TOURISM CLUSTERS ON THE MURRAY RIVER: SUCCESS FACTORS AND BARRIERS

Clare Lade

School of Sport, Tourism & Hospitality Management, La Trobe University, PO. Box 199, Bendigo 3552.

ABSTRACT: Varying degrees of success exist in exploiting natural advantages in association with the Murray River, Australia. Some regional centres located along the river, which have successfully added value to their natural advantage, are identified as well as those not so successful. The clustering concept involves "geographical concentrations of interconnected companies, specialised suppliers, service providers, firms related in industries, and associated institutions in a particular field that compete, but also co-operate" (Porter, 1998, pp.197-198) and often regarded as being closely associated with the economics of competitive advantage. The concept of business clustering enables a greater understanding of regional diversity to be achieved, while also encouraging less successful regional centres to undertake future initiatives to encourage regional tourism development.

Key factors characteristic of a 'successful' cluster may be recognised in accordance with the following characteristics identified by Porter (1998): 1) interdependence of firms; 2) flexible firm boundaries; 3) co-operative competition; 4) trust in sustained collaboration; 5) community culture and supportive public policies; 6) shared understanding of competitive business ethic; 7) private sector leadership; 8) wide involvement of cluster participants; 9) appropriate cluster boundaries; 10) institutionalisation of relationships; 11) social structure and attention to personal relationships; and 12) life cycles (Jackson & Murphy, In Press, p. 38). The degree to which four regional centres located on the Murray River demonstrate these characteristics will be determined and regarded as one with highly significant clustering potential. Absence of particular characteristics may be considered barriers to successful cluster development.

1. INTRODUCTION

This research examines the applicability of business cluster theory to regional tourism development through a study of four regional centres based on the Murray River, in Australia. In terms of river-based business activity there are varying degrees of success in exploiting the natural advantages associated with the Murray River. Some regional centres located along the river have successfully added value to this natural advantage, while others have been less successful. The concept of business clustering used as an analytical framework enables a greater understanding of regional diversity to be achieved. The results of this research may be used to facilitate less successful regional centres to undertake future initiatives to encourage regional tourism development. For the purpose of this research, success is measured in terms of economic performance and tourist overnight visitation.

2. BACKGROUND TO THE RESEARCH

2.1 Regional Economic Development

Many regional and rural areas have found themselves experiencing a state of economic and population decline as a result of a rapidly changing environment. Globalisation of trade incorporating changes in consumer demands, the market place and increased competition, together with changes to standards of living and demographic trends, growth in information and communication technology and new developments in competitive strategy may all be considered responsible for the alteration in regional development processes (Brownrigg and Greig, 1976; Porter, 1985, 1990, 2000; Dunning, 2000; Jenkins, et al., 1998; Waits, 2000; Dore and Hopkins, 2001; Michael, 2002, 2003; Ritchie and Crouch, 2003; Murphy and Murphy, 2004). In only recent times, according to Dore and Hopkins (2001), have these impacts of change created interest for analysis in regional and rural areas within Australia.

Although such changes can make these regions particularly unattractive to larger external industrial firms, they essentially may not make these areas unattractive to tourism related activities and industries. In fact, 'tourism seems to provide the ideal policy instrument for regional stimulation' (Brownrigg and Greig, 1976, p.6) transforming communities and providing renewal opportunities (Tourism Victoria, 2004).

More and more regional and rural areas are resorting to tourism as an alternative means of boosting the local economy and to assist in upholding their attractiveness for the local community to live (Murphy and Murphy, 2004). The potential the tourism industry has to serve as an alternative economic base for regional and rural areas is enormous, however consideration of potential shortcomings must also be made and a careful planning and management approach must be adopted.

Regions possessing natural advantages include those located along riverbanks, as is the case for the four regions studied and potential exists within these regions to successfully develop river – based business in other areas beyond the river. The river may be viewed as serving a focus for further regional development opportunities. The Murray River itself clearly creates an array of natural advantages to those regions situated on its river frontage.

2.2 The Four Cases

Albury Wodonga

The regional centre of Albury Wodonga is surrounded by a diversity of landscape, attractions, activities and heritage townships. The Murray River, mountains, Lake Hume, wineries and historical towns provide the region with a wide range of activities to satisfy both its visitors and local community. Lake Hume attracts various water sports and fishing enthusiasts, while the nearby mountains provide skiing in the winter and bushwalking and hiking activities in the warmer months of the year.

With a surrounding population of just over 100,000 people, Albury Wodonga

experiences a climate marked by hot dry summers, mild autumns and springs and cool, wet winters. Major industry sectors of the regional centre include food processing, broad acre agriculture, specialist horticulture, engineering, textile, manufacturing, computer technology, education and tourism (Albury Wodonga Strategic Plan, 2004). Emerging industries of the regional centre thought to possess high potential include aquaculture and forestry.

Located on the Hume Highway, 300km north-east of Melbourne, 563 km south-west of Sydney and 360km south of Canberra along the main transport and communication corridor, Albury Wodonga is easily accessible by car, rail, coach and air services. Infrastructure within the region includes sporting facilities, garden and parkland and a variety of accommodation and conference facilities. Opportunity exists for this regional centre to further develop linkages and interfirm relationships as well as strong and focussed leadership and river based industry co-operation in order to increase the value of its natural advantages.

