Value Chain Analysis and Business Strategy in the Okanagan Wine Industry

Innovation in the Okanagan Agricultural Products Cluster

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List of Tables

Table 1: Cluster Topologies ........................................................................................................................... 6
Table 2: BC Wine Industry Performance ......................................................................................................... 7
Table 3: Okanagan Region Population Densities in 2011 ............................................................................... 8
Table 4: Okanagan Region Industry Composition ......................................................................................... 9
Table 5: Okanagan Winery Groups ............................................................................................................... 12
Table 6: BC Wine Industry Comparison ...................................................................................................... 13
Table 7: BC Wine Growth Rates .................................................................................................................. 16
Table 8: Winery growth and composition .................................................................................................. 21
Table 9: Winery Cost Structure Summary ................................................................................................... 22
Table 10: CIC Margin Analysis ..................................................................................................................... 22
Table 11: Value Chain Margin Analysis ....................................................................................................... 24
Table 13: New Product Development Resources Requirements ................................................................ 30
Table 14: Written Plan Time Frame ............................................................................................................ 32
Table 15: Importance of Technology Infrastructure ..................................................................................... 39
List of Illustrations

Figure 1: The Competitiveness Diamond ........................................................................................................... 4
Figure 2: Okanagan Industry Cluster Map ........................................................................................................... 9
Figure 3: British Columbia Wine Industry Value Chain - 2010 ........................................................................ 14
Figure 4: BC Domestic Wine Sales ..................................................................................................................... 16
Figure 5: Strategic Group Map for the year 2010 .............................................................................................. 17
Figure 6: Wine Industry Value Chain Composition ............................................................................................ 18
Figure 7: Vineyard Size Distribution ................................................................................................................. 19
Figure 8: Grape acreage age composition .......................................................................................................... 19
Figure 9: Grape Sector Cost Structure ................................................................................................................. 20
Figure 10: BC VQA Cost Structure ..................................................................................................................... 21
Figure 11: CIC Cost Structure ............................................................................................................................. 21
Figure 12: Potential BC content in CIC wines .................................................................................................... 22
Figure 13: Retail Sector Composition - 2010 ...................................................................................................... 23
Figure 14: Sector Composition for BC VQA - 2010 ........................................................................................... 23
Figure 15: Sector Composition for BC VQA - 2010 ........................................................................................... 23
Figure 16: Estate Winery Sales by Region .......................................................................................................... 27
Figure 17: Growth Opportunity Focus ............................................................................................................... 28
Figure 18: Strategy Aggressiveness ..................................................................................................................... 29
Figure 19: New Product Originality .................................................................................................................... 30
Figure 20: Firm Organizational Structure .......................................................................................................... 31
Figure 21: Importance of Management Skills by Sector ..................................................................................... 31
Figure 22: Performance Management Systems ................................................................................................ 32
Figure 23: How Wine Industry Entrepreneurs Make Decisions ........................................................................ 33
Figure 24: Importance of Key Success Factors ................................................................................................ 34
Figure 25: Importance of Strategic Orientation ................................................................................................. 34
Figure 26: Sources of Growth and Working Capital .......................................................................................... 35
Figure 27: Importance of Labour and Management Workers .......................................................................... 36
Figure 28: Worker Supply in the Okanagan Region ........................................................................................... 37
Figure 29: Worker Recruitment Strategies ......................................................................................................... 37
Figure 30: Agricultural Cluster Map ................................................................................................................... 40
Executive Summary

This study investigates the transformation of the Okanagan region’s wine industry between the years 2000 and 2010, and its relationship to other industries that comprise the region’s agricultural products cluster. It adds to the body of knowledge related to rural industry competitiveness by identifying the decision-making activities of the entrepreneurs leading the transformation.

A number of industry opportunities and challenges are identified from this investigation. These are then translated into five ‘front burner’ strategic issues facing the industry. Recommendations for industry strategy were developed by industry stakeholders to address each of the strategic issues.

1. How to increase the knowledge (education and research) capacity in the Okanagan region?
2. How to stimulate the sharing of knowledge and innovation by wineries and grape growers?
3. How to create strong industry goal alignment and reduce the negative effects of industry fragmentation?
4. How to develop new markets for the expected increase in grape production?
5. How to increase the sales of BC VQA wines?

Recommendations from the Industry

Two industry workshops were held in February, 2013 to develop strategy around the strategic issues. A total of 38 participants attended, representing all major stakeholder groups. Participants were organized into work groups and for each strategic issue the groups were asked to identify: one or more desired outcomes, one measurable target for each desired outcome, and one or more strategies to achieve each desired outcome. The targets provide measurable goals to achieve and are indicators of whether or not the strategy is working. Throughout the workshop discussions, several overarching themes evolved around the factor conditions of the agricultural products cluster map.

1. A general call for education and support was a highlight of most strategic issues; especially the need for viticulture education. This indicates an overarching need for applied skills, and a belief by the industry that this is a necessary requirement for industry competitiveness and future growth.
2. A “higher profile” for the Okanagan region and its wine is also a repeated theme, reflected by a call for an independent culinary school, a strong connection to tourism, higher grape quality, and expansion into the BC mid-value wine segment.
3. A need for greater communication among small estate wineries, and among wineries in general (Rival Firms on the cluster map) was a common theme. Often the request was for facilitation, support, or leadership by better functioning Foundation Level organizations.

Strategic Issue 1: How to increase the knowledge (education and research) capacity in the Okanagan region?

Desired Outcome #1: Formalized Educational Programs to Support the Industry
Desired Outcome #2: Increased Applied Extension Services
Desired Outcome #3: Centralized Resource Hub for Growers and Wineries
Strategic Issue 2: How to stimulate the sharing of knowledge and innovation by wineries and grape growers?
   Desired Outcome #1: Increased Knowledge Sharing Amongst Grape Growers
   Desired Outcome #2: Increased Knowledge Sharing between Grape Growers and Wineries
   Desired Outcome #3: Increased Knowledge Sharing Amongst Wineries

Strategic Issue 3: How to create strong industry goal alignment and reduce the negative effects of industry fragmentation?
   Desired Outcome #1: Unify the Fragmented Small Wineries of the Industry

Strategic Issue 4: How to develop new markets for the expected increase in grape production?
   Desired Outcome #1: Higher Profile of the Okanagan Region, Nationally and Internationally
   Desired Outcome #2: Higher Quality Standards for Grape Growing
   Desired Outcome #3: Develop an Okanagan Geographically Indicated Mid-Value Wine

Strategic Issue 5: How to increase the sales of BC VQA wines?
   Desired Outcome #1: Introduce BC Wines to new Canadian Wine Consumers
   Desired Outcome #2: Increase Distribution Options and Increase Market

Organization of the Report

This report is organized into four sections: a conceptual framework for the study, a value chain analysis of the BC wine industry, business level strategy and innovation, and conclusions and recommendations from the industry.

The conceptual framework lays out the underlying concepts and definitions that are fundamental to this investigation. The concepts include the definition of a rural community, industry clusters and their impact on innovation and regional development, the role of innovation and entrepreneurship in industry development.

The value chain analysis examines cluster interdependence, the growth and market structure of the BC wine industry, value chain composition and sector analysis, and vertical integration and winery diversification.

Business strategy and rivalry examines seven research questions related to business growth and strategy. These questions reveal: why firms choose to operate in the Okanagan region; the importance of regional exports to business competitiveness; where Okanagan firms source their supplies and services; the opportunities that exist for business growth and the strategies that Okanagan entrepreneurs employ to capture these opportunities; the key success factors required to achieve growth; the major obstacles to growth and the strategies employed to overcome these obstacles; and the cluster relationships that exist between rival firms, their suppliers, customers, and support industries.

The conclusions identify five main strategic issues facing the industry in the Okanagan region; strategy recommendations, focused on each of these issues, are provided through workshops with industry stakeholders.
Introduction

Compared to urban entrepreneurs, rural entrepreneurs face a far more hostile environment in which to start and grow a successful business. Barriers to business growth in rural regions include poor access to capital, especially venture capital; limited access to skilled labour; poorly developed infrastructure, which limits their access to suppliers and customers; and limited access to knowledge transfer. All of these barriers act to limit business model innovation and industry competitiveness. Compounding these challenges are the effects of globalization on those rural regions with strong dependence on resource industries such as agriculture, forestry, and mining.

Between 2007 and 2010, rural regions of British Columbia (BC) show significantly lower rates of business survival than for large metropolitan areas. BC Stats (2011) reports that while the number of small businesses increased by 4.9% in large urban areas, the number of small businesses in rural regions decreased by 4.6%, with some regions reporting declines of 18–30%. As rural firms are destroyed, skilled workers migrate out of the region, further eroding the tax base essential for infrastructure improvements, and school and health care support, further weakening the local economy. In spite of these challenges there is a growing body of literature reporting successful industry development in rural regions.

This study investigates the transformation of the Okanagan region’s wine industry, and its relationship to other industries that comprise the region’s agricultural products cluster. It adds to the body of knowledge related to rural industry competitiveness by identifying the decision-making activities of the entrepreneurs leading the transformation.

Conceptual Framework for the Study

The relevant concepts to this research are: rural communities, entrepreneurship, industry clusters and their impact on entrepreneurship and innovation, and rural development. The theoretical framework related to these concepts is discussed thoroughly by Cartier (2012). A brief summary of these concepts are provided below.

Rural communities

The concept of a rural community is fundamental to this study. There are many ways to define a rural community: ranging from narrow definitions based on population numbers or geographic boundaries (Du Plessis, Beshiri, Bollman, & Clemenson, 2001), to broader definitions based on social organization (Labrianidis, 2006), or regional identity (Messely, Dessein & Lauwers, 2009). These broader definitions acknowledge the changing character of rural regions, and reflect their ability to transition from dependence on natural resource based economies such as forestry and mining, to more diversified economies based on value added industries such as manufacturing (Virkkala, 2007).

The concept of regional identity includes all of the communities, both large and small, government agencies, and social organizations that comprise the region. Rural communities now become the unit of analysis and are able to differentiate themselves from other regions, thereby achieving competitive advantage in a national or even global context (Cartier, 2013). This study uses the concept of regional identity to define a rural community.
Industry clusters and their impact on entrepreneurship

In his book, “The Competitive Advantage of Nations”, Michael Porter identifies industry clusters as sources of regional competitive advantage (Porter, 1990). He defines a cluster as: “...a geographically proximate group of interconnected companies, suppliers, service providers, and associated institutions in a particular field, linked by externalities of various types” (Porter, 2003a pg. 562). According to Porter, clusters achieve competitive advantage by increasing innovation and productivity, and through the creation of new businesses. The industry cluster model identifies the relationships between the firms located in a specific region: the interaction between competitors, their relationships with support and related industries, and how they interact with other firms in their associated value chains. These relationships are shown in Figure 1: The Competitiveness Diamond. The building blocks of an industry cluster; then, are the value chains that are located in the region.

Figure 1: The Competitiveness Diamond
Adapted from Porter, M (1990), Competitive Advantage of Nations, The Free Press

The presence of industry clusters has a positive effect on entrepreneurship. As firms cluster access to essential inputs improves; innovation, through the diffusion of knowledge, is enhanced; and the barriers to new venture creation are reduced (Delgado, Porter & Stern, 2010). These factors result in increased employment, which in turn, deepens the pool of human capital available to all firms that comprise the cluster (Delgado et al., 2010). Clusters create a positive reinforcing loop; that is, cluster development creates new opportunities for entrepreneurs, which in turn drives improved cluster performance.
As clusters form, new opportunities arise, and the ability of entrepreneurs to identify these opportunities is enhanced (Ozgen, 2011). Ozgen examined the relationship between opportunity recognition and Porter’s four determinants of competitive advantage: firm rivalry and strategy, factor conditions, demand conditions, and support and related industries. He concluded that opportunity recognition, and resulting innovation, was enhanced in all four determinants.

Industry Clusters and Rural development

There is a growing body of knowledge that links the presence of industry clusters to strong regional performance. Irshad (2009) identifies four characteristics of clusters that enhance regional development: common needs and interests, firm interdependence, talent and creativity, and innovation. Irshad believes that because the cluster model is integrative, these factors lead to greater collaboration between rival firms, improved use of human resources and regional infrastructure, and increased innovation which leads to improved productivity within the region. In support of Irshad, Arikan (2009) concludes that innovation is greater in firms that operate within a cluster, compared to firms that act in isolation.

Waits (2000) identified four key elements of successful industry clusters and their impact on a regional economy:

1. **Export orientation**: The extent to which companies in the cluster sell products or services to companies outside of the region.
2. **Concentration**: Whether employment in the cluster more concentrated in the region than the provincial or national average. Is the cluster an existing or emerging area of specialization in the area?
3. **Significant size or rapid growth**: The size of the cluster, or if new, the growth rate compared to the region as a whole.
4. **Business interdependence**: How businesses relate to each other through the buyer-supplier value chain as competitors or as partners.

In Arizona, Waites (2000) reported that when firms collaborated using the cluster model, these firms experienced heightened industry awareness, more effective training programs, and improved market outcomes. Irshad (2009) provides examples of twenty-two successful Canadian and international rural clusters. These clusters span a range of industries, from visual arts on Salt Spring Island, to wooden chair manufacturing in Udine, Italy. Other examples of successful rural clusters are the electronics industry in Oulu South, a rural region in Finland (Virkkala, 2007), and the well-known California wine cluster (Porter, Ketels, Miller & Bryden, 2004).

What is innovation?

Much has been written on the topic of innovation, and indeed, this paper identifies the critical role innovation plays in industry competitiveness. Although there are many definitions for innovation, all have two elements in common: first, the innovation must result in change, and second, the change must provide utility to the user. For business purposes, O’Sullivan and Dooley (2009, Pg. 5) expand on these two elements and define innovation as “...Innovation is the process of making changes, large and small, radical and incremental, to products, processes, and services that results in the introduction of something new for the organization that adds value to customers and contributes to the knowledge
store of the organization.”. In this context innovation can relate to products, such as technology, as well as to business processes, and services. The outputs of innovation are often measured in terms of patents issued or new products introduced, but can also include changes to a firm’s business processes, or new types of services.

Joseph Shumpeter (2005) distinguishes between two types of innovation: continuous innovation, which is the incremental improvements made to existing products or processes, and discontinuous innovation, which is disruptive and results in new trajectories for industry development. Schumpeter believed that growth strategies involved continuous innovation, whereas industry development, or transformation, could only come about through discontinuous innovation. Indeed, discontinuous innovation has been identified as one of the primary ‘triggers’ of industry transformation (Porter & Rivkin, 2000).

Innovation and Regional Competitiveness

There is a difference between comparative advantage and competitive advantage. Economists use the concept of comparative advantage to describe the advantage that one firm may have over another. A firm gains comparative advantage when it produces goods or services at a lower opportunity cost than its rivals (Parkin & Bade, 2010). Competitive advantage, however, is related to a firm’s strategy in how it manages value chain activities (Porter, 1996). A firm may achieve competitive advantage in one of two ways: by performing value chain activities more efficiently, at a lower cost, than competitors – a cost advantage, or performing different activities than their competitors – a differentiation advantage (Porter, 1990).

In a regional context, comparative advantage is related to the region’s endowments, those resources that are available to local firms. These endowments can take the form of natural resources, climate, or low cost labour. Competitive advantage, on the other hand, is related to the strategic decisions made by individual firms that are located in the region (Porter, 2003b). This distinction between comparative and competitive advantage is important, since industries in a specific region can achieve a competitive advantage, even if they do not have a comparative advantage (Hamel, 1998). Innovation, therefore, is strategy based, rather than endowment based. For example, a specific company located in a region with high cost labour may achieve a low cost competitive advantage by strategically outsourcing its labour to a business located in a region with a comparative advantage in low cost labour.

Clusters and Innovation

Although there is a strong relationship between the proximity of firms to one another and the rate of knowledge diffusion between firms, interfirm relationships can influence the extent of knowledge exchange and the innovation resulting from these exchanges (Markusen, 1996;
Arikan, 2009). Markusen examined the relationships between firms in a number of U.S. industrial districts, and identified four types of cluster topologies listed in Table 1.

Interfirm cooperation and knowledge exchange is greatest in Marshallian and State-anchored structures, and least in Hub and Spoke and Satellite Platform structures. Markusen attributes these differences to the perceived risk associated with knowledge exchange between large rival firms compared to topologies dominated by many small firms. One other defining characteristic of the Marshallian topology was the worker’s strong commitment to regional identity, when compared to topologies dominated by large firms, both internal and external, or state-anchored structures.

