

WINE AND TOURISM: CLUSTER COMPLEMENTARITY AND REGIONAL DEVELOPMENT

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Abstract

This paper examines interaction within and between regional wine and tourism clusters. It addresses the important question of how clusters interact or 'complement' one another and whether the strength and structure of regional wine clusters have an effect on the strength and structure of co-located regional tourism clusters. The primary aim of this research was to gain an understanding of the scope of wine and tourism clusters and how they interact. This is represented in a model of complementarity for regional wine and tourism clusters. The development of this model indicates that the complementarity of regional wine and tourism industry clusters may provide a way to strengthen wine tourism in a region. Three regional case studies provided the basis for the research and an in-depth analysis of the wine and tourism clusters in these regions was used to develop the model. The study uses the concept of clusters as a tool to identify both overlap and complementarity in and between these regional industries. The complementarity and overlap of wine and tourism clusters is evident through the development of wine-tourism. This area of research has been recognised as an area of particular interest by Porter (1998: 241) who suggests: "Cluster development often becomes particularly vibrant at the intersection of clusters".

Key words: clusters, wine tourism, complementarity

Introduction

The wine industry and the tourism industry have grown rapidly in Australia in the past two decades. Both of these industries bring in export dollars to the Australian economy and are important generators of wealth in many parts of Australia. They involve established and sometimes complex value chains and, more than many other industries, they contain a significant number of small and micro enterprises. In addition, physical geography and location play an important role in the growth of these industries suggesting some common industry pre-conditions.

The wine industry and tourism industry are often co-located within a region and therefore share commonalities to do with geographic, economic, social and resource assets. The emphasis regional development initiatives have placed on the promotion of wine tourism has resulted in increased interest in understanding their level of complementarity. It is also evident that this complementarity, in terms of its nature and economic significance, varies considerably from one region to another.

This paper uses the construct of clusters to identify the particular dimensions that are important in wine and tourism industries in three regional case studies situated in Central and Western Victoria. The paper uses the strength of these dimensions to determine how and to what extent cluster complementarity can be impacted

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on by the nature of relationship within and between clusters, and how this is reflected in opportunities in wine-tourism.

Literature Review

The Wine and Tourism Industries

The convergence or overlap of the wine and tourism industries in some instances can produce a hybrid industry *wine-tourism*; an industry that is emerging separately from the specific sectors of viticulture and wine making and tourism and hospitality. This has provided considerable growth opportunities for both of these industries and the rural and regional economies where they are co-located. This phenomenon has been recognised and actively exploited in Australia and other *new world* wine producing countries; particularly in North America, New Zealand, and more recently South Africa (Hall *et al.*, 2000). The *old world* wine producing countries including France, Italy and Spain, have only recently begun to recognise the significance of wine related tourism and are seeing it as a means to counter the increased competition on the international wine market from new world producers (Getz, 1998; Hall *et al.*, 2000; Getz, 2001).

The nature of the wine industry and its predominance in rural locations provide the tourism industry with additional and complementary regional destinations and can add value to regional tourism. Research has identified tourism consumers with an interest in wine making and cellar door locations as *socially aware* and *visible achievers* (Roy Morgan, 2000; Jago *et al.*, 2000). These segments have not traditionally been attracted to rural based tourism destinations and as a consequence, tourism bodies and government agencies in regions that have wine related resources have become particularly interested in understanding and accessing this new and growing market (Heaney, 2003; Tourism Victoria, 2002).

In addition, particular characteristics and complementarities of these industries may in part explain variations in the success of tourism and wine industry development and the ability of certain wine regions to capitalise on the economic and social returns from their tourism potential (Macionis, 1998; Hall and Johnson, 1998; King and Morris, 1998; Crockett, 1998). The challenge for such communities is to be able to strengthen wine and tourism relationships in ways that maximise the positive returns (Marceau, 1997; Marsh and Shaw, 2000; Anderson, 2001; Hall, 1995; Killion, 2001; Jenkins *et al.*, 1997; Prosser, 2001; Hall *et al.*, 1998). This need is possibly greatest in regions of lower or declining economic activity (Prosser, 2001; Killion, 2001). The potential for complementary activity in wine-tourism is also recognised as a means to strengthen wine and tourism industries at a regional level but a consensus on how to achieve this is unclear (Macionis, 1998; Hall and Johnson, 1998; Cambourne *et al.*, 2000; Hall *et al.*, 1998). This paper describes in three case studies how using the notion clusters might contribute to this areas of research.

