

MINI-THESIS

TITLE

Cooperation and competition: The case of the Western Cape



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DECLARATION

I, Lisle Svenson, declare to the senate of the University of the Western Cape (UWC) that this mini-thesis is the result of my research investigations and findings. Sources of information other than my own have been acknowledged and a reference list has been appended. The work has not been previously submitted to any other university for award of any type of academic degree.

Signed:

Dated: 11 November 2011



ACKNOWLEDGEMENTS

I would like to thank to all the respondents who have availed themselves to participate in the study. It has been an inspiration to meet some of you, the leaders in the cluster. I wish you and your organisations all success in the future.

My thanks to my supervisor, Professor Philip Hirschsohn, for his guidance and perspective. Thank you also to my parents, colleagues and peers who have provided me with inspiration and support. To my daughter, Nicole, thank you for all the love and support during the course of my studies. I am deeply grateful. To Almighty God, none of this would even have been possible without You.



ABSTRACT

A major challenge facing the South African wine industry has been the economic repositioning of the sector, which since 1994 has moved away from a highly regulated domestic environment. The increasing integration of the local industry into international markets and global value chains has been accompanied by the industry's deregulation and restructuring. From the production focus on a limited range of low value-added varieties produced for domestic tastes and to meet monopoly quotas, producers have shifted to planting noble cultivars suited to various international tastes. Despite the lack of growth in traditional Western European markets, new world producers like South Africa have successfully competed and secured new market share. The Western Cape wine *industry* is ranked as the second-largest contributor to the Western Cape economy.

The thesis explores the effect of cluster governance and the coordination of strategic collective actions on the Western Cape wine cluster's competitiveness. The data has been gathered through a combination of documentary analysis and interviews conducted with the leadership and/or management of various industry organisations. A qualitative approach has been adopted in the data analysis and interpretation of the findings, with information gathered via a combination of documentary analysis and semi-structured interviews with key representatives of established *industry* bodies and key role-players in the Western Cape wine cluster.

Keywords:

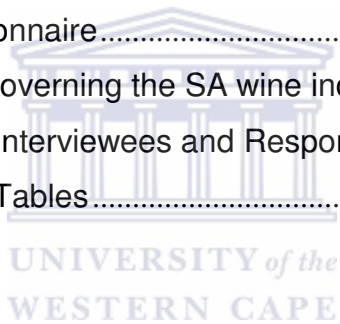
Cluster, wine, wine cluster, Western Cape wine cluster coordination, competitive advantage, collective action, cluster governance, cluster governance quality

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1. CHAPTER ONE: INTRODUCTION

The prevalence of clusters¹ reveals important insights about the microeconomics of competition and the role of location in competitive advantage. As old reasons for clustering have diminished in importance with globalization, new influences of clusters on competition have taken on growing importance in an increasingly complex, knowledge-based, and dynamic economy. Clusters represent a new way of thinking about national, state, and local economies, and they necessitate new roles for companies, government, and other institutions in enhancing competitiveness. (Michael E. Porter, Economic Development Quarterly, 2000)

This thesis focuses on the nature of cluster governance or the coordination of collective action challenges in the Western Cape wine cluster. Michael Porter's (1998a) cluster diamond theory has been used to develop the analytical framework, in conjunction with the cluster governance framework developed by De Langen (2004). These are presented in the literature review in Chapter 2. To set the context, a brief overview and background to the South African wine cluster is presented in the next section below. This is followed by a summary of the cluster's state of competitiveness and the collective action problems facing the cluster participants. The research goals and thesis objectives are then presented, and the chapter concludes with the overall structure of the thesis chapters.

¹ A cluster can be defined as "a system of interconnected firms and institutions whose value as a whole is greater than the sum of its parts" (Porter, 1998a:229).

1.1 Overview of South Africa's wine cluster

South Africa's wine industry has a wine making heritage of more than 350 years – starting from the time the Dutch settlers settled in the Cape in the 1600s. With the arrival of the French Huguenots and their wine making knowledge, the SA wine industry flourished even more, to such an extent that in the 19th century, the British bought more wine from their South African colony than they did from France (Financial Mail, 2010).

Today, South Africa is the world's 7th largest producer and 8th largest exporter of wine. It is a mid-priced and relatively low-cost producer and is considered a niche player in the global wine markets (Wines of South Africa, 2009).²

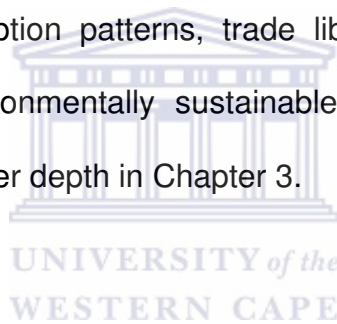
The significant growth of South Africa's wine industry from 1995 to 2010 has been largely export-driven (Financial Mail, 24 June 2010). However, wine farmers have been under considerable competitive pressures in international markets (McEwan and Bek, 2006). At the time of writing, the industry was experiencing its sixth year of pressure on profits (Financial Mail, 2010). Notwithstanding this, in 2009, South African Wine Industry Systems (SAWIS) stated that “wine is firmly established as the leader in exports from the South African agricultural sector, with the growth in exports substantially contributing to the rise in the industry's contribution to national GDP”.³

² WOSA is the acronym for *Wines of South Africa*, the international marketing company of the South African Wine Industry Council.

³ Macro-economic Impact Study, December 2009; www.sawis.co.za “Wine Industry muscles in on South African GDP with strong growth”.

The wine industry in South African is confined to the Western Cape and Lower Orange River and is an important contributor to the country's economic growth, particularly the Western and Northern Cape.⁴

Since the deregulation of South Africa's wine industry, which started in 1992, new producers have entered the market and grape-farmers have expanded their vineyards into new areas of the Western and Northern Cape.⁵ Export-led growth has been achieved despite extensive government producer subsidies affecting sales in many global markets⁶. Other major factors which have also impacted the international trade range from changing consumption patterns, trade liberalisation, and the increasing demand for ethical and environmentally sustainable food and beverages (SAWB, 2005).⁸ This is covered in greater depth in Chapter 3.



⁴ The Western Cape wine cluster accounts for approximately 90 percent of South Africa's wine production (Western Cape Business – A Guide to Business and Investment in the Western Cape, 2009 Edition)

⁵ According to SAWIS (2009) more than half of the grape producers have been in business for less than eight years.

⁶ *New World* wine countries have been gaining more ground on the competitiveness rankings since 1990, in comparison to their *Old World* wine competitors; this despite the much higher levels of subsidies provided EU member countries (SAWB, 2005).

⁸ An Inquiry into the Competitiveness of the South African Wine Industry (October 2005); South African Wine and Brandy Company. 2005. Vision 2020: Setting the Strategic Course for Excellence. www.sawb.co.za

1.2 Need for increased competitiveness of the cluster

Creating a competitive wine cluster in South Africa requires the initiation, focus, alignment, coordination, monitoring and evaluation of a number of value-adding cluster actions. Cluster actions recommended by the SAWB in its 2005 *Report on competitiveness of the SA wine industry* include:

- the development of a strong “industry voice”;
- strategic partnerships between government and industry players;
- the development of a unique “Brand SA” proposition and identity for the industry in international markets;
- focussed industry activity on value-add in market development and the promotion of the industry;
- mobilisation of appropriate training and development strategies and human resource systems;
- the development of industry-level knowledge and information provision;
- investments in research and innovation; and
- industry-level accountability to drive the strategic plan and focus areas.

The above-mentioned report also recommends that the engagement and interaction of industry participants with government is very important in order for the wine cluster’s actions to be successful in developing the industry. It also emphasises that value-adding activities through effective collective action should guide the achievement of

these cluster activities, which have been identified by the key stakeholders in the industry.

1.3 Collective action problems in the cluster

The Wine Executive Survey (WES), conducted in 2005 as part of a study into the competitiveness of South Africa's wine industry, indicates that a proactive partnership with government is vital for a "successful and performing wine economy". The survey also shows that key areas of concern must be addressed. These include: (1) a partnership involving market development, regulation and export promotion; (2) the active positioning of Brand SA by government agencies and companies such as the National Development Agency, Department of Trade and Industry, Department of Economic Affairs and Tourism, etc.; (3) infrastructure expansion; (4) funding for research and technological innovation; (4) economic empowerment and transformation support; (5) trade agreements and policy development; (6) combating crime; and (7) the simplification of regulations and a reduction in bureaucratic "red tape". All these areas require cooperation and effective partnership by both government and industry participants.

The 2005 SAWB *Report on competitiveness* has also indicated that coordination of the collective supply of a variety of South African wine varieties is required to avoid quantity, quality or consistency bottlenecks. Improving the performance, reliability, integrity, conformance to standards, durability, serviceability, aesthetics and the provision of

additional features to differentiate South African wines from its competitors are also required to improve the quality aspects of South African wine.

The primary constraints to the wine cluster's export success have been the strong rand, which has appreciated against the currencies of SA's main trading partners, namely, the UK, Europe and the US. Fluctuations in the exchange rate and relatively low levels of trust in the ability of the supporting political institutions to manage a sound economic agenda, together with marketing problems relating to the relatively low pricing of SA wines on the international markets have also been major constraints to the cluster's competitiveness. High capital costs and low profitability have also inhibited new business growth in the local wine cluster. Concerning the role of public organisations, the bureaucracy's competency, combined with burdensome administrative regulations, labour policy aspects and the cost of crime are also cited as factors that constrain the industry's development (SAWB, 2005). Table 1 below contains an overview of the top five constraints from the Wine Executive Survey (2005).

Table 1: The top five constraints for different business sizes

ANNUAL TURNOVER					
	R1 000 – R1 000 000	R1 000 001 – R10 000 000	R10 000 001 – R50 000 000	R50 000 001 – R100 000 000	Above R100 000 000
1.	Trust in political support to the industry	The strong Rand	Fluctuations in the exchange rate	Fluctuations in the exchange rate	Fluctuations in the exchange rate
2.	The strong Rand	Fluctuations in the exchange rate	The strong Rand	The strong Rand	Competence of bureaucracy in the public sector
3.	Competence of the bureaucracy in the public sector	Trust in political support to the industry	The difficulty to start new businesses	The difficulty to start new businesses	The strong Rand
4.	High cost of crime	The difficulty to start new businesses	Trust in political support to the industry	Trust in political support to the industry	Administrative regulations
5.	Fluctuations in the exchange rate	Competence of the bureaucracy in the public sector	Competence of the bureaucracy in the public sector	South Africa's BEE and transformation legislation	Trust in political support to the industry

Source: SAWB (2005)



In short, SAWB's 2005 *Report on competitiveness* of the SA wine industry has found that smaller firms in the industry considered political and social issues as the most relevant issues to be addressed. In the above-mentioned report the larger, more established firms indicated that market factors, financial markets and monetary factors (such as the value of the Rand and exchange rate fluctuations) are the primary factors to be addressed. Differences in perceptions and expectations from the different kinds of stakeholder groupings about how the industry should improve, are also instructive in

terms of evaluating the effectiveness of the collective action challenges faced by the cluster.⁹

1.4 Research goals and study objectives

The thesis explores the effect of the coordination of collective actions on the competitiveness of the Western Cape wine cluster. I trust that this will foster a better understanding about how the quality of outcomes to collective action problems¹⁰ and the coordination thereof can enhance or constrain the cluster's success.

1.5 Structure of chapters

Chapter 1 presented an overview of the Western Cape wine cluster, its competitive situation, collective action problems facing the cluster, as well as the thesis research objectives. The remaining chapters are structured as follows: Chapter 2 presents the literature review, centering on the work on Michael Porter's (1998a) cluster diamond theory and the cluster governance model developed by De Langen (2004), concluding with the combined analytical framework for the thesis.

Chapter 3 provides an overview of the performance of the Western Cape wine cluster and the specific competitive and collective action challenges facing the cluster. Chapter

⁹ The percentage of smaller firms in the industry has grown (currently at 47% of the total number of firms within the industry) since the industry was deregulated in the early 1990's.

¹⁰ The collective action problems/issues used in the study represent the strategic collective actions recommended by the *Report on Competitiveness of the SA Wine Industry* (2005).

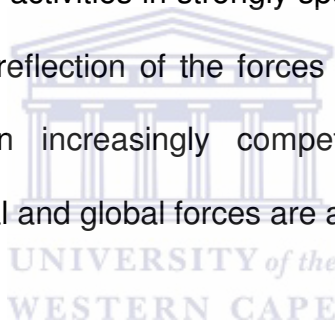
4 presents the research methodology, which is qualitative in nature. A case study approach has been combined with desktop research, face-to-face interviews and a semi-structured questionnaire to collect the data. Chapter 5 presents the data from the semi-structured interviews and the questionnaire instrument, an analysis, data results and a discussion. The thesis concludes with Chapter 6, which presents the thesis findings and conclusions as well as possible future research areas. The literature review and theoretical framework for the study is explained next in Chapter 2.



2. LITERATURE REVIEW

2.1 Introduction

One of the most salient features of economic structures in the global economy is the significant growth of linkages across geographically dispersed locations (Ketels and Memedovic, 2008). The globalisation of value chains, leading to the dispersion of business activities, also reflects strong forces brought about by globalisation. However, the embeddedness of individual activities in strongly specialised local clusters of related and supporting industries is a reflection of the forces leading to the agglomeration of business activities. Hence, in increasingly competitive international markets, a combination of increasingly local and global forces are at play.



Organisations also need to deal with the opposing forces of globalisation and localisation simultaneously. In some markets, firms compete directly, while in others they may have to cooperate in order to leverage the more advanced production factors in an increasingly knowledge-based economy. Here, firms need to assimilate rapidly changing technologies, often resulting in demand for new products with shortened life-cycles. These kinds of changes in market demands often require larger investment funding levels, leading firms to increasingly cooperate in order to overcome individual firms' limitations in confronting the above-mentioned market forces on their own. These limitations also include higher levels of uncertainty, a limited ability to respond to market

changes based on the vertically integrated nature of firms and investments in specific assets, and so on (Child and Faulkner, 1998).

Similarly, De Wit and Meyer (2010: 379) argue that firms must engage in competition and cooperation simultaneously, even though the demands that drive firms to compete and those that drive them to cooperate are diametrically opposed. Meeting the pressure for cooperation requires that firms become part of a broader “team”, spinning a web of close collaborative relationships. However, De Wit and Meyer (2010) caution that firms should not become too entangled in restrictive relationships, but should remain free to manoeuvre, bargain and attack in order to secure their own interests. Put differently, firms must be embedded in a network of cooperative interactions and relationships, while also being independent enough to wield their power to their own advantage. Cooperative strategy thus derives from network-level strategy. The link between network theory and competitive strategy is provided in the section below.

According to Child and Faulkner (1998), network theory forms an integral part of present day competitiveness. The theoretical framework for the thesis, which is based on Porter’s (1998a) cluster theory, derives from network theory, among others. The origins of cluster theory are explained in the next section, which commences with an overview of Porter’s (1998a) cluster theory. Porter argues that competitive advantage is created through a highly localised process, where firms can collaborate to enhance cluster upgrading and differences in national values, culture, economic structures, institutions and histories, which all contribute to competitive success. On a national level, Porter

argues that a nation's competitiveness depends on the capacity of its firms to innovate and upgrade. Competitive regions thus require strong domestic firms, aggressive home-based suppliers and demanding local customers, resulting in strong firm rivalry at regional cluster and country levels. The influence of globalisation and global markets will now be discussed in the context of competitive advantage and cluster competitiveness.