In addition to the structural barriers to knowledge transfer identified by Makusen, Arikan’s research identified three other barriers to knowledge exchange between firms: a lack of need, or opportunities, for firms to exchange information, perhaps related to changing environmental conditions; missing or poorly developed institutional infrastructure, such as a lack of trade fairs and industry conferences to foster interfirm cooperation; and interfirm knowledge exchanges that are ineffective, perhaps due to the receiving firm’s inability to act on the new knowledge.

In 2011, the BC wine industry was comprised of 210 wineries and 495 independent grape growers. Firms located in the Okanagan region are responsible for 97% of the provinces domestic wine production. The Okanagan wine industry structure is composed of many small locally owned businesses and resembles that of a Marshallian industrial district, although there are elements of a Satellite Platform district, as a number of wineries are owned by large external corporations. The structure of the Okanagan wine industry is discussed in detail later in this paper.

Research Propositions Developed from the Literature

This literature review indicates several linkages between entrepreneurship, industry clusters, innovation, and rural development.

1. Entrepreneurs are powerful engines of industry and cluster development and growth.
2. As industry clusters evolve and grow, innovation is enhanced, and regional economic performance is improved.

There are three measurable outcomes from these propositions. If these relationships exist, then a region should experience an increase in economic activity, the birth of new businesses, and increased employment. Evidence from the Okanagan wine industry supports these two propositions. The data presented in Table 2 shows that while the BC economy had a Compound Annual Growth Rate (CAGR) of 4.0% between 2000–2010, the growth rate of the Okanagan wine industry was 9.4%. Furthermore, the growth in the number of full-time jobs and the growth in new firms outperformed the provincial economy. The growth in new firm creation is significant, considering that many BC rural regions experienced firm declines of 4.6%. The relatively poor provincial

<table>
<thead>
<tr>
<th>Table 2: BC Wine Industry Performance</th>
<th>2000</th>
<th>2010</th>
<th>CAGR</th>
</tr>
</thead>
<tbody>
<tr>
<td>British Columbia GDP (millions)</td>
<td>$132,578</td>
<td>$167,140</td>
<td>4.00%</td>
</tr>
<tr>
<td>BC Wine Industry GDP (millions)</td>
<td>$66.50</td>
<td>$177.90</td>
<td>9.40%</td>
</tr>
<tr>
<td>Number of FTEs (direct and indirect)</td>
<td>1,860</td>
<td>3,361</td>
<td>5.50%</td>
</tr>
<tr>
<td>Number of Firms</td>
<td>241</td>
<td>705</td>
<td>8.60%</td>
</tr>
</tbody>
</table>
economic growth may reflect the impact of the 2008-2009 recession where much of the growth between 2000-2007 was erased. In contrast, the wine industry seems to have weathered the recession better than the rest of the province.

Research Problem and Related Questions

The research problem that guides this investigation is:

How do businesses in the Okanagan’s Agricultural Products industry cluster relate to each other through the buyer-supplier value chain as competitors or as partners?

Seven research questions (RQ) have been developed to address this issue:

RQ1: Why do local firms choose to operate in the Okanagan region?
RQ2: What percentage of a firm’s output is exported out of the Okanagan region?
RQ3: Where do Okanagan firms’ source their factors of production?
RQ4: What opportunities exist for business growth, and what growth strategies are employed by Okanagan firms?
RQ5: What are the Key Success Factors to achieve growth in the Okanagan region?
RQ6: What are the major obstacles to growth in the Okanagan region, and what strategies are employed by firms to overcome these obstacles?
RQ7: What cluster relationships exist between rival firms, suppliers, customers and support industries?

British Columbia’s Okanagan Region

The Okanagan region (“the Okanagan”) is comprised of three Regional Districts: Regional District of Okanagan Similkameen (RDOS), Regional District of the Central Okanagan (RDCO), and the Regional District of the North Okanagan (RDNO). These Regional Districts include 21,414 Square Kilometers\(^2\) and a population of 280,784 (Statistics Canada, 2011). The population densities for these regions are found in Table 3. The City of Kelowna, with the highest population density, acts as a service hub for the southern interior of the Province. The region’s population grew from 261,007 to 280,784, a CAGR of 1.5% between 2006 and 2011.

The economy of the Okanagan is diversified. The region’s industry composition, based on employment, is provided in Appendix A. These industries are further grouped into three categories, as defined by Michael Porter (2003a).

1. Traded industries - that export their products out of the region
2. Local industries - that act as support industries to the traded industries
3. Resource dependent industries - that rely on regional endowments
The composition of these industries is provided in Table 4, with comparisons to the Province, and to Canada. These data show that although the Okanagan’s economic structure is similar to BC and the rest of Canada, it is slightly more dependent on local service industries; however, this is consistent with Kelowna’s position as a support hub for other southern regions of the province.

Table 4: Okanagan Region Industry Composition

<table>
<thead>
<tr>
<th></th>
<th>Okanagan</th>
<th>BC</th>
<th>Canada</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Industries</td>
<td>70%</td>
<td>68%</td>
<td>67%</td>
</tr>
<tr>
<td>Traded Industries</td>
<td>25%</td>
<td>27%</td>
<td>28%</td>
</tr>
<tr>
<td>Resource Dependent</td>
<td>4%</td>
<td>4%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Okanagan Region Industry Clusters

Porter (2003a) has identified 41 traded industry clusters. These clusters, which are composed of several industries, were validated by statistical correlation analysis and input-output matrices. For this study, the same industries, as identified by Porter, were grouped into the Okanagan Region’s Agricultural Products cluster. The eighteen industry sectors that comprise the cluster are provided in Appendix B. Two other clusters were identified in the region: a Hospitality and Tourism cluster, and a Life Sciences cluster driven primarily by the health sector. Employment data related to these Okanagan clusters is found in Appendix C. All cluster data was developed from Statistics Canada data from the 2001 and 2006 Census of Canada. Comparable data from the 2011 census does not exist. The industry cluster map is represented in Figure 2.

The map is derived from employment data for the region. The horizontal axis shows the employment growth of each cluster, and the vertical axis shows the location quotient (LQ) of each cluster. The size of the ‘bubble’ represents the level of employment in the cluster. The LQ compares the regional level of local employment to some reference point. In this case, it compares the level of employment in each cluster to the level of employment in the province. The LQ method recognizes that each industry produces partly for local consumption, and partly for export out of the region. When LQ = 1.0 industry supply exactly matches
local demand. A LQ < 1.0 implies that industry supply cannot meet local demand and the region is a net importer of those goods and services. A LQ > 1.0 indicates that industry supply exceeds local demand and the region is a net exporter of those goods and services. It is the export industries that drive economic growth in a region.

In the Okanagan, the Agricultural Products cluster has an employment CAGR of 3.6%, which exceeds the regional average of 3.0%. The LQ of 1.5 assumes that 50% of its products are exported out of the region. Agricultural Products is a significant economic engine for the Okanagan as it creates new jobs at a greater rate the region overall, and creates economic growth for the region by being a significant export industry.

The three major value chains that comprise the Agricultural Products cluster are: the wine industry, the tree fruit industry, and the supply managed industries of dairy and poultry products. This study examines the contribution of the wine industry value chain to the cluster.

**Methodology**

*BC Wine Industry Economic Analysis*

The economic analysis of the BC domestic wine industry value chain was developed entirely from secondary data; no primary research was conducted. The labour and value added calculations were prepared using a comprehensive economic model that was developed entirely from secondary data sources. The main secondary sources of information used to develop the model were provided by:

- The BC Liquor Distribution Branch (BCLDB)
- The BC Wine Institute (BCWI)
- The BC Ministry of Agriculture (BCMA)
- The BC Wine Authority (BCWA)
- BC Stats
- Statistics Canada (Stats Canada)

A number of data tables were constructed from the data in these reports.

- Grape growing employment
- Wine sales (dollars)
- Winery labour
- Retail channel sales
- Grape growing cost structure
- Wine sales (liters)
- Winery cost structure

An economic model of the wine industry was then developed from the data tables. This model provided the information required to complete the value chain analysis. The economic model covers the 10-year period from 2000 to 2010.
Definitions used in the economic model

Value Added Impacts

Only direct and indirect impacts for each sector were used in this study. Direct impacts include direct labour expenditures (employment) and firm operating profit. Induced impacts are not included in the value added calculations. This is consistent with the criteria established in BC for ‘open models’ such as the wine industry.

Labour Productivity

Labour productivity data for the grape sector was derived from data reports developed by the BC Ministry of Agriculture; the wine sector data was taken from models prepared for the BC Wine Institute. Labour rates are taken from the 2006 Census of Canada data, and adjusted for inflation. Employment levels, expressed as full-time-equivalent (FTE) jobs, are calculated using 2,080 hours as the annual FTE.

Grapes

Grape prices and tonnages for each year were taken from the annual British Columbia Wine Grape Crop Survey prepared for the BCWI; the total grape acreage for each year was taken from the BC Grape Acreage Reports prepared for the BCWI. Grapes prices are recorded in ‘current dollars’.

Wine Sales

All wine sales data are taken from the BCLDB quarterly market reviews. Wine revenues are recorded using the BCLDB display price, and are recorded in current dollars. The display price includes all provincial and federal taxes, and the BCLDB markups.

Employment levels in the retail sector were derived using the BC Input - Output model maintained by BC Stats (2008).

Indirect Impacts and Government Revenues

Indirect impacts and government revenues from taxes were derived from the BC Input - Output model. The multipliers for each sector are taken from the British Columbia Provincial Economic Multipliers tables prepared by BC Stats.

Okanagan Wine Industry Strategy

Two sources of primary data related to business level strategy were collected and analyzed: independent grape growers and winery owners.

Independent Grape Growers and Wineries

Surveys and in-depth interviews were conducted during the summer of 2012. Only firms located in the Okanagan region were selected for this phase of the study. These firms were organized into four sampling groups: 495 independent grape growers, 90 small size estate wineries, 15 medium size estate
wineries, and 3 major wineries. These winery groupings were based on their market share and are summarized in Table 5: Okanagan Winery Groups.

Table 5: Okanagan Winery Groups

<table>
<thead>
<tr>
<th>Winery Group</th>
<th>Number of Wineries</th>
<th>2010 Sales (Cases)</th>
<th>% of Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major wineries</td>
<td>3</td>
<td>2,790,786</td>
<td>83</td>
</tr>
<tr>
<td>Medium Sized Estate Wineries - 10% Market Share</td>
<td>16</td>
<td>301,216</td>
<td>9</td>
</tr>
<tr>
<td>Small Sized Estate Wineries</td>
<td>89</td>
<td>168,346</td>
<td>5</td>
</tr>
<tr>
<td>Total Okanagan Based Wineries</td>
<td>108</td>
<td>3,260,348</td>
<td>97</td>
</tr>
<tr>
<td>Non-Okanagan Wineries</td>
<td>121</td>
<td>105,176</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Domestic Industry</strong></td>
<td><strong>229</strong></td>
<td><strong>3,365,524</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

The membership list from the Association of BC Grape Growers was used as the sampling frame for the independent grape growers. The sampling frame for wineries was compiled from lists provided by the British Columbia Wine Institute and the BC Liquor Distribution Branch. Internet surveys were used for the independent grape growers and small estate wineries. For the independent grape growers, a cover letter and URL link to the survey was distributed via e-mail by the Grape Growers Association. Each of the small estate wineries was contacted by phone to pre-qualify their willingness to participate in the survey; an e-mail letter and URL link to the survey was sent to the 65 that agreed to participate. All 15 medium sized estate wineries were contacted by phone to determine their willingness to participate in an in-depth, 90 minute interview. Interviews were conducted with representatives from seven of these wineries.

Data collected from the surveys and interviews were organized into the categories listed below.

- General business information
- Key success factors
- Innovation and decision making
- Business interdependence
- Growth strategy employed
- Organizational structure
- Major obstacles to strategy implementation

After the data were collected, all open ended questions were thematized for later analysis. All quantitative data was analyzed using standard statistical analysis methods.

**Value Chain Analysis of the BC Wine industry**

The year 1989 was the ‘Big Bang’ for the BC wine industry. In that year, the Canada/US Free Trade Agreement (FTA) was signed and the industry began a massive industry transformation. In 1988, there were 3,400 acres of grapes in the Okanagan, producing 17,980 tons of grapes. One year later, in 1989, only 1,147 acres remained, producing 3,619 tons of high quality grapes. The ensuing industry transformation involved making the transition from a highly protected and inefficient producer of bulk ‘vin ordinaire’ to the production of premium and super-premium wines (Carew, 1998). In 1990, the BC Wine Act was enacted and the British Columbia Wine Institute (BCWI) was established. The Vintners Quality Alliance (BC VQA) was introduced and became the quality standard for BC wines. The BC VQA...
program was selected as the vehicle that would rebrand BC wine as a high quality product. In order to meet BC VQA standards, the wine must be produced from 100% BC grapes. Wines that are a blend of BC grapes and imported grapes or bulk wine, cannot be certified as BC VQA.

With the introduction of BC VQA, everything changed. New methods of viticulture were required to produce vinifera grapes in high latitudes; wineries had to develop new ways of producing exceptional wines made from high latitude grapes (cool climate oenology); new markets had to be developed to receive these higher priced wines. The pace of innovation during this period was remarkable, as new vineyards were planted, new wineries established and new wine varietals, such as ‘ice wine’, were developed and introduced.

By 1999, over 3,000 acres had been replanted, bringing the total acreage to 4,184 acres, but producing only 11,284 tons of grapes. Not only did the varieties of grape plantings change from hybrid grapes to vinifera varieties, the reduced tonnage per acre, from 5.8 tons/acre to 2.7 tons/acre, reflected the reality that producing high quality wines put a ceiling on vineyard production. This change radically altered the cost structure of the industry. In order to be profitable, grape growers had to receive a much higher price for their grapes than prior to the FTA, and wineries had to receive a much higher price for their wines.

In 2011, compared to other wine producing regions in North America, the BC wine industry is relatively small. Data produced for the British Columbia Wine Institute is reproduced in Table 6.

Table 6: BC Wine Industry Comparison

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Acres</td>
<td>9,205</td>
<td>15,074</td>
<td>40,000</td>
<td>535,000</td>
</tr>
<tr>
<td>Number of Growers</td>
<td>705</td>
<td>500</td>
<td>350</td>
<td>4,600</td>
</tr>
<tr>
<td>Number of Wineries</td>
<td>229</td>
<td>146</td>
<td>655</td>
<td>3,364</td>
</tr>
</tbody>
</table>

The majority of the BC industry is located in the Okanagan region where 8,751 acres, or 88.7% are located. The small size of the BC industry, and its producers, places it at a comparative disadvantage, in terms of economies of scale, relative to the US wine regions and Ontario. In spite of this, the strong growth in the number of new Okanagan firms entering the industry indicates their ability to achieve a competitive advantage. This research seeks to understand the nature of that competitive advantage.

Wine Industry value Chain

The BC wine industry is comprised of three sectors.

1. the BC grape growers who produce the grapes,
2. the BC wineries that manufacture the wine, and
3. the winery retail stores that sell the finished wine.

The industry value chain is represented in Figure 3. This figure shows the relationship between the value chain sectors and the four determinants of the Agricultural Products cluster.
Arable land in the Okanagan, suitable for grape production, is limited. In order to increase the grape acreage, land currently producing other horticultural crops would need to be converted to grape production. This competition for land acts as a barrier for further industry growth. One alternative is to increase the grape yield/acre from existing grape acreage, but the quality imperatives imposed by the wine makers makes this option unlikely. However, interviews with leading grape growers indicate that they are experimenting with new viticulture techniques to increase yields, without sacrificing quality. More research and development (R&D) needs to be done in this area.

Although there are 229 licensed grape wineries in BC, 18 of these wineries produce 92% of the domestic wine (see table 5), and all of these wineries are located in the Okanagan. The remaining 90 Okanagan wineries produce only 5% of the region’s wine. Any bargaining power with suppliers rests with the 18 larger wineries, while individual small wineries have limited bargaining power with major suppliers or BC distribution channels.