Echuca

Echuca is located approximately 206 kilometres north west of Melbourne and with nearby Moama, is located on the border between Victoria and New South Wales. The regional centre has a population of approximately 12,000. Once home to the largest port in Australia, Echuca is now home to the largest collection of Paddlesteamers. Completely restored Paddlesteamers provide tourists with daily river cruises highlighting the history of the Murray River and the region. The local indigenous culture is considered a valuable natural advantage, with the Yorta Yorta people still today exhibiting their culture within the surrounding region.

A warm climate, similar to that of Southern Europe, is characteristic of Echuca with major industries of the regional centre including fine wine and food produce, dairying, tourism, forestry, beef, wool, grain, fruit, vegetables, horticulture and agriculture. A wide range of eating establishments, line the port of Echuca, ranging from restaurants to less formal cafes. Educational institutes in the regional centre consist of two secondary and primary schools, a catholic secondary and primary school, an Aboriginal learning centre and an adult education centre.

Echuca as a riverside regional centre experiences a variety of natural advantages in association with its location and by further exploring river-based initiatives and strategies these factor endowments may be further enhanced in the future.

Swan Hill

Swan Hill is located in Victoria's northwest 217km from Mildura and 340km from Melbourne. Swan Hill has a warm climate similar to that of the Mediterranean and has currently a population of 9,357 people, also servicing a further 40,000 people within the surrounding region. Swan Hill combines its own history with a range of modern facilities, while the River services irrigation districts extending into the Mallee region. Agriculture is the major supporting

industry of the region with horticulture in recent years rapidly growing in popularity.

Swan Hill is regarded as a major market centre of New South Wales Riverina district however, production in both wine grapes/cultured table grapes, wheat, wool, dairy products, maize, fodder crops, fat stock, market store fruit, nuts and vegetables is apparent as a result of irrigation. The focus of local manufacturing is primarily on farm machinery. Major attractions of the region include the Burke and Wills tree, the Giant Murray Cod, Murray Downs, Hilltop Resort Fauna Park, Tyntynder Homestead, the Pheasant Farm and Lake Boga. Lake Boga located south of Swan Hill, offers a range of water sports, including fishing, boating, swimming, sailing and water skiing, while the city itself offers a range of sporting and recreation venues.

Mildura

The regional centre of Mildura is located in the north west of Victoria and adjoining the far south west of New South Wales, making it accessible to major capital cities of Adelaide, Melbourne, Canberra and Sydney. The Mildura City Council encompasses an area of 22,330 square kilometres with a population of approximately 45,000 people (Sunraysia Area Consultative Committee, 2001). Mildura and region experiences a reasonably warm climate.

Grapes, wine, vegetables, citrus, food processing, wheat, sheep, beef production, tourism, education, health and welfare services are the region's current major industries. Technology and mineral sands mining are amongst new and emerging industries of the region.

Regional infrastructure includes the Murray and Darling Rivers, Northern Mallee Pipeline, natural gas, the interstate road linkages and rail links to major ports, all of which add value to the Sunraysia region. The Murray River is highly significant to the development of Mildura, particularly as a source of irrigation. 12.1 percent of the population are of indigenous background and a variety of programs are underway in association with the indigenous community, both promoting the culture and developing employment opportunities (Sunraysia Area Consultative Committee, 2001).

The education system employs a large proportion of the Sunraysia region's population with a variety of positions in the local university, TAFE institute and primary and secondary schools. Numerous opportunities also exist to further enhance the skills of the regional centre's workforce with a diversity of options available including flexible apprenticeship schemes, on the job training programs and distance education (Sunraysia Area Consultative Committee, 2001).

Although Mildura possesses a number of natural advantages, opportunities still exist to further exploit these natural advantages in order to attract tourism, increase general employment opportunities and gain additional economic benefits.

3. TOURISM BASED ECONOMIC SUCCESS ALONG THE MURRAY RIVER

Opportunity exists for river based regions to fully develop their natural

advantages through value adding activities. The total visitor expenditure of the region will often reflect the quality or successfulness of the implementation of these types of activities. Competitive advantage and the successful functioning of business clusters are important in this regard.

3.1 Role of Competitive Advantage in Achieving Industry Success

As a progression from the theory of comparative advantage, researchers have turned to alternate approaches to achieving industry success through competitive advantage. While comparative advantage relates to resources available to a region, competitive advantages concern the ability for a region to effectively manage and use these resources more over the long term (Ritchie and Crouch, 2003).

A region's competitive advantage is determined by its skills and resources, use of technology, branding and strategic management. How well a region copes with their competitors in order to reduce costs and increase differentiation will determine how effective is the utilisation of these skills (Porter, 1990).

Ritchie and Crouch (2003) discuss a variety of modes for deploying resources placing particular emphasis on tourism resources. According to these researchers, the various levels of government (national, state, local) influence management of these resources, with government control varying considerably from one region to another. Industry organisations also affect deployment of resources with both paramount bodies and sectoral associations seeking to promote the interests of their members. Special interest groups also have a considerable impact on resource use, particularly where ecological, social and cultural aspects are concerned. Although these previously discussed groups play central roles in the use of resources within a region, the combined actions of the many individual related enterprises will have the greatest influence of all of the deployment of resources. It is these firms who will decide specifically where and how the resources will be employed.

