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**A Government Funded Internet Portal as a Promoter of Regional Cluster
Relationships: A Case Study from the Australian Wine Industry**

Carmine Sellitto*

AND

Stephen Burgess

Centre for International Corporate Governance Research,

School of Information Systems,

Victoria University

Correspondence*

PO Box 14428, Melbourne City MC

Melbourne, Victoria, Australia, 8001

Tel: +61 3 9919 4341, Fax: +61 3 9919 5024

Email: Carmine.Sellitto@vu.edu.au

A Government Funded Internet Portal as a Promoter of Regional Cluster

Relationships: A Case Study from the Australian Wine Industry

Abstract

This paper reports on a study that examined the relationship between a small winery cluster and the implementation of a government sponsored Internet portal— the WinesOfGippsland.com site. Literature relating to industry clusters and Internet portals is examined to identify the beneficial features associated with portals and clusters. The paper makes a link between portal benefits and those typically associated with industry clusters— with the subsequent implications for policy. The study found that the winery business experience after portal implementation enhanced relationships between small wine producers, resulting in outcomes that included resource sharing, informal knowledge exchanges, and innovative practices that resulted in new product development. Indeed, these types of benefits tend to be also reported in successful clusters. Moreover, the authors argue that government policy may achieve more favourable outcomes in promoting e-commerce and Internet adoption in regional areas by identifying established business clusters— more so than ad-hoc related groups— that can use their already established relationships to quickly and appropriately leverage the business benefits associated with new technologies.

1. Introduction

This paper has emerged from research that examined technological innovation in the Victorian wine industry— Victoria being the Australian State having the greatest number of wineries. Investigating Internet-led adoption, the study focused on the role that the Internet has played in the promotion of a regional cluster in a wine industry context (Martin and Sellitto 2003; 2004; Sellitto 2002; 2004; 2005; Sellitto and Martin 2001). However, although not a formal hypothesis or research question, a secondary finding of the original research uncovered strong Internet collaborative practices amongst a group of Gippsland wineries (a region of Victoria) — practices that displayed characteristics

indicative of firms operating within a regional cluster. This paper reports on the link between industry clusters and Internet portals, and the use of government policy in supporting industry clusters by facilitating the benefits of Internet portals. A case study of a winery Internet portal established by Gippsland small businesses that has resulted in enhanced partnerships and benefits for this group of regional businesses is investigated to highlight an example of this link. An important aspect of the investigation was the initial funding provided by the State government of Victoria that allowed the project to evolve from simple e-commerce presence into an environment that allowed small wineries to collaborate and leverage the features associated with the Internet.

2. Regional and Industry Related Clusters

Industry clusters have experienced a renewed interest in recent times, largely as a result of the work of Harvard academic, Michael Porter, who explored the role of clusters in his book, *Competitive Advantage of Nations* (Porter 1990). A focus on clustering involves an emphasis on the linkages between companies, industries, firms and supporting institutions. Consider the following definition (HBS 2004):

*Clusters are **geographic** [our emphasis] concentrations of interconnected companies, specialized suppliers, service providers, and associated institutions in a particular field that are present in a nation or region. Clusters arise because they **increase the productivity** with which companies can compete. Cluster development initiatives are an important new direction in economic policy, building on earlier efforts in macroeconomic stabilization, privatisation, market opening, and reducing the costs of doing business.*

Clusters, or industry agglomerations, as they are sometimes known, were first described by Marshall in the late 1800's, as industries and institutions that formed associations and concentrated in common regions— and benefited from synergistic interaction (Marshall 1966; Porter 1998a). Porter suggests

that clusters are important as a source of competitive advantage in that they constitute an array of industry linkages which allow participants to offer specific technology, skills, specialised infrastructure and complementary products (Porter 1998b). In this instance, competitive advantage is gained over those businesses not participating in the cluster. Moreover, the globalisation phenomenon has accelerated interest in localised groups of inter-related related businesses where successful examples of such clusters have been found in growing or prosperous regions— in direct contrast with disappointing examples of economic development models based on the *large* business. There is a paradox here between the concept of globalisation and regional clusters— in theory, the more open that global markets become, the competitive nature in having specific industries grouped together should be diminished as companies have the ability to globally source products, services and human resources skills. Porter has noted that in the Internet enabled world, where companies can source capital, goods, information and technology from a global market (generally at the click of mouse button), industry specific clusters appear to dominate the economic success map (Porter 1998b; Porter 2001).

Of course, one of the continual balancing acts of those involved in clusters is that of cooperation versus competition (Newlands 2003). Much is made of the role of cluster participants, who may ‘normally’ be in competition with each other, to work together in some areas for the *greater good*. For instance, purchasing power and the ability to negotiate are increased dramatically when cluster groups collectively purchase common raw materials and supplies. Another example may be one of sharing costs to promote regional events— potentially benefiting all businesses in the cluster through increased tourism. Furthermore, it has been proposed that cluster participants are able to share resources (such as infrastructure), reduce transaction costs (OECD 2000), and promote cooperation and knowledge sharing within industries (Brown and Duguid 2000; Tallman *et al.* 2004). Relevant to this study, Martin and Sellitto (2004) identified information sharing and collaborative cultures as an

important feature of e-business models associated with Australian wineries— a concept that was argued as being demonstrated by the community-building nature associated with regional winery clusters.