The retail sector is a Provincial monopoly. The BC Liquor Distribution Branch (BCLDB) is the sole agent for the sale of all liquor products, both imported and domestic. The BCDB sets the price for all wine sold in the province. This price is established by applying a standard markup of 123% to the price paid to the wineries. This markup constitutes a distribution cost for the wineries that choose to distribute through the BCLDB retail and wholesale outlets. The BCLDB also issues licenses to six groups of independent business operators to resell wine. These agents and licensees include the winery agency stores, cold wine and beer stores, BC VQA stores, and restaurants\(^9\).
All estate wineries, both large and small, operate their own wine shops. Wine sold through this channel allows the winery to retain the 123% markup\textsuperscript{10}. The challenge facing estate wineries however, is how to attract customer to the ‘cellar door’ to purchase wine directly from the winery store. There has been a tremendous amount of innovation around this marketing issue as winery proprietors struggle to attract visitors to wine shops located in remote areas of the Okanagan.

**Cluster Interdependence**

Factor conditions relate to the availability of essential inputs required for production of grapes and wine. These inputs include access to arable land, human resources, knowledge, financial capital, and physical infrastructure such as transportation and the internet. The availability of arable land has been discussed above. Labour requirements and the supply of workers are discussed later in this report. Survey results indicate that overall, the local supply of semi-skilled and skilled workers is adequate, and where gaps exist, such as seasonal vineyard labour, businesses have been able to access these workers through the Federal seasonal agricultural worker program. Knowledge infrastructure is provided by the Pacific Agriculture Research Centre in Summerland, the BC Ministry of Agriculture, Okanagan College, and the University of British Columbia – Okanagan. These organizations provide some R&D support for the value chain, but interviews with winery owners indicated that gaps exist. The physical infrastructure in the region is excellent, while access to financial capital is available through commercial lenders and the Farm credit Corporation.

Related and support industries include the Okanagan tree fruit industry value chain, suppliers of specialized vineyard and winery equipment and supplies, and business services related to accounting and legal requirements. Survey and interview data indicate that although there is an adequate local supply of business services, most of the specialized equipment and supplies are imported into the region. The is a strong relationship with the tree fruit industry value chain, as both value chains often share the same seasonal workforce, and access horticultural supplies from the same distributors. These business interrelationships are discussed in greater detail later in this report.

Demand conditions relate to both local and export demand. The major innovation in developing the export market is the development of a strong relationship with the Okanagan tourism cluster; this relationship has created a strong pull-through effect for Okanagan wine. According to the Okanagan Wine Festivals Society, 250,000 tourists visited Wine Festivals events and wineries in 2010\textsuperscript{11}. Furthermore, demand for the ‘Okanagan wine experience’ is growing, as the number of people participating in Festival events is steadily increasing. So to, is the number of Okanagan wineries becoming members in the Society\textsuperscript{12}. As tourists visit wineries and wine events, and become acquainted with the quality of Okanagan wines, opportunities are created for wineries to begin exporting to other regions in Canada and the world. The linkage between wine and tourism is not unique to the Okanagan. Other wine regions in the world also exploit this relationship (Mitchell & Schreiber, 2006; Mitchell & van der Linden, 2010). Some research has been done on benchmarking wine tourism development in the Okanagan (Getz & Brown, 2006); however, more work is needed on differentiating the Okanagan wine tourism experience from other wine regions in North America.

**Growth and Market Structure of the BC Wine Industry**

Total BC wine consumption increased from 37.5 million litres in 2000 to 60.1 million litres in 2010\textsuperscript{13}. The domestic wine producer’s share of the market averaged 51% during this period; BC imports as much
wine as it produces locally. Although BC wine producers have not been successful in capturing a greater share of the overall BC market, the composition of the market changed significantly. The composition and sales of domestic wine from 2000-2010 is represented in Figure 4.

![Domestic Wine Sales](image)

Figure 4: BC Domestic Wine Sales

BC VQA wines have gained considerable market share from domestic Cellared in Canada products, almost doubling in volume sales from 15% in 2000 to 27% in 2010, while the BC VQA share of dollar sales increased from 28% to 45%. This growth in BC VQA sales has come from both the expansion of existing estate wineries, and the entry of new BC estate wineries.

Compound Annual Growth Rates for wine products, with a comparison to provincial GDP growth are provided in Table 7. The dollar growth of the domestic industry has outperformed Provincial GDP growth, and the growth of BC VQA products has significantly outpaced overall industry growth, and growth of every other wine category.

<table>
<thead>
<tr>
<th></th>
<th>CAGR</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC VQA ($)</td>
<td>10.9%</td>
</tr>
<tr>
<td>Cellared in Canada ($)</td>
<td>3.7%</td>
</tr>
<tr>
<td>Domestic wine ($)</td>
<td>6.3%</td>
</tr>
<tr>
<td>Wine imports ($)</td>
<td>4.9%</td>
</tr>
<tr>
<td>Total BC wine ($)</td>
<td>5.5%</td>
</tr>
<tr>
<td>BC VQA (L)</td>
<td>10.5%</td>
</tr>
<tr>
<td>Cellared in Canada (L)</td>
<td>3.2%</td>
</tr>
<tr>
<td>Domestic wine (L)</td>
<td>4.7%</td>
</tr>
<tr>
<td>Wine imports (L)</td>
<td>4.0%</td>
</tr>
<tr>
<td>Total BC wine (L)</td>
<td>4.4%</td>
</tr>
<tr>
<td>British Columbia GDP</td>
<td>4.0%</td>
</tr>
</tbody>
</table>
Wine industry Market Structure

A strategic group map of the BC wine industry is presented in Figure 5.

Figure 5: Strategic Group Map for the year 2010

The two dimensions selected for the map are Perceived Value and Price per Liter. Perceived value is the utility for the wine consumer. Utility is related to wine quality; higher utility is associated with higher quality wines. Furthermore, quality is more than the physical characteristics of the wine; it includes other intangible attributes such as brand (Gallo or Yellowtail) and regional identity (Champagne or Bordeaux).

The map identifies three distinct strategic groups and the main competitors in each group. It also reveals the competitive intensity between the groups. The closer the strategic groups are to each other, the stronger the competitive rivalry. Examination of the map reveals that competition between the ‘premium wine’ group and the ‘vin ordinaire’ group is very weak, whereas competition is very strong between the ‘vin ordinaire’ and ‘mid-value wines’ strategic groups.

The ‘premium wine’ group accounts for 12.4 million litres, and includes BC wines produced under the BC VQA label (68.8%) and French imports (20.7%). Other competitors in this group are New Zealand (7%) and Portugal (2.4%). The average retail price point for these wines is $22.48/litre, with a range of
$20.50-$25.50. Some super premium wines sell at prices up to $76.92/liter. BC VQA wines have been very successful in gaining and holding market share in this most profitable strategic group.

The ‘mid-value wine’ group accounts for 26.1 million litres and is composed almost entirely of imported wines. The group is quite fragmented, with no single country controlling more than 26% of the market. Australia (25.1%) and the US (23.8%) hold the largest market shares. Other significant competitors are Italy (14.5%), Chile (13.7%), and Argentina (10.7%). The average retail price point for these wines is $15.09/litre, with a range of $12.52-$17.07/litre.

The ‘vin ordinaire’ group accounts for 22.8 million litres and is supplied almost exclusively by the three largest Okanagan wineries; Okanagan medium and small size estate wineries do not participate in this market. The wines included in this group are identified as ‘Cellared in Canada’ (CIC) product. CIC wines are a blend of wine produced from BC grapes and bulk wine or concentrate imported from other countries. There is no minimum requirement for Canadian grape content. These wines are branded under a number of labels and have an average retail price point of $9.52/litre.

**Value Chain Composition**

The BC wine industry value chain and value added contribution is provided in Figure 6. Although value added increased from $143 million in 2000 to $296 in 2010, a CAGR of 6.8%, the average value added contribution from each sector remained relatively constant: 9.8% from grape growers, 24.5% from wineries, 65.7% from the retail sector.

**Grape Grower Sector**

The grape grower sector includes vineyards owned/leased by independent grape growers and vineyards owned/leased by wineries. The composition of the vineyard ownership between 1999 and 2011 is provided in Appendix D1. Wineries owned or operated 62% of the grape acreage in 2011. The average size of the vineyard holdings is significantly larger for winery held vineyards: 29 acres for wineries compared to 6.6 acres for independent grape growers. Detailed vineyard size distribution is provided in Appendices D2 and D3, and Figure 7.
Figure 7: Vineyard Size Distribution

The grape acreage age composition is provided in Figure 8. The pace of new grape plantings declined from 2000 to 2004 and then increased through 2008. In 2010, almost 30% of the grape plantings were aged 4 years or less.

Figure 8: Grape acreage age composition
Grape establishment costs are very high. The cost to bring one acre of grapes into full production can exceed $20,000/acre. Once in full production, grape cost, excluding harvest labour, can exceed $3,800 per acre.

Grape production from BC vineyards increased from 10,022 tons in 2000 to 17,733 tons in 2010. Average grape prices during this period increased from $1,413/ton to $2,195/ton, with red grapes returning higher prices than white grapes, $2,481 to $1,911 respectively. Grape production costs are very high, averaging $1,712/ton. Production costs include the direct labour and materials costs related to grape production and the grape establishment costs for new grape plantings. The cost structure and net revenues for the grape grower sector are provided in Figure 9. These data do not distinguish between independent grape growers and winery owned vineyards.

![Grape Sector Cost Structure](image)

Figure 9: Grape Sector Cost Structure

The sector losses that occurred in 2000 and 2005 reflect the high percentage of grape acreage that was not yet in full production rather than low grape prices returned to growers. In 2010, 17,733 tons of grapes produced 10.7 million litres of wine: 8.6 million litres of BC VQA and 2.1 million litres of non-BC VQA wine.

BC grape production capacity cannot meet demand. Currently, 9,000 acres supplies 34% of the domestic production and 18% of the total BC market. Doubling the planted acreage to 18,000 acres could only supply 68% of the domestic wine production and 36% of total wine consumption. BC will always import wine from other countries.
Winery Sector

The number of BC wineries increased from 65 in 2000 to 229 in 2010, a CAGR of 12.1%. A summary of the composition of these wineries, by size, is provided in Table 8. These data show that while there was some consolidation among major wineries, there was a significant increase in the number of medium and small estate wineries.

Table 8: Winery growth and composition

<table>
<thead>
<tr>
<th>Winery Sector</th>
<th>2000</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Wineries</td>
<td>Market Share</td>
</tr>
<tr>
<td>Major Wineries</td>
<td>4</td>
<td>86.1%</td>
</tr>
<tr>
<td>Medium Estate Wineries</td>
<td>9</td>
<td>9.8%</td>
</tr>
<tr>
<td>Small Estate Wineries</td>
<td>9</td>
<td>1.3%</td>
</tr>
<tr>
<td>All other wineries</td>
<td>43</td>
<td>2.9%</td>
</tr>
<tr>
<td></td>
<td>65</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Major winery consolidation occurred during this period through acquisition; Andrew Peller Ltd. acquired Calona Wines Ltd. Although 19 major and medium estate wineries own 92.7% (2.8 million litres), the industry has become highly fragmented at the small winery level where 209 wineries compete for the remaining 7.1% of the domestic market (2.2 million litres).

It is important to understand the implications of this stratification; in 2010, the largest major winery produced 11.7 million litres; the largest medium size estate winery produced 455,000 litres; and small estate wineries produced an average of 7,300 litres. The major wineries have economies of scale in manufacturing not available to the small and medium sized wineries. These scale economies give major wineries a competitive advantage in some of the strategic groups, such as vin ordinaire identified in Figure 3, and act as a major entry barrier into this group.

The cost structure of BC VQA wine and CIC wine are provided in Figures 10 and 11.

Figure 10: BC VQA Cost Structure

Figure 11: CIC Cost Structure
Although the prices for BC VQA wines remained relatively stable, or increased slightly between 2000 and 2010, the cost to produce BC VQA products increased, primarily due to increasing grape prices. These higher costs, and the monopoly structure of the retail sector, put downward pressure on their margins. This in turn, required those wineries producing BC VQA wines to focus their attention on efficiency gains in manufacturing. The innovation related to these efficiency gains is discussed later in this paper. CIC wines saw price declines in the later part of the decade. These price declines, coupled with rising production costs, put significant pressure on their margins, and may partially explain the consolidation and capacity expansion that occurred during this period.

BC VQA remained far more profitable than CIC product during the decade. Table 9 shows the per litre margins for these wines. CIC wines are produced by blending wine produced from BC grapes with bulk wine or concentrate imported from other countries. The higher cost associated with using BC grapes is a strong incentive to use imported wine rather than local grapes. This is illustrated in Table 10. Given the low price returned for CIC product, wine produced primarily from local grapes would have the lowest margin and CIC produced by rebottling bulk wine would show the highest margin.

Data developed from the BCLDB market reviews and BCWI grape crush reports indicate that more grapes are crushed than are used to produce BC VQA wines. In any year, between 2.1 and 5.3 million litres of wine is not used in BC VQA production. This wine may be used to produce non-BC VQA wine, or blended to produce CIC product. The potential BC content in CIC product, assuming all of the non-BC VQA wine was used for blending, is shown in Figure 12. The BC content of CIC product could vary from 9-31%. As young grape plantings come into production, more of this wine will become available. If the BC BC VQA market does not grow sufficiently to consume this new wine, then the BC content of CIC will need to increase, or new markets will need to be developed. There is an opportunity for wineries to make more profitable use of the BC grapes not used for BC VQA production. This opportunity will be discussed later in the paper.

### Table 9: Winery Cost Structure Summary

<table>
<thead>
<tr>
<th></th>
<th>BC VQA</th>
<th>CIC</th>
<th>Domestic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price per litre to winery</td>
<td>8.07</td>
<td>4.00</td>
<td>5.11</td>
</tr>
<tr>
<td>Cost per litre</td>
<td>5.91</td>
<td>3.20</td>
<td>3.94</td>
</tr>
<tr>
<td>Net sales per litre</td>
<td>2.16</td>
<td>0.80</td>
<td>1.17</td>
</tr>
</tbody>
</table>

### Table 10: CIC Margin Analysis

<table>
<thead>
<tr>
<th></th>
<th>BC Grapes</th>
<th>Blended</th>
<th>Imported</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIC Price per litre to the winery</td>
<td>4.00</td>
<td>4.00</td>
<td>4.00</td>
</tr>
<tr>
<td>Average grape cost per litre</td>
<td>3.66</td>
<td>1.25</td>
<td>1.00</td>
</tr>
<tr>
<td>Materials cost per litre</td>
<td>1.81</td>
<td>1.72</td>
<td>1.71</td>
</tr>
<tr>
<td>Labour cost per litre</td>
<td>0.26</td>
<td>0.24</td>
<td>0.24</td>
</tr>
<tr>
<td>Margin per liter</td>
<td>-1.73</td>
<td>0.80</td>
<td>1.06</td>
</tr>
</tbody>
</table>

Figure 12: Potential BC content in CIC wines
Wine Retail Sector

In BC, wine is distributed through seven retail channels:\n
1. LDB Outlet - sales through LDB retail liquor stores for resale to walk-in customers
2. Winery stores - sales to counter customers through estate winery locations
3. BC VQA Stores - sales to counter customers through BCWI and BC VQA designated stores
4. LRS - Sales to licensee retail stores
5. Agency - sales to rural agency stores, private wine shops, winery agency stores, and tourist wine shops
6. Licensee - sales to establishments with a liquor license such as restaurants, pubs, nightclubs, etc.
7. Other - includes sales to the following customers: Bulk, Consulates, Duty Free Stores, First Nations, hospitals, Lieutenant Governor, NATO, other Canadian liquor boards, ships, in store tastings, Yukon duty free shop, and Yukon Liquor Board

The total domestic wine sold through these channels in 2010 is provided in Figure 13. The LDB retail outlets account for 47.2% of the domestic sales, followed by LRS outlets, and licensees. The remaining channels account for 11.8% of sales. Clearly, the LBD outlets control most of the retail market in BC.

However, the composition of the retail sector is very different for BC VQA and CIC products. Figures 14 and 15 show that while 55.1% of CIC product is sold through LDB retail outlets, only 26.2% of BC VQA wine is distributed through this channel; 61.8% is distributed through LRS outlets, licensees, and winery stores. Furthermore, the share of BC VQA wine sold through LRS outlets has increased from 16% in 2000 to 22% in 2010.

BC VQA channel selection and distribution is driven by two factors. First, land based wineries, those that
are located on vineyards and sell their wine through the winery store to winery visitors and licensees are allowed to keep the 123% distribution markup. This creates a strong incentive for estate wineries to distribute directly to the consumer. Second, the BCLDB retail outlets typically will not handle the small quantities of wine produced by the small estate wineries, so these firms must find alternative distribution channels for their product.