The importance of clusters for the understanding of industrial development was first pointed out by the British economist Alfred Marshall at the end of the 19th century (Meyer-Stamer and Harmes-Liedtke, 2005). However, the role of clusters in competition has changed significantly with the onset and influence of globalisation and the resulting growing need for information on different market needs, etc. As clusters are broader than industries, they “capture important linkages, complementarities and spillovers of technology, skills, information, marketing and customer needs that cut across firms and industries” (Porter, 1998a: 221). Such connections are fundamental to competition, productivity and especially the direction and pace of new business formation and innovation. According to Porter (1998a: 221), “clusters align better with the nature of competition and the sources of competitive advantage” since most cluster participants share many common needs and opportunities and encounter many common constraints and obstacles to productivity. Viewing a group of companies and institutions as a cluster highlights opportunities for coordination and mutual improvement in areas of common concern, without necessarily threatening or distorting competition or limiting the intensity

of rivalry. Firms adopting a cluster perspective may enhance competitiveness, with clusters combining competition and cooperation (Porter, 1998a).

Nauwelaers (2001) describes the rationale behind the cluster concept as “the essence which rests on the idea that an agglomeration of firms, developing a web of relationships and subtle mixes of cooperative and competitive practices and an adequate form of economic organisation. It leads to the creation of competitive advantages for the territory on which this agglomeration is located”. However, the difficulties of initiating a cluster process should not be underestimated, since the risks and costs that firms confront when participating in a cluster initiative may often be perceived as impossible to surmount (Boekholt and Thuriaux, 1999). Boekholt and Thuriaux (1999) caution that cluster facilitators should be aware that not all actors will be open to participation and to share knowledge and information for the good of the cluster, for example, due to the risk opportunism, hold-up, etc.¹¹ Initiatives to bring together firms for the sake of collaboration on strategic aspects of their business operations may therefore not work for firms who view competition and cooperation as irreconcilable and are not used to cooperating with other firms.

Clustering policies should also be determined according to policy priorities and adjusted in a timely way to meet challenges in the business environment. It is imperative to promote interaction among all key stakeholders that seek the full benefits of clustering (Boddy, 2000, cited in Wickam, 2005).

¹¹ Williamson (1995)

The next section addresses Porter's cluster diamond theory of international competition. This is followed by the presentation of the analytical framework for the thesis.

2.2 Cluster theory – combining competition and cooperation

In the era of globalisation, cluster theory draws increasingly less on agglomeration economies and more on economic geography, urban and regional economics, national innovation systems, industrial districts, new growth theories and international trade. From a management perspective, cluster theory also draws on the literature on cultural differences in international trade, the importance of corporate location in globalising markets and on social networks (Porter, 1998a).

Cluster theory therefore bridges network theory and competitiveness. It focusses on how the relatedness of economically linked firms and institutions in a specific geographic region affects its competitiveness. According to Porter (1998a: 242), while some advantages of clusters are largely independent of social relationships, most if not all have at least a relationship component. More importantly, "a firm's identification with and sense of community, derived from its cluster membership, translate directly into economic value". Cluster theory can therefore be seen to "extend *social capital* by exploring the mechanisms through which a structure of network relationships within a geographic location, produce benefits for particular firms". Furthermore, "benefits of trust and organisational permeability, fostered through repeated interactions and a sense of mutual dependence within a region clearly grease the interactions within

clusters that enhance productivity, spur innovation and result in the creation of new businesses” (Porter, 1998a: 242). He asserts that well-functioning clusters move beyond hierarchical networks to become “lattices of numerous overlapping and fluid connections among individuals, firms and institutions”. However, they cannot be understood outside of a broader theory of competition and competitive strategy in global economies (Porter, 1998a: 242). A shortcoming of Porter’s cluster ‘diamond’ theory though, is that it does not go far enough in showing how the interaction effects in the socio-economy of clusters manifest and are operationalised in clusters.

According to Meyer-Stamer and Harmes-Liedtke (2005), strong local rivalry in clusters is often one of the primary drivers of cluster growth and competitiveness. While local rivalry drives down prices, it may also stimulate innovation-driven upgrading within a cluster when easy availability of inputs and production factors reduces transaction costs and entry barriers, and local suppliers are able to increase the quality of their inputs.

However, the primary disadvantage of clusters is that intense competition, coupled with customer demand that outstrips suppliers’ capability, can lead to rising material and labour costs. Over time, this may lead to diminished competitiveness of the cluster. With a disproportionate reliance on one or two key industries in a cluster, the socioeconomic impact of the industry going into decline may also be far greater. Cluster promotion must therefore be balanced with initiatives to promote diversity within the SMME sector (Meyer-Stamer and Harmes-Liedtke, 2005).

2.2.1 Definition and key characteristics of clusters

Porter, (1998a: 226) provides another definition of a cluster - defining it as “a form of a network that occurs within a geographical location, in which the proximity of firms and institutions ensures certain forms of commonality and increases the frequency and impact of interactions”. Another definition by the same author is that clusters are “geographic concentrations of interconnected companies, specialized suppliers, service providers, firms in related industries and associated institutions (e.g. universities, standards agencies, trade associations) in particular fields that compete but also cooperate” (Porter,1998a: 215). This means that trade associations can be competitive assets as well as lobbying and social organisations. Similarly, government agencies that significantly influence a cluster can be considered part of a cluster and can also include collective private sector bodies that support cluster members. Altenburg and Meyer-Stamer (1999), cited in Rodríguez-Clare (2005), state that business associations, for instance, may play an important role in organising sector exchange between firms and training institutions, resulting in training institutions offering the kind of qualification that firms need most.

Most cluster participants do not compete directly but serve different industry segments, with cluster participants often sharing common needs and opportunities while encountering common constraints and obstacles to productivity. Cluster boundaries, according to Porter (1998a), encompass all firms, industries and institutions with strong linkages – whether vertical, horizontal or institutional. Broader than industries, clusters

capture important linkages, complementarities and spillovers that cut across firms and industries. Viewing a group of companies and institutions as a cluster may highlight opportunities for coordination and combined improvement in areas of common concern, without threatening or distorting competition or limiting the intensity of rivalry. Porter (2000a:259) states that clusters affect competition in three main ways:

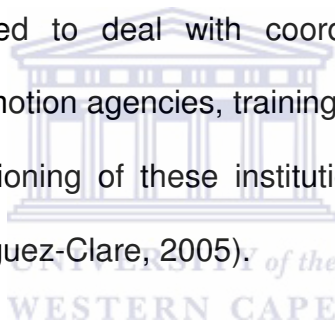
- 1) increasing productivity of constituent firms or industries of various sorts;
- 2) increasing the capacity of firms for innovation and productivity growth; and
- 3) stimulating new business formation that supports innovation and expands the cluster.

Many cluster advantages thus rest on external economies or spillovers across firms and industries of various sorts. Many of these advantages also apply to sub-units within firms, for example, R&D, marketing, production, etc. Each of the three broad influences of clusters on competition depends to some extent on personal relationships, face-to-face communication and an interaction among networks of individuals and institutions (Porter, 2000b:21).

According to Rodríguez-Clare (2005), clusters can be seen as agglomerations of firms and organisations in related economic activities among which coordination failures are likely to arise. Opportunities for microeconomic interventions that promote coordination and collective action to improve productivity therefore exist in clusters. Rodríguez-Clare (2005) also states that coordination can also be achieved owing to the strategic actions of a large player (e.g. a university or a multinational) and that clusters, due to

agglomeration economies, can lead to increasing productivity as a result of the geographic concentration of related industries. Such geographic concentration offers the possibility of higher productivity – if coordination mechanisms overcome market failures.

In order to identify the areas where collective action would be useful, business associations must play an active role in the process of coordinating collective action. However, to make this work, would require the strengthening of business associations and the identification of areas where collective action would have the highest payoff. Several of the actions needed to deal with coordination failures involve public institutions, such as export promotion agencies, training institutions, and public research centres. The appropriate functioning of these institutions is important for the proper coordination of a cluster (Rodríguez-Clare, 2005).



A number of other authors (Harrison, 1992; Fukuyama 2001) confirm this and provide more insight into the social network effects. The following section provides an overview of the effects of social networks.

Social network effects and trust-building institutions

Harrison (1992: 16)¹³ states that “The overriding significance of culture is the paramount lesson I have learnt in my thirty years of work on political, economic and social development”. With respect to culture, Harrison (1992) argues that (1) the degree of identification with others in a society – the radius of trust, or the sense of community; (2) the rigour of the ethical system; (3) the way authority is exercised within the society; and (4) attitudes about work, innovation, saving, and profit are four fundamental factors characteristic of a culture which engenders prosperity and progress. Harrison also states that the economies of *high-trust* countries such as Japan have proved to be relatively productive, in large part because successful enterprise usually depends on effective organisation and cooperation, which in turn depend on trust. In contrast, in *low-trust* societies, such as the US, where trust generally extends only to close friends and family, the cooperation necessary for large corporations is primarily achieved under “a system of formal rules and regulations, which normally have to be negotiated, agreed to, litigated, and enforced, sometimes by coercive means” (Harrison, 1992: 11). According to Fukuyama (1995: 27–28)¹⁴, this legal and regulatory apparatus, which is unnecessary in a high-trust society, serves as a substitute for trust and imposes a high burden of transaction costs in low-trust societies: “Widespread distrust in a society thus

¹³ Harrison, L.E. 1992. *Who Prospers?: How Cultural Values Shape Economic and Political Success*. New York: Basic Books (cited in Hunt, 2000).

¹⁴ Fukuyama, F. 1995. *Trust: The Social Virtues and the Creation of Prosperity*. New York: Free Press (cited in Hunt, 2000).

imposes a kind of tax on all forms of economic activity, a tax that high trust societies do not have to pay”.

According to Hunt (2000: 235), “If (at the microlevel) the primary objective of firms is superior financial performance, but (at the macrolevel) a key factor distinguishing wealthy from non-wealthy societies is trust-promoting institutions, the challenge for any theory of competition is to explicate the process by which such macrolevel, trust-promoting institutions as moral codes can contribute to (or detract from) firm-level, superior financial performance”. With respect to the importance of trust in enhancing competitiveness, Arrow (1972)¹⁵ refers to trust as one of society’s “invisible institutions” and hypothesises that because “virtually every commercial transaction has within itself an element of trust... it can be argued that much of the economic backwardness in the world can be explained by the lack of mutual confidence”. Trust, according to Arrow, thus promotes economic growth because it is an “important lubricant of the social system”. This argument is similar to that of Porter’s view (provided in Section 2.3.2 on the socioeconomy of clusters), which forms part of the theoretical framework of this thesis, which is provided in the following section.

In view of the contribution of the above authors, I have incorporated Porter’s (1998a) diamond theory of international competition in providing the broader theoretical framework for the thesis. This is presented next in part one of the theoretical framework and is followed by the cluster governance framework developed by De Langen (2004),

¹⁵ ditto

which addresses the nature of cluster governance and its effect on the competitiveness of a cluster.

2.3 Theoretical framework

2.3.1 Theoretical framework: Part 1 – Porter’s cluster diamond model

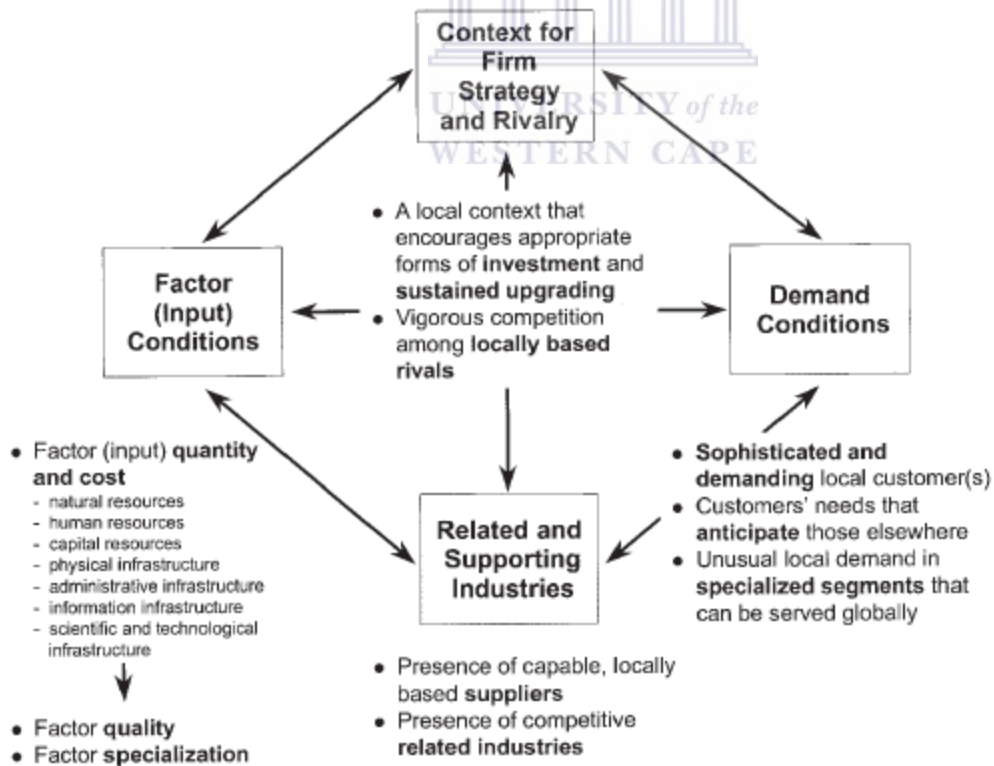
In his “diamond model” of international competition, Porter (1990, 1998a), argues that a nation’s prosperity is created by strategic choices and is not inherited or set by its factor endowments. In *The competitive advantage of nations* (1990), Porter models the effect of location on competition using four interrelated influences. These have been graphically depicted in the shape of a diamond, illustrating the effects of (1) factor or input conditions, (2) demand conditions, (3) the context for firm strategy and rivalry, and (4) related and supporting industries. According to Porter (2000a), parallel improvements in the sophistication of company operations and strategies and the quality of the diamond provide the microeconomic foundations of economic development. The role of government, private firms and trade associations is acknowledged, in addition to the historical circumstances affecting the development of a cluster and its inherent roots.

Porter (1998a: 253) states that “the enduring competitive advantages in a global economy are often heavily local, arising from concentrations of highly specialized skills and knowledge, institutions, rivals, related businesses and sophisticated customers in a particular nation or region”. Local proximity, cultural and institutional terms allow for

unique access, special relationships, better (more tacit) information relay, powerful incentives such as access to local policy and decision-makers, and advantages in productivity and productivity growth that are difficult to leverage at a distance. More advanced factors of production or 'dimensions of competitiveness' are therefore geographically bounded, while standard factor inputs, information and technologies are readily available through globalization forces such as advanced technology and communication systems.

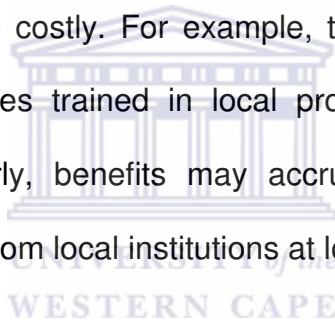
Figure 1 below depicts Porter's diamond model and the sources of (local) location advantage.