2.1 Government Policy and Clusters

Cumbers and MacKinnon (2004) report that many organisations and governments have identified clusters as targets for support, usually in the areas of:

- R&D assistance
- Bespoke training
- Venture capital
- Initiatives which encourage a climate of innovation and learning
- Attempts to build or reinforce a sense of identity amongst constituent organisations.

Cumbers and MacKinnon (2004) further indicate that cluster policy in recent years has targetted international, national and sometimes even *regional* areas. They suggest that when compared to national and international projects, regional areas tend to be more compliant with Porter's cluster theory and proposals. Indeed, much of the policy setting reported in this paper is targeted towards regional development and growth. Newlands (2003), after examining the cluster literature, proposed five domains by which cluster benefits could be grouped, subsequently relating them to constructs associated with some of the principal theories of industrial clusters— as well as the influencing government policy implications. These cluster benefits, related policy implications and principle activities are summarized as a schematic in Table 1.

Table 1: Principal Theories of Industrial Clusters and Policy Implications (adapted from Newlands (2003), p.526)

Benefit	Source of advantage	Competition and Cooperation	Policy Implications
Sharing of resources	Businesses share a ‘commons’ of labour supply, infrastructure and business services	Advantages derive from cooperation and business continue to compete	Nothing obvious – unless markets do not provide the ‘commons’
Transaction costs requiring exchange of tacit knowledge	Lower costs for businesses in clusters.	This is where certain transaction costs require personal contact and trust helps minimise the cost.	Nothing obvious – markets will coordinate these.
Flexible specialisation, trust and untraded interdependencies.	Businesses benefit from a reciprocal exchange of information – trust more likely in a geographically concentrated area.	Businesses compete with each other more on quality, rather than price – with strong cooperative relationships	Social and familial networks are most important – but national economic, legal and policy norms are relevant
Innovative milieu	Milieu provides framework and necessary coordination for successful innovation	Practices depend partly on personal contact – more common within localities – cooperation is important	Policy makers have a role in forming and supporting networks, research institutes and so forth.
Institutional and evolutionary economics	Clusters reflect impact of past choices and subsequent development of reinforcing institutions	Technological change along certain paths is a driver of competitive processes	Policy interventions are only one determinant of how innovative trajectories develop.

The policy implications of Newland’s cluster benefits suggest that governments would be well suited to direct policy initiatives that are associated with projects that supported formal and informal networks in clusters— projects whose outcomes invariably allow resource sharing, address efficiencies in transactions costs and foster the co-ordination of local research and innovation. Indeed, cluster collaborative and co-operative features are important in deriving cluster benefits— features that arguably need to be a prime consideration when assessing the influence of policy.

3. The Internet Portal

In general terms, the dictionary defines a portal as ‘a door, gate or entrance’ (Macquarie Library 1981). A simple definition of an Internet (or Web) portal sees it as a special Website designed to act as a gateway to give convenient access to other related sites (Davison *et al.* 2003). More specifically,

a Web portal is seen as a special Internet (or intranet) site designed to act as a *gateway* to give access to other related sites.

3.1 Community or Regional portals

Community portals are often set up by community groups such as Launceston in Tasmania (<http://www.elaunceston.com/>) and Manchester in the United Kingdom (<http://www.mymanchester.net>), or are sometimes based around special group interests such as the needs of older people (<http://www.greypath.com>) (Tatnall and Lepa 2003). Regional portals are a special type of community portal that are centred on specific regions. They provide the advantage that participating businesses can feel that they are contributing to the local community. There are also cost and efficiency benefits through dealing with businesses in the local area, especially where physical products are being transacted. This is in addition to the goodwill that can eventuate through dealing in the local area.

3.2 Portal Features and Related Benefits

What benefits can portals provide for businesses? Portals perform many different functions, but their main core elements, described by Eisenmann (2002), are for information searching, content, community building, commerce and personal-productivity applications. Businesses need to decide whether portals are going to provide these services on a more cost effective or efficient basis than they could themselves, or provide services beyond what they could normally expect to achieve. According to Rogers (1995), these features would help to provide businesses with the types of technology characteristics that would assist them to make adoption decisions. Tatnall, *et al* (2004) indicate that some of the advantages that portals offer to businesses include:

3.2.1 A Secure Environment

Portals provide a secure online environment to businesses when establishing web presence. The initial capital outlay for e-commerce can be significant, but is reduced by being part of a portal, enabling the business to concentrate on customer-focussed services. Many portals have a payment infrastructure that enables businesses to integrate their accounts receivable and payable with the portal's computer backend systems. From a government policy perspective, any action or support that promotes this form of online environment allows collaborating business groups to share a common infrastructure.