**Vertical Integration and Winery Diversification**

The BC domestic wine industry shows strong vertical integration. In BC, liquor regulations distinguish between two types of winery licenses: commercial wineries and land based wineries. Land based wineries (often referred to as estate wineries) must own a minimum of two acres of grapes where the winery is located and a minimum of 25% of the grapes must come from land owner or controlled by the winery (Hudec, 2012; Hudec & Coulson, 2011). Almost all BC wineries are classified as land based wineries. In 2011, 210 wineries owned or controlled (leased) 6,084 acres of grapes, or 61.7% of the total grape acreage. The growth in the number of land-based wineries is provided in Appendix D. Between 1999 and 2008, the winery acreage averaged 40–41 acres; however by 2011, the average vineyard size had decreased to 29 acres. This smaller average acreage holding may reflect the rapid increase in the number of new wineries and the smaller size of the vineyards owned by these new entrants.

Vertical integration between the grape growing sector and the winery sector has occurred when independent grape growers forward integrate into the winery sector, or when small wineries backward integrate into the grape growing sector. Almost all wineries have forward integrated into the retail sector by establishing a winery store at the winery, and in some cases, an agency store located away from the winery. For example, Mission Hill Estate Winery has a wine store at the winery and another store located in downtown Victoria, BC. This integration along the entire value chain allows the firm to maximize the available margins, and explain why even small estate wineries can be profitable. The value chain margin analysis is provided in Table 11, and shows that a fully integrated business, producing BC VQA wine and selling through their winery store, can capture $12.31 per litre. The margin analysis indicates that a fully integrated small estate winery selling 7,300 litres of BC VQA wine can realize an operating profit of $89,827. Assuming management can control their fixed costs, even smaller wineries can be profitable. However, it is hard to imagine how a small independent grape grower with a 3-5 acre vineyard can be a profitable business.

**Winery Diversification**

Vertical integration has provided growth opportunities along the value chain, but a number of factors are beginning to limit growth opportunities for existing medium sized estate wineries: industry maturity, especially for BC VQA wine; availability and high cost of land suitable for new grape plantings; and more new entrants competing for BC market share. To deal with these limiting factors, existing estate wineries are exploring new avenues for growth.

<table>
<thead>
<tr>
<th>Table 11: Value Chain Margin Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Grape Sector</strong></td>
</tr>
<tr>
<td>------------------</td>
</tr>
<tr>
<td>Price per litre</td>
</tr>
<tr>
<td>Labour and material cost</td>
</tr>
<tr>
<td>Operating margin per litre</td>
</tr>
<tr>
<td>Percent of margin per litre</td>
</tr>
</tbody>
</table>
A number of these wineries have now diversified into other industry value chains; these firms have established restaurants at the winery. This diversification into the culinary tourism value chain creates new opportunities to capture synergies across the wine industry, and tourism industry value chains, and to create new opportunities to forward integrate into new export markets.

The link to culinary arts and tourism provides a number of opportunities for innovation and growth. Throughout the year, tourists attend a number of wine festival events. These events typically showcase wine and food pairing activities, with both the chef and the wine maker in attendance. In many ways, these wine festivals provide opportunities for visitors to “eat and drink their way up and down the Okanagan Valley”. The winery restaurant offers an Okanagan culinary experience unique to the Okanagan. When visitors come to the winery restaurant they also visit the wine shop and purchase that ‘special’ wine they had with dinner.

Visiting a local winery to have a fine dining experience, and the opportunity to tour the vineyard and winery, creates strong brand identity for Okanagan wines. To capitalize on this brand recognition, these same wineries are now establishing agencies and distribution channels in the provinces from which these visitors come, so that these same customers, after returning home, can continue to purchase their ‘special’ wine at their local liquor outlet. Recent changes to federal wine import regulations have now made it even easier for tourists to source their favorite Okanagan wines.

Other examples of diversification include links to music, theatre, and other arts-related activities. For example, during the summer months, The Vibrant Vine Winery hosts weekly music concerts at the wine shop, where attendees listen to great music, socialize, and of course purchase Vibrant Vine wines.

**Business Strategy and Innovation**

The following discussion examines how businesses in the Okanagan wine industry relate to each other through the buyer-supplier value chain to grow their businesses and create a competitive advantage. Issues related to this are:

1. why firms choose to operate in the Okanagan region,
2. the percentage of a firm’s output that is exported out of the Okanagan region,
3. where Okanagan firms’ source essential production inputs,
4. the opportunities for business growth, and the growth strategies employed by Okanagan firms,
5. the Key Success Factors to achieve growth in the Okanagan region,
6. the major obstacles to growth in the Okanagan region, and the strategies that are employed by firms to overcome these obstacles, and
7. the relationships that exist between rival firms, suppliers, customers and support industries.

Survey responses were received from 22 independent grape growers and 25 wineries. The mean number of years in business, by sector is: independent grape grower, 15.2; small estate winery, 7.1; medium estate wineries, 18.7; and 31 years for the one major winery interviewed. Six wineries produced BC VQA wines exclusively; three produced non-BC VQA exclusively; four produced a mix of BC VQA and non-BC VQA; five did not specify a wine category; and one specified premium wines. Three small estate wineries produced exclusively for private label customers or special events.
Eight independent grape growers classified themselves as producing specific grape varieties, such as pinot noir and pinot gris, while the other growers classified themselves as producing grapes or wine grapes.

**Business Growth**

Business growth is a fundamental driver of industry development. Although the overall domestic wine industry growth rate is 4.4% (see Table 7), not all sectors in the industry experience the same growth rate. Business growth rates, in this study, were determined by measuring the firm level employment growth rate. Employment growth data for the winery sector is provided in Appendix E1. Between 2007-2011; average firm size in the winery sector grew at a CAGR of 4.1-4.3%; whereas average growth rate in the independent grape grower sub-sector grew at 0.9%. In the winery sector, growth occurred not only in the number of new firms (Table 8), but also in the growth of the existing firms. However, firm growth among independent growers has become stalled, and on average, underperformed compared to the industry overall growth.

The percentage of firms that undertook a growth initiative during the five years prior to 2011 is provided in Appendix E2. Medium sized estate wineries, at 83.3%, show the greatest propensity to execute a growth strategy, and the independent grape growers, at 31.8%, show the least. For wineries, this business growth is reflected in increased employment. For smaller acreage independent grape growers, however, firm growth may reflect an attempt to improve labour efficiency rather than increase employment levels.

**Why do local firms choose to operate in the Okanagan region?**

Survey results from small estate wineries identified two main themes related to their decision to locate in the Okanagan: regional endowments, and lifestyle.

The regional endowments identified include the region’s suitability for growing grapes, and the need for land based wineries to locate the winery where the grapes are grown. As one respondent commented “…my vineyard is in the Okanagan, and that’s where I have to build the winery”. Other reasons included the proximity to tourism, and the importance of ‘terroire’ (the link between geography, climate, and plant physiology).

Lifestyle reasons included strong family attachment to the land, and the pleasant climate associated with grape growing regions. One respondent commented “Location is excellent for our business model. Plus, the Okanagan is the best place to live in Canada”. A list of comments is provided in Appendix F1.

**What percentage of a firm’s output is exported out of the Okanagan region?**

The small estate and medium estate winery sales composition, by geographic region, is provided in Figure 16 and Appendix E3. In 2010, approximately 54% of the wine produced by these wineries is exported out of the Okanagan region, 8% (348,000 Litres) is exported to western Canadian provinces, and 3% (127,000 Litres) to other Canadian provinces. Less than 0.5% is exported out of the country. In contrast, one of the major commercial winery exports 90% of its wine out of the Okanagan region.
In interviews with medium estate wineries, some were already exporting 15-20% of their wine to Alberta and Saskatchewan. Furthermore, they expect their exports to these Provinces to increase in the future, and are allocating more marketing resources to develop these markets.

**Where do Okanagan firms’ source their factors of production?**

Respondents were asked to identify where they obtained essential supplies and services; whether they sourced them in the Okanagan region or from outside of the region. This is important from a cluster perspective, since the presence of related and support industries is essential for strong cluster development. The question identifies where the supplies and services are produced (manufactured) within the Okanagan region or outside of the region. For example, if the equipment is purchased through a local distributor, but the equipment is manufactured in Alberta, then the supply of this equipment would be ‘Out-of-Region’. If however, this same equipment were manufactured in Penticton, the supply would be ‘In the Okanagan Region’.

Details where wineries and independent grape growers source their supplies and services is provided in Appendix E4. Over 60% of farm management services, soil preparation services, irrigation equipment and services, farm primary products, related financial services, and transportation and logistics services are provided by local firms. However, for some essential inputs, the wine industry is dependent on imported supplies and services. More than 30% the of processing and packaging machinery, agricultural chemicals (excluding fertilizer), distribution and wholesale services, and bulk packaging are imported.

**What opportunities exist for business growth, and what growth strategies are employed by Okanagan firms?**

Business owners that undertook a growth initiative were asked why they wanted to grow their businesses. Comments related to this question are summarized in Appendix F2.

**Independent grape growers and small estate wineries**

Two themes were identified from comments made by the independent grape growers and small estate wineries: financial necessity (business survival), and opportunity recognition. The smaller firms identified the need to increase their revenues and profit margins as essential for business survival. One grape grower identified industry attractiveness as the reason for changing from tree fruit to grape production; “...change from tree fruits to grapes for a more secure income”. Others identified land availability to increase grape production.
Medium sized estate wineries

Medium sized estate wineries identified opportunity recognition as the primary growth driver. Increasing consumer demand for their wines was a common reason for the decision to expand production. Other winery owners identified the impact of the 2008-2009 recession as a major driving force for change. As the price points for premium wines declined, these wineries were pressured to reduce their unit cost in order to maintain their profit margins. This was accomplished through a two-part strategy: expanding capacity, and improving productivity in the vineyard and wine cellar.

**Strategic Focus for Pursuing the Growth Opportunity**

Firms were asked to identify the nature of the growth opportunity; whether it was primarily technical or marketing driven. The results are provided in Figure 17. Given the extensive vertical integration in the industry, there appears to be a strong focus on technical innovation and the market segment selected by the winery. Those wineries focused on the BC VQA market segment place strong emphasis on producing high quality grapes and wines. The old adage that ‘you can’t make good wine from bad grapes’ is evident here. One owner commented “The… focus was on improving quality first and then marketing”. Another summarized the relationship very clearly:

“To have a business strategy solely based on marketing becomes very shallow, and innovation in the technical aspects of the business is required to sustain real growth. Linking product quality to markets is extremely important.”

Many medium sized winery owners stressed the importance of balance; the need to balance production quality innovation at the same time as they build brand recognition. Not surprisingly, independent grape growers responding to this question placed stronger emphasis on production than on marketing. Comments related to strategic focus are provided in Appendix F3.

**Aggressiveness of the Strategic Thrust**

Respondents were asked to describe their strategic posture as it relates to first mover advantage. The results are provided in Figure 18. Okanagan wine industry firms are fairly aggressive in their strategy as it relates to market timing. Of the total responses, 76% identified that they were among the leaders in meeting market demands, and 19% indicated that they were always first to market with new product innovations.
Primary Growth Strategy

This study investigated the nature of growth initiative and the effectiveness of their strategy. Five growth strategies were examined.

1. **Expanding existing production facilities**: includes purchasing or leasing additional property or equipment.
2. **Expansion by acquiring a competitor**: includes purchasing a competitor's business or assets.
3. **Backward vertical integration**: includes purchasing a supplier's business or starting a new supplier business;
4. **Forward vertical integration**: includes purchasing one of your customer's businesses or starting a new business to compete directly with your existing customers.
5. **New product development** involves introducing new products to the market.

Three growth strategies were identified: expansion of existing facilities (47.8%), new product development (34.8%), and forward vertical integration (4.3%). Respondents were asked to rank the effectiveness of this strategy on a five point scale, where 1 was very ineffective and 5 was very effective. A mean score of 4.3 indicates that the respondents felt that their strategy was effective to very effective in achieving their growth objectives. Comments related to strategic thrust are provided in Appendix F4.

Expanding Existing Production Facilities

Firms were asked to identify whether the objective of their expansion strategy was to capture existing market share in the Okanagan region, or to focus on exporting to new geographic regions. Capturing a greater market share in the Okanagan was identified as their primary objective by 69.2% of the respondents, whereas 15.4% sought to increase both their local market share, and expand into new geographic markets.

Consistent with the reasons for locating in the Okanagan region that were identified earlier, 75% of the wineries expanded their existing production facilities at the same location, and 25% replaced an existing facility with a new, larger facility at the same location. Some firms purchased additional land to expand their production capacity, both for grape production and cellar operations. Comments related to expansion strategies are provided in Appendix F5.

New Product Development

New products relate to new types of wine, such as fruit wine or cider, or new varietals of grape wine. Of the firms that implemented a new product initiative, 28.6% were focuses on a niche market in an...
emerging industry such as cider products, 57% were focused niche markets such as specialty wines in a mature market, and one winery was targeting a broad market in a mature industry.

Table 13 shows the resource requirements, measured in terms of human resources effort and financial resources. Firms attempting to introduce new wine related products to the market can expect to allocate 1-3 person years and over 10% of their revenues to product development.

<table>
<thead>
<tr>
<th>Human resource required</th>
<th>&lt;1 Year</th>
<th>1 - 3 Person Years</th>
<th>&gt;3 Person Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of firms</td>
<td>28.6</td>
<td>42.9</td>
<td>28.6</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Financial investment required</th>
<th>1-2%</th>
<th>5-10%</th>
<th>10-20%</th>
<th>&gt;20%</th>
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</thead>
<tbody>
<tr>
<td>Percent of Firms</td>
<td>14.3</td>
<td>14.3</td>
<td>28.6</td>
<td>42.9</td>
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</table>

Respondents were asked to characterize the novelty or originality of their new product. Typically, new products involving proprietary technology or processes that are difficult to duplicate are more valuable than those that apply readily available technology and are not protected. Of the seven firms that implemented a new product development growth strategy, three of the firms employed unique and proprietary processes that could be protected by patent or very difficult to duplicate by competitors. The other firms classified their products as having some original features but could be readily duplicated (Figure 19).

Comments related to new product development are provided in Appendix F6.

Organizational Structure

Organizational structure refers to the management levels in an organization and is often referred to as hierarchical levels. For example, a three level structure might include: 1. senior management, 2. supervisors, 3. production workers. Organizational structure can stimulate or stifle innovation. The literature identifies three characteristics of organizations that influence innovation: structural, cultural, and human resources. Organizations built around organic structures tend to stimulate more innovation.
compared to mechanistic (bureaucratic) structures. Organic structures have less formalization than mechanistic structures, which fosters cross functional communication, makes the organization more flexible, and ultimately more receptive to change (Langton, Robbins & Judge, 2013).

Wine industry firms have simple organizational structures (Figure 20); 82% of responding firms reported a very organic structure. These structures are ideally suited to creating a culture of innovation.

Respondents were asked to rate, on a scale of 1 to 5 (where 1=very ineffective and 5=very effective), the effectiveness of their organizational structures in achieving their business objectives. The mean score of 4.0 indicates that entrepreneurs in all sectors of the industry not only prefer a flatter organizational structure, but also that these structures are effective in achieving their organizational goals. Refer to Appendix F7 for comments regarding organizational structure.

**Management Skills**

The depth of the management team is crucial to the success execution of a growth strategy, especially in an industry as competitive as the BC wine industry. This part of the study examined both the attitude toward what management skills are important and the extent to which these best practices were applied in the business. Also investigated was the decision making process utilized by the entrepreneur and its effectiveness.

Figure 21 shows the relative importance of different management skills between sectors. The skills were rated on a scale of 1 to 5, where 1=Very unimportant and 5=Very important. For the medium sized wineries, marketing and sales, and human resources management were rated the highest at 4.83; whereas technology management and financial management were rated the lowest at 4.17. In contrast, independent grape growers rated operations management the highest at 4.16; whereas marketing and sales, and human resources management were rated the lowest at 3.47. A One Way Analysis of Variance (ANOVA) was conducted to identify any
differences in the importance of management skills between independent grape growers and the winery owners. A summary of the ANOVA is found in Appendix E5.

There was a statistically significant difference at the p<.05 level in the importance scores of marketing and sales for the three sectors. The mean score for independent grape growers was significantly different from the medium estate wineries and the small estate wineries. Small estate wineries did not differ significantly from the medium estate wineries.

There was a statistically significant difference at the p<.05 level in the importance scores of human resources management for the three sectors. The mean score for independent grape growers was significantly different from the medium estate wineries and the small estate wineries. Small estate wineries did not differ significantly from the medium estate wineries.

