman (1994)				Natural Capital		Social Capital	Human Capital	Manufactured Capital	Financial Capital	
H. M. Treasury (2004)			Competition				Skills	Innovation	Investment	Enterprise
Kitson, Martin, & Tyler (2004)	Infrastructure Capital	Social-Institutional Capital	Infrastructure Capital		Cultural Capital	Social-Institutional Capital	Human Capital	Productive Capital Knowledge Creative Capital		
Stathopoulou, Psaltopoulos, & Skuras (2004)		Governance	Location, Infrastructure	Natural Resources, Landscape	Cultural Heritage	Social Capital		ICTs		Business Networks
Martin (2005)	Infrastructure, Supporting services	Strategic policy, Institutional reform	Connectivity	Quality of life	Economic diversity/specialisation, Market and technology intelligence, Supplier networks	Social capital, Business culture	Skills, Educational base, Training and skills, Labour market	Innovation	Investment, Economic diversity/specialisation, Capital markets,	Enterprise, Business culture, New firm formation, Market and technology intelligence, Knowledge networks, Clusters,
Ručinska, & Ručinsky (2007)		Decision Centre	Accessibility, Environment		Regional Identity	Social Structure	Work Force	Innovation	Economic Structure	
Van der Ploeg, et al (2008)	Civic culture	Governance of Markets, Institutional quality, Institutional Arrangements,		Sustainability	Novelty Production	Social resources, Social Capital				
Mehta (2011)	Infrastructure Development				Marketing and Export-Import Assistance	Development of Professional Association	Training and Development Programmes, Establish and development of schools	Promote Research and development in rural area	Financing and other support: tax to loans, Development of Corporate Governance and E-Commerce	Rural Women Empowerment

Sharma, Chaudhary, Bala & Chauhan (2013)		Management			Marketing		Human Resource, Knowledge Gap	Technology	Finance	Ecosystem
Rao and Kumar, (2014)	Infrastructural facilities and R&D				Financial and Marketing Support			Infrastructural facilities and R&D	Financial and Marketing Support	Ignited entrepreneurial culture and qualities
Elena, Sorina, & Rus (2015)	Area Development		Location				Level of Education, Training		Financing Programs, External Financing, Sources of funding,	Motivation, Clusters and Associations, Collaborators, Consultancy, Stakeholders
Basco, R. (2015)		Institutional dynamics	Spillovers		Competition dynamics	Social Interactions	Learning Process			Information Exchange
Muñoz & Kimmitt (2019)	Collaborative places for advancing rural enterprises	Localised institutional support		Rural built assets: Landscape imprinting, Rural natural capital, Rural built assets	Entrepreneurial sense of rurality: Cultural positioning, Territorial embeddedness, Place-sensitive products, Place-sensitive trading				Place-sensitive trading	Entrepreneurial rural locale: Social locale of rural entrepreneurship, Cultural locale of rural entrepreneurship

5 Rural Regional Entrepreneurship Analysis Model

The tools used in ameliorate regional competitiveness and the strategies available to secure regional economic development are contingent on those characteristics which support entrepreneurship and business growth and sustainability. Thus, it requires the rural region to identify its local resources and frame the social, natural, economic, and build capitals around products and services that may lay the underpinning for entrepreneurial ventures in these rural areas.

From the models reviewed, we have now selected 10 characteristics which will form the basis for rural regional entrepreneurship. These are based around 5 themes as shown below:

1) Rural Governance
    a) Regional Capital
    b) Decision Making Institutions
2) Rural Built Assets
    a) Regional Accessibility
    b) Natural Capital
3) Social Capital

    a) Provenance
    b) Social Networks
4) Human Resources
    a) Educational Base
    b) Innovation Agents
5) Business Environment
    a) Economic Structure
    b) Entrepreneurial Ecosystem

These characteristics will now be explored in turn.

Regional Capital

The rural regional capital provides much of the political, economic, social and build capitals which is needed to drive economic growth. It would normally have the largest population density in the region and the seat for government. It also provides the hub for financial capital and directing inward investment. It provides a level of proximity (Basco, 2015) which supports a transportation hub for capital transactions which develops a more productive infrastructure. The regional capital may therefore not be classed as rural. The regional capital also provides the opportunity for developing clusters of businesses, concentrations of interconnected companies which support production and productivity linkages, and institutions in a particular field (Porter, 2004; Nilsson et al., 2014).