3.2.2 Search and Directory Services

Search engines and directories will generally list the different types of available portals enabling Web users to find an appropriate gateway to various online listed businesses— leading to substantial savings associated with time related information-seeking costs. Advertising on portals is generally in the form of banner advertisements linked to certain directory entries or search keywords and sponsorships of contextually relevant content.

3.2.3 New Partnerships

E-commerce opens up the opportunity for businesses to sell to new buyers, tap into the cyber supply chain and gain new business, offer complementary products with other businesses, and procure goods electronically. Suppliers to large organisations can participate in online bidding processes.

3.2.4 Community Building and Regional Relationships

Community building features such as chat rooms, message boards, instant-messaging services, online greeting cards, applications for digital photos, Frequently Asked Questions (FAQs) and other Web services are include in the typical portal infrastructure. This can be a major benefit for the regional

business community when they subscribe to a portal. Indeed, it was Rheingold (1993) who was one of the first people to describe virtual communities or Web communities as they are sometimes called. Today, the concept of Web communities encompasses various forms including newsgroups, chat rooms and the websites on which they are accessed (Dyson 1997; Schneider and Perry 2001). Web communities, as well as fostering social interaction, have the ability to assist companies and their customers and suppliers to transact, collaborate and interact in ways that benefits all of them (Schneider 2002). Moreover, it has been suggested that Internet technologies can be used by rural and regional groups to create a global identity by establishing a virtual business cluster— which can involve the sharing of resources and services (Fitzsimons and Styles 2001). This can have obvious policy implications for governments wishing to encourage formal and informal networks of businesses.

3.2.5 Strategy, Management and Business Trust

Small businesses are usually constrained by a lack of resources as well as access to expert advice about online business— resulting in a lack of strategy when it comes to the management and implementation of e-business. Portals enable small businesses to uptake a common structure for e-business that helps them to attain management support or share ideas with others businesses. Consumer trust and company reputability in the Internet environment is also critical for success. Factors affecting trust identified by Farhoomand and Lovelock (2001) include reputation, willingness to customise, expertise, frequency of business contact, anticipated future transactions, intention for future interactions, frequent business contact, size, publicity, confidential information sharing, length of relationship and perceived power. When a business is part of a portal they have the opportunity to overcome many of the trust building factors as the infrastructure and communication is the same for all the portal entities— compared to a single online business. For policy developers the value of encouraging this type of portal activity is reflected in the promotion of stronger business

collaboration and cooperation— similar features that appear inherent in the regional cluster environment.

3.3 Industry Portals and Government Policy

One of the roles of government is to stimulate industry activity, and electronic commerce has provided a means by which governments can support industry participation through training programs and funding start up initiatives. Another motivation for governments to support electronic commerce initiatives is to provide *good practice* examples for other businesses to learn from and emulate. Pertinent to this research are the Victorian State government sponsored projects with appropriate examples being found on their own web portal (<http://www.ecommerce.vic.gov.au/>).

One of the conclusions the authors drew from their work in relation to industry clusters and Web portals is that there would be obvious benefits to gain from linking the two – that is, implementing web portals to support the role played by industry clusters. However, the published literature that examines real world cluster entities and their manifestation through Internet portals is almost non-existent. Various reports of government grants and initiatives associated with Internet adoption have resulted in the establishment of government or business portals as a gateway (the traditional definition) to facilitate access to a plethora of specific information. Indeed, evidence from an Australian context indicates that many government-sponsored portals have either failed or not been successful (Gengatharen and Standing 2004). Arguably, these resultant portals have been driven by expediency in facilitating information access, rather than attempting to reflect relationships between the portal participants. There are, however, some examples of governments directly supporting industry portals that can serve as a backdrop to this case study. In Singapore, the government supports a *business-to-business* portal that incorporates the entire coffee shop supply chain. Portal participants are subsidised up to 70% of their costs by the government when they redesign their

business processes to engage in the portal (Goh 2001). Another example is the EULIS project developed within the eContent programme of the Directorate-General Information Society of the European Union. Its aim is to provide information from the land registry centres of eight participating countries to facilitate the transfer of land (for instance, if an English resident wishes to purchase land in Finland for the purposes of moving there). The system provides a link between the various landowners, agents and potential purchasers. A fee is charged each time the system is used, so the idea is that it will eventually be self-funding in operation (Ploeger and Van Loenen 2004). In both of these instances, the goal of the government support is for the initiative to eventually be self-funding (that is – not requiring ongoing government support).

In 2001, the government of Victoria released **Victoria's E-Commerce Advantage**, the government's first policy specifically devoted to e-commerce. This policy was designed to provide a framework to encourage the adoption of e-commerce by small to medium sized enterprises in the State. One of the initiatives that this policy addressed was the Victorian E-Commerce Early Movers Assistance scheme (VEEM). In this scheme, local councils received three dollars for every dollar they allocated to e-commerce initiatives (Victorian Government, 2002). This scheme spawned many initiatives, both large and small, that resulted in the establishment of portals that allowed local business groups to promote themselves in a particular region. One of these regional portal projects—the WinesofGippsland.com website—is the focus of this paper.