Achieving a competitive advantage involves creating and maintaining a favourable position of competitiveness relative to those of existing and potential competitors and may be considered an absolute concept, regarded as looking within an industry (Poon, 1993; Porter, 1985, 1990; Rosentraub and Przybylski, 1996).

Porter (1990) further developed the theory of competitive advantage with his 'diamond' model. Porter (1990) believes each industry differs substantially and consequently, so too will the nature of competition and sources of advantage. In a regional context, firms within a region must recognise their capabilities and select accordingly the most appropriate industries to compete in, bearing in mind that different industries require differing sources of advantage and a single industry should not be solely relied upon.

Competition is vital to the success or failure of a region, with Porter (1980) devising four broad determinants of competitive advantage - factor conditions; demand conditions; related and supporting industries; and firm strategy, structure and domestic rivalry - influencing the external environment to which a region will or will not benefit. These determinants may be regarded as the forces that

provide a region with motivation, capabilities and pressures that encourage innovation and creative initiatives (Crocombe, et al., 1991). In addition, two variables of government and chance may also influence the development of competitive advantage.

Porter (1990) discusses competitive advantage at a firm level relating to the manufacturing industry. however, Much confusion still exists, however 'as to what the concept (of competitiveness at a regional or destination level) actually means and how it can be effectively operationalised...'(Bristow, 2005, p 286). The concept is discussed in the literature at both a destination micro-productivity and a regional macro-productivity level with the definition utilised for this research being that of Storper (1997, p 264), who defines regional competitiveness as 'the capability of a region to attract and keep firms with stable or increasing market share in an activity, while maintaining stable of increasing standards of living for those who participate in it'. Although this definition is related to the global competitiveness perspective, emphasis is placed on that it asserts that regional competitiveness and regional prosperity are interdependent upon one another if not directly equivalent notions, in which Porter (1985; 1990) falls short of suggesting. This definition deliberately avoids equating regional competitiveness with productivity and has gained widespread acceptance and use amongst new regionalists (Maskell & Malmberg, 1999; Malecki, 2002; Huggins, 2003). Porter's (1990) general determinants applied to firm competitiveness are suggested as a 'one size fits all' approach without adequate empirical research to substantiate it (Deas and Giordano, 2001).

3.2 Role of Successful Business Clusters in Fostering Economic Development

For the purpose of the research, clusters may be defined as 'geographic concentrations of interconnected companies, specialised suppliers, service providers, firms in related industries, and associated institutions in particular fields that compete, but also co-operate' (Porter, 1998, pp.197-198). Business clusters may be considered in conjunction with Porter's theory of competitive advantage and, by operating efficiently, will stimulate new business formation, increase productivity and allow room for innovation (Doeringer and Terkla, 1995). As Bordas (1994) notes, the success of a cluster nowadays is less dependent 'on its comparative advantages and more on its competitive ones' (p.4).

Limited research has been published on clustering in Australia (Enright and Roberts, 2001), however knowledge about cluster theory has advanced on the world scale, particularly with publication of Porter's (1990) 'The Competitive Advantage of Nations', generating numerous cluster formation initiatives.

In accord, Austrian (2000) reiterates within her research the use of clusters as a relatively new economic development tool, though one that is rapidly expanding. Major reasons contributing to this keen interest in clustering, considered by Enright and Roberts (2001), are the world economy trends concerning the globalisation of various business and economic activities.

Recent attempts to foster industry cluster growth in Australia has been

regionally motivated with one belief that cluster development processes can assist in achieving positive economic outcomes and develop new industries for regions (Enright and Roberts, 2001). Research conducted by Austrian (2000), reveals clusters have been used as a method to shape economic development in many states and regions of the United States as well as in regions worldwide. Business clustering may be regarded as a means of stimulating local businesses to contribute substantially to their own development, without reliance on government support (Jackson, 2005; 2006).

Both Porter (1990) and Waits (2000) maintain regional clusters of related industries, particularly within the advanced economies of today, contribute greatly to growth of employment opportunities, export and income. More emphasis, according to Jacobs and de Man (1996), is placed on innovation, differentiation and specialisation within cluster development, rather than previous concentration on imitation and cost cutting in order to gain a competitive advantage. In addition, researchers Doeringer and Terkla (1995) and Gordan and McCann (2000) believe co-operation between industry players is a vital factor influencing effective cluster performance.

Researchers including, Porter (1998), Hall and Macionis (1998), Hall et al (1997), Konsolas (2002), and Jackson (2005), have considered the application of business clusters in the tourism context. Although Porter (1998) primarily considers clustering within the manufacturing industry, he does make mention to the California wine cluster including the many commercial wineries and complementary supporting industries. Hall and Macionis (1998) refer to network development in relation to the wine industry and provide evidence of wine and tourism related cluster like characteristics existing in regional South Australia within their research. Konsolas (2002) explores the degree to which Porter's elements of competitive advantage are present in relation to the Greek tourism industry and how cluster development may be a means of raising its competitive advantage and contribute to growth of the industry. Jackson (2005) explores the use of tourism business clusters in assisting economic development of inland China.