The difference in importance scores for marketing and sales, and human resources management, between the independent grape growers and the wineries may influence the priorities for innovation in these two groups. Grape growers may be more focused in grape growing innovation; whereas the winery owners may place a greater emphasis on innovation in marketing and human resources management.

Planning Process and Performance Management

The presence of written plans indicates that a formal planning process exists in the organization. Of the respondents, 50% indicated that they have a formal planning process and maintained up-to-date written plans for: strategic planning, marketing and sales, human resources requirements, operations, and financial requirements. The time frame for each of these plans is provided in Table 14. Time frames of 4–5 years indicate that senior managers take a strategic view towards planning and therefore, are more likely to introduce innovative business practices. The shorter human resources plans time lines are more likely to reflect the flexibility necessary to support the changing nature of their business.

Performance management is the process of comparing the firm’s actual performance to its objectives, and then taking corrective action as necessary. Figure 22 shows the extent to which the business maintains formal control mechanisms. The data indicate that larger firms, such as the medium estate wineries are more likely to

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<th>Planning Process and Performance Management</th>
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<td>innovative business practices. The shorter</td>
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maintain formalized control and performance management systems than are the small independent grape growers.

Regardless of the sophistication of their performance management processes, wine industry firms are comfortable with the effectiveness of their systems. When asked to rate the effectiveness of their control systems on a scale of 1 to 5, where 1=very ineffective and 5=very effective, the mean score was 3.78.

**Decision making**

When making decisions: 78% of the entrepreneurs use a combination of numerical analysis and intuition; 12% rely on intuition or ‘gut feel’; and 10% base their decision on thorough analysis of numerical data. There were no significant differences between wine industry sectors, or size of the business.

How wine industry entrepreneurs make decisions is provided in Figure 23. More than 80% of entrepreneurs engage in some form of consultation with business associates, senior employees, or professionals. The degree to which entrepreneurs consult with business associates is important, as this type of consultation increases the diffusion of innovation, and ultimately industry competitiveness. Only 7% of the respondents in this study discussed their decisions with business associates.

Respondents were asked to comment on their attitudes toward management styles. Major themes identified from the comments were: the importance of a strong work ethic, the importance of hiring practices, and the importance of opportunity recognition. One entrepreneur commented: “I don't want to waste a good crisis - for example, the impact of the 2003 Okanagan fire.”

**What are the Key Success Factors to achieve growth in the Okanagan region?**

Key success factors (KSF) are those things that a business must perform well in order to achieve above average performance. These factors are shaped by the wants and needs of a firm’s major stakeholders, and therefore, are forces external to the business. Firms achieve a competitive advantage by aligning their internal business activities to these external KSFs better than their competitors (Thompson, Peteraf, Gamble & Strickland, 2012). The stronger is the alignment within the industry, of the KSFs, the stronger will be its competitive position relative to other wine producing regions. Conversely; conflicting views of which KSFs are important and can be an impediment to industry growth and competitiveness.
Figure 24 shows the relative importance of key success factors between sectors. The KSFs were rated on a scale of 1 to 5, where 1=Very unimportant and 5=Very important. For the medium sized wineries, the access to distribution channels was rated the highest at 4.83, followed by the number of products for sale, and aggressiveness of competitors 4.50; whereas the frequency of new product introduction was rated the lowest at 3.00. In contrast, independent grape growers rated local access to supplies and services the highest at 4.21; whereas aggressiveness of competitors was rated the lowest at 3.06. A One Way Analysis of Variance (ANOVA) was conducted to identify any differences in the importance of key success factors between independent grape growers and the winery owners. A summary of the ANOVA is found in Appendix E6.

There was a statistically significant difference at the p<.05 level in the importance scores of access to distribution channels and the use of internet channels for the three sectors. The mean score for independent grape growers was significantly different from the medium estate wineries and the small estate wineries. Small estate wineries did not differ significantly from the medium estate wineries.

There was a statistically significant difference at the p<.05 level in the importance scores of aggressiveness of competitors for the three sectors. The mean score for independent grape growers and the small estate wineries was significantly different from the medium estate wineries. Small estate wineries did not differ significantly from the independent grape growers.

Strategic Orientation in Relation to the Key Success Factors

Respondents were asked to rate the importance of six elements of their strategic orientation. These elements were rated on a scale of 1 to 5, where 1=Very unimportant and 5=Very important. The results are represented in Figure 25. Although there is no difference between sectors regarding the importance or product price and production costs, 4.33 and 4.05 respectively, there are statistically significant differences between the medium sized estate wineries and
independent grape growers regarding all other elements: product differentiation, marketing mix, production processes, and innovation. Medium sized wineries rated product differentiation and marketing mix elements as most important at 4.83, whereas the grape growers rated marketing mix elements as the least important at 3.44. There is no statistical difference between the small estate wineries and the other two groups. A summary of the ANOVA are provided in Appendix E7.

The medium sized estate wineries’ focus on product differentiation and marketing mix aligns well with the importance placed on the KSFs related to access to distribution channels, number of products for sales, and aggressiveness of competitors. These differences in strategic orientation may be a source of conflict regarding management priorities between sectors, especially the medium sized estate wineries and the independent grape growers.

There is a strong need to improve productivity in both the vineyard and cellar while maintaining or even increasing wine quality.

**What are the major obstacles to growth in the Okanagan region, and what strategies are employed by firms to overcome these obstacles?**

The study examined the major barriers related to implementing growth initiatives and the strategies that entrepreneurs used to overcome these barriers. The barriers were: access to capital, human resources, distribution channels, transportation infrastructure, and technology infrastructure.

**Access to Capital**

Respondents were asked to rate the difficulty of raising capital to implement their growth strategy where 1=very difficult, 3=neutral, and 5=very easy. The mean score of 3.27 (SD=1.02) indicates that entrepreneurs have little difficulty accessing the necessary growth capital, and there was no significant difference at the p=.05 level between the groups.
The effectiveness of their financing strategy was rated on a scale of 1 to 5, where 1=Very ineffective, 3=Neither ineffective nor effective, and 5=Very effective. The medium sized wineries’ strategy appears to be more effective in accessing capital than is the small wineries or independent grape growers. A One Way Analysis of Variance (ANOVA) was conducted to identify any differences in the effectiveness of raising capital between independent grape growers and the winery owners. The ANOVA is found in Appendix E8. There was a statistically significant difference at the p<.05 level in the effectiveness scores for the three sectors. The mean score for independent grape growers and the small estate wineries was significantly different from the medium estate wineries. Small estate wineries did not differ significantly from the independent grape growers.

Human Resources

The importance of human resources, regional labour and manager supply, and recruitment strategies were investigated.

Importance of Labour and Management Workers

Independent grape growers and the wineries have very different view regarding the importance of human resource groups (Figure 27). The importance of different human resources was ranked on a scale of 1 to 5, where 1=Very unimportant and 5=Very important.

For the medium sized wineries, marketing and sales people, and senior managers were rated the highest at 4.67, whereas the need for middle managers was rated the lowest at 3.50. In contrast, the independent grape growers rated the need for unskilled and semi-skilled labour the highest at 3.89; whereas marketing and sales people, and middle managers the lowest at 2.13 and 2.00 respectively. Although there is no difference between sectors regarding the importance unskilled and semi-skilled workers, and skilled trades and technology people, there are statistically significant differences at the p<.05 level between the wineries and independent grape growers regarding marketing and sales people, senior managers, and middle managers/ supervisors. The wineries place a much greater importance on marketing and sales than do the independent grape growers. There is no statistical difference between the small estate wineries and the medium sized wineries. A summary of the ANOVA are provided in Appendix E9.

Regional Labour Supply

Entrepreneurs were asked their opinion regarding the supply of essential workers in the Okanagan region. The results are presented in Figure 28.
The majority of the independent grape growers (77%) reported that there was an adequate supply of workers in the Okanagan or that they were able to upgrade the skills of their existing workers through on-the-job training. In contrast, 83% of the medium sized wineries felt that they had to recruit their specialized workers outside of the Okanagan, and of the total number of respondents, 13% felt that the supply of skilled workers and managers in the Okanagan was inadequate.

**Human Resources Recruitment Strategy**

Most businesses (82%) limit their recruitment strategy to the Okanagan region and recruit through internal ‘word-of-mouth’ networks or advertisements placed in local media. Only 5% of businesses used professional recruitment services to find suitable workers. These recruitment strategies seem consistent with the importance placed on different worker groups (Figure 27) and the adequacy of local supply (Figure 28). Interviews with entrepreneurs indicated that unskilled and semi-skilled workers are recruited locally, while highly skilled workers, such as wine makers and senior managers, were recruited outside of the region, usually with the assistance of professional recruitment services.
firms. Some of the larger vineyard operators use professional recruitment services to help find an adequate supply of seasonal workers at peak times such as grape harvesting. Human resources recruitment strategies are represented in Figure 29.

The effectiveness of their human resources recruitment strategy was rated on a scale of 1 to 5, where 1=Very ineffective, 3=Neither ineffective nor effective, and 5=Very effective. A mean score of 3.76 indicates that business operators are moderately satisfied with their recruitment strategy.

**Distribution Channels**

Access to distribution channels was rated as very important by wineries (Figure 24). During the in-depth interviews, the entrepreneurs were asked to discuss their access to distribution channels and their strategy to deal with distribution related issues.

Entrepreneurs were asked to rate the importance of retail and wholesale outlets, e-commerce, and other channels on a scale of 1 to 5, where 1=Very unimportant and 5=Very important. Retail and wholesale outlets, and e-commerce were rated 4.75 and 3.75 respectively; access to retail and wholesale channels is critically important to these businesses. Two other distribution channels identified by interviewees were direct sales to restaurants and export agencies; these were rated as important at 4.0.

Three entrepreneurs felt that they had adequate access to local markets but had difficulty accessing markets outside of the Okanagan, while four said that they had excellent access to all of their markets. Seven of the wineries use a comprehensive integrated marketing communication (IMC) strategy to develop new channels. One winery used a company website and personal selling to develop new channels. To deal with the challenges associated with establishing distribution channels outside of BC, four of the wineries had forward integrated and established their own wine agencies in export markets. These agencies were then supported by the firm’s IMC program. One entrepreneur commented “It’s challenging to find the right channels and I can see why wineries are establishing their own agencies.”

**Physical Infrastructure**

Transportation infrastructure is considered to be excellent by all of the people interviewed; however three indicated that although access to transportation was adequate, it was expensive compared to their non-Okanagan competitors. All of the firms interviewed used a combination of local and out-of-region companies to meet their transportation needs.

**Technology**

The interviewees were asked to rate the importance of seven different technologies on a scale of 1 to 5, where 1=Very unimportant and 5=Very important. The results are presented in Table 15. E-mail and the company website were rated the most important and E-commerce was rated the least important. The use of the internet to communicate with customers is very important, but the winery operators interviewed were just beginning to develop e-commerce capability; although all said that it would become much more important in the future.
Five of the interviewees felt that local technology suppliers were adequate for their needs; two felt that local supply was somewhat limited and supplemented their technology needs by using out-of-region suppliers; and one said that the region’s technology infrastructure was totally inadequate for their needs. One person commented “We have our own IT department...technology related to vineyard operations. Our breakthrough occurred in 2005 when we vertically integrated or vineyard and cellar operations”; another commented “We look to specialized suppliers for our advanced technology”. It seems that local suppliers are adequate for internet infrastructure and basic technology support, but specialized technology and services are sourced out-of-the-region.

### What cluster relationships exist between rival firms, suppliers, customers and support industries?

Business interdependence describes how Okanagan businesses relate to each other through the buyer-supplier value chain. It looks at two aspects of this interdependence. First, it identifies where a firm’s necessary supplies and services are produced, and second, how each business relates to other businesses, either as competitors or partners.

First, this study identified where purchased supplies and services are produced (manufactured); either within the Okanagan region, or outside of the region. It is important to distinguish whether the goods are manufactured in the region, or rather supplied through a local distributor. For example, if a piece of equipment is purchased through a local distributor, but the equipment is manufactured in Alberta, then the supply of this equipment is ‘Out-of-Region’. If however, this same equipment were manufactured in Penticton, the supply would be ‘In the Okanagan Region’. Second, it identifies whether other businesses in the Okanagan region are direct competitors, customers, or suppliers of goods and services. These relationships are represented in Figure 30 as a ‘cluster map’ of the Okanagan region. The map is divided into four layers; each layer represents one of the cluster determinants identified in Figure 1: The Competitiveness Diamond.

The top layer, Demand Conditions, shows the three strategic groups identified in Figure 3: Strategic Group Map, that define the competitive structure for both the BC market and other markets. These groups are: premium wines, mid-value wines, and CIC wines. The second layer, Rival Firms, shows the three winery groups; the 89 small estate wineries, the 16 medium estate wineries, and the three large (major) wineries that export out-of-the-region. The third layer, Support and Related Industries, identify the supplier groups that provide goods and services to each other and to the rival firms. This layer includes the independent grape growers and all of the other suppliers of goods and services. The blue shaded boxes represent those goods and services that are provided by both local firms and imported from other regions. The green shaded boxes represent those goods and services that are supplied by local firms. The brown shaded boxes represent those supplies and services that are provided by both local firms and imported from other regions. The bottom

### Table 15: Importance of Technology Infrastructure

<table>
<thead>
<tr>
<th>Technology</th>
<th>Mean</th>
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<tbody>
<tr>
<td>E-mail</td>
<td>5.00</td>
</tr>
<tr>
<td>Company website</td>
<td>4.50</td>
</tr>
<tr>
<td>Suppliers of computer hardware and software</td>
<td>4.25</td>
</tr>
<tr>
<td>Broadband internet</td>
<td>4.25</td>
</tr>
<tr>
<td>Access to technology services</td>
<td>4.13</td>
</tr>
<tr>
<td>Telephone / fax</td>
<td>4.00</td>
</tr>
<tr>
<td>E-commerce</td>
<td>3.38</td>
</tr>
</tbody>
</table>
layer, **Factor Conditions**, is the foundation level; the activities of these organizations support all of the layers above them. An examination of the map reveals a number of relationships.

![Agricultural Cluster Map](image)

**Demand Conditions**
*(Markets)*

**Rival Firms** *(Exporters)*

**Support and Related Industries** *(Suppliers)*

**Factor Conditions** *(Foundation Level)*

**Legend**

- Imported into the region
- Provided by local suppliers
- Mixed local and imported

**Demand Conditions**

Per capita wine consumption is increasing in Canada. Between 1993 and 2005, per capita consumption has increased from 10.6 to 14.2 litres (Hope-Ross, 2006, as cited in Hira and Bwenge, 2011), and is expected to continue into the future (Winesur, 2012). As these new Canadian wine consumers enter the market, new opportunities for BC premium wines and CIC products will continue to develop.
Firm Rivalry and Strategy

The 89 small estate wineries primarily supply to the premium wine market in BC, both locally and to the rest of the Province. The 16 medium estate wineries also supply the BC premium wine market and compete aggressively with the small wineries for market share. They are also beginning to export to new Canadian markets, but not to international markets. The large (major) wineries supply both the premium wine market and the CIC market in both BC and the rest of Canada. They compete with the small and medium wineries for the BC premium wine market, and compete aggressively with each other for the CIC market. The small and medium wineries do not participate in the CIC market, so they do not compete with the large wineries in this market space. None of the rivals supply the mid-value wine market, which is owned by foreign imports. Large wineries, such as Vincor International, supply this market from their US operations and are therefore major importers to BC. It makes no sense for Vincor to supply the mid-value market from their BC winery, since they would simply be in competition with themselves; and clearly, the economies of scale available in their US operations give them a competitive advantage over the small and medium estate wineries in the mid-value market.

As mentioned earlier, business model innovation has occurred in making the link to tourism, early in the industry life cycle. Firms that made this connection have been able to leverage their brand recognition through forward integration into export to tourism markets (e.g. Alberta).

Support and Related Industries

The independent grape growers are represented as the green shaded oval. In the 2011, there were 495 independent grape growers in BC, most of which are located in the Okanagan region. The independent growers operate 3,700 acres of vineyard, or 38% of the total vineyard acreage. These vineyards are relatively small when compared to winery controlled vineyards, 6.6 acres versus 29 acres respectively. The independent growers supply grapes, under contract, to the estate and major wineries. Wineries producing premium wines require high quality grapes from the independent growers. Growers unable to meet these quality standards are unable to secure a contract with the premium wine producers. An alternative market for lower quality grapes is the major wineries that produce CIC products. These small independent growers have little bargaining power with these large wineries, especially when the major wineries can import bulk wine and wine grape concentrate at $1.00/litre (the equivalent of $600/ton for grapes). As young grape plantings come into full production, grape tonnage is forecast to increase by 41,000 tons by 2015. How these new grapes will be utilized is unclear. Although an additional 500,000 cases of wine could be added to inventory, if the grape quality is inadequate for premium wine production, and if it costs more than $600/ton to grow the grapes, how will these grapes be used?