4. A Case Study: The Australian Wine Industry Clusters and Internet Portals

The main premise of this article is that Internet portals can comprise part of the policy of governments looking to support regional industry clusters. In view of the wine industry themes addressed in this study, some background on the Australian wine industry cluster is appropriate.

The Australian wine industry has been found to collectively interact within a well defined group of suppliers, distributors, logistics groups, regional tourism associations as well as wholesalers, retailers and restaurants (Sellitto 2001b). Marsh and Shaw (2000) identified important supplier and service industry linkages to Australian wineries, as well as uncovering some of the formal and trade-based interdependencies amongst wineries. Indeed, Marsh and Shaw also suggest that wine industry clustering is an associative process that involves identification of critical linkages between suppliers and also collaboration amongst participants. Furthermore, Sellitto's (2001b) research led to the proposal of an Australian winery cluster as a basis of e-commerce adoption. Sellitto suggested that Australian wineries collectively interacting within a cluster of specific industry suppliers, tourism entities, wine organisations and industry distributors— a cluster relationship that is depicted in Figure 1.

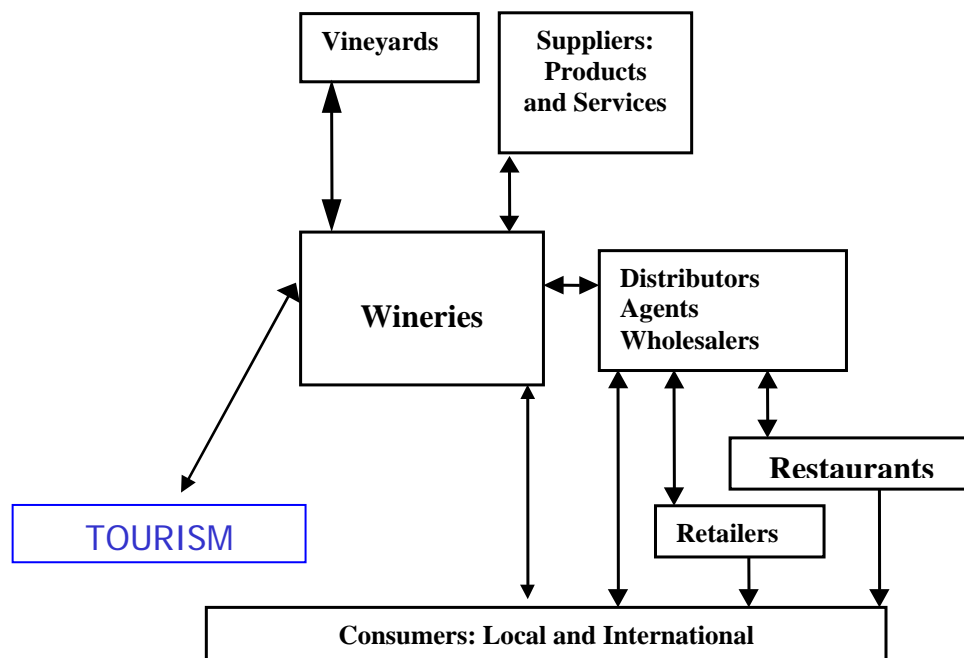


Figure 1: The wine industry cluster (Sellitto 2001)

Arguably, the establishment of a regional winery portal should in effect represent these linkages. Specifically, the relationships displayed by the real-world winery cluster would ideally be

represented as online features— in the Internet portal environment. As we have already indicated, there has been little published scholarly research examining the association between regional clusters and the clusters' implementation and use of electronic portals. Hence, the questions investigated in this research centre on the cluster-portal association and include— *What role can a portal play in supporting the activities of the cluster? Is there an advantage for governments in providing support for such initiatives?*

4.1 About the Gippsland wineries

Gippsland is one of the six geographical wine regions in Victoria with many of the 30 or so established wineries in the area seen as enterprising and upcoming. Indeed, the Gippsland province, although being the largest wine region by area, is paradoxically the smallest in wine production. The Gippsland wineries also tend to reflect the general nature of the Australian wine industry— where some 95% of all wineries tend to be small or medium size entities. Gippsland winery owners also tend to reflect what could be viewed as a lifestyle business choice— where the personal challenge is one of cultivating grapes, making good wine and not being driven by short term profit expectations (Hall *et al.* 2000; Allen and Forrestal 2001; Jarvis 2002). Indeed, unlike some twenty years ago, when growing grapes and making wine were segregated functions, the small winemaker today tends to grow grapes and make wine as part of the same business venture (Aylward 2002). Furthermore, although wine production is classified as a manufacturing business, many of the facets for the smaller winery span the primary (growing grapes), secondary (making the wine) and tertiary (sales and marketing) sectors of the business economy (ACIL 2002).