Clusters and Clustering

Porter (1998: 199) uses clusters to represent "...a geographically proximate group of interconnected companies and associated institutions in a particular field, linked by commonalities and complementarities". Using the concept of clusters in relation to the wine industry is not new and there is considerable discussion in the literature regarding such clusters (Porter, 1998; Marsh and Shaw, 2000; Chapman, 2000; Marceau, 1997; Blandy, 2001; Ammirato *et al.*, 2003). Until recently however, there has been less discussion about tourism clusters (Rosenfeld, 1997; Rex, 1999; Nordin, 2003; Smith, 1999). This begs the question whether there are some characteristics of these industries and their regional imprint that make them more or less amenable to being identified as a cluster or engaging in the processes associated with clustering (Benneworth and Charles, 2001). It is important to make a distinction between the terms cluster and clustering. In this study it is commonly understood that clusters are concentrations of enterprises that can be measured by some statistical method or that can be classified as clusters because they demonstrate some co-location and concentration of activity that is associated with clusters (Marceau, 1997). Clustering on the other hand involves processes and relationships and these can be tangible but are more often intangible and not measured using standard statistically based analytical tools (Porter, 1990; Harrison, 1991; Enright, 2000; Rosenfeld, 2001a). This study uses clustering as a key indicator of the activity of co-located clusters and their level of cross cluster interactivity hence complementarity. Clustering is interpreted as a means of facilitating activity between participants in a cluster and the complementarities can be among products,

across products, through marketing, and through better alignment of activities within the cluster (Porter, 1998).

Rural and Regional Clusters

The study uses 'regional' clusters (Feser and Bergman, 2000) as the means to explore the complementarity in locally based wine and tourism industries. These types of clusters, particularly those in localised rural regions and fragmented industries such as tourism, are often not captured in traditional cluster studies. In many instances these sectors are seen as residual cluster sectors with limited growth potential (Rosenfeld, 2001b). As a consequence, to define these rural/regional industry types as clusters requires a broader approach to cluster identification. Rosenfeld (2001b) suggests that in rural locations there is a need to recognise unusual and smaller scale forms of interdependencies and, perhaps to use a broader set of commonalities than those used in identifying clusters via more traditional sectorial based means. Porter *et al* (2004) suggest that comparative studies of clusters in rural locations can strengthen the understanding of underlying drivers and is a good foundation for a new stage in cluster research.

A non traditional approach to cluster identification is used in this study which assumes clusters exists at some level (Rosenfeld, 2001a) and, as such, focuses on the cluster process rather than the cluster definition. In this context a cluster is "...simply used to represent concentrations of firms that are able to produce synergy because of their geographic proximity and interdependence, even though their scale of employment may not be pronounced or prominent" (Rosenfeld, 1997: 4). In adopting this approach, clusters of activity that may not, in their own right, have the economic significance or industry focus to be captured in more standard cluster definitions can be identified. This approach also recognises that a region may achieve economic advantages particular to that region through joint industry activity or cluster complementarity.

The factors that make cluster theory relevant to understanding the relationship between the wine and tourism industries are based around an understanding of clusters that shows: co-location can be as important as physical resources; economic activity is often embedded in ongoing social relationships (Porter, 1998; Harrison, 1991; Rosenfeld, 1997); and the intersection of clusters can be particularly vibrant (Porter, 1998). These factors reflect the spatial, economic and perceptual complementarity between regional wine and tourism clusters. Applying the concept of clusters to this study requires a methodology that is sensitive to both identifying and measuring cluster dimensions and understanding the process of clustering.

Methodology

A Framework Approach

The study is multidisciplinary and includes ideas and theories about locations, industries, clusters and relationships and because of this is organised using a framework approach. The framework is used to identify the dimensions of each wine and tourism cluster being studied allowing them to be classified as particular types of clusters based on those described by Rosenfeld (1996) and Enright (2000). This then provides the basis for identifying how and to what extent co-located clusters complement each other.

The framework firstly describes the wine and tourism clusters by determining the strength and structure of the geographic, economic and social elements and their dimensions and classifies the type of cluster (Harrison, 1991; Jacobs and De Man, 1996; Rosenfeld, 1997; Bryant and Wells, 1998; Verbeek, 1999; Enright, 2000). The second stage identifies and describes the structure and strengths of the complementarity between a region's wine and tourism clusters. Finally, the framework provides the basis for strategies that strengthen the identified complementarities. Using a case study approach, the study combines primary and secondary data and uses interviews of key industry representatives and surveys of industry participants to identify the extent to which the strength and structure of wine and tourism clusters effect wine-tourism business development. The three regional case studies in conjunction with the rigour set by the framework have allowed some comparative information to be gathered using a range of data gathering tools and data sources.