Almost all the specialized equipment and supplies required for grape and wine production, the blue shaded boxes in figure 30, is imported into the region. Wineries and independent grape growers source these inputs either from local distribution and wholesale firms or from the distributors located out-of-the region. Transportation services are provided by both local and out-of-the region firms. Most of the other services: irrigation, soil preparation, and financial services are provided by regional firms. Due to a shortage of highly skilled workers in the region, highly specialized services, such as viticulture, are sourced outside of the region, although less specialized farm management services are supplied locally.
Factor Conditions

Factor conditions such as: human resources, physical infrastructure, knowledge resources, and capital resources are provided by organizations that comprise the foundation level. In the wine industry, foundation organizations include: the BC Grape Growers Association (BCGG), Okanagan Wine Festivals, BC Wine Institute (BCWI), BC Wine Authority (BCWA), BC LDB, BC Ministry of Agriculture (BCMA), Okanagan College, University of British Columbia – Okanagan (UBCO), Pacific Agri-food Research Centre (PARC), local and regional government, and physical and natural infrastructure. These foundation organizations and infrastructure are critical to the success of the agricultural products cluster. Industry firms look to them for a supply of skilled workers, research and development, and other essential competitive assets. However, Hira and Bwenge (2011) report that these foundation organizations are ineffective in supplying essential human and knowledge resources to the cluster. For example, Okanagan College rate 1.4 on a 5 point scale for importance to the industry, UBCO and BCMA rate only 1.9, and the BCWI was rated the highest at 3.5 out of 5.

Conclusions

A number of opportunities and challenges are identified from this research. These are then translated into ‘front burner’ strategic issues facing the industry. Recommendations for industry strategy are developed to address each of the strategic issues.

Opportunities:

Three opportunities for industry growth are identified.

1. **Grow BC VQA premium wine sales**

   The aggressive development of linkages to wine and culinary tourism can provide new opportunities to develop new export markets for BC VQA wine.

2. **Rebrand non-BC VQA portion of CIC wines as mid-value wines to raise the price points and capture market share from imports**

   Rebranding non-BC VQA as ‘BC Wines of Distinction’ using legal geographical indications (e.g. Okanagan Valley) could increase BC value added by $6–14 million. BC Wines of distinction and geographical indications are defined under the Agri-Food Choice and Quality Act (Wines Of Marked Quality Regulation). The potential benefits of rebranding are: higher price points for non-BC VQA wines, increased profitability and value-added in the winery sector, and increased demand for BC grapes (both independent and winery controlled vineyards).

3. **Aggressive development of the Canadian Market**

   Canadian per capita wine consumption is increasing. As more Canadians begin to experience quality wines from around the world, Okanagan wineries could capture ‘first mover advantage’ for these new Canadian wine consumers.
Challenges:

The challenges are identified under the four cluster determinants of industry competitiveness.

1. **Demand Conditions (BC, Canada and International markets)**

   The high tax and markup structure imposed by the government retail monopoly undermines the margins available to the wineries, and ultimately the grape growers. The presence of a strong tourism pull-through effect, and increasing per capita wine consumption in Canada, creates not only opportunities, but also brand building challenges for small and medium wineries.

2. **Strategy and Rivalry (Grape growers and wineries)**

   The industry is highly fragmented, with limited industry goal alignment. Although cluster theory predicts relatively strong interfirm cooperation, which leads to increased innovation, the research suggests that there is little sharing of knowledge and innovation between small and medium wineries, and independent grape growers.

3. **Related and Supporting Industries (Suppliers)**

   Imported bulk wine and grape concentrate is blended with local grapes to produce CIC wines. The low cost for these imports creates challenges for independent grape growers seeking markets for the expected increase in grape production. There is also strong reliance on imports for critical equipment, supplies, and specialized services.

4. **Factor Conditions (Physical and knowledge infrastructure)**

   The Okanagan region has a limited supply of arable land suitable for producing quality grapes. Furthermore, the high cost of this land limits vineyard expansion. Although the region has well developed post-secondary education and research infrastructure, little of its capacity is devoted to the wine industry. This constrains the wine industry’s knowledge development. There is also a shortage of semi-skilled and skilled vineyard labour.

Strategic Issues Facing the Industry:

1. How to increase the knowledge (education and research) capacity in the Okanagan region?
2. How to stimulate the sharing of knowledge and innovation by wineries and grape growers?
3. How to create strong industry goal alignment and reduce the negative effects of industry fragmentation?
4. How to develop new markets for the expected increase in grape production?
5. How to increase the sales of BC VQA wines?

Recommendations from the Industry

Two industry workshops were held in February, 2013 to develop strategy around the strategic issues. A total of 38 participants attended representing all major stakeholder groups. Participants were organized
into work groups and each group selected one or more strategic issues to work on. For each issue the groups were asked to identify: one or more desired outcomes, one measurable target for each desired outcome, and one or more strategies to achieve each desired outcome. The targets provide measurable goals to achieve and are indicators of whether or not the strategy is working.

Throughout the workshop discussions, several overarching themes evolved around the Factor Conditions of the Agricultural Products Cluster map.

1. A general call for education and support was a highlight of most strategic Issues; especially the need for viticulture education. This indicates an overarching need for applied skills, and a belief by the industry that this is a necessary requirement for industry competitiveness and future growth.

2. A “higher profile” for the Okanagan region and its wine is also a repeated theme, reflected by a call for an independent culinary school, a strong connection to tourism, higher grape quality, and expansion into the BC mid-value wine segment.

3. A need for greater communication among small estate wineries, and among wineries in general (Rival Firms on the cluster map) was a common theme. Often the request was for facilitation, support, or leadership by better functioning Foundation Level organizations.

Strategic Issue 1: How to increase the knowledge (education and research) capacity in the Okanagan region?

Desired Outcome #1: Formalized Educational Programs to Support the Industry

Strategy Initiatives:
- Develop a comprehensive viticulturist certification program.
  o Include mentorship or apprenticeship.
  o Available throughout Okanagan region.
  o Provides a clear track to become a viticulturist.
- Develop an independent, high profile culinary institute to compliment the industry and provide other services.

Measurable Targets: None mentioned by groups.

Either Okanagan College or a combination of Okanagan College and UBC Okanagan are recommended as likely candidates to implement these strategy initiatives.

Regarding a viticulturist program, Okanagan College is the only institution that has multiple campuses throughout the Okanagan. It also has an established and successful history in establishing co-op programs, which would meet the expressed desire by workshop participants for clear and streamlined communication from universities to the industry on how to access students for work/co-op programs. College staff currently connected to the industry could help establish a co-op or apprenticeship
programs. Lastly, the College has significant experience in developing accelerated, job specific programs, such as the Pathway to Professional Accounting.

UBC Okanagan has degree-granting opportunities which are not available at Okanagan College. The two institutions already have an established academic partnership, as displayed in their nursing and arts programs, where students begin at Okanagan College and transfer to UBC Okanagan for their final two years.

Regarding an independent, high profile culinary institute, Okanagan College contains human capital and program experience in the culinary and tourism program development areas. The workshop participants emphasized an independent institute, and Okanagan College is in a strong position to facilitate and support the development of such an institute.

**Desired Outcome #2: Increased Applied Extension Services**

This includes an increased number of quality viticulturists, and other skilled sources of labour, and could be a government initiative, something through the BC Ministry of Agriculture, or a private company.

**Strategy Initiatives:**
- Develop a “Dial a Viticulturist” service, either private or public.
- Host Brock University type Seminars/Forums for the industry, focused on applicable practices rather than academic research.

**Measurable Targets:** Participants felt that this would be difficult to accomplish; while the number of viticulturists can be counted, the quality of their services is difficult to measure.

Multiple groups from the workshop expressed the need for more practical and applied knowledge from local post-secondary institutions, rather than additional academic research in the region. Extension services are traditionally best performed by Foundation Level organizations; they transfer the knowledge gained from academic research (Factor Conditions on the cluster map) to the businesses (Support and Related Industries and Rival Firms on the cluster map) in a practical and applied context.

The BC Grape Growers Association, the BC Wine Institute, and the BC Ministry of Agriculture are in the best position to provide these extension services. The BCGG and BCWI should develop workshops relevant to the industry, specifically the grape-growers, around viticulture practices. These workshops could provide information on applicable practices to independent grape-growers and wineries. They could provide an opportunity for discussion between growers and wine makers on which practices have been effective in the past, thus facilitating knowledge transfer between individual businesses.

The workshop participants identified that a government initiative may be useful. The BC Ministry of Agriculture is in one of the best options to connect expert labour resources with the industry (“Dial a Viticulturist” service). This has traditionally been a role of the Ministry which could be expanded to meet this need.
Desired Outcome #3: Centralized Resource Hub for Growers and Wineries

The hub would act as resource for general questions, such as “Where do I go to figure out what sprays to use?”; as a labour pool resource for both temporary labour and qualified experts; to get more information regarding how to hire College/University students for seasonal and co-op work; and to get more timely information relevant to the industry and the region.

Strategy Initiatives:
- Develop a hub for this information, potentially an expansion of the current BC Ministry of Agriculture website.
- The Ministry of Agriculture should increase the amount of information on their website by pulling together information from all sources, and then keep it updated.

Measurable Targets: None mentioned by groups.

The information website mentioned is likely Infobasket, through the Ministry of Agriculture and the AgriFoodBC website (http://www.agrifoodbc.ca/communities and http://www.al.gov.bc.ca/grape/index.htm). This centralized hub is similar to the call for increased extension services, and is best facilitated by Foundational Level institutions. In this case, the Ministry of Agriculture provides a pre-existing framework that can be built on to develop these strategic initiatives.

Strategic Issue 2: How to stimulate the sharing of knowledge and innovation by wineries and grape growers?

Desired Outcome #1: Increased Knowledge Sharing Amongst Grape Growers

Knowledge, such as efficiency techniques and grape growing techniques, is not being shared, despite a wide range of grape growing methods.

Strategy Initiatives:
- Work with PARC to expand communication and establish needs.
  - It was acknowledged that PARC may be a candidate for this communication, but independent grape growers currently aren’t getting what they need from them.
  - Developing a kind of “feedback loop” with PARC and grape growers may be the answer.
- Establish reoccurring meetings with Grape Growers using a seasonal schedule.
  - Existing groups may be used for this, such as the Bottleneck Drive group or the Grape Growers Association.
- Use the internet and some kind of open online forum to stimulate sharing.

Measurable Targets: None mentioned by groups.

As with other strategic issues, Foundational Level institutions are essential in the development of these strategic initiatives. PARC is not currently meeting the industry needs. In addition to PARC, the BC Grape Growers Association is a likely candidate. In a broader context, some combination of work
between the BCGG, the BC Wine Institute and the Ministry of Agriculture may be able to provide assistance. These Foundation Level institutions are also best suited to providing resources in Strategic Initiative 1, which highlights a common theme: their involvement in knowledge sharing, in addition to knowledge creation, needs to be developed.

**Desired Outcome #2: Increased Knowledge Sharing between Grape Growers and Wineries**

There is a current lack of communication between the independent grape growers and the wineries regarding what wineries know, or think they are going to experience in the future, or their general expectations of the industry. Yet this information is essential for independent grape growers to become more competitive. Wineries do communicate what is currently needed, but further communication regarding how growers can “get to that level” is needed.

**Strategy Initiatives:**
- Establish common, industry wide understanding of industry goals for grape quality, quantity, varietal, and price.
- An established foundation of teamwork and leadership.

**Measurable Targets:** None mentioned by groups.

Foundational Level institutions are critical for providing the teamwork and leadership identified as necessary by workshop participants. Similar to the need for communication between wineries and independent grape growers, better communication between the Foundation Organizations is needed as well. Some combination of programs between the BCGG and the BC Wine Institute is best suited to encourage knowledge sharing and an industry wide understanding of the strategic direction of the industry.

**Desired Outcome #3: Increased Knowledge Sharing Amongst Wineries**

There needs to be greater sharing of information related to distribution, tourism, and marketing information amongst wineries, as increased communication can lead to increased revenues.

**Strategy Initiatives:**
- Establish a shared-information model where wineries collect relevant marketing information within their region(s) (such as demographic information of buyers), share it with each other, and use this information to work together and strategically market each others’ wines.
  - This model in particular was suggested for the smaller and mid-sized estate wineries.
  - An example of strategic marketing was offered by one group: wineries can work together to persuade customers on wine tours to try wines from other wineries that have stockpiled items. (i.e. – Winery B has too much Merlot, shares this with Winery A, and Winery A can suggest customers try Winery B’s Merlot).
- Stimulate information sharing by paying wineries to partake in the model and share their customer information with a database, until the model is proven and shows that it makes money.
  - A grant could be sought for this purpose.
- Find leaders to set an example using this model.
- This will not be the BC Wine Institute, as their mandate is not limited to the Okanagan
- Likely winery owners from the region.
- Have each winery provide a single product and sell them under one brand.
- Establish small alliances based on geographic proximity (such as the Fab 5).

**Measurable Targets:** None mentioned by groups.

As noted earlier, Foundational Level institutions need to play a greater role in the sharing of information between wineries. In this case, however, there were concerns from workshop participants that the mandate of the BC Wine Institute may be too broad to play a leadership role in the Okanagan region-specific strategic initiatives above. In this case, industry professionals – winery owners – will need to take the initiative. However, Foundational Level institutions can still play a role in facilitating these initiatives. Grants to incentivise information sharing or an information sharing program was suggested. These grants could be provided by those organizations that would benefit most directly from supporting the industry: the Ministry of Agriculture or the BC Wine Institute.

**Strategic Issue 3: How to create strong industry goal alignment and reduce the negative effects of industry fragmentation?**

**Desired Outcome #1: Unify the Fragmented Small Wineries of the Industry**

When 200 wineries have 5% of the market, how can we better serve the market together?

**Strategy Initiatives:**
- Identify the common challenges and opportunities facing these wineries.
- Obtain funding to tackle identified common challenges and opportunities.
- Sharing of resources.
  - In particular, promotional materials. Grouping these wineries together may empower them to compete as a brand, much like the large wineries do.
- Differentiation in marketing from the large wineries, trying to emphasize that “small-winery feel.”
- Story of the wine to the “Point of Pour”.
  - Ensuring the story and education of the wine is carried through to the “Point of Pour” in restaurants.
- Establish a provincially funded outreach viticulturist and wine making worker.
  - Grape Grower Association should be the group to lobby for this.

**Measurable Targets:** None mentioned by groups.

Many of the funding options in this strategic issue outline the role of local government, and may also be served by the BC Ministry of Agriculture, or subsequent partnerships between industry professionals and academic institutions. The BC Grape Grower Association was identified as the group that needs to lobby for funding. The BC Wine Institute may also have a role to play as well.

Unification of the wine industry is a desired outcome, as it is very important to address industry fragmentation. It is also discussed in Strategic Issue 4, which examines strategies to deal with increased grape production. Unification will enhance the story and quality of the brands currently in the market,
and can help wineries capture a larger share of the mid-value wine market (Demand Conditions on the cluster map). However, both strategies would be impaired by continuing to produce low quality grapes, which is also counter-productive with other strategic initiatives listed here (e.g. - outreach viticulturist).

Workshop participants also emphasized that a marketing board for grape-growers would be a poor direction to take; a marketing board would encourage the production of lower quality grapes. They felt that ultimately, lower quality grapes may not be used in wine production; let market forces influence supply and demand.

**Strategic Issue 4: How to develop new markets for the expected increase in grape production?**

*Desired Outcome #1: Higher Profile of the Okanagan Region, Nationally and Internationally*

**Strategy Initiatives:**
- Increased support from representing organizations.
- Collaboration amongst the 5% (the small estate wineries) for international markets.
- Better training for sales staff in government stores to tell the wine’s story (similar to the “Point of Pour” suggestions in Strategic Issue 3).