The Gippsland wineries, being located in a cool climate, tend to be known for their pinot noir— various brands such as those associated with the Bass Phillip and Windy Ridge wineries having achieved awards and success over the years. Generally, the production volumes of smaller wineries

are not conducive to accommodating large export volumes. However, some of the wineries have been successful in exporting to the UK, Asia and USA. Notwithstanding this export success, direct sales into the regional and Australian market provide the Gippsland wineries their most fruitful sales domains. Tourism is also an important practice for the Australian wine industry (AWF 2004; Sellitto 2005), hence the wineries in Gippsland also serve as a central tourist attraction for the area—providing the endpoint for tens of thousands of annual visitors, whilst at the same time enhancing regional development. Wine-tourism as a phenomenon has also tended to shape the marketing values and direction for Gippsland wineries— many offering broad opening times for wine tasting and to achieve direct sales. Some winery owners have also introduced quasi-tourism features as part of their business, with vineyard accommodation (for instance, Lyre Bird Hill and Vin Rose wineries) and limited food services being commonly encountered.

5. The Study Methodology

The study investigated a regional cluster/portal relationship and used the WinesOfGippsland.com site as a focus. The portal was sponsored through a series of Victorian Government grants (VEEM) that aimed at providing a stimulus for businesses to adopt and take advantage of the rapidly evolving Internet technologies. By supporting and promoting examples of successful projects, the government was able to demonstrate to other industry groups the tangible benefits of implementing such technology— which would hopefully facilitate greater individual business and industry adoption.

The site was selected after being identified in a broader study (see previous citations) that examined Internet adoption by Victorian wineries. As such, this site was found to be an important conduit that allowed a group of Gippsland wineries to collectively use Internet technology to facilitate e-business practices. The case study approach was used to gain an understanding of the establishment of the Internet portal, as well as the features perceived as valuable to Gippsland wineries. The case study

has previously been used to investigate winery adoption of Internet technologies (Sellitto and Martin 2003) and in the context of this project the case study was deemed to be appropriate. With case study research, the researcher aims for an in-depth contextual understanding of the phenomenon and, according to Yin (1994), the case study can be used to represent a whole study. The research design involved:

1. Gaining insight into the implementation of the portal and the perceived value that wineries associated with the adoption of this new technology.
2. Interaction with select participants— the portal developers and winery owners. This allowed the documenting of an *insider's* perspective of the implementation process.
3. An evaluation of the portal's features with the subsequent discussion of identified benefits in the context of industry clusters and government policy

The study was conducted over various periods. Initial interviews were undertaken in 2002 with follow up contact in 2004. The evaluation of the portal features occurred in mid 2004. Ancillary information from various data sources such journal reports or trade reviews were also examined. Interviews were conducted with winery owners that use the portal and are representative of businesses that operate in the Gippsland region. Interview material was transcribed— transcriptions being manually analysed for common and reoccurring portal/cluster themes. The research does not claim generalisability and is exploratory in nature. However the outcomes highlight an important link between a successful government-funded portal project and the involvement of a defined winery cluster. The case study content is reported as a select summary of interviews and is a reflection of the positive perceptions gathered from the portal originators and designers, Messenger Media & Information Technology (MMIT), the leadership of the Gippsland Grapegrowers and Winemaker's Association (GGWA) and a selection of four wineries that are:

- representative of the 13 wineries listed on the portal, and

- provide a representative perceptions and views on portal benefits allowing connection to cluster and government policy themes.

6. Results and Discussion

The WinesofGippsland.com website is a regional portal that was developed with a grant from the Victorian Government under the VEEM scheme as a means of allowing wineries in the Gippsland region to collaboratively market and sell their wines. The region of Gippsland is in the South West of Victoria, one of the Southern states of Australia and contains many small wineries that are the focus of regional development through their tourism attributes. Furthermore, the region contains a diversity of landscapes, from snow-covered mountains to beach areas. It is also known as a 'gourmet country', filled with wineries, cheese makers, markets and fruit and berry farms. The area also contains historic gold towns, maritime villages and a series of national parks richly endowed with bird and plant life (Tourism-Victoria, 2004). The first impression of the WinesofGippsland.com home page reflects information associated with the regions natural attractions, as well a focus on the regions wineries. Figure 2 depicts a screen image capture of the WinesofGippsland.com home page (accessed 10/2/2005).