Figure 1: Porter's diamond model and the sources of location advantage



Source: Porter, M (2000b). *Location, competition, and economic development: Local clusters in a global economy*

Concerning the role of clusters in competition, Porter (2000c: 214) explains that clusters “represent a spatial *organizational form that can be an inherently more efficient or more effective means of assembling inputs* – if competitive local suppliers are available”. In order to increase productivity, factor inputs must improve in quality and in its efficiency. Ultimately, factor inputs lead to specialisation in clusters. The role of specialised factors – such as the availability of trained and experienced labour, specialised university research institutes, and the availability of higher quality or specialized inputs into production processes – may be required to attain higher levels of productivity, innovation and upgrading. Clusters thus convert many inputs into public or quasi-public goods that would otherwise be costly. For example, the benefits that accrue to local firms able to access employees trained in local programmes, which reduce firms’ internal training costs. Similarly, benefits may accrue from access to specialised infrastructure or expert advice from local institutions at lower costs.



Furthermore, developed clusters consist not only of one industry, but of a number of related industries, which often draw on common or very similar inputs. This “multi-industry” characteristic of clusters expands the growth, efficiency and specialisation opportunities for suppliers in the cluster. The breadth and depth of a cluster is often more important than the size of individual firms in a cluster. Clustering can also limit the importance of costs of certain specialised inputs required by a large number of firms in a cluster (such as cork for the local wine industry) by using more efficient means of negotiating for volume purchases and of (combined) delivery arrangements (Porter, 2000c: 215).

Concerning the *context for firm strategy and rivalry* (referring to the rules, incentives and norms governing the type and intensity of local rivalry), Porter asserts that for cluster upgrading, vigorous local rivalry is necessary and that this is evidenced in the more advanced economies. Cluster upgrading requires that rivalry shift from low wages to low total cost, which in turn, requires upgrades in the efficiency of manufacturing and service delivery activities. According to Porter (2000c), rivalry ultimately must evolve from a cost basis to include differentiation, with competition shifting from *imitation to innovation* and from *low to high investment* in physical assets and *intangible assets* (e.g. skills, technology).

Many aspects of the business environment, such as the available factors and local demand conditions strongly influence the character of rivalry (Porter, 1998a). However, the investment climate and policies toward competition set the context and contribute to the willingness of companies to invest in upgrading capital equipment, skills and technology. These are affected by the macroeconomic and political stability, the tax system, labour market policies affecting the incentives for workforce development, intellectual property rules and their enforcement etc. Government ownership and licensing rules, antitrust, trade, foreign investment policy and corruption heavily influence the intensity of local rivalry.

Complementarities in clusters

Complementarities between the activities of cluster participants (such as in marketing and tourism activities) also exist where the presence of a group of related firms and industries offers efficiencies in joint marketing efforts (such as marketing delegations, regional trade fairs, trade magazines and referrals). Complementarities across products may also exist and can be valuable in developing positive reputational effects for firms within the region. Regional reputation can be deemed a type of public good (and hence, open to the problem of free-riding). Information built up within a cluster may also be deemed a quasi-public good (Porter, 2000c: 218). Fensterseifer and Rastoin (2010) refer to the importance of a region or cluster's reputational capital, such as – in the case of the wine industry – (wine of) origin appellations, wine tourism attractiveness, etc. Buying efficiencies may also be enhanced in clusters where the presence of multiple sources reduces the potential risk of buyers not able to multisource or switch vendors if the need arises (Porter, 2000c: 218).

Complementarities due to the proximity, supply and technological linkages, together with the existence of personal relationships and community ties fostering trust, facilitate information *impactedness* and the information flow within clusters (Porter 2000c: 216). Co-location also makes it easier to achieve technological linkages as well as ongoing coordination, leading to co-specialisation. According to Porter (2000c: 222), the geographic concentration of clusters, particularly concerning *related and supporting industries*, occurs because proximity serves to amplify many of the productivity and innovation benefits of clustering. Competitive and peer pressures are more keenly felt,

while – simultaneously – transaction costs are reduced, information creation and flow improves, and local institutions respond more readily to a cluster’s specialised needs. Although related and supporting industries constitute one facet of the diamond, clusters are best seen as a manifestation of the interactions among all of the diamond’s four facets (Porter, 2000c: 213).¹⁶ As much cooperation involves related industries and local institutions, competition and cooperation can co-exist in clusters. The benefits of spillover between members of different industry associations and trade associations may also be advantageous to the spread of information, which can be leveraged to the benefit of firms represented on these different fora (Porter, 2000c: 223).

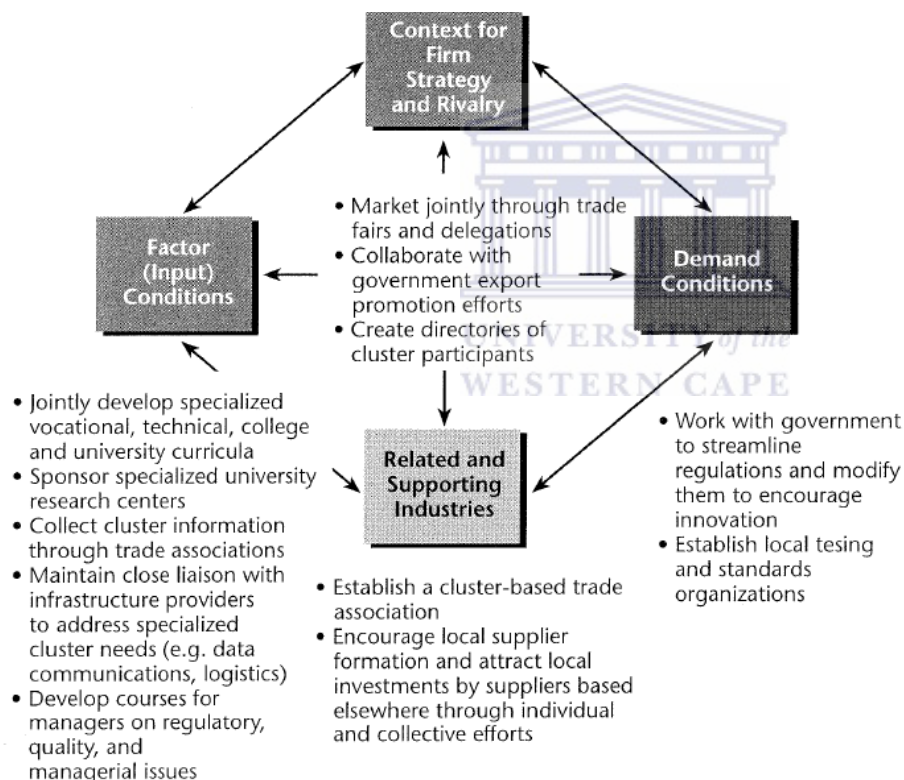
With a geographically proximate cluster of independent and informally linked firms and institutions, many incentive problems can be minimized. Reducing transaction costs through repeated interactions and informal contracts within a cluster may result from living and working in the same region. This fosters trust, open communication, and lowers the cost of serving and recombining market relationships (Porter, 2000c: 223). Many of the organisational incentives problems that stand in the way of efficiency and that increase transaction costs can be addressed by combining proximity of location and the benefits of linkages and complementarities within clusters. However, one shortcoming of Porter’s *industrial cluster theory* is that he does not explain how these benefits and risks can be navigated.

¹⁶ Porter M. (2000). On Competition

Porter (2000c) further posits that in a global economy, clusters of linked industries play a key role in giving rise to demand-side advantages, for example, the quality of local demand may matter far more than the size of local demand.

Figure 2 shows how private sector firms can jointly, in cooperation with government and business or industry associations, influence a cluster’s upgrading and competitiveness.

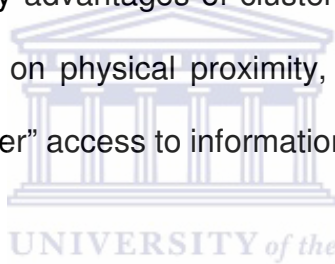
Figure 2: The diamond model and private sector influences on cluster upgrading



Source: Porter, M (2000c)

2.3.2 The socioeconomy of clusters

Porter (2000c: 225) states that a clusters' social structure can be seen as the "social glue" that binds clusters together and contributes to the value creation process within clusters. Relationships, networks and a sense of shared interest underlie many of the competitive advantages of clusters, which depend on the free flow of information, the discovery of value-adding exchanges or transactions, the willingness to align agendas and work across organisations etc. Formal and informal organising mechanisms and cultural norms therefore often play a role in the cluster's development and functioning. Indeed, many of the productivity advantages of clusters involve location-specific public goods or benefits that depend on physical proximity, face-to-face contact, close and ongoing relationships and "insider" access to information (Porter, 2000c: 214).



Because of repeated interactions, the easy spread of information and reputation, and the desire to maintain a standing in the local community, cluster participants usually strive for constructive interactions that can positively affect their long-term interests. Clusters may therefore offer the benefit of limiting opportunistic behaviour. Porter (2000c: 227) argues that "cluster theory provides a way to connect theories of networks, social capital, civic / community engagements more tightly to business competition and to economic prosperity – and to extend them". While cluster theory helps isolate the most beneficial forms of networks (such as those that facilitate open information exchange between customers and suppliers), it does not provide an understanding of the ways clusters work and how they can become more productive. This can be considered a limitation of Porter's industrial cluster theory. This is an area where

network and institutional theories are useful for highlighting the effects of interactions between agents and institutions.

According to Porter (2000c: 227), cluster theory might also reveal how network relations form and how social capital is acquired, and helps to unscramble questions of cause and effect. For example, do strong relationships and trust arise because a cluster exists or are clusters more likely to develop from existing networks?”

Paying explicit attention to relationship building is thus an important consideration of cluster development initiatives. However, the cluster development process depends strongly on the efficacy of the diamond’s feedback loops; for example, on how well local educational, regulatory and other institutions respond to a cluster’s needs, or how rapidly capable suppliers respond to cluster opportunities. The intensity of local competition, the location’s overall environment for new business formation, and the efficacy of formal and informal mechanisms for bringing together cluster participants, deserve special attention. Individuals, firms, trade associations and collective bodies all play important roles in facilitating the formation of these networks in clusters (Porter, 2000c: 240).

From the above discussion, it can be seen that economic activities are “embedded” in ongoing social relationships. These aspects will be looked at more closely in part two of the analytical framework, i.e. the cluster governance model developed by De Langen (2004).

To describe how specific cluster initiatives – i.e. collaborative activities by a group of companies, public sector entities and other related institutions with the objective to improve the competitiveness of a group of interlinked economic activities in a specific geographic region¹⁹ – are impacted by the socioeconomy of clusters, I have incorporated De Langen's (2004) cluster governance model into Porter's broader cluster diamond model. The cluster governance model shows how certain variables (such as the role of trust, associations, leader firms and collective action problems) impact on the quality of governance to produce economic outcomes for regional cluster participants. The cluster governance model developed by De Langen (2004) is presented in the next section – part two of the analytical framework.

2.3.3 Analytical framework: Part 2 – cluster governance

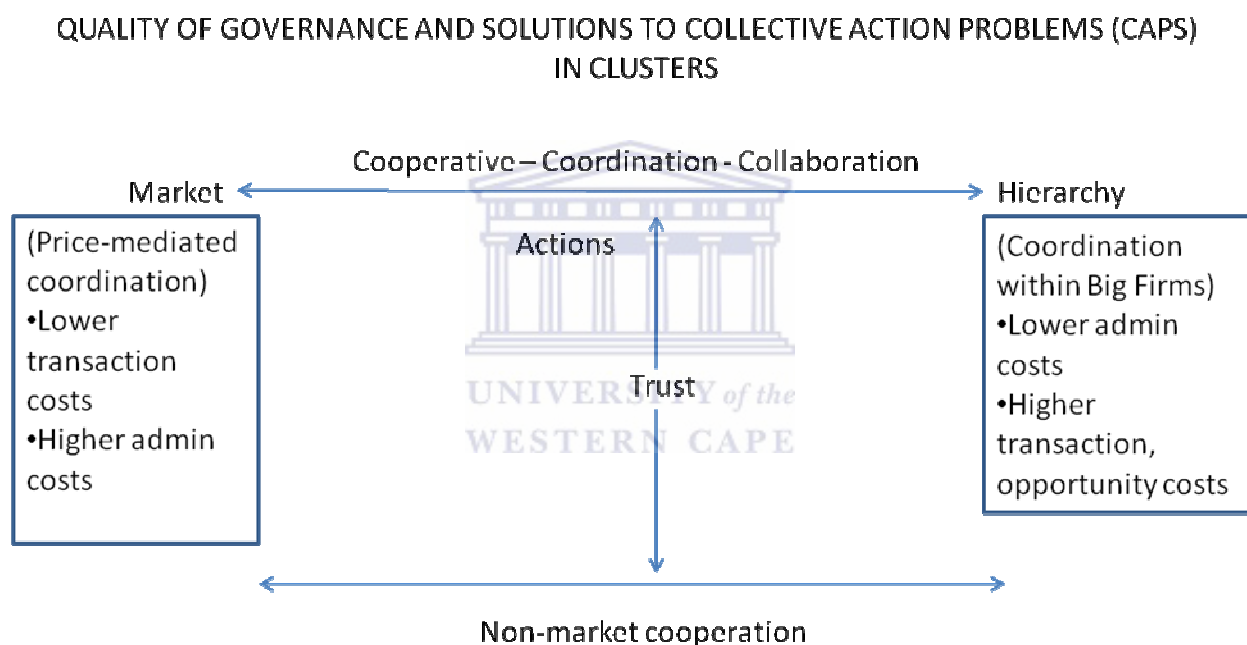
Clusters comprise different dimensions, including (1) the vertical dimension of inter-firm relationships in the *value chain*, (2) inter-firm relationships on the horizontal and lateral dimensions in *networks*, and (3) on the diagonal dimension, the linkages between value systems²⁰ and networks, sectors and sub-sectors. *Cluster governance* can be described as “the mix of relations between various mechanisms of coordination used in a cluster” (De Langen, 2004; Visser and De Langen, 2006: 181).

¹⁹ Presentation by Porter, M. (3 July 2007): Creating a Competitive South Africa

²⁰ Where individual firms form part of a value chain or system (De Langen, 2004)

The quality of cluster governance²¹ depends on the *level of coordination costs* and the *scope of coordination beyond price*. *Low* coordination costs and *much* coordination beyond price improve the quality of governance.²² The nature of coordination or *quality* of the governance thus differs between clusters. Figure 3 refers.