How the business-clustering concept encourages regional communities to contribute to their own development rather than rely too greatly on government support is considered in this study. Clearly, governments would warmly welcome a more self-sufficient approach to regional development incorporating the enhancement of both public and private business partnerships. 'Industry clusters promise a new way for state and local communities to leverage economic development while avoiding traditional zero-sum development policies' (Doeringer and Terkla, 1995, p.233).

Key factors characteristic of a 'successful' cluster may be recognised in accordance with the following characteristics identified by Porter (1998): 1) interdependence of firms; 2) flexible firm boundaries; 3) co-operative competition; 4) trust in sustained collaboration; 5) community culture and supportive public policies; 6) shared understanding of competitive business ethic; 7) private sector leadership; 8) wide involvement of cluster participants; 9) appropriate cluster boundaries; 10) institutionalisation of relationships; 11) social

structure and attention to personal relationships; and 12) life cycles (Jackson and Murphy, In Press, p. 38). The degree to which the four regional centres of Mildura, Swan Hill, Echuca and Albury Wodonga, all located on the Murray River, demonstrate these characteristics will be determined. Absence of particular characteristics may be considered barriers to successful cluster development.

Regional centres along the Murray River that have successfully created overall competitive advantage will also be identified. Subsequently this research explores whether a relationship exists between competitive success and the presence of the successful clustering characteristics outlined by Porter (1998).

4. METHODOLOGY

The four regions identified in Section 2.2 were selected and used as the basis for investigation into the role of business clustering in facilitating regional tourism development along the Murray River. These cases were expected to provide contrasting results with respect to the degree of industry success. For the purposes of this research a case study method was adopted and within this framework questionnaire surveys were distributed to between 85 and 100 tourism related businesses of each case region and in-depth interviews were also conducted with principal representatives of the relevant tourism and development organisations.

Quantitative data from the questionnaire surveys was subjected to non-parametric analysis procedures to test for differences between the multiple groups. Non-parametric tests make no assumptions about the parameters (such as the mean and variance) of a distribution, nor do they assume that any particular distribution is being used. Interview protocols were based on preliminary analysis of the questionnaire survey responses, along with cluster success factors identified in the literature and attributes of the competitive advantage concept as it applies to the development of regional locations.

The analysis of secondary data sources also assisted in determining whether the presence of tourism business clusters contributes to substantial economic benefits for the regional centre and development of the questionnaire survey.

5. RESULTS

By examination and analysis of key factors associated with the competitive development and economic performance of each region, the research question of "Does the presence of successful tourism business clusters contribute to greater economic benefits for the regional centre?" may be addressed.

5.1 TourismContribution to Regional Economic Development

Tourist overnight visitation varied between each of the case regions between the years 2000 and 2005. In 2005 the total overnight visitation to the Murray East region (encompassing Albury Wodonga) was 9,984, the Central Murray region (encompassing Echuca) 13,251 and Murray West region (encompassing Swan Hill and Mildura) was 22,224 (Tourism Research Australia, 2005).

In 2003 the total overnight visitor expenditure in each of the four case regions varied with the Murray East region (encompassing Albury Wodonga) being \$115 million. The Central Murray region (encompassing Echuca) \$200 million and Murray West region (encompassing Swan Hill and Mildura) was \$218 million (Bailey et al, 2004). Using estimated expenditure by overnight visitors per capita of local population as a basic indicator of performance, the result for Echuca was \$16,000, for Albury Wodonga \$1,182 and combined Swan Hill and Mildura \$3,872. The Echuca region attracts far greater total visitor expenditure per capita then the other three river towns. As a result, Echuca may be considered to be relatively more successful than Swan Hill, Mildura and the Albury Wodonga region.

5.2 Competitive Advantage in the Four Regions

Each of the case region's competitive advantages demonstrate a strong presence of each of Porter's (1990) determinants, with a tendency to display more man-made factor conditions than natural advantages. It is difficult to separately establish the degree of competitive advantage of both the Mildura and Swan Hill regions, due to being unable to disaggregate their tourism expenditure and tourist overnight visitation from the data provided for the Murray West region, which incorporates both of these regions.

However, Mildura demonstrates a high presence of man-made advantages, demand conditions, related and supporting industries and has a high regard for incorporating natural advantages into regional strategies. Considerable government support is received by the Mildura region, however the opportunity exists to increase support from the New South Wales state. Swan Hill also demonstrates considerable government support for its development, however in comparison to the Mildura region has a lower presence of man-made advantages, demand conditions and related and supporting industries.

A very high importance was placed on the Murray River by Echuca industry leaders. River based attractions such as the historical port precinct and paddle steamers serve as the major factors contributing to the region's identity. The natural attributes of the region including the climate, location, lifestyle and scenic surroundings were also recognised as major factor advantages within the interviews. Overall the Echuca region demonstrated a high presence of those characteristics associated with Porter's (1990) determinants of competitive advantage with particular emphasis placed on the importance of market research, strong leadership and co-operation between complementary sectors and industries.

Overall in comparison to the other three regional centres, the Albury Wodonga region has a lower presence of Porter's (1990) determinants except in relation to factor conditions, where the region is inclined to display a greater range of man-made advantages.

5.3 Presence of Tourism Cluster Characteristics

Each of the four case regions may be identified in accordance with the presence of those pre-conditions associated with cluster development. Table 1

displays the degree to which each region conforms to the outlined cluster characteristics.