Decision Making Institutions

The economic performance of a region is dominated by the complex interplay between natural, social, human, financial and manufactured capitals (Wiesinger, 2007). This is normally across a country unevenly distributed and therefore the ability to have quality decision-making structures to determine the allocation of economic inputs, distribution of output allows for regional optimisation of productivity. These decision making structures may be from a number of bodies such as local government, government agencies, business or industry groups. The most effective being local government self-rule which develops and implements an entrepreneurship ecosystem strategy (Isenberg, 2011).

Regional Connectivity

Every business requires goods, services and people to gain access to them. The rural infrastructure needs of the business are threefold. Firstly, the ability for local people to come and work as well as local people being able to purchase from your business efficiently. Secondly, the ability for goods, services and people to be delivered to and from your business efficiently and lastly Internet connectivity which provides accessibility to address a global market and more importantly gaining access to a competitive marketplace. This considers inter- and intra- regional connectivity, therefore roads, motorways (Olsson, 2009), airports, rail systems, ports, logistic centres are essential for the making of global businesses within the region.

Natural Capital

Nature is the oldest ecosystem and is one of the core resources for many industry sectors (e.g. farming) and contributes to every business on multiple levels, from leisure time to the air we breathe. Noël and O'Connor (1998) and others such as Ekins, et al. (2003) have worked on operationalising these resources into four functions: Source functions, Sink functions, Life Support functions and Human Health and Welfare functions. When viewed in this way we can organise the natural capital assets into those which provide opportunities.

Provenance

The relationship between a place (Paasi, 2003), its cultural heritage and social-economic processes develop a regional identity (Castells, 1983; Bosworth & Turner, 2018). Food traceability and provenance, especially during Covid-19 has developed a market approach which is allowing consumers to develop a physical and psychological connection to the place and people who create. Provenance is both a marketing approach of a region and also in the consumer's mind, as (Reid & Rout, 2016) stated a complex relationship of a spatial dimension, a social dimension, and a cultural dimension.

Social Networks

Social capital is seen to influence (Murdoch, 2000) the important social systems within the rural regions, such as the economic structure, legal system, political system, cultural capital, and the regional identity. The importance of these network linkages within the rural communities is greater than urban centres and as such require a tailored approach for each regional economy. However, the social norms and the enduring patterns of behaviour and therefore influence social learning and information diffusion in a number of ways.

There is a mutual benefit in the regional community engaging with these entrepreneurs and their entrepreneurial endeavours (McKeever, Jack & Anderson, 2015).

Educational Base

The emphasis on constructing a knowledge based economy is underpinned by the triple helix model developed by Etzkowitz (1993). In this, three partners come together, University, Industry and Government to foster the startup and growth of businesses. The model is fundamental to the fuel knowledge based economy and its development, by bringing the knowledge, productive and regulatory spheres of society into a dynamic configuration. The triple helix model (Etzkowitz & Leydesdorff, 1995) therefore emphasises that "capitalization of knowledge" is at the heart of all education institution missions as an economic actor in knowledge-based socio-economic societies.

Innovation Agents

The connection between innovation, new venture creation, business growth and an entrepreneurial ecosystem has been widely recognised for business growth (Adner, 2006) and as critical to regional economic competitiveness (Barkley, et al., 2006). Innovation plays a critical function in responding to the challenges of market competition and requires stakeholders who drive and facilitate this. Porter (1990, 1996, 1998) stated that regional competitiveness is driven by innovation as it drives gains in productivity. Two examples of rural regions who are now global leaders in innovation based industries are Silicon Valley in the USA and Sophia Antipolis in France (Launonen & Viitanen, 2011).

Economic Structure

The critical factors which support economic performance in rural regions have a far reaching influence on all the capitals (Ravallion, & Datt, 1999; Ravallion, & Datt, 2002; Pham & Riedel, 2019; Amare, Balana, & Ogunniyi, 2020), which then drive metrics such as productivity, employment and labour market participation. The rural economic characteristics (Bender, 1985) when view through the social-economic farming household business unit and how these the linkages (Allen, 2007; Haggblade et al., 2007; Proctor, 2014) between agricultural and other rural industries can be maximised for increases in productivity and economic sustainability. Agarwal, et al. (2009) reported that the productivity, spatial factors, and other key factors, directly drive economic performance within a rural area.