Figure 3: Quality of governance and solutions to collective action problems in clusters

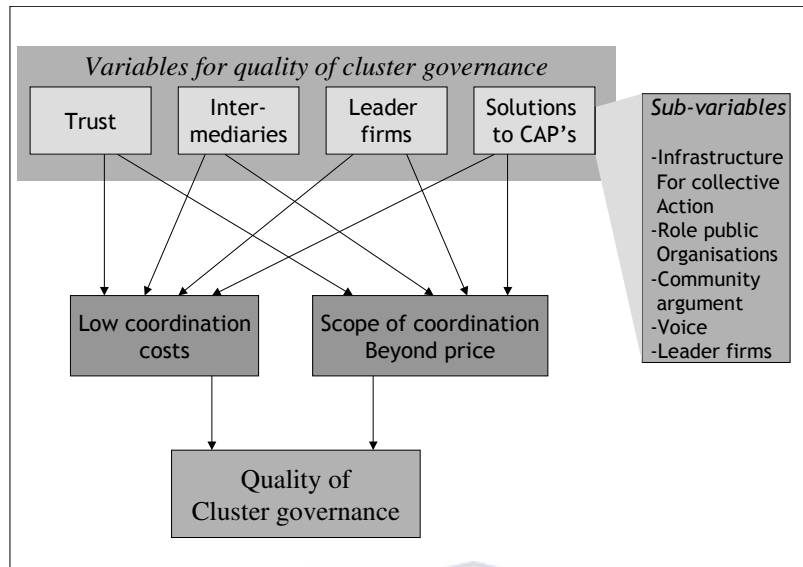


De Langen's (2004) *cluster governance framework* is depicted in the next illustration (Figure 4).

²¹ Quality from the perspective of the firms in the cluster population

²² Given the presence of healthy competition. Since regulations prevent collusion, De Langen (2004) claims that coordination beyond price adds *ceteris paribus* to the quality of cluster governance.

Figure 4: Variables influencing the quality of cluster governance



De Langen (2004) states that when the benefits of coordination are *distributed unequally*, i.e. when (the threat of) *opportunistic behaviour* prevents coordination or when the benefits of coordination are *uncertain*, coordination beyond price does not arise *spontaneously* or *instantaneously*, even when benefits of coordination exceed costs. There is therefore a general shortage of coordination beyond price. More coordination beyond price improves cluster governance quality. According to De Langen's framework, cluster governance depends on four variables: (1) trust, (2) leader firms, (3) knowledge intermediaries, and (4) solutions to collective action problems (CAPs).

The governance of joint action in clusters is important, for several reasons. These include the collective challenges of cluster participants to upgrade production, ensure quality and maintain or expand diversity in products and or services. In the wine

industry, average sale prices of wine from certain countries or regions may drop, owing to a lack of variety and differentiation or due to image problems. These may only be resolved via joint action, involving other industries as well as public agencies (Visser, 2006: 6).

Outcomes of the research conducted by Visser and De Langen (2006) in Chile's wine cluster has highlighted the importance of cluster governance in the resolution of these problems in order to improve the cluster's competitiveness. The collective action problems that required effective governance of collective investments and joint actions by cluster participants in Chile's wine cluster were infrastructure, innovation, marketing, internationalisation, training and education, and the quality of Chile's wines.

The following section provides an overview of the cluster governance framework. I will then present the combined framework for the thesis, which overlays Porter's (1998) diamond model and De Langen's (2004) cluster governance model.

De Langen's (2004) model argues that the four *cluster governance variables* – i.e. *trust*, *leader firms*, *knowledge intermediaries* and *solutions to collective action problems* (CAPs) – lower transaction costs. Transaction costs are the costs of managing the risk, of opportunistic behaviour and knowledge spillovers, which are associated with external production or logistic or strategic investment relations with other firms). The presence of cluster governance variables may also increase the scope of non-market coordination, as opposed to managed coordination, or more formal mechanisms of market or price

control. The increase in the scope of non-market coordination occurs because trust acts to limit the risk of free-riding in the cluster.

By limiting the risks of spillover and opportunistic behaviour, trust (in people's benevolence) lowers the costs of specifying contracts and facilitates cooperation, especially in the case of dynamic ventures when control alternatives are not sufficient (Visser, 2004: 7). Where levels of trust are high, average transaction costs may be relatively low. This can be contributed mainly to the relatively lower costs of specifying contracts and of monitoring performance. Specific investments, for example, such as for specialised assets, may also be more viable when partners trust one another, as opposed to when the risk of opportunistic behaviour is high. Specific investments for partners are thus more likely to occur in *high-trust clusters*. Due to reduced uncertainty and lower threats of opportunistic behaviour in high-trust clusters, the scope of coordination beyond price is thus larger than in low-trust clusters (De Langen, 2004).

According to Visser (2004: 8), non-market coordination arrangements do not arise spontaneously, but require mechanisms of trust²³, leader firms, knowledge intermediaries, and legitimate community arguments²⁴, the effective use of "voice"²⁵ by individual firms.

²³ According to Nooteboom (2000), trust can be based on experience and changes through learning. Trust therefore does not have to be blind; whether it is rational or not to trust potential partners, depends on the cluster environment (De Langen, 2004).

²⁴ defined as an argument to persuade firms in the cluster to contribute to joint projects, because they are part of a community (Visser, 2004).

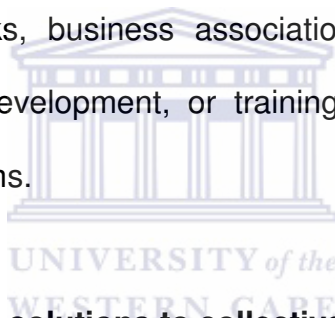
²⁵ Voice is exerted by individual firms that are not happy with the lack or quality of a solution to a collective action problem (Visser, 2004:8)

The second variable – *leader firms* – are firms that, due to their market position, size, knowledge and entrepreneurial skills, have both the ability and incentive to invest in collective sources of competitiveness. They thus make investments with positive external effects for other firms in the cluster. Examples are investments in training and in the quality of the labour market. In doing so, they may also encourage innovation and cluster upgrading. Leader firms may also have superior strategic insight, may be able to collect funds for joint investments, and contribute positively to the reduction of risk, transaction costs and difficult distribution issues associated with joint actions, etc. (Visser, 2004: 8). Leader firms can thus enlarge the scope of coordination beyond price and can also reduce transaction or coordination costs within a cluster. Leader firms may be enablers for innovation and/or internationalisation of other firms in a cluster. When firms in a cluster exhibit leader firm behaviour, the cluster as a whole thus benefits. However, no direct or automatic relationship exists between firm size and leader firm behaviour. Small firms can and often do behave as leader firms in a cluster (De Langen, 2004).

The third variable – *knowledge intermediaries* (such as universities, training centres, research and development institutes, business associations and public agencies) – diffuse information. This may enhance companies' capabilities and their strategic insight, and may stimulate joint action and enable cooperation. Knowledge intermediaries may also act as brokers in cluster coalitions (Visser 2006: 8). They can therefore have a positive influence on clusters if they provide a “bridging tie” between two or more otherwise unconnected exchange or business partners. Intermediaries also

provide *cognitive connections* in that they can bridge cognitive differences between firms operating in different market environments. They can also reduce coordination costs by managing cooperative projects, especially when these are of a shorter-term nature.

The fourth variable – *collective action problems* (CAPs) – may arise in clusters due to positive externalities (causing a difference between private and social costs and benefits) and non-excludability (i.e. of private agents not investing or not contributing). Solutions for these collective action problems require non-market coordination, for example by inter-firm networks, business associations, public-private partnerships, alliances with research and development, or training institutes to solve production, reputation or innovation problems.



Collective action regimes and solutions to collective action problems

For each specific collective action problem or challenge, a *collective action regime* arises. A collective action regime can be defined as “a relatively stable agreement that provides actors with the capacity to overcome collective action problems” (De Langen, 2004:61). He argues that collective action regimes arise when large numbers of firms in a cluster cooperate and define the “rules of the game”. According to Hollingsworth et al. (1994)²⁸, differences in regimes are central to competition between clusters, since “economic competition is increasingly becoming competition over different systems of

²⁸ Cited in De Langen, 2004

production". According to De Langen (2004), regimes are path-dependant and relatively stable over time. They are not necessarily efficient and do not automatically adapt. This may be due to the investment of time, energy and/or finance (which may lead to sunk costs) into a regime or collective agreement between stakeholders in the cluster. This may lead to inefficiency and may thus negatively affect a cluster's performance.

In a situation where the four above-mentioned variables lead to low governance quality, collective problems may not be resolved adequately. This may occur in areas such as innovation (of products, processes, organisation or services), marketing and promotion of products or services from a particular region, external infrastructure and/or in training and education, etc. Where collective action problems are not adequately resolved, this may lead to the loss of competitiveness of the cluster (Visser, 2004: 13).

Collective action problems in the Western Cape wine cluster

In the Western Cape wine cluster, the challenges identified by the key cluster participants are internationalisation, marketing and branding, training and development of labour, quality of wine, innovation, physical and virtual infrastructure, and black economic empowerment (BEE). An overview of the Western Cape wine cluster is provided in Chapter 4, in accordance with Porter's diamond model, together with key facts related to the collective action problems experienced by participants in the Western Cape wine cluster.

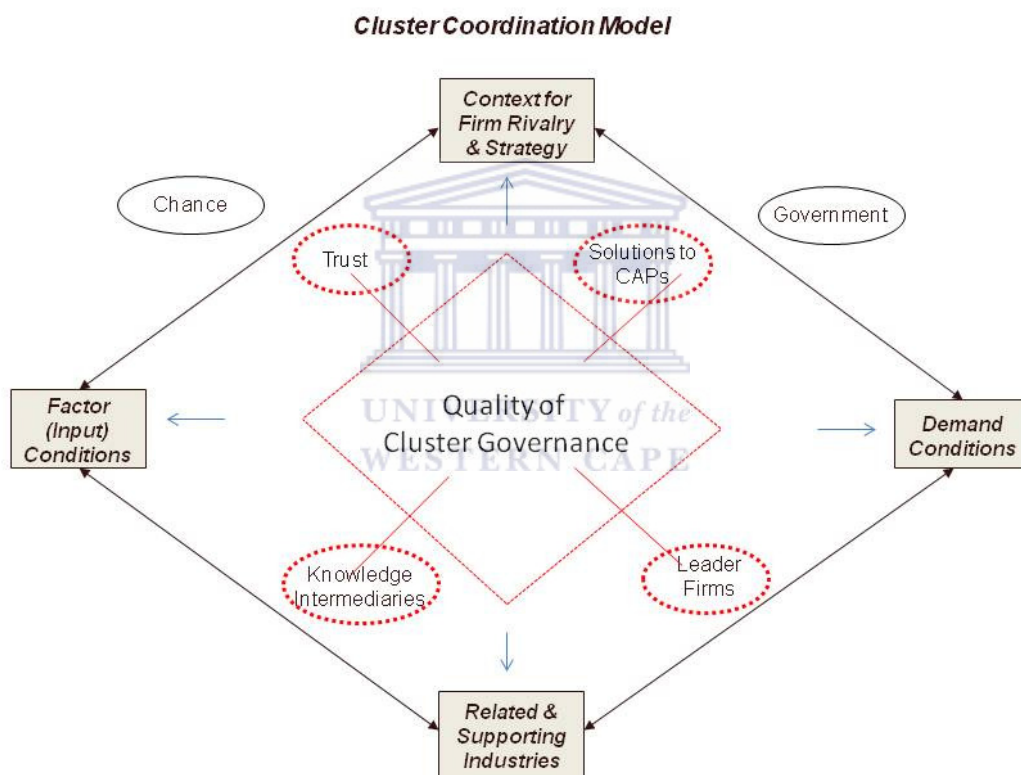
2.3.4 Combined analytical framework

Figure 4 depicts an adapted cluster governance model, based on the work of both Porter (1998a) and De Langen (2004). The influence of government, the community and other stakeholders as well as of chance (including the role of historical factors that have led to the unique conditions of particular clusters) have been included in the model. This inclusion into Porter's diamond model has been done to highlight the importance of chance to Porter (1998a). To highlight the embedded nature of economic activities in the institutional structure in which the cluster participants find themselves, the social institutions and networks affecting interactions within a cluster have also been included as part of the cluster governance model. These include the roles of leader firms, trust, knowledge intermediaries, industry and trade associations, and solutions to collective action problems influencing the cluster's governance and competitive outcomes.

In the combined model, *trust* has been used as an independent variable, *Solutions to CAPs* is used as a dependent variable, as opposed to its use in the model by De Langen (2004). Two of the three sub-variables affecting collective action problems – *associations* and *leader firms* – have also been collapsed and form part of the independent variables in the combined framework. The third sub-variable – *public organisations* – has been incorporated into the factor *government*, which affects the diamond's dynamics. Similarly, the sub-variables *community arguments* and "voice" have also been collapsed into the factor *community and other stakeholders*, which also affects the diamond's cluster dynamics.

The analytical framework for the mini-thesis is therefore a combination of Porter's (1998a) diamond model and De Langen's (2004) cluster governance model. I present this combined framework – which I have called the *cluster coordination model* – in Figure 5 below.

Figure 5: Cluster coordination model



Source: Adapted from Porter (1998a) and De Langen (2004)

2.3.5 Chapter summary

In this chapter, I have introduced key theoretical aspects relating to competition and cooperation in dynamic competitive environments. I discussed Porter's (1998a) cluster theory, specifically his diamond model of international competitiveness. I also highlighted the socioeconomy of clusters and its importance in clusters. The primary limitation of Porter's industrial cluster theory is that to date he has not elaborated on how the benefits of clusters can be navigated, or how the downside risks of opportunism, culture, etc. can be minimised. These important aspects have been left to network and institutional theorists, industrial psychologists and sociologists to explain.

I then introduced the cluster coordination or governance framework developed by De Langen (2004). This model shows the cluster governance variables which, taken together, both lower transaction costs and increase the scope of non-market coordination in a cluster. The cluster governance variables include trust, leader firms, knowledge intermediaries and solutions to collective action problems. De Langen (2004) states that, since the scope of non-market coordination and the transaction cost level differs among clusters, cluster governance quality also differs among clusters. This forms the basis for Chapter 5, which presents the empirical data that has been collected during the course of the survey and interview process.

In the next chapter (Chapter 3), I present the contextual information of which much information was obtained via desktop review, in addition to information obtained from

initial background interviews conducted with role players in the Western Cape wine cluster. This information is presented next in Chapter 3, in the format of Porter's (1998a) cluster diamond model. The research methodology follows in Chapter 4.



3. CHAPTER THREE: CLUSTER PERFORMANCE AND KEY CHALLENGES

This chapter provides an overview of the competitive landscape of the South African wine industry, including its structure, key institutional actors, primary challenges and the overall performance of South Africa's wine cluster.²⁹ It is structured according to the framework of Porter's (1998) cluster model of international competitiveness, which has been explained in the literature review chapter.

In the next section provides an overview of South Africa's wine cluster is provided. Much of the information has been gathered by means of a desktop review, with the bulk of the information sourced from the internet. The first of the primary factors affecting the cluster's competitiveness – the demand conditions – is presented next. The chapter concludes with a summary of the cluster-specific information and serves to provide a local context to the empirical data and analysis chapter that follows.

3.1 Demand conditions

3.1.1 Domestic consumption patterns

While wine production levels have risen over the past few years³⁰, South Africa's per capita consumption has declined³¹ (by 24% over a 10-year period - over 2% per

²⁹ The Western Cape cluster constitutes approximately 90% of the country cluster structures and activities.