Echuca

Key factors characteristic of a 'successful' cluster may be recognised in accordance with the characteristics identified by Porter (1998). Currently there is a tourism related cluster operating within the Echuca regional centre, incorporating the port precinct and other attractions, the accommodation sector and food and wine related industries. Echuca Moama tourism is largely responsible for co-ordinating the cluster and organising these and other industry groups, particularly in relation to promotional initiatives and bulk marketing. The primary aim of Echuca Moama Tourism in relation to this co-ordinated approach to development is to place an emphasis on selling Echuca as a destination experience and using this co-operation between relevant sectors in order to deliver a quality visitor experience. The success of the region in relation to tourism expenditure indicates that the presence of this tourism cluster, emphasising local co-operation between related industries in order to sell the destination as one, does contribute to successful tourism development and in turn to raising the overall competitive advantage of the region.

Table 1. Presence of Successful Cluster Characteristics

Cluster Characteristics	Mildura	Swan Hill	Echuca	Albury Wodonga
Independence of Firms	Ī		i	Ī
Flexible Firm Boundaries	Ī		i	Ī
Co-operative Competition	Ī		Ī	Ī
Trust in Sustained Collaboration	Ī		i	Ī
Community Culture and supportive Public	Ī	Ī	Ī	Ī
Policies				
Shared Understanding of Competitive	Ī		i	
Business Ethic				
Private Sector Leadership	Ī	Ī	i	
Wide Involvement of Cluster Participants	Ī	Ī	Ī	Ī
Appropriate Cluster Boundaries	Ī	Ī	Ī	
Institutionalisation of Relationships	Ī		i	
Social Structure and Attention to Personal	Ī		Ī	
Relationships				
Life Cycles				

Note: \blacksquare indicates presence of characteristic, \square indicates requires further development of characteristic.

Mildura

Within the Mildura region a greater emphasis was placed on the less formal establishment of tourism related clusters. Evidence suggests that the clustering concept is likely to be happening naturally within the region without any formal structural developments. These naturally occurring clusters are thought to be

operating within the wine industry, accommodation and attractions sectors. The main benefits with working in co-operation with other similar businesses, in relation to information sourcing and reducing costs, are that similar benefits associated with formal cluster development may be achieved. The problem often associated with informal clusters is that they usually depend upon one or two energetic people or leaders and once those people leave, the cluster is likely to disintegrate as a result. Therefore, the role for formally supporting cluster development including funding, researching and educating is necessary.

It appears that cluster development is occurring more formally within the horticulture and agricultural industries. However with evidence of naturally occurring cluster development within a range of sectors constituting the tourism industry, huge potential exists for formal cluster development to occur within this area which draws together the various sectors of the tourism industry. Similar characteristics are associated with naturally occurring clusters as with formally developed clusters including co-operation and local leadership and therefore these may just require a formal structure and leadership to be developed in order to provide more substantial benefits to the region.

Swan Hill

While levels of co-operation exist separately between accommodation, cultural activities, attractions, a tourism and hospitality group, Murray River Golf cluster and the viticulture sectors in Swan Hill, further assistance is required in order to formally develop these individual tourism related sectors into the one tourism cluster. By combining these individual smaller 'clusters' and developing one large formal tourism cluster of the region, the potential benefits associated with the clustering concept may be fully achieved.

Albury Wodonga

Naturally occurring clusters appear to exist within the Albury Wodonga region however the development of more formal clusters is considered to be still within the early development phase. Co-operation exists in the accommodation sector with a Moteliers Associated formed, however potential exists to further develop this as part of a formal tourism cluster of the region incorporating the transport, attractions and food and wine sectors. In order for this to be achieved though, willingness from all sectors needs to be established and a correct structure with appropriate leadership provided to co-ordinate the various activities. Difficulties have existed in the past in relation to structure and leadership and are areas that must be addressed if the region is to develop to its full tourism potential.

5.4 Presence of Tourism Clusters and Economic Benefits Relationship

The results gathered and analysed imply that those regions which have fully adopted the clustering concept, are inclined to be more successful in terms of tourism expenditure and overnight tourist visitation.

Echuca is the only region that demonstrates a formal tourism cluster functioning as such and in terms of visitor expenditure, the region may be

regarded a success. While the other three river-based centres demonstrate some degree of cluster development in tourism related sectors, a more formal structure needs to be developed to incorporate these individual sectors. Realisation for this need, along with correct guidance and support may result in the other three regional centres receiving the economic benefits that the Echuca region has come to achieve in the tourism industry. To guide such development a potential tourism cluster development model is presented below.

6. POTENTIAL TOURISM CLUSTER DEVELOPMENT MODEL

A descriptive model assessing the potential for business clusters to be applied in assisting to strengthen the competitive advantage of regional tourism destinations has been developed, taking into consideration the underlying factors associated with successful cluster development. See Figure 1. To assist the transformation of comparative advantage into strong competitive advantage, both human and non-human dimensions are considered. Three broad categories of strong local leadership, co-operation and attitude to competition constitute the human related dimensions, and two categories of well defined boundaries and well defined industry structure constitute the non-human related dimensions. Within these broad categories of human related and non-human related dimensions, Porter's (1990) successful cluster characteristics are incorporated. These were the factors recognised as playing a fundamental role in successful cluster development in the four case regions and contributing to competitive advantage.