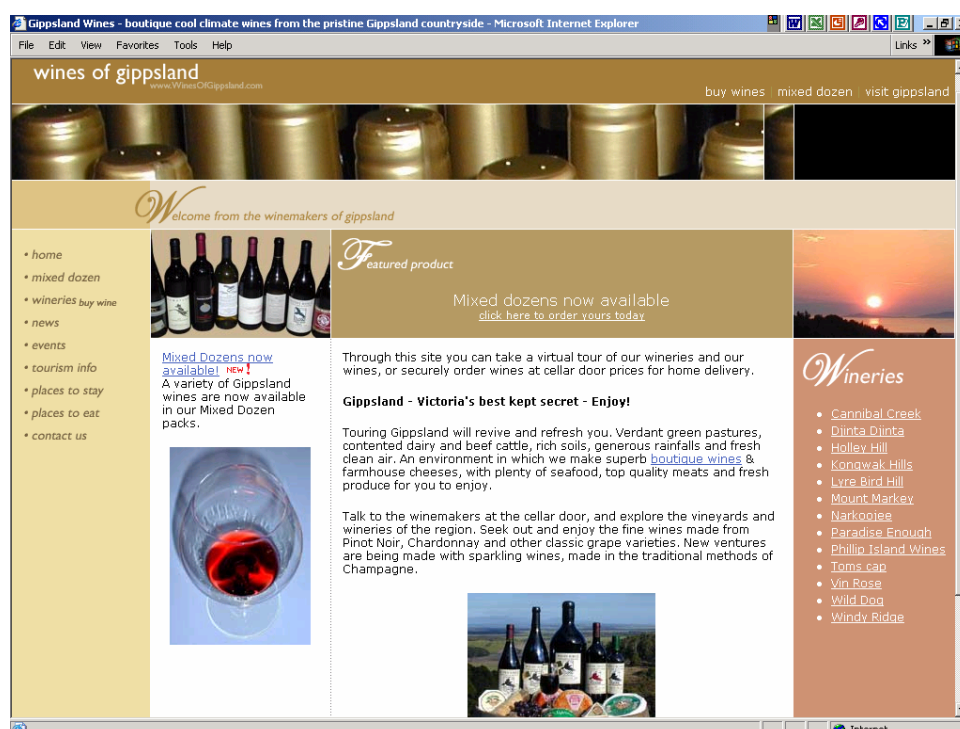


Figure 2: WinesofGippsland.com home page

The website was designed and implemented by MMIT— a company located in the Gippsland township of Churchill. The company has subsequently been sold to Sage technologies that maintain the hardware for the GGWA. MMIT elaborates on the site and its success:

Initially, the wineries set several goals for the project. These aims included the ability to collaboratively market and sell their wines on line, to display a directory with profiles of their members and to transform the information dissemination of the Winemaker's Association from paper to electronic format.

An online wine catalogue and store was created to represent the cluster. The recent sales that have taken place through the Website indicate that one of the main goals of the project has proven to be successful. In addition to the store, the Website incorporates a great range of features, including winery information, a virtual tour of the wineries, regional events and tourism information.

One of the surprises resulting from the creation of the Website has not been in consumer sales or feedback, but in the growing relationships between the members of the Website. In joining together, the winery organisations have improved the quality of communication between members; have formed valuable contacts, friendships and increased corporate culture— all via an Internet-based partnership. The growing success of the cluster project is very encouraging as it

indicates possibilities of what similar groups may achieve with this type of project.

Another perspective on the value of the web portal is from a winery that sells some 10-15% of their annual sales via the Internet:

The resulting portal provided a secure encrypted online ordering facility— something that wasn't being achieved by the individual wineries because implementation of security was expensive or difficult to achieve.

More important to the wineries was that this site provided a pivotal Internet location for wineries and tourism in Gippsland— which hopefully would allow people to find out and plan their trip through the area. The site promotes tourism by detailing content that relates to things to do, where to stay, where to eat, local events and news.

The representative body for the wineries is the GGWA and was involved in the original VEEM portal project. All members of the association have the opportunity of be part of portal service for a small, once off fee of \$A200.00— a relatively modest fee considering the service provides a secure shopping cart facility as well as promoting the wineries to a global audience. At the time of portal inception winery manager and Vice President of the GGWA alludes to the important group cooperation that is fostered through being involved with the portal (Kae 2002):

We have established a trial "code of conduct" which we expect will ensure appropriate customer satisfaction. We would hope that the group could help any member winery to develop procedures that would satisfy our code of conduct.

Further perceptions on the portal's utility and the fundamental close links between the wine cluster entities can be gained from a small winery that has won industry awards for its pinot noir product.

Indeed, the winery not only uses the portal catalogue to list its wines, but also engages the site to promote the winery's accommodation. The owner indicates:

The original success of the site is related to the very close ties that the individual wineries had before the portal project. The business friendships that appear to have been established allows the group to as a whole promote the entire Gippsland region that in turn results in benefits associated with tourism.

This winery owner alludes to the pre-existing cluster relationships and values were a real strength in the project's initiation and ongoing success. Arguably, as other Australian government-funded portal projects have decayed and ended (see Gengatharen and Standing 2004) the WinesofGippsland.com site has endured and stood the test of time.

Fitzsimons and Styles (2001) suggested that Internet technologies may be used by regional constituencies to create a global identity by establishing a virtual business cluster— which can involve the sharing of resources and services— exemplified in this instance by the WinesOfGippsland.com portal. The implicit success of the WinesOfGippsland.com appears to be due to the preparedness of participants to collaborate and cooperate (a feature which must have influenced them to adopt in the first place), forming a cohesive and integrated presence on the site. The success of the site is even more significant when one considers that members are usually *competitors*— each selling their own types of wine products. Porter (1990; 1998b) proposed that a feature of clusters was that competitors would cooperate to reap mutual benefits, especially if they were found in common geographies— a concept that from this example, also appears to have extended to the Web environment. We find this to be an interesting example of the 'cooperation versus competition' that we mentioned earlier and that cluster participants can become involved in.