³⁰ SA is the 7th largest wine producer and 8th largest exporter (Financial Mail, 24 June 2010)

annum). In relation to the rest of the New World wine producing countries, South African consumption ranks the lowest. Reasons for wine's declining popularity include the exodus of the young white South Africans (approximately 1 million) from SA over the past decade.³² Wine consumption has also declined steadily in relation to beer. The "non-consumption" of wine by the black South African population, who represent approximately 80% of the population is another reason³³. The majority of wine consumed by the majority of South Africans is also generally of low quality³⁴ and a legacy of the apartheid regime. According to the organiser of the Soweto Wine Festival, "Wine drinking is still seen as elitist and white among the black population, who traditionally have drunk beer and brandy" (The Independent, 2007, cited in Davidson et al., 2009).³⁵ This is in contrast to the situation in Italy and other Old World wine countries, where table wine is traditionally drunk with local cuisine and forms part of the national culture and heritage (Svenson, 2009). Developing the local wine-drinking (South African) consumer market may thus not offer the growth potential in the short to medium term, as opposed to developing the taste for SA wine in export markets, particularly the non-traditional export markets (outside the UK).

³¹ from 9.8 litres in 1997 to 7.43 litres in 2007 (SAWIS 2009/10)

³² According to wine expert, Neil Pendock, cited in Financial Mail, 24 June 2010.

³³ Mostly due to the impact of substitutes (beer), the relative inaccessibility of (good quality) wine for the majority black South African population, partly due to the premiumisation of wine.

³⁴ In 2007, 82% of white wine consumed retailed for less than R25. This phenomenon can generally be attributed to an extremely high volume of very poor quality wine which is consumed by low-income groups in rural areas in South Africa (Euromonitor International – South Africa, 2006, cited in Davidson et al., 2009)

³⁵ The same article indicates that the South African Black Vintners Alliance (SABVA), has estimated that as a result of the apartheid legacy still evident in South Africa, there are only twenty five black winemakers in South Africa.

3.1.2 International Market

With respect to the international markets, the top five markets for South African wine (packaged and bulk) are, in descending order, the UK, Germany, Sweden, the Netherlands and Denmark. When it comes to packaged wine only, the UK also ranks as the top market for South African wine, followed by Sweden in second place, then the Netherlands, Germany and Denmark (Platter, 2011: 32). Between 1992 and 2003, wine was South Africa's fastest-growing export (SA Wine and Brandy Company, 2005).³⁶

The export market has, since 1994, largely compensated for the stagnant domestic market. Since 1998, SA's export volume in wine has continued to soar – to over 250%; SA is now ranked the 8th largest wine exporter to the world. The UK, the Netherlands, Germany, Sweden and US markets account for 75% of South Africa's wine exports.

However, the recent appreciation on the Rand against the currencies of SA's major trading partners, i.e. 30% against the Pound, 35% against the Euro and 25% against the US Dollar, has sapped the likelihood of producer profits from any export revenues. The export market accounts for 60% of annual natural wine sales (Financial Mail, 24 June 2010). Despite the growth in export markets, wine exporters have all experienced problems of "saturation" following massive increases by New World wine exporting countries, including Australia and Chile. This has resulted in strong competition from New World wine exporters who find themselves in much the same position. These have

³⁶ SAWB Vision 2020

added to the pressures on South African wine exporters, who have also had to contend with the volatility of the Rand.³⁷

According to Chironga et al. (2006), South African wines are often marketed overseas under brand names that do not exist in South Africa. This can be attributed to the fact that KWV, which handles the bulk of South Africa's wine exports³⁸ operates a number of joint ventures abroad.³⁹ South African wine is mostly sold in bulk quantities (focussing on cultivars rather than vineyards) to wholesalers and retailers in major Western markets. Several other independent South African vineyards have also recently entered the foreign market under the collective name "Matuba".⁴⁰

In terms of positioning, South African wines have a "cheap" image and are targeted towards the lower to middle range of the UK market. Compared to its major competitors, the price paid for SA wine in the UK (in 2009) amounted to 30% less than the price paid for Chilean wine imports and 70% less than wines bought from France. In 2009, SA was the fastest-growing wine category in the UK, (increasing its market share to 12.3%). However, the dominance of supermarket chains (in the UK and other markets) pose a significant barrier to achieving profitable exports. In the domestic market, SA producers face similar margin pressures from local supermarkets, as they scramble to increase

³⁷ Except for the latter part of 2008 over to 2009 the Rand/Pound exchange rate worked in favour of local producers.

³⁸ According to the US Department of Agriculture statistics, cited in Chironga et al., 2006

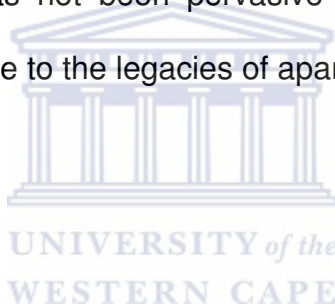
³⁹ www.wine.co.za

⁴⁰ www.wine.co.za

their local market shares, as a result of poor export profits (Financial Mail, 24 June 2010).

3.1.3 Move to high-end consumer segments

Euromonitor (2008)⁴¹ notes that, internationally, a shift to premium wines (i.e. from a low end to more higher end quality) has been occurring in the global wine markets. This trend has also been evidenced in South Africa.⁴² Davidson et al. (2009) note that this shift can be attributed to consumers seeking out quality wine that reflect a higher social status. However, this trend has not been pervasive in terms of the domestic wine consumption in South Africa, due to the legacies of apartheid, as noted in Section 4.4.1.



3.1.4 Impact of substitutes

Beer dominates the South African alcoholic beverage scene, at over 59 litres consumed per inhabitant in 2009, compared to 6.3 litres of wine consumed per inhabitant.⁴³ Beer thus represents almost 80% of all liquor consumed by volume, up from a market volume of about 50% in the 1990s. This can be attributed to the fact that beer and brandy, and increasingly also ready to drink (RTD) beverages, are still more popular among the majority of South Africans than wine. This phenomenon is also partly due to SAB-

⁴¹ cited in Davidson et al (2009)

⁴² The share of white wine sold for more than R25 has increased from 11% of total wine consumption to 18% in 2007 (*The Independent*, 2007).

⁴³ According to Vinpro, SA was placed 32nd in the 2009 world consumption rankings, with France, the biggest wine-drinking nation, averaging 54 litres. The other top 20 consuming countries averaged 31 litres per inhabitant (Financial Mail, 24 June 2010).

Miller's strategy of keeping beer price increases below the inflation rate, while the average production cost of wine has soared from R19 000 per ha to R26 580 per ha over the past five years.⁴⁴

3.2 Context for company strategy, structure and rivalry

Davidson et al. (2009) report that the number of grape growers in South Africa has dropped and that this reduction can be attributed to farmers seeking the benefits of scale effects. However, the number of local wine makers has doubled (SAWIS, 2008). The increase in the number of wine makers may be as a result of the increasing return to quality, due to internationalisation of the cluster after the lifting of sanctions and the resulting deregulation of the industry in the early 1990s.⁴⁵

South African producers are therefore typically larger than their "Old World" wine producing counterparts. Their size generally allows local wine makers to achieve more benefits of economies of scale, compared to their European counterparts.⁴⁶ In Italy's Piedmont wine cluster, for example, producer size is generally smaller, with one or two relatively large producers dominating the market (Svenson, 2009).⁴⁷ However, winemakers in the US and Australia have much higher average production rates than in South Africa (Davidson et al., 2009).

⁴⁴ In 2009 alone, the increase was 13%, more than double South Africa's overall inflation rate.

⁴⁵ http://www.sawis.co.za/info/download/Book_2008_web.pdf

⁴⁶ South Africa consequently, has fewer producers compared to Old World producers, such as France.

⁴⁷ A Game of Mirrors: Economic Development and Social Cohesion in Piedmont and South Africa

Since around 2001, for the most part, South African producers have produced significantly more red wine than in previous years.⁴⁸ This has resulted in a surplus of red wine, which has led to reduced producer prices. Local producers were therefore forced to enter the export market fairly swiftly.⁴⁹

Traditionally, local wine was either distributed through wholesalers (some of whom also grow their own grapes), or individually by the wine estates. However, wholesalers have increasingly become more important in terms of their percentage of sales.⁵⁰ The major South African supermarket retail chains also increasingly purchase their wines directly from producers. Retailers also resell bought-in wines under their own brand names (Chironga et al., 2006). This situation is in contrast to the Piedmont wine cluster in Italy, where owner producers generally, due to their relatively small size, sell their wine directly to the consumer (at the cellar door or at local market days) and via orders received from website and email channels. Alternately, the wines are sold through local *enoteches* (wine shops). Only the larger producers in Italy generally sell their wines through the more established supermarket chains (Svenson, 2009).

3.3 Factor conditions

3.3.1 Physical infrastructure

⁴⁸ moving from 18% of plantings in 1996 to 44% in 2008. This represents a 26 percent increase.

⁴⁹ Exports increased from 21% in 1999 to 54% in 2008.

⁵⁰ accounting for 64% of wine sold in 2003, compared to 46% in 1998

Esterhuizen and Van Rooyen (2005) consider South Africa's wine industry infrastructure as having a moderate influence on the competitiveness of the industry. They found input costs, such as that for bottling, to be high and relatively uncompetitive.⁵¹ The high bottling costs (which makes up approximately half of packaging costs) have resulted in many foreign importers importing South African wine in bulk and bottling it in their home markets. This trend has increased the value-add to the foreign importers of SA wines sold abroad, at the expense of local producers. Packaging costs, which make up around 50% of the total cost of producing a bottle of wine, have a considerable effect on competitive pricing for South African wines.⁵²

Similarly, in the area of raw materials and cellar activities, high input costs, inefficient and immature monopolistic practices, long turnaround times and relative inflexibility to produce new designs faster and in smaller quantities, as required by wine buyers, are local supply chain issues requiring improvement. Bottlenecks in laboratory testing⁵³, delays in the issuing of export certificates, inefficiencies in port operations, concerns regarding quality and consistency, and a lack of investment in skills upgrading and retention have also been identified as supply chain issues which requiring improvement (Van Rooyen, 2004). Port congestion, (early) stack closing times, inefficient container

⁵¹ Distell, a leading South African producer, has estimated that bottling and packaging costs are approximately €1 per case cheaper in Europe than in South Africa. The higher bottling costs appear to be due to higher local glass, paper and printing costs. The higher costs for these are, in turn, due to smaller volumes, a lack of economies of scale, industry dominance by a glass producer with 75 percent market share, as well as the relative lack of competitive pressures in the form of alternate suppliers (Fin24.com, 2006; cited in Davidson et. al., 2009).

⁵² Similarly, packaging costs, which make up around fifty percent of the total cost of producing a bottle of wine, (with wine bottle costs make up half of packaging costs), has a considerable effect on competitive pricing for South African wines (Fin24.com, 2006, cited in Davidson et.al., 2009).

⁵³ Testing takes place only once a week (Van Rooyen, 2004).

transport coordination, delays due to South African Revenue Services (SARS) inspections, wines competing with fruits in peak seasons, lack of information sharing and information not filtering down in the operations of the National Ports Authority, also constrain the efficiency of the supply chain in the exporting of South African wines (Van Rooyen, 2004).

3.3.2 Administrative Infrastructure

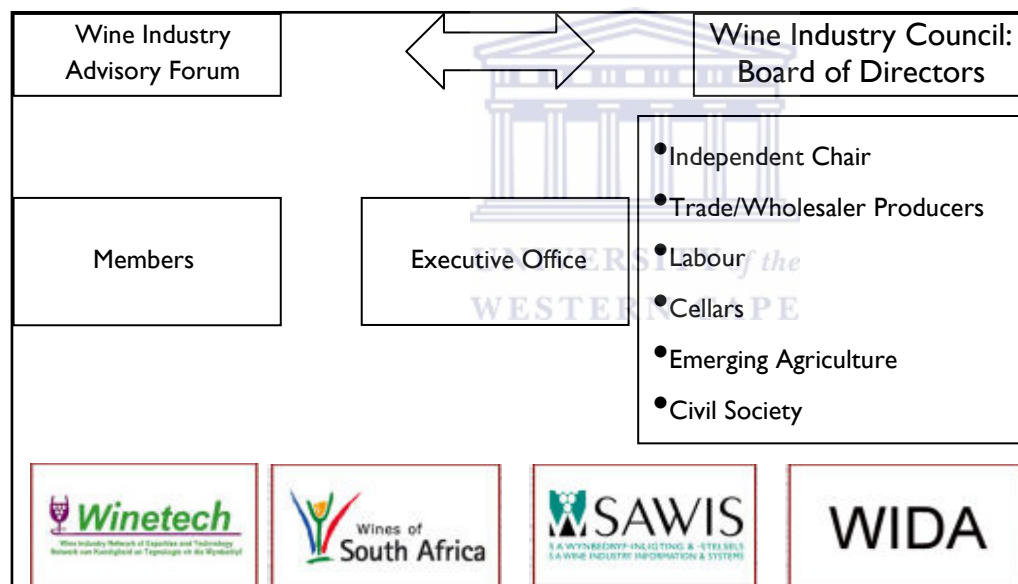
The domestic administrative infrastructure can be regarded as favourable to wine producers (Davidson et al., 2009). This may be attributed to the local supermarket sales of wine, as supermarkets in SA are not allowed to sell direct substitutes such as ready-to-drink alcoholic beverages (RTDs), beer and spirits (Euromonitor, 2009). The same study has found that it is much easier to obtain a wine license than a liquor license (which includes spirits and beer) in South Africa. With all other factors being equal, this results in lower entry barriers into the South African wine retail segment and, consequently, to more intense rivalry within the local wine cluster.

3.3.3 Institutional landscape

In 1999, a strategic vision for developing the sector to be “innovation-driven, market-directed, globally competitive” was completed. This led to the formulation of the SA Wine Industry Strategy Plan, which was prepared in consultation with industry stakeholders (SAWB, 2001). From 2006, the responsibility for implementing the sector

strategy has been with the SA Wine Industry Council (SAWIC), a stakeholder-governed body that incorporates individual business units responsible for generic marketing of SA wines (WOSA), information systems (SAWIS), technology transfer (Winetech) and development and transformation (WIDA). It also includes organised labour and emerging black entrepreneurs, among others. Figure (3) depicts the main industry bodies represented on SAWIC.

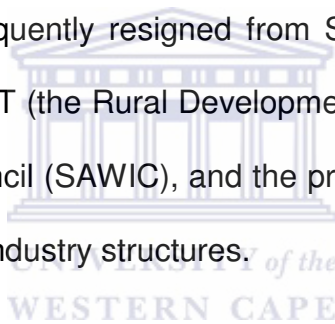
Figure 3: Structure of the South African Wine Industry Council (SAWIC)



Source: www.winecouncil.co.za/Profile

However, in April 2008, certain members of the executive of the South African Wine Industry Council (SAWIC), namely the South African Liquor Brandowners Association (SALBA), Wine Cellars South Africa (WCSA), and the South African Producers

Association (VINPRO) resigned from SAWIC.⁵⁴ The reasons provided were that SAWIC had failed to become the voice of the industry (with the Minister of Agriculture), that SAWIC had failed to unite the role-players and that the council infrastructure was far too expensive to maintain (BAWSI media release, 15 April 2008). In response, BAWSI's president stated that the above reasons were not the main reasons, but that it had resigned due to BAWSI's programme of action. When there had been a difference of interpretation between the representative parties concerning the allocation of levies, the members who resigned had told BAWSI to go to the National Agricultural Marketing Council (NAMC). However, when BAWSI led a delegation to the NAMC, the parties who had told them to do so subsequently resigned from SAWIC. According to the media release by BAWSI and RUDNET (the Rural Development Network), white business has benefitted greatly from the council (SAWIC), and the presence of BAWSI and RUDNET has provided legitimacy to the industry structures.