**Measurable Targets:** A tangible increase in funding from both industry and government.

The measurable targets identified by workshop participants indicate two distinct needs:

1. Collaboration amongst the small estate wineries (Rival Firms on the cluster map) to develop a national and international industry profile (“Other Markets” in the Demand Conditions on the cluster map).
2. Support at the Foundational Level (Factor Conditions on the cluster) to develop a national and international profile of the Okanagan region. Foundation institutions could help to raise the profile of the Okanagan region by working closely with industry firms to implement the strategy initiatives developed during these workshops; this ultimately, is the role of Foundational Level institutions. This is further supported by the workshop participants’ calls for a stronger link to tourism, an entirely different but closely related industry cluster.

*Desired Outcome #2: Higher Quality Standards for Grape Growing*

**Strategy Initiatives:**
- Improve extension services & formal education.
- Develop an accreditation system to recognize “good” growers and incentivise higher quality standards.
  - Examples “A-Level/B-Level Grape Grower” accreditation to grape growers whose grapes pass certain quality processes.
    - Establishes finer quality grapes which grape growers can expect higher prices from wineries.
    - Provides a way for grape growers to differentiate themselves
- Find a way to add BC BC VQA stamp to wine distributed through keg-packaging in restaurants.
  - BC Wine Institute may be able to help with this.

**Measurable Targets:** None mentioned by groups.

The development of a grape-grower accreditation system may be challenging, and will require one of the Foundation Level organizations to take a leadership role in developing and overseeing the quality system. Potential candidates could be the BC Wine Institute, or the BC Grape Growers Association. It may be beyond the mandate of the BC Wine Institute to oversee this, but as the major representative of the industry, it may play a vital role in assisting in its development.

**Desired Outcome #3: Develop an Okanagan Geographically Indicated Mid-Value Wine**

**Strategy Initiatives:**
- Discussion was related to this topic, but with no specific answers.
- Also, discussion from Strategic Issue #3 did offer some suggestions for trying to bring together the small wineries, which may be applicable to this desired outcome

**Measurable Targets:** None mentioned by groups.

There was some discussion related to the development of mid-value wines, beginning with the question: Who should produce the $12.00 mid-value wine?
- Depends on the cost structures of the wineries (how they have paid for their land). Decent margins can be made in this mid-value wine category if they’re not also paying off a mortgage.
- Premium wine producers have been spoiled with higher margins, so they’re not going after it.
- Small size wineries don’t have capacity to get into that market; alone, they don’t have the resources to create brand recognition or the economies of scale to be competitive.
- Scale is too intimidating for small wineries to attempt.
- Mid-value wine requires a higher quality grape than many grape growers are producing.

Some workshop groups also suggested that there should not be ‘one body’ that dictates what is a geographically indicated wine (“what is a typical Okanagan wine”), but there is an opportunity for this ‘body’ to develop a uniform bottle, and move towards a geographical indication of ‘made locally’. There is a need for institutions at the Foundational Level (Factor Conditions on the cluster map) to support the development of a geographic indication for the Okanagan. Who, and how they might do this, is unclear. However, it could be a combined initiative of the BC Liquor Distribution Branch, BC Wine Institute and the Ministry of Agriculture.

**Strategic Issue 5: How to increase the sales of BC VQA wines?**

**Desired Outcome #1: Introduce BC Wines to new Canadian Wine Consumers**

**Strategy Initiatives:**
- Create a bond by reaching out to other Provincial Liquor Boards to educate BC wineries on opportunity/process.
- Start a Consumer Awareness Campaign, increasing the number of Canadians that drink Canadian wine.
  o Informing Canadians of the ability to buy BC Wine direct from wineries (and often through the internet).
  o Could be mutually beneficial to other provinces, working with non-BC wineries raise consumer awareness of them as well.
  o Potentially led by the BC Wine Institute.
- Have government support the removal of trade barriers by lobbying Provincial Liquor Boards to provide reciprocal agreements on tax tariffs.
- Partner with other wine regions (BC, Ontario) to start a collaborative wine movement to buy “Canadian” wine.
- Take BC wines across the country with organized events.
- Further integrate the tourism experience by “packaging” wine education.
  o Tie in to on-going wine club membership (ie – Naramata Bench Wine Club).
- Cross-pollinate with off-season industries (ie – ski hills) to extend wine tourism.

**Measurable Targets:** None mentioned by groups.

A number of Foundation Level institutions are identified in this desired outcome. In addition to those already identified (BC LDB and government working with other provincial liquor boards, the BC Wine Institute forming partnerships with other regions), the integration of tourism also requires the cooperation among the Foundation institutions.

Tourism in the Okanagan region is its own “cluster”, and is quite separate from the Agricultural Products Cluster. However, these clusters do not act in a vacuum, and often overlap. Foundation level institutions play a vital role in both clusters and serve as a starting point to facilitate the integration and cross-pollination suggested by workshop groups. Strong candidates for this include local government, through various programs in tourism, the wine industry associations, and post-secondary institutions with expertise in both clusters, such as Okanagan College.

**Desired Outcome #2: Increase Distribution Options and Increase Market**

**Strategy Initiatives**
- Allow free market packaging for BC BC VQA wines and give wineries greater flexibility with packaging.
- Look to Ontario for Wine Tourism/Culinary Tourism examples at expanding the market.
- Work with other sectors – restaurants/hotels/tourism establishments – to develop partnerships and increase tourism to Valley.
- Increase education resources and support for those who are working with customers so they can cultivate consumer knowledge.
- Increase number of private retail outlets.
- Find a way to move product into the BC mid-value wine segment, and encourage wineries to focus on this point (see also Strategic Issue 4).
- Reduce taxation.
Measurable Targets: None mentioned by groups.

This desired outcome overlaps with the desired outcomes identified in other strategic issues. The emphasis on flexibility with packaging, taxation and privatization clearly requires action from government and the BC Liquor Distribution Branch.

There were calls to develop stronger linkages to the culinary and tourism industries to sustain industry growth, as there are strong ‘pull-through’ market effects related to tourism. In addition to partnerships across the Agricultural Products and Tourism clusters, reaching out to other foundation organizations in Ontario is best achieved by the BC Foundational Level.

Summary of the Recommendations

**Strategic Issue 1: How to increase the knowledge (education and research) capacity in the Okanagan region?**

Desired Outcome #1: Formalized Educational Programs to Support the Industry
Desired Outcome #2: Increased Applied Extension Services
Desired Outcome #3: Centralized Resource Hub for Growers and Wineries

**Strategic Issue 2: How to stimulate the sharing of knowledge and innovation by wineries and grape growers?**

Desired Outcome #1: Increased Knowledge Sharing Amongst Grape Growers
Desired Outcome #2: Increased Knowledge Sharing between Grape Growers and Wineries
Desired Outcome #3: Increased Knowledge Sharing Amongst Wineries

**Strategic Issue 3: How to create strong industry goal alignment and reduce the negative effects of industry fragmentation?**

Desired Outcome #1: Unify the Fragmented Small Wineries of the Industry

**Strategic Issue 4: How to develop new markets for the expected increase in grape production?**

Desired Outcome #1: Higher Profile of the Okanagan Region, Nationally and Internationally
Desired Outcome #2: Higher Quality Standards for Grape Growing
Desired Outcome #3: Develop an Okanagan Geographically Indicated Mid-Value Wine

**Strategic Issue 5: How to increase the sales of BC VQA wines?**

Desired Outcome #1: Introduce BC Wines to new Canadian Wine Consumers
Desired Outcome #2: Increase Distribution Options and Increase Market
References


Mitchell, R. & van der Linden, J. (2010). Adding value through cooperation: A study of the New Zealand food and wine tourism network. 5th International Academy of Wine Business Research Conference, 8-10 Feb. 2010 Auckland (NZ)


# Appendix A: Okanagan Region Employment by Industry

<table>
<thead>
<tr>
<th>Okanagan Region (Employment)</th>
<th>2001</th>
<th>2006</th>
<th>2006 % of Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>All industries</td>
<td>115,785</td>
<td>134,065</td>
<td>99.0%</td>
</tr>
<tr>
<td>11 Agriculture, forestry, fishing and hunting</td>
<td>4,555</td>
<td>4,650</td>
<td>3.5%</td>
</tr>
<tr>
<td>21 Mining and oil and gas extraction</td>
<td>670</td>
<td>1,045</td>
<td>0.8%</td>
</tr>
<tr>
<td>22 Utilities</td>
<td>855</td>
<td>895</td>
<td>0.7%</td>
</tr>
<tr>
<td>23 Construction</td>
<td>8,475</td>
<td>14,700</td>
<td>11.0%</td>
</tr>
<tr>
<td>31-33 Manufacturing</td>
<td>12,075</td>
<td>11,975</td>
<td>8.9%</td>
</tr>
<tr>
<td>41 Wholesale trade</td>
<td>4,420</td>
<td>4,830</td>
<td>3.6%</td>
</tr>
<tr>
<td>44-45 Retail trade</td>
<td>15,465</td>
<td>18,145</td>
<td>13.5%</td>
</tr>
<tr>
<td>48-49 Transportation and warehousing</td>
<td>4,430</td>
<td>5,095</td>
<td>3.8%</td>
</tr>
<tr>
<td>51 Information and cultural industries</td>
<td>2,805</td>
<td>2,205</td>
<td>1.6%</td>
</tr>
<tr>
<td>52 Finance and insurance</td>
<td>4,460</td>
<td>4,520</td>
<td>3.4%</td>
</tr>
<tr>
<td>53 Real estate and rental and leasing</td>
<td>2,510</td>
<td>3,420</td>
<td>2.6%</td>
</tr>
<tr>
<td>54 Professional, scientific and technical services</td>
<td>5,930</td>
<td>8,025</td>
<td>6.0%</td>
</tr>
<tr>
<td>55 Management of companies and enterprises</td>
<td>85</td>
<td>105</td>
<td>0.1%</td>
</tr>
<tr>
<td>56 Administrative and support, waste management and remediation services</td>
<td>4,620</td>
<td>6,575</td>
<td>4.9%</td>
</tr>
<tr>
<td>61 Educational services</td>
<td>6,890</td>
<td>7,355</td>
<td>5.5%</td>
</tr>
<tr>
<td>62 Health care and social assistance</td>
<td>13,460</td>
<td>15,080</td>
<td>11.2%</td>
</tr>
<tr>
<td>71 Arts, entertainment and recreation</td>
<td>3,020</td>
<td>3,125</td>
<td>2.3%</td>
</tr>
<tr>
<td>72 Accommodation and food services</td>
<td>10,580</td>
<td>11,350</td>
<td>8.5%</td>
</tr>
<tr>
<td>81 Other services (except public administration)</td>
<td>5,975</td>
<td>6,660</td>
<td>5.0%</td>
</tr>
<tr>
<td>91 Public administration</td>
<td>4,505</td>
<td>4,300</td>
<td>3.2%</td>
</tr>
</tbody>
</table>
Appendix B: Agricultural Products Cluster Sectors

1. Farm management services
2. Soil preparation services
3. Irrigation equipment & services
4. Processing and packaging machinery
5. Fertilizers
6. Farm primary products
7. Wine or brandy
8. Milling and refining products
9. Product distribution and wholesale services
10. Malt beverages
11. Specialty processed food products
12. Animal health products
13. Agricultural chemicals (excluding fertilizer)
14. Supplies distribution and wholesaling
15. Related financial services
16. Transportation and logistic services
17. Bulk packaging
18. Other related services
## Appendix C: Okanagan industry Cluster Growth Rates

<table>
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<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>All industries</td>
<td>115,785</td>
<td>134,065</td>
<td>3.0%</td>
<td>1.5</td>
<td>1.2</td>
</tr>
<tr>
<td>Agricultural products</td>
<td>4,580</td>
<td>5,465</td>
<td>3.6%</td>
<td>1.0</td>
<td>1.2</td>
</tr>
<tr>
<td>Hospitality and tourism</td>
<td>13,595</td>
<td>14,480</td>
<td>1.3%</td>
<td>1.0</td>
<td>1.2</td>
</tr>
<tr>
<td>Life Sciences</td>
<td>11,140</td>
<td>12,505</td>
<td>2.3%</td>
<td>1.2</td>
<td>1.1</td>
</tr>
</tbody>
</table>
Appendix D: Grape Grower Sector

D1: Grape Acreage and Ownership Composition

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>White Grape Acreage</td>
<td>4,184</td>
<td>5,462</td>
<td>6,632</td>
<td>9,066</td>
<td>9,854</td>
</tr>
<tr>
<td>Red Grape Acreage</td>
<td>46%</td>
<td>49%</td>
<td>52%</td>
<td>51%</td>
<td>52%</td>
</tr>
<tr>
<td>Hybrid Grapes</td>
<td>4%</td>
<td>3%</td>
<td>2%</td>
<td>3%</td>
<td>4%</td>
</tr>
</tbody>
</table>

| Number of Vineyards  | 262  | 371  | 464  | 710  | 864  |
| Number of Wineries   | 61   | 90   | 118  | 144  | 210  |
| Winery Owned Acreage | 59%  | 67%  | 70%  | 63%  | 62%  |
| Average Winery Holdings (acres) | 41 | 41 | 40 | 40 | 29 |

<table>
<thead>
<tr>
<th>Vineyards</th>
<th>Number</th>
<th>Acres</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.C. Winery Owned/Operated Vineyards</td>
<td>(210 wineries)</td>
<td>6,084</td>
<td>61.7%</td>
</tr>
<tr>
<td>B.C. Independent Grower Vineyards</td>
<td>(495 growers)</td>
<td>3,783</td>
<td>38.3%</td>
</tr>
</tbody>
</table>

Source: BCWI Grape Acreage Reports

D2: Winery Held Vineyard Size Distribution

<table>
<thead>
<tr>
<th>Vineyard Size (acres)</th>
<th>Number of Wineries</th>
<th>% by Number of Wineries</th>
<th>Total Acres by Vineyard Size</th>
<th>% by Acreage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00 – 3.00</td>
<td>26</td>
<td>12.4%</td>
<td>50</td>
<td>0.8%</td>
</tr>
<tr>
<td>3.01 – 5.00</td>
<td>20</td>
<td>9.5%</td>
<td>85</td>
<td>14.0%</td>
</tr>
<tr>
<td>5.01 – 10.00</td>
<td>66</td>
<td>31.4%</td>
<td>477</td>
<td>7.8%</td>
</tr>
<tr>
<td>10.01 – 20.00</td>
<td>45</td>
<td>21.4%</td>
<td>661</td>
<td>10.9%</td>
</tr>
<tr>
<td>20.01 – 40.00</td>
<td>29</td>
<td>13.8%</td>
<td>848</td>
<td>13.9%</td>
</tr>
<tr>
<td>&gt; 40.00</td>
<td>24</td>
<td>11.5%</td>
<td>3,964</td>
<td>65.2%</td>
</tr>
<tr>
<td>Totals</td>
<td>210</td>
<td></td>
<td>6,084</td>
<td></td>
</tr>
</tbody>
</table>

Source: BCWI Grape Acreage Reports
### D3: Independent Grower Held Vineyard Size Distribution

<table>
<thead>
<tr>
<th>Vineyard Size (acres)</th>
<th># of Vineyards</th>
<th>% by Number of Vineyards</th>
<th>Total Acres by Vineyard Size</th>
<th>% by Acreage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00 – 3.00 acres</td>
<td>179</td>
<td>33.9%</td>
<td>317</td>
<td>0.8%</td>
</tr>
<tr>
<td>3.01 – 5.00 acres</td>
<td>134</td>
<td>25.4%</td>
<td>532</td>
<td>1.4%</td>
</tr>
<tr>
<td>5.01 – 10.00 acres</td>
<td>140</td>
<td>26.5%</td>
<td>1,034</td>
<td>7.8%</td>
</tr>
<tr>
<td>10.01 – 20.00 acres</td>
<td>51</td>
<td>9.7%</td>
<td>656</td>
<td>10.9%</td>
</tr>
<tr>
<td>20.01 – 40.00 acres</td>
<td>15</td>
<td>2.8%</td>
<td>514</td>
<td>13.9%</td>
</tr>
<tr>
<td>Over 40.00 acres</td>
<td>9</td>
<td>1.7%</td>
<td>730</td>
<td>65.2%</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>528</strong></td>
<td></td>
<td><strong>3,783</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: BCWI Grape Acreage Reports
Appendix E: Survey and Interview Tables