6.1 Portal Features of WinesofGippsland.Com

The role of MMIT as the original creator of the site was to maintain and manage the technical and Internet infrastructure. Furthermore, the existence of this third party facilitates access to various value-adding Internet services for the wineries— for example, secure online ordering, a member only section and a Web space for each winery— services that would otherwise have been the responsibility of each member to implement. The other value adding aspect of the site is that prospective customers can use it as an entry to a diverse range of wine products and tourism services in the Gippsland region. So how does the WinesofGippsland.com portal measure up when compared with the benefits of portals listed earlier in this paper? Indeed, these benefits also allow a point of comparison with Newlands' framework that incorporates cluster benefits and reference to government policy.

6.1.1 A Secure Environment

A secure environment is provided for customers to purchase wines from any of the members of the portal. For the customer it is a one-stop site from which numerous products can be purchased, whilst the wineries are able to dispense with knowing about the technical and transactional processes associated with online ordering. In effect the wineries engage a common Internet infrastructure, negating the need and cost of duplicating this feature on their *own* website. The sharing of common infrastructure is a clear cluster cooperative practice and according to Newlands (2003), government policy would not tend to influence this type of activity— leaving internal cluster forces to direct efforts to share infrastructure. However, in this instance electronic infrastructure availability was too expensive, and was facilitated by government support— support that significantly enhanced cluster resource availability and sharing. This benefit, according to Newlands, is classified under the resource sharing domain—where businesses are able to share website infrastructure for mutual

benefit. From a policy perspective, government support has been one of enhancing business accessibility to existing electronic technologies within a regional environment— a typical role of policy in lowering entry costs in an endeavour to stimulate initial business participation. In this instance, participants not only have successfully embraced the new technology, but there has been a collectively sharing of the technology across a large number of cluster entities.

6.1.2 Search and Directory Services

There are no search services provided on the portal site. However, the portal lists various regional activities including events, eateries and accommodation— a form of directory service that is conducive to fostering regional wine-tourism. This portal feature has the effect of documenting the important wine cluster ancillary partners— the accommodation providers and restaurants— that support the winery in contributing to the regional tourist's experience. The listing of these entities on the portal could be viewed as evidence of the tacit strengthening of the intra-cluster ties between the winery and support industries. Furthermore, the way that portal is used to promote the multi-tourism activities of the region — winery, events, accommodation and eateries— embodies a new marketing form that the cluster entities are utilising. Newlands suggests that the innovative environment or milieux that clusters tend to provide leads to innovative types of behaviour—which for this group is manifested in a new manner of engaging promotional tourism. Arguably, this new wine-tourism marketing activity is a direct result of the publishing flexibility associated with establishing the portal. From a policy perspective, the support of an electronic project for a specific group within the cluster has provided a medium to engage in new forms of innovative marketing that appear to benefit not only the wineries, but groups not initially involved in the portal establishment. Hence, an unanticipated consequence of policy in supporting this electronic project has been favourable impacts experienced by non-portal related cluster entities.

6.1.3 New Partnerships

One aspect that emerged from establishing the portal has been the concept of new partnerships. One of the significant aspects of the portal website is the opportunity for customers to purchase products resulting from different types of regional wine promotions, such as the 'Gippsland Dozen' – which were sourced from different wineries participating in the portal. This initiative involving the 'Gippsland Dozen' exemplifies the opportunities that have been created as a result of the new partnerships that the portal has fostered. The 'Gippsland Dozen' is also an example of new product development, which needs to be recognised as being a result of the innovative milieu (Newlands 2003) that cluster environments tend to promote. Indeed, the winery group's innovation with respect to this new product development has been directly facilitated by portal participation. According to Newlands, this type of cluster feature tends to be common within *localities* and is dependent on personal contact and interaction—a form of collaborative business interaction between the wineries that were identified and reported here. From a policy perspective it needs to be noted that an indirect consequence of supporting portal genesis has been to enhance and foster the wine cluster's innovative behaviour allowing new product development.

6.1.4 Community Building and Regional Relationships

There are no features on the portal website, such as chat rooms, to encourage customers to participate in the online community— other than as passive information recipients. On the other hand it is obvious from the comments of MMIT and winery managers that the relationships between the participating wineries have been enhanced by involvement in the portal. One of the benefits of clusters is the formal and informal networks that are established over time. Indeed, the adoption of the Interent portal by this regional cluster has resulted in reciprocal exchanges of information and also enhanced intra-cluster trust. Arguably, this benefit could be interpreted as an example of what Newlands view as trust and untraded interdependency features associated with clusters— which

suggests that not only has the portal not only resulted in reciprocity, but there is a presumption that the cluster's social network has been engaged and supported. An example of increasing trust and interdependency within the cluster is the GGWA's expectation of enabling a 'code of conduct' for portal participants— where certain members assist other members with developing this code in an endeavour to promote positive customer relationships. Implied in this exchange is the tacit and informal transfer of skills or knowledge from one member to another as a function of network interaction. Typical policy implications when it comes to clusters suggest that such benefits are reflected in encouraging business networks to engage in both tacit and informal exchanges— something that may not be easy to achieve in a competitor-to-competitor environment. One of the consequences of policy support for portal establishment identified in this study is the creation of an environment that has resulted in stronger network ties and reciprocal exchanges at the cluster level.