Due to the need for successful clusters involving human related factors to assist cluster participants in working together to achieve a common goal, it should be anticipated there will be some barriers to collaborative efforts. Provided these barriers are absent or minimised within the overall cluster development process, the region should enjoy the benefits associated with collaborative behaviour.

6.1 Human Elements

Effective cluster development involves humans working together for a common goal and therefore it is expected that human related factors will play an important role in the clustering process. This need has been recognised also by Murphy and Murphy (2004) in their 'new paradigm' chapter "working together". The presence of co-operation, strong local leadership and appropriate attitudes to competitive development are human factors essential in successful tourism development of regional destinations located along the Murray River. Based on the degree of success of each of the four case regions (measured by the level of tourism expenditure and overnight visitation), the presence particularly of co-operation and strong local leadership is necessary for potential successful cluster development. Although innovative ideas are still considered highly significant the presence of these do not appear as vital due to reasonably high levels being displayed by each regional centre case. Appropriate attitudes to competition are required however as the model suggests, strong local leadership and co-operation are required in order to successfully transform these attitudes into behavioural

activities.

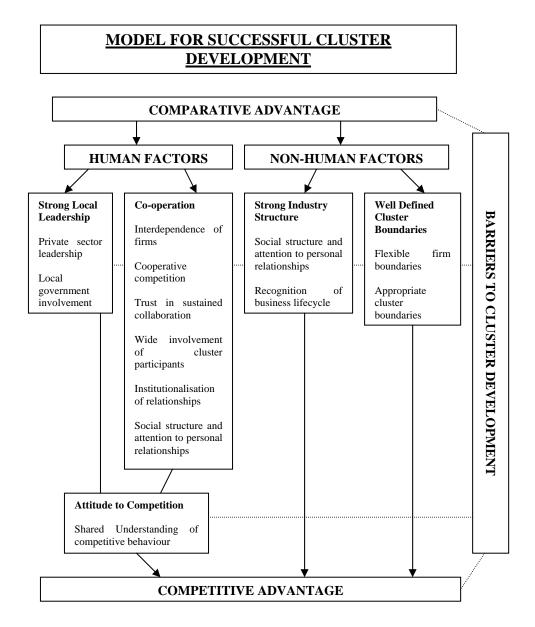


Figure 1. Model for Successful Cluster Development

6.2 Non-Human Elements

Along with the presence of these human related factors, the non-human factors of a strong industry structure and well defined cluster boundaries may also be considered essential to contributing to successful tourism development of regional destinations. The model suggests there is a close relationship between the presence of co-operation and strong local leadership, with a strong industry structure and well defined boundaries. Co-operation and strong local leadership within a region is more likely to result in the development of a strong industry structure and lead to well defined boundaries being outlined.

A well developed structure that demonstrates clear lines of responsibility, communication, leadership and co-operation between all levels and sectors of the tourism industry can provide great potential for successful cluster development. A tourism industry structure lacking these factors is likely to lead to a disorganised and fragmented industry and thus, result in inconsistencies and an overall reduction in the level of competitive advantage.

This notion suggests that this non-human element of a well defined industry structure is in actual fact dependent upon the human elements previously outlined (co-operation, strong local leadership and competitive attitudes) in order to be achieved. This further reiterates the importance for these human elements being present in order to develop successful business clusters and to assist raising the competitive advantage of a region.

The Echuca, Swan Hill and Mildura regions all have well established tourism organisations to assist in providing leadership and structure to the tourism industry. Although the Albury Wodonga region has established a tourism organisation that represents the regional centre through Destination Albury Wodonga, this organisation's development is relatively recent in comparison to the other three regions and subsequently requires time to establish and develop a sound industry structure.

Outlined by Porter (1998) and Hjalager (2002) as a key factor characteristic of 'successful' cluster development, well defined and appropriate cluster boundaries exist within the Mildura, Swan Hill and Echuca regional centres. Border anomalies exist within the Albury Wodonga region which contributes to a fragmented tourism industry structure and subsequently, a lack of strong industry leadership. It appears within the Albury Wodonga region that border anomalies may be acting as a significant barrier for strong local leadership development. The dual city structure straddling both a major river and state boundaries is a real obstacle to clearly defined cluster boundaries. The current complex nature of the regions two local governments, combined with a lack of a representative organisation in the past, is suggestive of this notion. Differing government authorities may impede effective cluster development and contribute to the Albury Wodonga region exhibiting an overall lower competitive advantage and success within tourism development.

6.3 Barriers to Successful Cluster Development

The major barriers or obstacles preventing the potential development of

successful clusters within the four case regions were identified within each of the case regions. The diagram below outlines the identified barriers in association with those characteristics of successful cluster development in Figure 2. Similar responses arose between the four regions and as a result, these have been outlined and summarised further below.

Reluctance to Share Knowledge and Information

A reluctance to share delicate information and knowledge amongst similar businesses of the region was recognised as a prime obstacle to effective cluster development.