According to Hirschsohn (2009), serious fragmentation of the labour stakeholder group is evidenced by the inclusion of 13 labour organisations/unions. Davidson et al., (2009) have also found that many of the institutions and associations appear to overlap in both their scope and mission. The apparent overlap may point to the need for further alignment of industry structures, in order to optimally improve efficiencies in the cluster.

South Africa's wine cluster has more than 15 wine associations and institutes for collaboration, which provide services such as data gathering, marketing and export

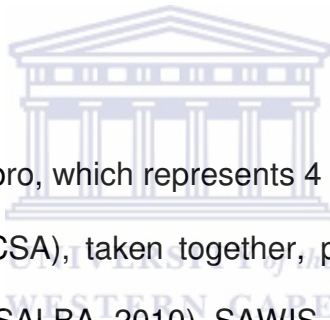
⁵⁴ BAWSI Press Release: Members of SA Wine Council Resigned, 15 April 2008.

promotion. One of the associations included in the study is SALBA, a voluntary trade association that represents manufacturers and distributors of alcoholic beverages (including wine, spirits, beer and brandy). SALBA assists its clients in managing the business environment and in promoting and selling their brands. It interacts widely, both locally and internationally. There are also many overlaps in terms of what parts of the value chain SALBA members operate in. From a wine supply chain perspective, the wine goes from the wine farmers (represented by VINPRO, the Wine Farmers Association), to the cellars, represented by Wine Cellars SA (WCSA) through the distributors (SALBA), to the retailers (either on-consumption or off-consumption). SALBA members, which include the bigger firms in the industry, pay approximately 65% of the total industry levies.



Wines of South Africa (WOSA), an independent non-profit company that receives part of its funding from industry levies, is responsible for the global marketing of SA wines as well as domestic wine tourism. The Wine Industry Network for Expertise and Technology (Winetech), also mainly funded by wine export levies, facilitates technology transfer and human resource development and provides the industry with substantial technical support. Winetech is linked with Infruitec-Nietverbij, the largest research institute, in the partly state-funded Agricultural Research Council (ARC). ARC comprises 10 ten divisions, of which 7 are directly involved in wine research (Wood and Kaplan, 2005; Zeng 2008).

The black agricultural workers are represented by BAWSI, with NAFU representing emerging agriculture, and RUDNET representing civil society. In terms of the industry structure and where the industry cooperates, the industry has identified certain needs such as research and training (represented by Winetech), information (SAWIS), export promotion (WOSA) and transformation and development (WIDA). For these different needs, the industry has created separate business units. These stakeholders are all represented on the bodies of all these business units (e.g. WIDA, WOSA, Winetech, etc.) are represented on the different boards of each individual business unit. The primary stakeholders are represented on the different boards of each individual business unit (see Figure 3).



In terms of industry funding Vinpro, which represents 4 000 wine producers, SALBA and Wine Cellars South Africa (WCSA), taken together, pay 100% of the industry levies (interview with Riaan Kruger of SALBA, 2010). SAWIS, responsible for collating industry statistics, collects the industry levies from the farmers (VINPRO), cellars (WCSA) and distributors (SALBA), and pays it over to Winetech, WOSA and WIDA. Concerning levy increases, proposals are made by the four business units (WOSA, Winetech, SAWIS and WIDA), according to their five-year strategic plans. The proposals are brought back to the funders at SALBA, where, at their executive committee meetings, WCSA, VINPRO and SALBA approve the increases. On behalf of the industry, the funders can then apply to the NAMC, who publishes the proposals in the Government Gazette for objections.

Internationally, South Africa forms part of a group of countries, namely the World Wine Trade Group, which includes all the New World Wine producers, including the US, Canada, Australia, Chile, Argentina and SA. Industry and government representatives, on the WWTG hold both different and combined sessions where industry presents to government areas that it has identified where government is able to assist them. Here matters such as the EU trade barriers are raised.

3.3.4 Science and technology infrastructure

South Africa has a strong tradition of research, with the country recently having established itself as one of the New World leaders in *terroir* research (Davidson et al. 2009). ARC Infruitec-Nietvoorbij Institute of Viticulture and Oenology in Stellenbosch, in collaboration with the University of Stellenbosch, has run a multidisciplinary program more than a decade. This research has had a great impact on better matching between grape varieties and locations in the Cape winelands (where the SA wine sector is concentrated), as well as on current viticultural practices. According to WOSA (2009), this has contributed towards the unlocking of potential of new wine growing areas as part of the cluster. These changes have unearthed new sources of potential for differentiation in terms of the cluster's growth and competitiveness. This characteristic stands in contrast to the situation in Old World wine counties such as Italy, where there appears to be less innovation in terms of research into viticulture and oenology than there is in the New World wine countries of Australia, America, South Africa, etc.⁵⁵

⁵⁵ Source: personal interview with Professor at the University of Torino, Faculty of Agronomy(2009)

3.4 Related and supporting Industries

Many local wine producers have been surviving by diversifying into related activities such as olive oil production and tourism. Catering and tourism has become a significant portion of the industry's value-add chain, and has also become a financial lifeline for many participants.⁵⁶ Indications are that this trend will increase in future, especially with regard to foreign tourists who stay longer in the Western Cape than local tourists to other provinces (SAWIS/ Conningarth Economists, 2009).

3.5 Influence of government

3.5.1 Impact of globalisation and deregulation of the SA wine industry



Ewert and Du Toit (2005), in their review of changes to farm labour relations in the Western Cape and the impact of globalisation and international agri-food restructuring on South Africa's wine industry, assert that a "triple transition" in local industry deregulation, democratisation and the international agri-food restructuring, has led to a deepening divide between wine makers and labourers in the industry. They assert that in addition to the effects of deregulation and globalisation of the industry, a new competitive landscape, due in part to the modernisation of wine farming practices, has resulted. According to the authors, these changes provide challenges that require

⁵⁶ Conningarth Economists estimate that at the farm and cellar level alone, catering and tourism add R9,7billion to GDP with tourism contributing a further R8,5 billion beyond the farm and cellar level (Financial Mail, 24 June 2010).

increased intervention by government and society. In the case of the Western Cape, the effects of deregulation (government policies) and the subsequent consolidation of producers in the local industry, have also contributed to a reduction in the number of grape farmers in South Africa.⁵⁷

Furthermore the volatility and strengthening of the South African Rand has hampered exports' profitability (Macro-economic impact study of the wine industry on the SA economy, 2009). Wineries (particularly smaller ones), have found it difficult to manage their costs, as a major proportion of their costs, namely labour, comprises between 44% and 51% of producer costs.⁵⁸

In terms of South Africa's import duties, local tariffs have since 1996 been reduced to 25% for wine from non-EU countries. Lower tariffs now apply to European imports⁵⁹ due to a bilateral trade agreement with the European Union. The tariff is nevertheless still high, compared to those imposed by other important wine producing countries. Chile, Australia, the US and the EU all impose tariffs of 6% or less on imported wine.⁶⁰ In this way, South African wine producers can therefore be considered somewhat protected from foreign competition. However, they do not receive any form of subsidy as

⁵⁷ The number of grape farmers in South Africa has fallen by 16% between the period 1991 and 2007 (Davidson et al (2009).

⁵⁸ www.wine.co.za

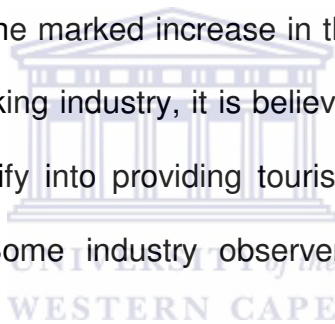
⁵⁹ Cited in Davidson, 2009; http://www.sawis.co.za/info/download/Book_2008_web.pdf

⁶⁰ Cited in Davidson, 2009; http://www.export.gov/static/Chile_tariff_schedule.pdf; <http://www.apectariff.org/tdb.cgi/ff3133323230/apeccgi.cgi?AU>, http://www.export.gov/static/EU_tariff_schedule.pdf and <http://www.usitc.gov/tata/index.htm>

producers in the European Union. Excise duties has also contributed towards increased producer costs as these are not covered and absorbed by retailers, but are mostly worked back to the producer⁶¹ (Business Report, 2010).⁶²

Restrictions on mixing of wines, due to the appellation of origin requirements, can also be constraining, particularly for the smaller (mostly estate) wineries, and especially in drought years⁶³. The situation of the smaller local producers is similar to those in Piedmont, who are also restricted in terms of the European Union regulations, the VQPRD for DOC and DOCG wines (Svenson, 2009).⁶⁴

Given the cost pressures and the marked increase in the number of small independent producers in the local wine making industry, it is believed that most of these producers can only survive if they diversify into providing tourist services (i.e. accommodation, restaurants, olive oil, etc.). Some industry observers foresee that a measure of



⁶¹ Since 2005, the government's annual income out of excise duty and VAT has exceeded that of the primary producer. While the government earns R4,56 from a bottle of wine which retails at R24, a primary producer earns 44 cents on average. This amount that the producer earns must be increased to R1, 07 a bottle to ensure sustainable production (Business Report, 2010).

⁶² Due to the increase in excise duty on natural wine in 2010, producers receive approximately R875 a ton less for wine grapes. This is due to the additional excise expense to the winemaker or trader further down the wine industry value chain (Business Report, 2010).

⁶³ Smaller wineries as a result, made an average profit of R12.5 per case in 2004, compared to R32.5 for larger wineries. These figures are, significantly lower than in Australia, where the figure for large producers stood at R87 per case (Chironga et.al, 2006). A study commissioned by Deloitte & Touche has indicated that 36% of small-scale producers (earning less than R25m in annual revenues) made a loss in 2004, compared to 25% of large-scale producers (earning revenues between R25m and R90m).

⁶⁴ VQPRD represents the policy on Quality wine produced in Designated Regions. The DOC and DOCG denominations underscore the quality of the wine produced in Italy.

consolidation will need to take place, as well as sharing of packaging, marketing and/or distribution services in order for the smaller producers to remain viable (SAWIS, 2009).

The fragmented industry structure as a result of the many small wine producers has been cited as a reason why foreign investors and major consolidators have not found SA an attractive investment opportunity. There are also no strong SA brands in the premium segment (€ 5 to 7), generally the segment which most investors find more attractive in terms of the higher margins. A third reason cited for the lack of foreign investment is that “most producers have too broad a range of brands that are hard to maintain or to work with” (Blok, 2007). South Africa, mostly for these reasons, has hardly been involved in foreign investments or been directly impacted by the international consolidation process that has taken place in the industry (Heijbroek, 2004)⁶⁵.



However, since the first democratic elections in SA in 1994, huge investments have been made in upgrading existing operations in the wine industry. According to *Financial Mail* (2010), the investments undertaken to secure these upgrades have largely been private investments by foreigners rather than foreign corporates.⁶⁶ Investors include famous New World wine producers and art collectors as well as Old World wine enthusiasts, as investments by foreigners appear to be cheaper than the cost of locally borrowed capital, due to SA's relatively higher interest rates (Financial Mail, 2010).

⁶⁵ Cited in Blok (2007)

⁶⁶ Approximately R 1 billion, although the actual figures are difficult to quantify, as most of these deals were done by private investors (Financial Mail, 2010).

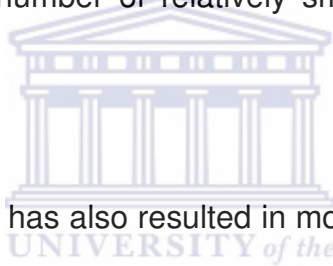
However, interest from the larger international wine community has also grown. One of the biggest agreements cited has been between Swartland Winery of Malmesbury and E&J Gallo Winery, the second largest wine group in the US, to produce a series of wines under Gallo's new Sebeka brand label. This is typical of SA's range of "international portfolio" of wines.

3.6 Chance effects and cluster diamond summary

In short, South Africa's wine cluster can be considered highly competitive. However, producers have been under considerable cost pressure for more than nine years now. Although South African wine has increased its market share in export markets, these gains have been mitigated by Rand strength and the high bargaining power of the supermarket channels in the traditional international markets (i.e. the UK) and distributors in the US. Relatively large investments in new, notably more red vine varieties for the production of noble wines has occurred over the past few years. This, together with the red wine surplus on international wine markets, the increasing cost competitiveness of local substitutes (beer) and relatively high bottling costs, has progressively reduced profitability. *Chance* effects, such as the volatility of the Rand and the drought in 2010 have also contributed to the unfavourable situation of wine growers and producers.

3.7 Chapter summary

In this chapter, pertinent information obtained mainly from the desktop research conducted was presented in the form of Porter's (2000) cluster diamond model. From this information, it is evident that SA wines appear to show definite signs of a buyer-driven global commodity chain, as producer prices are largely determined by the dominant power of supermarkets in the most important export markets, i.e. the UK and Europe. Corporate international investments appear to have been mainly in distribution activities. Locally, the relatively large supermarket chains also appear to exert their buying muscle over the large number of relatively small producers and independent brand owners in the market.

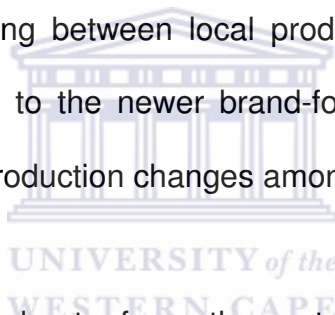


The deregulation of the industry has also resulted in more private, especially non-estate cellars and new exporters. The expansion of the industry, due in part to the increase in new land under vines, has also resulted in rapid expansion in noble grape varieties. Increased opportunities for employment have thus been created for semi-skilled and skilled workers, but increased casualisation of the unskilled labour force.

Significant investments in new production and processing capacity have also been made, mostly from private individuals. Private foreign investors have also entered the wine tourism sector. The lack of strong South African brands in the international premium segment (€ 5 to 7), which most investors generally find more attractive due to its higher margins, has been cited as a reason why international corporates have generally not invested in South African brands. Most local producers also have too wide

a range of brands, which makes the portfolio harder to maintain or work with. This, together with the many small wine producers, help explain why the major international consolidators have not considered South African wine firms to be an attractive investment opportunities (Blok, 2007).

On a more positive note, Williamson and Wood (2004: 27) note that, since 1994, new players with a spirit of entrepreneurship, renewal and innovation have moved into the industry, and new regions of grape growing and wine production potential have arisen. Wood and Kaplan (2005) have also found positive developments in the form of growing networks and knowledge sharing between local producers on export markets. They attribute these changes mostly to the newer brand-focussed wholesalers, thought to spur and support product and production changes among local suppliers in the cluster.



The information provided in this chapter forms the context for the data obtained from the questionnaires and interview process, which was conducted subsequent to the desktop research process. The empirical data obtained from the interviews conducted with wine industry leaders is presented and analysed in Chapter five, which follows the Research Methodology section in Chapter four.