6.1.5 Strategy, Management and Business Trust

As mentioned earlier, one significant aspect of the portal project has been the ability to share resources for e-commerce transactions and the provision of information. As a result of the wineries cooperating in this new technology project, significant interaction and improved relations between participants has occurred— enhancements achieved as a result of the improved quality of communication between members and the formation of valuable contacts and friendships. Indeed, these communication exchanges have an added benefit of increasing trust between the partners— which in turn can lead to further benefits as relationships strengthen. Again, this could be viewed as a cluster benefit that Newlands (2003) classified as trust and untraded interdependencies— where there has been a strengthening of co-operative relationships. The implications for government is in providing an example of how policy that was enacted to support an Internet based project has led to the inadvertent strengthening of relational trust between networked cluster businesses.

6.2 Implications for Government Policy

The establishment of the Internet portal was based on government support through the VEEM scheme and the initiatives by a regional wine cluster. The initial government grant in facilitating e-commerce adoption was premised on the notion of expanding and promoting the adoption of Internet technologies in regional areas and did not consider the relatively strong cluster relationships amongst the wineries. An unexpected but important project observation was the close bond exhibited between participating cluster entities— where relationships appear to have been extended to the online environment and are reflected through portal functionality.

One of the lessons that can be drawn from the success of this study is that government initiatives in promoting technology based regional projects, needs to recognise that highly valuable outcomes can be achieved when support is granted to *established* industry clusters— more so than by funding ad-hoc related groups. Hence the *modus operandi* for government policy when it comes to financially supporting projects, is recognising that established free market relationships amongst a set of entities might be an important *predictive* criteria for achieving positive outcomes. Moreover, considering that the role of cluster policy has moved from direct intervention in creating clusters, to one of supporting prevailing business conditions— this approach may not only compliment but also refine existing policy. Furthermore, the reported case study appears to be a good example of how improved cluster performance and advancement can be achieved in the Internet environment with minimal direct government intervention – other than through carefully targeted initial support.

The associative link between clusters and Internet portals as previously indicated has received little review in the published literature. This study documented an example of the successful implementation of an Internet portal that leveraged existing cluster relationships allowing a group of

regional businesses to engage the Internet environment. Some published work by Burgess et al (2005) has identified a relatively close union between a cluster of regional tourism accommodation providers and the portal they are affiliated with— suggesting that this phenomenon may also be present in other industry sectors. Arguably, government policy in dealing with portal and/or cluster based themes needs to be aware that in supporting electronic portal business ventures— especially those that reflect real world cluster relationships— provides inadvertent support for the underlying cluster.

7. Conclusion

This paper used the case study method to examine how a small business industry cluster— a select group of Gippsland small wineries— adopted an Internet portal (WinesOfGippsland.com) to strengthen and benefit their regional partnerships. The WinesOfGippsland.com portal, initially developed with support from the State Government of Victoria, appears to have enhanced the relationship between *competing* small wine producers and led to strengthened business partnerships and improved communication amongst them.

The research identified portal features that directly benefited the winery cluster and helped to drive their decision to adopt the portal as part of their business strategy. Moreover, many of these features tend to be also associated with collaborative and cooperative aspects of relationships amongst not only the group of wineries, but also with other economically important regional entities. Newland's (2003) framework allowed a comparison and co-linkage between portal and cluster benefits and identified government policy implications. Various portal benefits were identified as being associated with resource sharing, trust and untraded interdependencies and the provision of an innovative milieu that fostered new product development— benefits that are also peculiar to the cluster environment. The study showed that government policy in supporting Internet portal

establishment was indirectly fostering some of the desirable features associated with industry clusters.

Internet portals in general tend to reflect online relationships between business entities and the role of government has been, and will continue to be, to support these new and evolving online technology forms. Indeed, policy support for portal implementation is one that can provide many desirable online benefits for participants— benefits such as shared infrastructure, efficiencies in transaction costs, search and directory services, and an environment that enhances business strategy, management and trust. Commensurate with these online benefits is the potential of establishing new partnerships, which in this paper were reported as being valuable and had positive impacts on a business community in a regional setting.

Although it is not proposed that generalisations can be drawn from this case study, there is a strong indication that government policy should support Internet portal projects where there are *existing* relationships between the (potential) participating businesses. This research reported that for a small targetted investment, government was able to encourage an electronic commerce initiative that successfully fostered industry activity and collaboration between closely allied participants. From a policy perspective, the positive outcomes of the project appear to suggest that established or free market relationships found amongst existing industry clusters might be an important *predictive* criteria for identifying grant applicants that are more likely to be successful with their project— more so than ad-hoc assembled groups.

9. References

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