The competitive element such as fear of local business competition, business protection and intense personal competition all may contribute to this lack of information sharing and thus, prevent any form of co-operation between regional businesses and industries from occurring. Too many people regarded as wanting 'all of the cake' rather than just one piece. This greedy type of behaviour suggests a lack of trust in sustained collaboration and possibly co-operative competition, two characteristics identified in association with successful cluster development.

Greed and Self Interest

A major identified obstacle to cluster development was that of greed and selfishness of local businesses within the region. Self interest and egotism were recognised as primary impediments, along with the perception of the threat of competition. Some businesses were identified as being inclined to work independently and for themselves only and not think of the region as a whole. The presence of greed, self interest and egotism may be considered in relation to a lack of trust in sustained collaboration or relationship which was outlined as a pre-condition for successful cluster development.

Lack of Trust and Co-operation between Local Businesses

Identified by all case regions was a lack of trust and co-operation between similar businesses that have the potential to form industry clusters as a major barrier. Co-operation may be considered a vital factor in successful cluster development and without it such development is very unlikely to occur. Businesses need to recognise the benefits associated with working together and put a certain degree of trust in those relationships formed. This lack of trust also may be considered in relation to a lack of presence of one of the key preconditions set for successful cluster development.

Backward and Close Minded Thinking

Small business myopia was considered a major barrier with the competitive attitudes of some groups also having a negative influence on cluster development. Lack of forward vision, teamed with past bad habits and ignorance of new business arrivals all prevent the benefits associated with successful cluster development from being achieved. Porter (1998) outlined having a shared understanding of competitive business ethic as a requirement for

successful cluster development, this backward and close minded thinking demonstrates there is a lack of this characteristic within the regions.

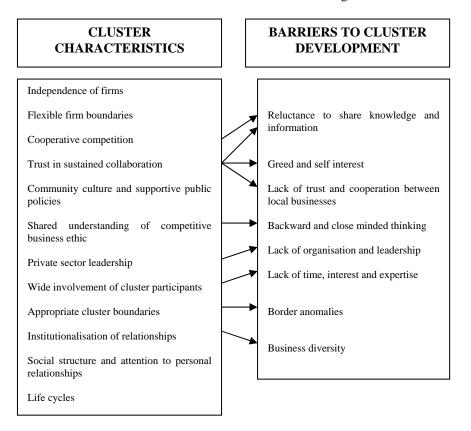


Figure 2. Barriers to Successful Cluster Development

Lack of Organisation and Leadership

Businesses within the case regions acknowledged their interest in being a part of an operating cluster, however believe their region lacks the organisation and leadership required to make a success of it. Lack of support from the local government and council was identified as a main hurdle by respondents in regards to providing the necessary organisation and leadership. Outlined as one of the pre-conditions for successful cluster development, was private sector leadership. A lack of organisation and leadership suggests an absence of this requirement.

Lack of Time, Interest and Expertise

A lack of time was acknowledged as a major constraint to successful cluster development, along with also genuine interest and the expertise to co-ordinate cluster development. Without initial interest and correct guidance and expertise, many businesses lose sight of the potential value clustering may bring to their own business as well as the entire region. Many businesses identified they were 'flat out' with operating their own business, leaving little or no time to participate in additional business related activities. Regions demonstrating these characteristics may be considered as lacking wide involvement of cluster participants, one of the necessary characteristics associated with successful cluster development.

Border Anomalies

Results indicate that border anomalies contribute to a fragmented tourism industry structure and subsequently, a lack of strong industry leadership. Differing government authorities may impede effective cluster development and contribute to the region exhibiting an overall lower competitive advantage. Appropriate cluster boundaries are characteristic of a successfully operating business cluster and its absence (poorly defined cluster boundaries) therefore may restrict successful development.

Business Diversity

The variations existing between the local businesses of the regions were deemed a barrier due to differing management goals and diverse business needs. Major difficulties were considered to arise particularly in the subjects of joint goal setting and conflicting business needs. Team-working skills also were regarded as lacking as a result of diverse business activities. Institutionalisation of relationships may encourage parallel goal setting by businesses with the welfare of the destination as a focus within the regions and reduce the diversity which appears to currently exist.

Established Conservative Business Clusters

Previous formation of conservative business clusters was also regarded as an impediment to potential successful cluster development within the case regions. Well established clusters incorporating small town favourites may exclude new business arrivals from joining and therefore limiting the effectiveness of the business cluster. Wide involvement of cluster participants is necessary for a cluster to develop successfully and thrive and without it, the cluster is likely to disintegrate. Barriers to entry are also considered characteristic of anticompetitive behaviour, thereby contributing to a breakdown of the shared understanding of competitive behaviour characteristic associated with successful cluster development.

These cluster development barriers perceived by respondents represent an absence of the pre-conditions outlined by Porter (1998), therefore providing support for Porter's (1998) theory of cluster development.

6.4 Outcomes for Successful Clusters

'Most really successful strategies are based on organizations doing something new or innovative, either in terms of internal activities, or in terms of their approach to the market or competitors' (Peters, 1990, p. 547). Also recognised is

that a region can no longer rely entirely on natural advantages in order to obtain and maintain a competitive position within the market place (Poon, 1993), with the degree to which competitive advantage may be reached dependent upon the innovative activities, productivity and resources required to produce a valuable good or service (Porter, 2000). Clusters may be considered to affect competition by increasing productivity of the region, increasing the capacity for innovation and stimulating formation of new businesses that supports innovation and expands the cluster (Porter, 1998).