4. CHAPTER FOUR: METHODOLOGY OF STUDY

This mini-thesis explores the effect of cluster governance quality on the competitiveness of the Western Cape wine cluster. A desktop literature search on the international and South African wine industry has been conducted to provide the background and theoretical framework for the study. Empirical data has also been obtained by means of direct face-to-face interviews with cluster participants and the use of a semi-structured questionnaire. The questionnaire was adapted from an instrument, (see Annexure 8.1), which was used by Visser and De Langen (2006) and augmented by the respondents involved in the initial interviews. This was done in order to ensure that the constructs in the questionnaire were appropriate for the case of the Western Cape wine cluster.

The Chilean study was used due to its remarkable production (from 2% of production in 1984 to 63% in 2002); while its export grew from 10 million US dollars to 602 million US dollars over the same period. It ranks fifth in global wine exports, with 4.6 of world demand (Visser and De Langen (2006)).

In order to explore the effects of cluster governance and the quality of solutions to the collective action problems in the cluster, the study utilised a combination of a questionnaire and follow up interviews with key experts involved in the governance of the Western Cape wine cluster. The key experts in the wine cluster environment were identified through the Western Cape Wine Industry Council (SAWIC) structures, such as the Wine Industry Development Association (WIDA) and Wines of South Africa (WOSA). Subsequent experts were identified using the snowball or chain referral

sampling technique, as suggested by Salganik and Heckathorn (2004). Out of the referrals, a total of 17 experts (for further information, see Annexure 3) agreed to an interview. Of these 12 participated in the interviews and 11 completed the questionnaire. All respondents were sent the questionnaire in electronic format, at least a week before the scheduled interviews. The aim of this exercise was to allow the respondents to familiarise themselves with the key cluster governance elements that the study sought to investigate.

As mentioned in the first paragraph of the chapter, participants were emailed a copy of the questionnaire ahead of the interview to allow them to familiarise themselves with the questions, rating scales and the specific concepts used. Definitions of key concepts were also provided in the questionnaire sent to the potential respondents. For those respondents who agreed to an interview, the concepts were further explained at the start of the interview if further clarification was required. The nature and purpose of each question was also explained where necessary.

The interviews lasted between 30 minutes (shortest) to 90 minutes (longest). In the case of the shorter interviews, respondents had generally already filled in the questionnaire ahead of time, and the interview purpose was to clarify answers and afford the interviewer with an opportunity to obtain any examples or clarification around the reasoning used by the interviewee for the various ratings indicated by the interviewee in the questionnaire. At the start of each interview, respondents were asked to verify their active participation in cluster governance.

This questionnaire and interview process addressed the nature of coordination or cluster governance in the Western Cape wine cluster. The four variables that affect cluster governance quality are (1) the role of trust, (2) the role of lead firms, (3) the role of (knowledge) intermediaries, and (4) the solutions to collective action problems (CAPs) or challenges faced by the cluster participants. The challenges identified by the key role players in the Western Cape wine cluster (SAWB 2005) include: (1) marketing and branding, (2) internationalisation and geographic diversification and market penetration, (3) training, education and the quality of labour, (4) wine quality, (5) physical and virtual infrastructure, (6) innovation, and (7) black economic empowerment (BEE) and transformation of the industry.

In the questionnaire to respondents, *collective action problems* (CAPs) were defined as existing problems or challenges that, even when cooperation among a large group of firms would be beneficial for all members of the group, such cooperation would not develop spontaneously, because individual firms are even better off when they free-ride⁶⁷. *Cluster governance issues or regimes* were defined as industry problems or challenges for which collective action would be advantageous (Visser and De Langen, 2006).

⁶⁷ According to Schmitz (1999b) and cited in Visser and De Langen (2006:181), the problem of free-riding, for example, enhances transaction costs and reduces the scope of coordination, so that a cluster cannot achieve “collective efficiencies”. Schmitz (1999b:473) defines “collective efficiencies” as the competitive advantage derived from external economies and joint action.

A qualitative, interpretive approach has been adopted in this study. The research design objective has been to understand the primary process and self-understandings of the actors engaged in their particular actions in the cluster. This view considers the contribution of human subjectivity to knowledge as meaningful and important, without sacrificing the objectivity of knowledge (Denzin and Lincoln, 2000: 193). The risk of this approach can be countered by continuously checking the theoretical postulated positions against the evidence collected in a study (Davies, 2007). The research also adopts a *social constructivist* epistemology, in that developed concepts, models and schemes have been adopted to make sense of experience and have been tested and modified in light of new experiences (Davies 2007). The approach adopted is thus deductive in nature.

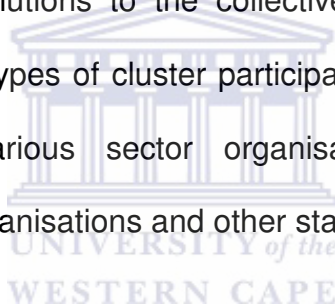


A multilevel approach has also been adopted. Klein and Kozlowski (2000) state that management scholars have a long history of recognising that organisational phenomena unfold within complex and dynamic systems, yet scholarship often ignores these social systems' multilevel dynamics. Multilevel research is one way to promote the development of a more expansive management paradigm for understanding organisational systems. Adopting either a micro-perspective or a macro-perspective yields an incomplete understanding of behaviours occurring at either level (Porter, 1996).

The cluster governance framework developed by De Langen (2004) comprises variables and concepts that are multilevel in nature. These aspects are discussed in Section 3.3, which addresses the research framework.

4.1 Research question

The study attempts to explore the nature of coordination or cluster governance and its importance for the competitiveness of the Western Cape wine cluster. It investigates the quality of solutions to the collective action problems experienced by the cluster participants. The quality of solutions to the collective action problems are affected primarily by the key actors or types of cluster participants. These include leader firms, knowledge intermediaries, various sector organisations, business associations, government and community organisations and other stakeholders.



4.2 Research method

According to Yin (2003), the case study method is well suited to investigate contemporary phenomena within its real-life context, particularly when the boundaries between phenomenon and context are not clearly evident. Webb (1998) states that a case study approach can be useful if used purely for descriptive purposes. It is also useful if the conclusions are known to be applicable elsewhere or are of a general nature. A case study approach was thus chosen to uncover the underlying relational and competitive dynamics affecting the cluster's performance.

Cross-level effects

In Socio Ecological Modelling (SEM), the consideration of *top-down effects* establishes that environmental effects shape individual behaviour. For example, community and organisational factors, such as ethnicity and historical relationships, shape individual behaviour (Oetzel, Ting-Toomey, and Rinderle, 2006). Top-down effects are essentially the most prominent of any of the social ecological components. The historical role of KWV in the SA wine industry was illustrative in this regard (Ewert et. al., 2005). *Bottom-up effects* describe how individuals or community affect higher levels, i.e. how individuals form alliances or coalitions to accomplish personal (or individual firm) goals (Oetzel, Ting-Toomey, & Rinderle, 2006).

Interactive effects



According to Rousseau and House (1994), *interactive effects* are interdependent and occur simultaneously at multiple levels. Interactive effects imply reciprocal causation between for instance, individuals and the environment. The concept of trust is one example of a concept with interactive effects, although not operationalised as such in the study.

4.3 Research framework

De Langen (2004), cited in Visser and De Langen (2006: 181), define cluster governance as “the mix of and relations between various mechanisms of coordination used in a cluster”. Clusters are characterised by frequent interaction and coordination; different coordination mechanisms (including market coordination) are used in clusters (De Langen, 2004).

Theoretical propositions

The theoretical propositions for the study are as follows:

- higher levels of trust facilitate the coordination of collective actions in the cluster (cluster governance);
- the quality or efficacy of knowledge intermediaries improves the coordination of collective actions (cluster governance);
- the involvement of leader firms in cluster initiatives in the cluster improves the coordination of collective actions (cluster governance);
- an appropriate role of public organisations in the cluster improves the coordination of collective actions (cluster governance);
- adequate organisational infrastructure or associations in the cluster improves the coordination of collective actions (cluster governance); and

- voice and community arguments impact on the quality of solutions to collective action problems.

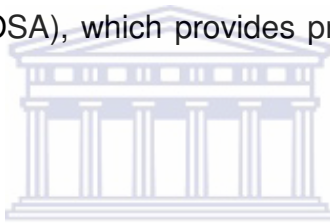
The above propositions, adapted from Visser and De Langen (2006), were used to shape the data collection plan, protocol and field procedures, as well as to assist in managing issues relating to both internal and external validity.

4.4 Data collection techniques

Semi-structured interviews were conducted with 17 key representatives of industry organisations who were targeted based on their leading positions in key industry institutions and their experience in the Western Cape wine cluster. These experts were selected on the basis of their positions in the various organisations involved in cluster governance. At the beginning of the interviews, the experts were asked whether they were actively involved in cluster governance. The various concepts used during the interview were clarified and discussed with the respondents, along with the intention of each question, whenever necessary. The respondents were asked to answer a set of structured questions, but were also asked to explain their answers in terms of their context, wherever necessary. Both quantitative and qualitative information was thus provided to process and make sense of the data. The interviewing was done face-to-face between November 2009 and April 2010, with a follow-up conducted during April 2011.

4.5 Participants in the study

The participants in the study include organisational leaders. These include the South African Wine Industry Council (SAWIC) (previously the South African Wine and Brandy Company or SAWB), the Wine Industry Network for Expertise and Technology (Winetech), Wine Industry Development Association (WIDA), Black Association of Wine and Spirit Industry (BAWSI), the African Vintners Association (AVA), the South African Liquor Brandowners Association (SALBA), a non-profit organisation representing manufacturers and distributors of liquor products in SA on matters of common interest, and Wines of South Africa (WOSA), which provides production and marketing support to industry participants.



Representatives from Vinpro, a service organisation that represents approximately 4 500 producers in dealings with government on all relevant wine industry forums and the South African Wine Industry Trust (SAWIT), did not make themselves available to complete the questionnaire. SAWIS, the organisation responsible for the production and dissemination of statistics for the SA wine industry, also chose not to participate in the research. Some other representatives approached chose not to fill in the questionnaire, as they felt they could not add value to the study since they were not involved in collective initiatives in the industry and held that other people were better suited to complete the questionnaire. The implications of this is that only empirical data from one of the leader firms is included as part of this study on the nature of coordination in the

cluster. The list of participating organisations and the positions of the respondents are displayed in Table 2 below.

Table 2: List of participating organisations and interviewees

ORGANISATION	POSITION
VINPRO	Manager: Consultation Services
Wine Industry Development Association (WIDA)	Executive Manager
	Project Manager
Wines of South Africa (WOSA)	CEO
	Communications Manager
	Regional Manager: Americas & Africa
Winetech	Project Manager
	Executive Manager
South African Wine Industry Trust (SAWIT)	CEO
	Project Coordinator
BAWSI / South African Wine Industry Council (SAWIC)	President and Acting Chairperson
South African Liquor Brandowners Association (SALBA)	Chairperson
Lathitha Wines Coop	Owner/Manager
DISTELL	BEE Manager
	General Manager: Corporate Affairs
African Vintners Alliance (AVA) / African Roots Wine Brands	Chairperson / Owner and WOSA Board Member
Koopmanskloof Winery	CEO and WOSA Board Member
Sagila Wines	Owner/Winemaker

This sample includes representatives from established and new wine firms, producers and representatives of industry associations in the wine value chain. Three relatively small-sized producers were interviewed, in addition to two representatives of one of the largest producers, marketers and distributors. Knowledge intermediaries involved in key specialist areas such as representatives from marketing and branding, research, transformation and labour were interviewed.

Secondary data collection involved the analysis of existing information and records from industry bodies and information brochures, reports and publications available on company websites, concerning key industry matters discussed in industry reports and forums. Documentary analysis of relevant academic literature concerning the SA wine cluster also formed part of the analysis. Multiple sources of evidence have thus been obtained using data triangulation techniques to corroborate facts or phenomena observed, collected and analysed.

4.6 Data analysis

The qualitative data from the interviews were used to supplement the ranked data entered in the questionnaires completed by the respondents. The individual or person-level data or perceptions concerning governance and trust issues as a representation of the group, were first individually assessed and then aggregated to a group level average or median (Kramer, Brewer and Hanna, 1996, cited in Curral and Inkpen, 2002). Theoretical triangulation was also used during the analysis phase. Individual

responses have been coded according to different categories, which include the following:

- **Knowledge intermediaries**
 - Government agencies
 - Local associations (SALBA, Winetech, WIDA, BAWSI, SAWIC, AVA)
 - Leader firms (WOSA)
- **Leader firms**
 - Domestic and international (DISTELL)
- **Producers (SMMEs)**
 - Koopmanskloof
 - Lathitha Wines
 - African Roots Wine Brands / Seven Sisters
 - Sagila Wines
- **Collective action problems (CAPs)**
 - Innovation
 - Education, training and quality of labour
 - Internationalisation
 - Marketing and promotion
 - Quality of wine
 - Physical infrastructure
 - Broad-based black economic empowerment (B-BBEE)
- **The presence of trust**



For each of the categories, participants were asked to rank their responses in order of importance of each type of intermediary/agent or collective action issue provided, from 1 (most important) to 6 (least important), depending on the number of items to be ranked.

The level of importance to the cluster of each kind of collective action problem identified above has also been ascertained by asking participants to tick an option in a 5-point Likert scale, i.e. whether they perceive the issue as “not important”, “of minor importance”, “moderately important”, “important” or “very important”. Participants were also asked to provide reasons for their rankings and/or answers. (The questionnaire is attached as Annexure 8.1.)

4.7 Ethical considerations



The names of individual participants in the interview process have not been published, to maintain respondent confidentiality and anonymity. Concerning the management of sensitive data, data has been password protected to ensure case data integrity and confidentiality. Furthermore, the basic ethical principles of respect and protection, transparency, accountability, scientific and academic professionalism, as contained in the HSR Code of Research Ethics, has been observed throughout this research project. Sensitive information elicited from respondents has been treated as confidential and has been communicated with due care.

4.8 Report writing

The study's target audience includes students and members of the academic community with an interest in the wine industry as well as wine industry stakeholders. Consideration for the needs of the audience has been provided for in the writing up of this report.

4.9 Study limitations

Replication of Visser and De Langen's (2006) instrument with all its limits include the inadequate exploration of the multi-faceted dimension of trust. Due to the multi-dimensional, multi-level nature of trust and the difficulty of measuring it in practice, I have had to rely on individual opinion, as voiced by the respondents. Differences in interpretation by respondents of the "trust" concept may thus, in addition to the aforementioned limitations, have influenced the accuracy, validity and reliability, and therefore also, the usefulness of the study. As trust has been operationalised in very general terms in the study, problems of misspecification have also have surfaced in the analysis and reporting stages of the study. The above has therefore reduced the usefulness of the data obtained with respect to trust and its effects on cluster governance. Section 6.4 provides a more detailed discussion.

To overcome resource constraints on time and accessibility to key players, the research has been restricted to the Western Cape. Of the 18 participants contacted and interviewed, only 11 interviewees completed the questionnaire on which much of the

findings are based.⁷³ The low number of participants is considered a major constraint. Furthermore, it is important to note that not all of the types of knowledge intermediaries were interviewed.⁷⁴ Due to their unavailability or lack of response in agreeing to form part of the study, marketing and export agents were not directly interviewed, although WOSA, the company responsible for the collective marketing and branding of SA wine, has been included in the interviewing process. Other types of knowledge intermediaries such as training institutions were also not included in the study. From a producer perspective, mainly small and medium-sized organisations and relatively new entrants in the Western Cape wine districts were more available and willing to participate. Information from the desktop study of publically available literature has also been used to supplement and enrich the data where possible.