In the broader context, the study is concerned with the classification of clusters and understanding the processes of clustering and uses both qualitative and quantitative analyses. This paper describes the three case studies using qualitative analysis based on interviews which were conducted with key wine and tourism industry representatives in each of the study regions. A total of 32 semi-structured interviews together with secondary data formed the basis for the classification of each of the wine and tourism clusters in the study regions – a total of 6 clusters were described. A questionnaire was then distributed to industry participants in each of the regions and these were selected on the basis of their membership of local industry associations. The questionnaire was distributed by both mail and online. A total of 186 valid responses were received (a response rate of 32%). This data was then analysed quantitatively using descriptive statistical methods.

Findings

The results for each of the case studies showed that the wine and tourism clusters displayed many similarities. They also showed subtle differences that particularly related to the level of clustering activity within each cluster and the level of interaction between the co-located clusters. The differences/similarities were measured in terms of cluster elements and dimensions identified in the cluster literature.

The importance or the level of activity of cluster elements for each cluster, the differences in the clusters economic significance, cluster structure, dependence on natural resources and infrastructure and other factors important to cluster development are described for each of the regional studies. These findings are summarised below.

The Ballarat Region Study

This case study is centred on the major regional city of Ballarat, which has a significant tourism industry focused around the icon attraction *Sovereign Hill*. A small, fledgling wine industry is also present. The study revealed that in this region geographic, economy and social elements are important in the Ballarat tourism cluster. In particular, location, localisation, existence of key player and infrastructure were seen as important geographic dimensions. Key economic dimensions were critical mass, locally supplied goods and services, a broad industry base, and innovation. Lifestyle and regional history were the main social dimensions. There was evidence of limited interaction and information flows and this restricted some cluster benefits. The Ballarat tourism cluster is described as a *latent cluster* because it has critical mass and geographic concentration but active clustering processes are not well developed.

Conversely, the Ballarat wine cluster, though of limited economic significance, is geographically dependent on natural resources and is regionally dispersed. It also shows strong social dimensions particularly lifestyle, social infrastructure and a strong industry association. This cluster is described as a *wannabe cluster* essentially because it lacks too many vital economic attributes to benefit from being a cluster.

In terms of cluster overlap, the relative sizes of these clusters limit opportunities to share resources and to constitute cluster overlap. The comparative economic strength of the tourism cluster means the wine cluster regards it as more significant for business development than vice versa. This is reflected in the high number of wine businesses (73 percent) that indicated an active tourism industry as important for business growth with almost half undertaking some tourism related activities. This is compared to less than one third of the tourism businesses viewing the wine industry as important for business growth with no evidence of tourism businesses undertaking wine related activities.

The economic strength and focused structure of the Ballarat tourism cluster appears to result in passive complementarity with the wine cluster. That is complementarity is a function of co-location but is not actively sought. The less developed wine cluster is more dependent on other regional businesses for growth and has some relationship with the tourism cluster, but remains passively complementary. This reflects the limited development of wine-tourism in the region and that this development is essentially driven by the wine cluster and there is limited wine-tourism activity generated from the tourism cluster.

The Northern Grampians Study

The Northern Grampians region is dominated by the Grampians Mountains and these are the major tourist attraction to this region. The regions wine industry has strong historic links and is centred on a key industry representative. Both the tourism and wine industry are important to the regions economy.

The importance of the Grampians means many tourist operators' are concentrated around this natural resource however infrastructure constraints and isolation from markets (approximately 3.5hrs from Melbourne) were identified as the main geographic constraints for this cluster. The cluster has both critical mass and regional recognition but other economic dimensions such as vertical and horizontal integration, networks and innovation are less developed. In addition, undeveloped social dimensions reflect the limited collaborative activity in this cluster. As a consequence, the Northern Grampians tourism cluster has been classified as a *potential* cluster in this study. There is little doubt that some cluster dimensions exist for cluster development but there are many apparent gaps in geographic, economic, and social elements for more active clustering activity.