E1: Business Growth Rates

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>CAGR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent Grape Growers</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
<td>1.9</td>
<td>2.1</td>
<td>0.9%</td>
</tr>
<tr>
<td>Small Estate Wineries</td>
<td>3.5</td>
<td>3.4</td>
<td>3.6</td>
<td>4.1</td>
<td>4.3</td>
<td>4.2%</td>
</tr>
<tr>
<td>Medium Estate Wineries</td>
<td>24.3</td>
<td>25.0</td>
<td>27.2</td>
<td>27.2</td>
<td>30.0</td>
<td>4.3%</td>
</tr>
<tr>
<td>Major Winery</td>
<td>180.0</td>
<td>190.0</td>
<td>200.0</td>
<td>210.0</td>
<td>220.0</td>
<td>4.1%</td>
</tr>
</tbody>
</table>

E2: Percentage of Firms that Undertook a Growth Initiative in the Past Five Years

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent Grape Growers</td>
<td>31.8%</td>
<td>68.2%</td>
</tr>
<tr>
<td>Small Estate Winery</td>
<td>70.6%</td>
<td>29.4%</td>
</tr>
<tr>
<td>Medium Estate Winery</td>
<td>83.3%</td>
<td>16.7%</td>
</tr>
</tbody>
</table>

E3: Regional Wine Sales by Small Estate, Medium Estate, and Major Commercial Wineries

<table>
<thead>
<tr>
<th></th>
<th>Percent of Sales</th>
<th>Volume Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Small Estate</td>
<td>Medium Estate</td>
</tr>
<tr>
<td></td>
<td>Wineries</td>
<td>Wineries</td>
</tr>
<tr>
<td>Okanagan Sales</td>
<td>52.5%</td>
<td>26.4%</td>
</tr>
<tr>
<td>BC sales outside of Okanagan Wester</td>
<td>37.4%</td>
<td>59.0%</td>
</tr>
<tr>
<td>Western Canada outside of BC</td>
<td>6.8%</td>
<td>12.3%</td>
</tr>
<tr>
<td>Rest of Canada</td>
<td>3.3%</td>
<td>2.2%</td>
</tr>
<tr>
<td>United States</td>
<td>29.4%</td>
<td>0.2%</td>
</tr>
</tbody>
</table>
### E4: Where Required Supplies and Services are Sourced

<table>
<thead>
<tr>
<th>Percentage of supplies and services</th>
<th>In the Okanagan</th>
<th>Out-of-region</th>
<th>Don't Know</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm management services</td>
<td>68.9</td>
<td>6.7</td>
<td>4.4</td>
<td>20.0</td>
</tr>
<tr>
<td>Soil preparation services</td>
<td>64.4</td>
<td>13.3</td>
<td>4.4</td>
<td>17.8</td>
</tr>
<tr>
<td>Irrigation equipment &amp; services</td>
<td>67.4</td>
<td>23.3</td>
<td>4.7</td>
<td>4.7</td>
</tr>
<tr>
<td>Processing and packaging machinery</td>
<td>25.6</td>
<td>51.2</td>
<td>2.3</td>
<td>20.9</td>
</tr>
<tr>
<td>Fertilizers</td>
<td>53.3</td>
<td>26.7</td>
<td>15.6</td>
<td>4.4</td>
</tr>
<tr>
<td>Farm primary products</td>
<td>68.2</td>
<td>4.5</td>
<td></td>
<td>27.3</td>
</tr>
<tr>
<td>Wine or brandy</td>
<td>46.5</td>
<td>9.3</td>
<td></td>
<td>44.2</td>
</tr>
<tr>
<td>Milling and refining products</td>
<td>18.6</td>
<td>11.6</td>
<td>2.3</td>
<td>67.4</td>
</tr>
<tr>
<td>Product distribution and wholesale services</td>
<td>30.2</td>
<td>32.6</td>
<td>2.3</td>
<td>34.9</td>
</tr>
<tr>
<td>Specialty processed food products</td>
<td>16.3</td>
<td>11.6</td>
<td>2.3</td>
<td>69.8</td>
</tr>
<tr>
<td>Agricultural chemicals (excluding fertilizer)</td>
<td>31.8</td>
<td>40.9</td>
<td>9.1</td>
<td>18.2</td>
</tr>
<tr>
<td>Supplies distribution and wholesaling</td>
<td>41.9</td>
<td>25.6</td>
<td>4.7</td>
<td>27.9</td>
</tr>
<tr>
<td>Related financial services</td>
<td>77.3</td>
<td>18.2</td>
<td></td>
<td>4.5</td>
</tr>
<tr>
<td>Transportation and logistic services</td>
<td>63.6</td>
<td>18.2</td>
<td></td>
<td>6.8</td>
</tr>
<tr>
<td>Bulk packaging</td>
<td>18.6</td>
<td>32.6</td>
<td>4.7</td>
<td>44.2</td>
</tr>
</tbody>
</table>

### E5: Importance of Management Skills

<table>
<thead>
<tr>
<th>Management Skills</th>
<th>ANOVA</th>
<th>Independent Grape Grower</th>
<th>Small Estate Winery</th>
<th>Medium Estate Winery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing and sales</td>
<td>( F(2, 38) = 10.50, p &lt; .001 )</td>
<td>M=3.47, SD=1.07</td>
<td>M= 4.56, SD=0.51</td>
<td>M= 4.83, SD=0.41</td>
</tr>
<tr>
<td>Human resources management</td>
<td>( F(2, 38) = 4.74, p = .015 )</td>
<td>M=3.47, SD=1.26</td>
<td>M= 4.06, SD=0.68</td>
<td>M= 4.83, SD=0.41</td>
</tr>
</tbody>
</table>

### E6: Importance of Key Success Factors

<table>
<thead>
<tr>
<th>Strategic Focus</th>
<th>ANOVA</th>
<th>Independent Grape Grower</th>
<th>Small Estate Winery</th>
<th>Medium Estate Winery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to distribution channels</td>
<td>( F(2, 38) = 5.91, p = .006 )</td>
<td>M=3.37, SD=1.42</td>
<td>M= 4.25, SD=0.45</td>
<td>M= 4.83, SD=0.41</td>
</tr>
<tr>
<td>Aggressiveness of competitors</td>
<td>( F(2, 38) = 6.81, p = .003 )</td>
<td>M=3.06, SD=1.00</td>
<td>M= 3.19, SD=0.75</td>
<td>M= 4.50, SD=0.55</td>
</tr>
<tr>
<td>Use of the internet</td>
<td>( F(2, 38) = 3.30, p = .048 )</td>
<td>M=3.63, SD=1.00</td>
<td>M= 4.31, SD=0.75</td>
<td>M= 4.17, SD=0.75</td>
</tr>
</tbody>
</table>
### E7: Comparison of Strategic Orientation

<table>
<thead>
<tr>
<th>Strategic Focus</th>
<th>ANOVA</th>
<th>Independent Grape Grower</th>
<th>Medium Estate Winery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product differentiation</td>
<td>$F(2,38) = 4.96$, $p=.012$</td>
<td>$M=3.74$, $SD=1.05$</td>
<td>$M=4.83$, $SD=0.41$</td>
</tr>
<tr>
<td>Marketing mix elements</td>
<td>$F(2,37) = 4.19$, $p=.023$</td>
<td>$M=3.44$, $SD=1.25$</td>
<td>$M=4.83$, $SD=0.41$</td>
</tr>
<tr>
<td>Production processes</td>
<td>$F(2,37) = 3.40$, $p=.044$</td>
<td>$M=3.53$, $SD=1.17$</td>
<td>$M=4.80$, $SD=0.45$</td>
</tr>
<tr>
<td>Innovativeness</td>
<td>$F(2,37) = 3.49$, $p=.041$</td>
<td>$M=3.47$, $SD=1.72$</td>
<td>$M=4.67$, $SD=0.52$</td>
</tr>
</tbody>
</table>

### E8: Effectiveness in Raising Capital

<table>
<thead>
<tr>
<th>Access to Capital</th>
<th>ANOVA</th>
<th>Independent Grape Grower</th>
<th>Small Estate Winery</th>
<th>Medium Estate Winery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effectiveness</td>
<td>$F(2, 37) = 4.04$, $p=.026$</td>
<td>$M=3.72$, $SD=1.07$</td>
<td>$M=4.29$, $SD=0.59$</td>
<td>$M=4.80$, $SD=0.45$</td>
</tr>
</tbody>
</table>

### E9: Comparison of Human Resource Groups

<table>
<thead>
<tr>
<th>Human Resources</th>
<th>ANOVA</th>
<th>Independent Grape Grower</th>
<th>Small Estate Winery</th>
<th>Medium Estate Winery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing &amp; sales people</td>
<td>$F(2, 34) = 23.03$, $p&lt;001$</td>
<td>$M=2.13$, $SD=1.41$</td>
<td>$M=4.31$, $SD=0.48$</td>
<td>$M=4.67$, $SD=0.82$</td>
</tr>
<tr>
<td>Senior managers</td>
<td>$F(2, 33) = 4.31$, $p=.022$</td>
<td>$M=2.60$, $SD=1.62$</td>
<td>$M=3.47$, $SD=1.51$</td>
<td>$M=4.67$, $SD=0.52$</td>
</tr>
<tr>
<td>Middle managers / supervisors</td>
<td>$F(2, 33) = 3.27$, $p=.05$</td>
<td>$M=2.00$, $SD=1.31$</td>
<td>$M=3.00$, $SD=1.46$</td>
<td>$M=3.50$, $SD=1.38$</td>
</tr>
</tbody>
</table>
Appendix F: Respondent Comments

**F1: Why did you choose to remain in the Okanagan to implement this growth initiative rather than move to a large urban center?**

1. Infrastructure Needs/ Physical Endowments
   - available existing acreage
   - Farming opportunity

2. Lifestyle
   - we are a 4th generation farm
   - established vineyard/home
   - live and own land here
   - family attachment to the region.
   - I like the Okanagan (lifestyle).
   - The grapes are grown in the Okanagan and you're not real if you don't live on the farm.

3. Infrastructure Needs/Physical Endowments
   - Access to raw materials.
   - The need to produce the new apple to demonstrate its commercial value required locating the business in its current location.
   - The grapes can only be grown in the Okanagan.
   - We cannot remain a land based winery outside of the Okanagan.

4. Opportunity is Geographically Based
   - The proprietor is proud to create something new where there was nothing before. We also get to shape the development of a wine region.
   - Because of the existing wine industry and tourism industry.
   - To be true to the terroire, and the most favorable location for growing grapes is in the Okanagan/Similkameen
   - The Okanagan has the potential to become a culinary region

**F2: What was your primary reason for undertaking this growth initiative?**

**Independent grape growers and small estate wineries**

1. Financial Necessity
   - The need to grow. when we purchased the winery it was losing money
   - Trying to pay the farm
   - Too small needed to have a larger volume
   - We are new, we have to grow or how will we pay our bills
   - To increase profit

2. Opportunity Recognition
   - make money
   - expand revenue
Value Chain Analysis and Business Strategy in the Okanagan Wine Industry

- increase production
- Land availability

3. Industry Attractiveness
   - Change from tree fruits to grapes for a more secure income

Medium sized estate wineries

1. Opportunity Recognition
   - Continued growth with a finite land base leads to increasing the value of a bottle of wine. Growth in revenues is driving the initiative.
   - To get our unit costs down and to have more profitable earnings.
   - Establishing a new apple variety because their seemed to be demand for the apple.
   - To maximize the demand for sales.
   - The business model had to change to premium wines from proprietor grade. To increase volume to cover the higher production costs associated with premium wines. Also to expand the vineyard holdings. Overall the winery now produces 40,000 - 50,000 cases. Also need to control the quality of the grapes used in the winery.
   - The need to expand both the wine cellar and the wine shop. Also needed more administrative space.
   - To achieve economies of scale (reducing cost); 2: To increase revenue. Primary reason is profit increase.
   - To create a category for Canadian wines across Canada
   - We had planned to be a virtual winery but there was not adequate professional seller space...proper equipment and state-of-the-art technology. Existing wineries were not set up to provide full contact wine making services to customers. This created an opportunity for us. We also wanted full quality control over the production of our own wine.

2. Other
   - To support more family members in the business.

F3: How would you describe your company’s strategy in pursuing the growth opportunity in terms of marketing versus technical strengths?

1. Importance of Marketing
   - We have always good PR and the family enjoy working with the customers, and other people. They are people people.
   - Evolved from all technical to a balance of technical and marketing. Marketing is so importing.
   - We have initiatives directed at production, but also are attempting to build the Quails Gate brand.
   - The biggest gap in the industry is in marketing. 90% of the producers do not understand how to market.
2. Production Focus

- Focus was on improving quality first and then marketing.
- The wine shop was too small to meet market demand. Capacity was increased to meet the wine shop demand.
- To have a business strategy solely based on marketing becomes very shallow and innovation in the technical aspects of the business are required to sustain real growth. Linking product quality to markets is extremely important.

**F4: How would you describe your company’s strategic thrust?**

1. Leadership Initiative

- Being a catalyst to affect change is important. Anthony’s relentless pursuit of excellence.
- We do not follow anyone else, we are aggressive in reacting to changing market conditions.
- We want to be a leader in the culinary industry in the Okanagan, and the category leader in Canada.
- There is a level of apathy and a lot of producers that are hesitant to innovate...it's easier to follow and not take the risk of leading.
- We take new initiatives as opportunities present themselves.

2. Other

- Difficult to create proprietary products in the wine industry.
- The business grew from 4,000 cases to 30,000 cases. We expect to maintain the business at its current size or reduce production in 2012 to 25,000 cases.

**F5: What strategy did you use to expand your core business capacity?**

- We expanded the existing cellar building, and the purchased additional property and build new storage and sparkling wine production. We also purchased more vineyard land. This growth has made us more efficient and reduced our unit cost of production.
- We've exceeded the aggressive financial forecasts and exceeded our expectations in terms of how many clients we would serve.
- The primary strategy was effective; however, the linkage to new product development within the core brand is inconsistent. New product development might include brand refreshing while having new brands in the hopper at the same time.
- Expanded both the vineyard and the cellar (farm planted acreage increased from 20 to 61 acres; cellar increased from 4,000 to 30,000 cases). We do purchase extra grapes from independent grape growers. We have not realized the level of sales that we expected. Sales agents have not met our sales expectation.
- Also added the wine shop at Greta Ranch
- Added onto the existing buildings and purchased more property for further expansion.
- We added the restaurant which was a major component, which we operate rate than lease out.
- We have surplus capacity at our current location.
- Opportunities for growth are limited by high land prices.
**F6: Please characterize the product, process, service or other innovation which you are offering (Differentiated or commodity type product).**

- We are definitely differentiating in how we make our wine in terms of the technology of how we make our wine. We offer services to our customers that create value from vineyard to market.
- Value added to wine grapes
- Wine and cheese both lovingly made on site
- New winery launching new wines.
- Wine called hot flash (aimed obviously at a certain target group) has been very successful / we will come out with similar catchy names this summer
- Hand-crafted table wines created with quality (not quantity) in mind.
- New wines
- Wine club, sales agent, new products
- Differentiated cider product
- Fruit wines that are differentiated from wines in general, but for fruit wine in particular. There are approximately six fruit wines in the region.

**F7: How do you rate the effectiveness of your organizational structure in achieving your growth objectives?**

- Structure has challenging moments. Dealing with inter-generational differences.
- We maintain a fairly flat structure.
- The structure must be adapted as we grow so that we don't become 'corporate'.
- It's a lot better than a year ago as we identify gaps, and plug the holes.
- We have a senior management team but no General Manager.
Endnotes

1 Data from the 2011 B.C. Wine Grape Acreage Report, available from the British Columbia Wine Institute.
2 Source: 2011 Census of Canada
3 Data developed from Regional District websites
4 In an Open Model, industries distribute outputs amongst themselves, to keep operating, and also meet outside demand. BC Stats recommends using the Open Model when changes in demand are caused by domestic personal expenditures, in whole or in part.
5 Current dollars are prices that include the effect of inflation. Constant dollars are adjusted for inflation using the Consumer Price Index.
7 Source: 2011 B.C. Wine Grape Acreage Report, available from the British Columbia Wine Institute
8 The 2011 acreage report isolates the Okanagan and Similkameen regions. For this study, these regions have been combined.
9 Source: BC Liquor Distribution Branch
10 Source: BC Liquor Distribution Branch
11 Source: Blair Baldwin, Okanagan Wine Festivals Society
12 Source: Okanagan Wine Festival Society
13 Source: BCLDB Quarterly Market Reviews
14 Source: BCLDB Quarterly Market Reviews
15 Source: BCWI Grape Crush reports
16 Source: Andrew Peller Limited Annul Reports
17 Source: BC Liquor Distribution Branch