Entrepreneurial Ecosystem

Rural regions contend by creating a business ecosystem that is conducive for businesses, by developing an entrepreneurial ecosystem and/or by attracting or keeping successful enterprises. Stangler and Bell-Masterson (2015) proposed and Alvedalen and Boschma (2017) called for further research on network features like density, fluidity, connectivity and diversity can drive regional performance. The facilitation of a dynamic and diverse business ecosystem facilitates an advancement in the capacity to generate income within the local economy (Audretsch & Thurik, 2004; Sharpley & Vass, 2006; Marsden, 2010).

6 Summary

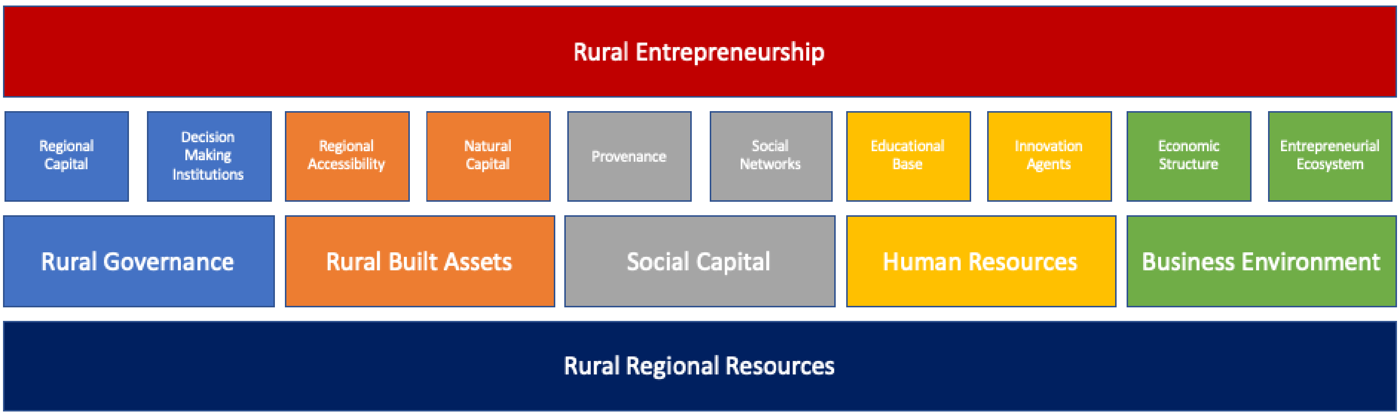
At a global level, agricultural productivity gains, poverty reduction and the growth of the non-farm sectors in our rural economy are complementary. The World Bank has stated that there is potential for expansion of the non-farm sector in rural areas as a source of income growth and poverty reduction (World Bank, 2007).

Traditional rural economies are successful when they effectively capture the income generated from local farms, plantations, fishing and businesses, and provide products and services that meet the needs of the local community. As rural economies began to undergo economic, social and demographic changes, such as agricultural intensification, commodity specialization, environmental degradation, industrial relocation, migration from urban areas, increased competition for development funding and regional governments need to respond based on the available resources. Therefore there is a core need for rural regions to identify its assets and linkages that allow the reorganization of the social and economic structure around a set of unique products and services. This then may provide the foundation to support a unique regional entrepreneurial opportunity ecosystem.

Our methodology is based on a thorough review and synthesis of the most relevant literature on rural regional competitiveness and the regional economic development strategies which have the ability to support business startup and/or growth. From this we developed a critical assessment of existing models through the theoretical lenses of entrepreneurship and opportunity recognition.

This paper then established a conceptual model, highlighted in Figure 1, of how entrepreneurs and regions should interpret the characteristics of a rural region with a view to support venture creation and business growth. The core factors used within the model are Regional Capital, Decision Making Institutions, Regional Connectivity, Natural Capital, Provenance, Social Networks, Educational Base, Innovation Agents, Economic Structure and finally Entrepreneurial Ecosystem.

Figure 1: Conceptual Model



This model contributes to current research as it allows the contextualisation of rural regional development and fosters a greater understanding of the factors which influence entrepreneurial rural regional growth. Further research is needed on quantifying the factors for each region and the actions needed to mitigate them.

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