The Northern Grampians wine cluster shows stronger cluster characteristics with economic and social elements identified as important. The cluster is geographically dependent on natural resources particularly climate and road infrastructure, and is dispersed through the region but has a central player. It has critical mass, local knowledge and expertise and through well established networks displays complex levels of co-operation through joint activities. Describing this as a *latent* cluster identifies that the opportunity for effective clustering does exist and that the cluster has a critical mass sufficient to derive the benefits of clustering and established relationships and interaction between cluster participants. The cluster however has social rather than economic dimensions as key cluster attributes and this restricts the development of more active cluster processes.

In this study the wine cluster shows limited involvement (20 percent of wine businesses) with the tourism cluster which showed no active involvement with the wine cluster. This suggests that opportunity for cluster overlap is restricted by a lack of intra cluster activity. This is reflected in how important each cluster sees the other in terms of their growth where only one third of wine businesses saw the tourism cluster as important for growth and this was reflected by tourism businesses. This suggests only passive complementary between these clusters and limited interaction between wine and tourism activity in this region.

The Bendigo Region Study

This case study is also centred on a major regional city. In this region neither the wine nor tourism industry are dominated by key player but comprise many enterprises of differing sizes. Both industries generate significant economic benefit to the region.

The Bendigo tourism cluster shows strong geographic, economic and social elements. The economic dimensions include critical mass, a broad base, the presence of both vertical and horizontal integration and active networking and some innovative capacity. The social dimensions though developed in many aspects show collaborative activity as a weakness. The Bendigo tourism cluster is well developed but the weakness identified in collaboration means that this cluster is best classified as a *latent* cluster with strong economic, geographic and social dimensions but active clustering processes are limited.

The Bendigo wine cluster however has strength in all the three cluster elements. It can be described as geographically dependent and dispersed throughout the region and benefits by the co-location or concentration of wine businesses. The economic dimensions are well developed and support a deep broad cluster which has critical mass, economic significance, both horizontal and vertical integration, innovation and active networking. The social dimensions of this cluster are also well established and include: lifestyle, entrepreneurs, skill and knowledge transfer and an active industry association. This analysis suggests the Bendigo wine cluster may be approaching a *working* cluster. It exhibits many of the favourable characteristics of clustering and a level of inter connectedness not seen in the other clusters in this study. Though this classification is not quantified in traditional cluster terms, the cluster exhibits complex patterns of co-operation and is developing a reputation that may be attracting new key personnel or businesses to the region.

This study also showed the strength of wine and tourism cluster complementarity where more than 50 percent of wine businesses were engaged in tourism activities and 71 percent thought this was important for growth. This was reciprocated by the tourism cluster where more than 50 percent of businesses are engaged with businesses in the wine cluster. This is a result not seen in the other two case studies and shows that they demonstrate active complementary. These findings reflect the active wine-tourism development that has occurred in this region.

Summary of Findings

Table 1 summarises the level of complementary measured in this study for each cluster and regional case study. This table shows that the more developed the cluster, that is from a working cluster (least developed) to a potential cluster, a latent cluster and the most developed working cluster, the greater the level of complementarity between clusters is possible.

Table 1. Level of complementary between wine and tourism clusters

Cluster	Ballarat case study		Northern Grampians case study		Bendigo case study	
	Wine	Tourism	Wine	Tourism	Wine	Tourism
Classification	<i>Wannabe</i>	Latent	Latent	Potential	Working	Latent
Complementarity	Passive	Passive	Active	Passive	Active	Active

Understanding the complementarity between wine and tourism clusters is complex and this study has relied on data gained from participants within the clusters and has focused on the processes of clustering from static (no evidence of clustering) to passive where clustering does occur but more by chance than design and active where clustering is actively sought by cluster participants. With this in mind, the Bendigo wine and tourism clusters demonstrate reciprocal cluster complementarity and this sets this region apart in terms the potential for wine-tourism development.

Conclusions

This study shows that types of clusters can play a role in how co-located clusters interact and the level of complementarity generated between them. However there appear to be some other factors that might influence this. These factors vary between cluster types but also between industry types as it appears that those clusters in the wine industry generally are more developed and show greater levels of complementarity than do those in the tourism industry.

The cluster complementarity model developed in this study for co-located wine and tourism clusters is shown in Figure 1. This model shows that complementarity between wine and tourism clusters is more likely to occur the more developed the cluster that is by cluster type, but is also influenced by the level of clustering processes. Complementarity is least likely to occur when clustering is static and more likely to occur when the clustering processes are active.