In terms of increasing productivity, businesses operating in a cluster may have access to specialised inputs, employees and information. Also particularly relevant to the tourism industry is the facilitation of complementarities between the activities of the cluster participants (Porter, 1998). A tourist's visitation experience consists of not only the destination that is being visited but also the accommodation in which they stay in, the restaurants that they eat out at and the activities they engage in whilst on holiday. In this tourism case the participants in the cluster are mutually dependent upon one another and poor performance of one participant may impact on the success of the other participants.

In terms of increasing the capacity for innovation, clusters often enable those businesses operating within it to more clearly and much more quickly identify the needs of the consumer. The concentration of complementary businesses enables buyer knowledge and relationships to be realised and strategies to be developed around this information, contributing to an advantage over competitors. New technologies, service and marketing concepts facilitated by ongoing relationships between cluster participants may also be recognised. The nature of tourism particularly relies on information regarding changes in tourist needs and preferences in order to develop an experience which is much better suited to the tourist's current needs.

In regards to the ability for clusters to assist in formation of new businesses, new businesses are more likely to form within existing clusters than not. More opportunity exists to obtain information, identify new business opportunities and barriers to entry are often lower than elsewhere (Porter, 1998). The perceived risks of opening a new business are also reduced by a number of successful businesses already operating in the cluster, evidence of local customers and well established relationships. Clusters may also speed up the cluster innovation process causing its growth and enhancing its advantages.

Respondents indicated that the Echuca region effectively incorporates both its natural and man-made factor conditions into their regional development strategies. Using innovation in their strategy development was recognised as important, however quite surprisingly product differentiation was not regarded as being of high significance. In-depth interviews revealed that more emphasis was placed on effective innovative strategy development rather than on the actual product/service itself.

Within the Albury Wodonga region, strategy development is based on creating an experience that will generate the product for the new age consumer. This may be achieved by maximising the disposable recreational time of the consumer and creating the experience they are now seeking. Recognised also

was the opportunity for the Murray River aspect of the region to be promoted a great deal more than it currently is. The region is lacking activities and attractions actually on the Murray River (houseboats/paddle steamers), this presents an ideal opportunity for strategies to be developed taking this popular natural advantage into consideration. The relatively newly formed Destination Albury Wodonga has been instrumental in developing these new types of initiatives to ensure these considerations are taken into account, but they are still within early stages of formation and development.

The Mildura region considers itself to be traditionally good at innovation. The need to differentiate the region from others that are similar in nature was recognised and was the aim of the current re-branding project. Identified also as the key to differentiation was not for the region to be distinguished by price reductions or discounts, but rather by service standards and value adding strategies. Considered to be of high importance was the need for the point of difference to be widely recognised in order to make the region that bit more competitive. In addition, innovations were also identified as being more inclined to come from the new/younger operators who are more familiar with changes and finding it much easier to adapt than the older/traditional businesses. Those businesses that are being innovative appear to be the ones leading the region when it comes to their businesse. In-depth interviews also revealed that it was more likely that some businesses are actually not aware or realise they are employing innovative strategies rather regarding their methods as a more effective means of operating their businesse.

7. CONCLUSION

Through determination of business clustering considered to play a significant role in facilitating regional tourism development to assist overall regional economic development, the research question of "Does the presence of successful tourism business clusters contribute to greater economic benefits for the regional centre?" may be answered.

Business clusters are considered to play a significant role in raising overall competitive advantage constituting the way in which related and supporting industries interact. Hence they confer substantial economic benefits to the region providing the human factors of strong local leadership, co-operation and appropriate attitudes to competitive behaviour exist. Additional non-human factors contributing significantly to the achievement of successful cluster development within the tourism industry were also identified as being the presence of a strong tourism industry structure and well defined boundaries.

The non-human factors of a strong industry structure and well defined boundaries are regarded as very important as well, and considered to be largely dependent upon the presence of human factors of co-operation and strong leadership. In order to provide a strong tourism industry structure, a representative tourism body should be established to provide strong leadership skills and the ability to co-ordinate the many various sectors that make up the industry. The degree of importance placed on these factors by regional centres, further substantiates the significant role of business clusters in successful

regional tourism development.

Each of the four case regional centres indicated the presence of clustering to some extent within their own region and considered the components of these clusters to be primarily industry sector based. Various sectors constituting the tourism industry appear to be working in cluster like relationships, however lack the co-ordination and leadership to move from these individual sector cluster groups to an overall tourism industry operating cluster. In addition to the characteristics considered to play a key role in successful cluster development, those considered to impede cluster development were also recognised. Business clustering may be considered a valuable tool to assist in facilitating regional tourism development and therefore contribute to overall regional economic development, providing the correct local leadership and co-operation between sectors constituting the industry exists.

As demonstrated in the model, it may be concluded that in order to successfully transform comparative advantage into competitive advantage, clustering involves humans working together in collaboration to achieve a common goal. Therefore, it is expected that human factors will play an important role in the clustering process and it should be anticipated there will be some barriers to collaborative efforts. These points are not raised by Porter (1998) but are considered essential when examining the service industries and selling experiences, like tourism.

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