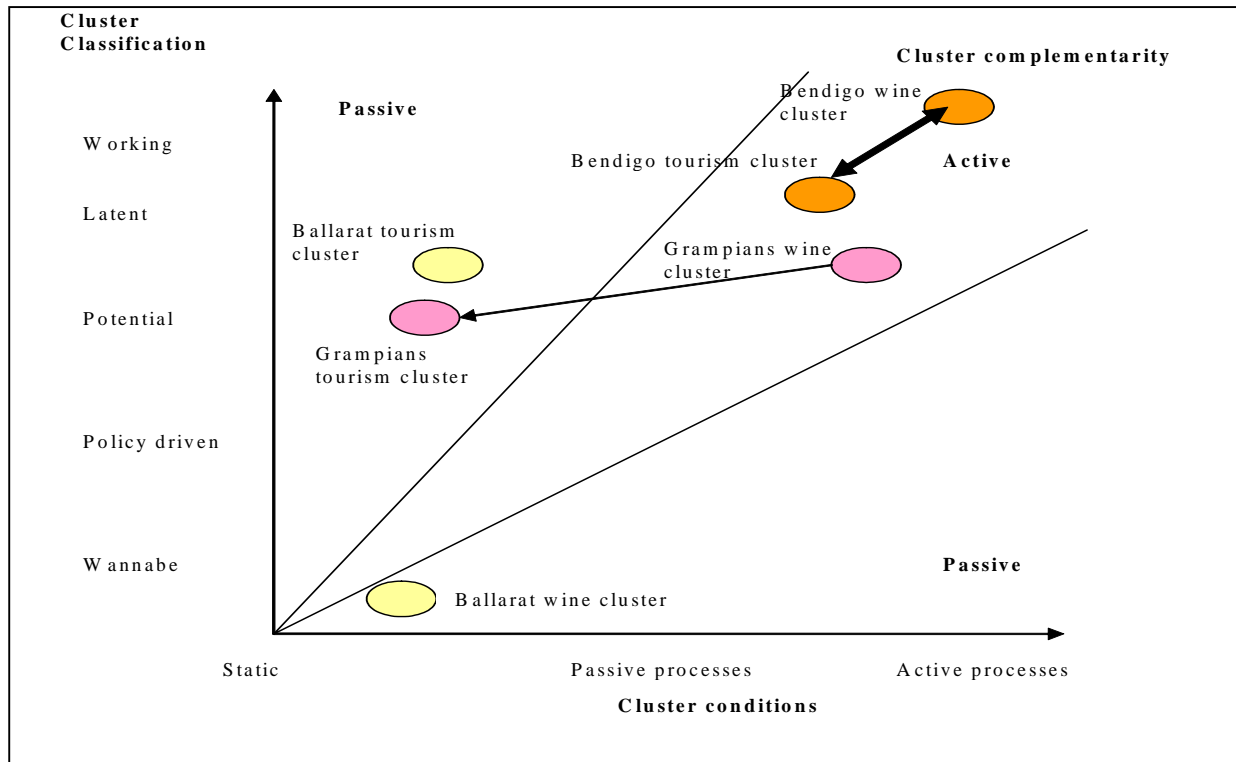
The positioning of the clusters described in the three case studies in this model shows that wine clusters are more likely to demonstrate complementarity than tourism clusters and that a range of cluster types can demonstrate complementarity.

The model has not been applied to other types of clusters and is currently untested but it does demonstrate that the type of cluster is not the only pre-condition for complementarity. By reviewing the role of cluster pre-conditions, and passive and active cluster processes it seems that social dimensions play a significant part in the development of cluster complementarity between clusters. Also without some active cluster process development the ability of these clusters to be complementary becomes limited. This is reflected in the types of clusters identified. The less developed the cluster across all cluster elements the less capacity it has to behave in a complementary way with a co-located cluster.

The model relates the level of clustering development with the likelihood of developing cluster complementarity but does not preclude small underdeveloped clusters from gaining benefits of

complementary behaviour. This model also shows that complementarity can be from one cluster to another as in the Grampians case study where the wine cluster demonstrates complementarity but the tourism cluster does not, or multi directional where complementarity is reciprocal between clusters as in the Bendigo case study.

Figure 1. A cluster complementary model for co-located wine and tourism micro clusters



The model has been developed as an outcome of this study and it is not intended for other applications without being further tested with co-located regional clusters. The ability to study the interaction and relationship between two co-located industry based clusters in a regional setting may in turn help identify important factors that can direct initiatives that take advantage of otherwise unnoticed opportunities. This study demonstrates that aspects of clusters, and more particularly, the processes of clustering, can contribute to a greater understanding of the relationships between regional industries or groups of businesses in general and between wine and tourism clusters in particular.

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