Difficulties in interpretation of the “relevance” and “importance” indicators may have affected the responses received and hence, the analysis and reporting of the above-mentioned indicators. These difficulties may have arisen due to differences in interpretation by the respondents, such as whether an issue actually constituted a collective action problem or whether it was considered the responsibility of individual players (for example, innovation). In order to mitigate possible differences in interpretation by the respondents, the questionnaire could have been administered in a collective forum or workshop situation in order to minimize these effects.

⁷³ The twelfth respondent only partially completed the questionnaire.

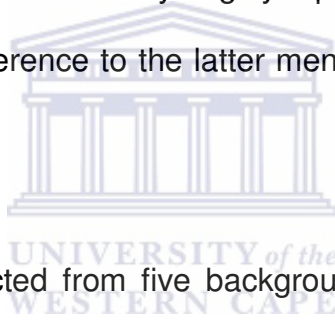
⁷⁴ Government Agencies, Export Marketing Agents, Foreign Investors and Buyers were not interviewed, due to time and accessibility constraints.

The following chapter (Chapter 5) presents the data which was collected via the semi-structured questionnaire and interviews conducted with key informants in the cluster. This is followed by an analysis of the data, with the findings and conclusion to the study presented in Chapter 6.



5. CHAPTER FIVE: DATA PRESENTATION, ANALYSIS AND FINDINGS

In this chapter the data obtained from the interviews and questionnaires which were completed are presented, analysed and the findings thereof discussed. Both quantitative and qualitative information has thus been collected and analysed. The section below describes how the empirical data was obtained and analysed. In Section 5.1 the empirical findings are presented, followed by the presentation of the data (both ranked and rated), as well as important qualitative inputs provided by the respondents during the interview process. As this study largely replicates previous study conducted on the Chilean wine sector, reference to the latter mentioned will also be made, where applicable.



The empirical data were collected from five background interviews and twelve semi-structured interviews with key industry experts. Completed questionnaires were obtained from eleven of the experts. The focus of the interviews was on the seven collective action challenges facing the SA wine industry, as identified in the Vision 2020 document developed by the SAWB (2005)¹¹⁶. Most of the SAWB's objectives and functions were subsequently taken over by the South African Wine Industry Council (SAWIC) and its affiliate organizations and stakeholder bodies. These are depicted in Figure 3 and listed under Section 3.3.3 on the *institutional infrastructure*. More

¹¹⁶ A series of workshops was conducted by the then industry governing body of the South African wine industry, namely, the South African Wine and Brandy Company (SAWB, 2005).

information relating to the impact of different types of actors on cluster governance or coordination of cluster activities is provided in Section 5.3.

I will now present the summary of study findings in Section 5.1 below.

5.1 Overview of findings

According to Porter (1998a), the cluster governance and structure variables, i.e. the company strategy, structure and rivalry, along with international and domestic consumer demand, factor conditions and government policies, either enhance or constrain a cluster's competitiveness. The average scores and ranking by the respondents for the different classes of factors affecting the cluster's performance, is shown in Table 3 below.

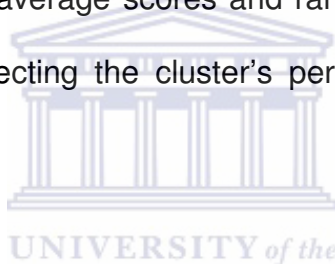


Table 3: Importance of variables affecting the performance of the Western Cape wine cluster since 2000, compared to Chile

Classes of variables affecting cluster performance	South Africa		Chile**	
	Ave. score	Rank	Mean score	Rank
International consumer demand / developments in international markets	2.09	1	1.86	1
General economic development / development of domestic market	2.27	2	4.36	5
National and international policies	2.90	3	3.61	4
Structural features of the cluster*	3.00	4	2.79	3
Governance of the cluster / quality of coordination	3.36	5	2.39	2

Notes on Table 3

Ranking from 1 (most important) to 5 (least important); Number of respondents = 11 for Western Cape cluster study. Average scores are shown in the SA column.

* Structural features of the cluster includes the number and size of firms, ownership, vertical integration, quality of the labour force, inflow of foreign investment, etc.

**Source: Visser and De Langen (2006:189).

In the South African study, external (macro-environmental) factors have made the greatest impact on the cluster's performance. Internal features such as the cluster structure and the nature of coordination or cluster governance were rated as less significant. *International consumer demand* was the most prominent external variable affecting the cluster's performance. The *general economic development* of the region closely followed this. *Government policies* was rated as the third most important variable affecting the cluster's performance. The three classes of variables that made the highest impact on the cluster's performance were thus those outside the cluster's direct control.

The relative importance of the South African findings are similar to those of Chile, prior to 2000 (not shown in Table 3). The relative importance of the quality of local governance in South Africa is similar to Chile *prior to 2000*. Visser and De Langen (2006) found that prior to 2000, cluster governance was not considered important in enhancing Chile's position in international wine markets. Evidence from their study suggests that Chile's success in world wine markets has stimulated cooperation

between firms and other actors in areas where the industry needs to improve. The enhanced cooperation has stimulated cluster development and turned the quality of cluster governance into a central variable for future export growth.

While the relative importance of cluster governance or coordination increased considerably in Chile after 2000 (Visser and De Langen 2006), cluster governance or coordination ranked as the least important variable in the Western Cape. The Western Cape data also suggests that the cluster's structural features, after 2000, remain more important than cluster governance. The data suggests that the cluster is not a priority - later results support this. In addition, industrial and cluster development do not automatically follow enhanced integration in world markets, but depend on the strategic skill of actors in the industry, particularly on their ability to identify, prioritize and realise collective investments, while managing their collective action problems (Visser and De Langen, 2006;177).

The remainder of the chapter presents the detailed empirical data grouped by (1) cluster structure and performance and (2) the quality of cluster governance, comprising of the following subsections (i) solutions to collective action problems, (ii) role of leader firms, (iii) the role of intermediaries, and (iv) the role of trust in the cluster's coordination activities or local governance.

5.2 Cluster structure and performance

Participants rated the importance of 10 cluster structure variables affecting the cluster's performance. The list of cluster structure variables, along with its ranking data, in order of importance, is provided in Table 4 below.

Labour force quality was rated the most important variable, in relation to the other variables. The presence of local suppliers followed this with distribution or logistics firms (i.e. the presence of customers and suppliers) in second and third place. This was followed by knowledge spillovers between firms and the level of land and other prices. The rankings indicate the importance of agglomeration forces in the cluster. Table 4 shows the cluster structure's effects on cluster performance, along with the ranking and average scores of the respective variables by the respondents.

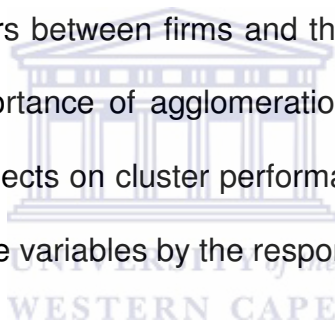


Table 4: Effects of cluster structure on cluster performance

<i>Element of cluster structure</i>	<i>Effect on cluster performance</i>	<i>Rank</i>	<i>Ave score</i>
Agglomeration economies	The quality of labour and a shared labour pool attracts firms to the cluster	1	2.81
	The presence of suppliers attracts firms to the cluster	2	3.54
	The presence of distribution/logistics firms attracts firms to the cluster	3	4.27
	The presence of knowledge (spillovers) attracts firms to the cluster	5	4.36
	Land scarcity and high land prices “disperse” firms from the cluster	5	4.36
(Intensity of) Internal competition	prevents monopoly pricing	7	5.09
	leads to specialisation		
	promotes innovation		
Cluster heterogeneity	Diversity of the resource base enhances opportunities for innovation and cooperation and reduces vulnerability for external shocks	6	5.0
	Diversity of the cluster population enhances opportunities for innovation and cooperation and reduces vulnerability for external shocks	8	5.27
Cluster barriers	Entry barriers (such as inaccessible networks) and start-up barriers (such as non-availability of local venture capital) reduce competitive pressure and prevent the inflow of (human) capital	9	6.63
	Exit barriers reduce uncertainty for firms in the cluster	10	8.27

Notes to Table 4

Number of respondents = 11; Ranking from 1 to 10, with 1 (most important) and 10 (least important) variable.

Source: Adapted from De Langen (2004)

Labour quality refers not only to low-skilled labour, but also includes winemakers, marketers etc. Labour quality was rated very important by the majority of respondents. Knowledge spillovers between firms was also considered very important. According to Riaan Kruger, CEO of the South African Liquor Brandowners Association (SALBA): *“I find it absolutely amazing how we can sit in meetings sometimes and somebody says they have a problem and another person says this is how we handled it – you can speak to him, just pick up the phone and find out”*.

Concerning the intensity of competition, another respondent noted that:

“International competition has really made South African producers to improve in leaps and bounds. In the days of the sanctions everybody sold locally and there were so few competitors that the bigger companies became very blasé. With the undoing of sanctions, producers were dead in the water. When the international markets opened up, it was a wake-up call. We thought we were making excellent wines. Producers praised each other’s wines, saying you won a gold medal or a double gold, but in reality, our wines were pathetic”.

In terms of cluster heterogeneity, diversity of the resource base and of the cluster population was also considered relatively important. Sources of diversity included the perspectives and experiences of small to bigger grape farmers, from producers in the different districts across the cluster, from farms to wine cellars, to brand owners and international marketers, etc. One of the respondents stated: *“I believe very strongly if we all think the same way we are dead in the water”*.

Since membership of industry organizations and associations is mostly voluntary, some respondents considered cluster entry barriers as relatively unimportant. As SALBA's CEO noted: "*Anyone can become a member of SALBA, NAFU, BAWSI, WINE CELLARS SA, VINPRO, etc.*" Concerning other types of cluster entry barriers, one of the owners of a black-owned brand (BOB) who participated in the study, stated that as a new entrant, getting the right supplier is a problem. "*Some farmers just want to use BEE firm contracts, but are not interested in providing BEE firms with quality wines, mentoring or training etc.*"

5.3 Quality of cluster governance / coordination of the cluster

The nature or quality of governance and the main factors contributing to the quality thereof, were rated by the respondents in accordance with De Langen's cluster governance model (see Section 2.3.3).

According to the data in Table 5 below, a significant majority (92%) of the experts agreed that improving governance quality or nature of coordination of the cluster would significantly enhance the cluster's performance. However, 67% of the respondents rated *market forces* and *international policies* as having made a stronger impact than cluster governance quality. The difference in the ratings between the above-mentioned propositions indicate that opportunities exist for improving the coordination of cluster activities in the future, despite the fact that internationalisation and market forces were rated as the most important factors that have affected the cluster's performance in the past (see Section 5.1, Table 3).

Table 5: Primary factors determining the quality of cluster governance

Proposition	Agree	Disagree	No opinion
Improving the local governance of the Western Cape wine cluster will significantly enhance export performance	92%	8%	
The presence of (knowledge) intermediaries	92%	8%	
The cluster's development is the result of market forces and (inter)national policies. The quality of cluster governance does not have a substantial effect on performance	67%	25%	8%
The presence of leader firms	58%	42%	
There is a culture of trust in the Western Cape wine industry	42%	50%	8%

Note on Table 5: Number of respondents = 12

As one of the respondents noted:

“there are other things that will improve the export performance, such as more funds for marketing, stronger marketers, mergers and acquisitions to have stronger firms. Exports are driven by a range of things – including exchange rates, which plays a huge role, global oversupply, the power of supermarkets, growing our tourism base. All of those things are much more important [than local cluster governance]”.

Divergent opinions exist regarding the scope and impact of local cluster governance. It is important to note though, that local cluster governance may also affect some of the issues which were mentioned to be relatively more important than local cluster governance - more funds for marketing, stronger marketers and firms with stronger marketing capacity, etcetera (see quote above).

The data in Table 5 also reveals that the potential that exists for more effective coordination of the cluster activities or cluster governance, but that market or price mechanisms currently determine the status quo. The level of distrust in the cluster (see the rating for the last proposition in Table 5) may be a contributing factor to the effectiveness or lack of effective coordination of collective actions in the cluster. It might be instructive to understand how increased levels of trust (as a moderating and or causal variable between the main agents involved in the coordination of collective actions in the cluster) would impact on the quality of cluster governance. A very high proportion (92%) of the respondents rated knowledge intermediaries as having improved the coordination of cluster activities.

The data in Table 5 indicates that trust and leader firms cause more disagreement among the experts than the other factors. A slight majority (58%) of the respondents agreed that leader firms improved the coordination of cluster activities. Respondents were divided on the role of trust in the coordination of cluster activities, with 50% disagreeing with the proposition that trust facilitated the coordination of collective actions in the cluster.

The following statement made by the SALBA CEO, Riaan Kruger, provides some insight into the importance of the governance of the cluster:

“SALBA is represented on the boards of all these organizations, where he notes that the strengths and weaknesses, opportunities and threats to the industry are taken into consideration; not just from one perspective, such as from a DISTELL [leader firm] perspective, but perspectives from the entire industry is taken into account before decisions are made. In light of the structure of the SA wine industry, it is the view of SALBA that the industry representative bodies are ‘pretty well structured and organised’. The industry bodies are thus legitimate and representative. Due to the exposure and involvement of stakeholders in the different representative structures, the quality of cluster governance therefore, has a substantial positive effect on the performance of the industry. The performance of the industry is not the result of market forces only”.

However, the afore-mentioned view cannot be considered as representative and / or unbiased. It should be considered as providing a context to the data, but remains the personal view of one of the respondents interviewed in the study. As stated by another respondent concerning the coordination of cluster activities: “...whereas Wine Cellars SA and Vinpro lobby government for increased levies, BAWSI and RUDNET oppose the call and lobby for levies to remain the same and not increase.” In the light of the data and personal commentary obtained from the respondents, the potential exists for cluster governance to enhance the cluster performance. However, the quality of local

governance that currently exists, detracts from the potential for collective cluster actions to positively maximise the cluster's performance.

In the following sections, I discuss the four variables affecting the nature of coordination or cluster governance quality: (1) solutions to collective action problems or primary challenges of the cluster, (2) the role of leader firms, (3) the role of (knowledge) intermediaries, and (4) the role of trust.

5.3.1 Solutions to collective action problems and cluster governance

The research question addresses the quality of the solutions to the collective action problems affecting the Western Cape wine cluster's competitiveness. Respondents rated the relevance of the main collective action problems identified in the Vision 2020 report and (SAWB, 2005) which are faced by the cluster.

5.3.1.1 Relevance and Importance of collective action problems

Seven collective action problems were identified by the industry (SAWB, 2005). These are: (1) training, education and labour quality, (2) internationalisation, (3) marketing and promotion, (4) quality of wine, (5) innovation, (6) infrastructure, and (7) black economic empowerment. The respondents indicated whether each was relevant and their importance for the cluster's performance. These are shown in Table 6 below. The ranking denotes the relative importance of each collective action problem in terms of the

competitive performance of the cluster, weighted by the relevance. Respondents scored this factor as either: *very important, important, moderately important, of minor importance or not important*, using a 5-point Likert scale.

Concerning the “relevance” of a collective action problem, respondents generally rated a collective action problem as relevant, when it was a pertinent issue to the competitiveness of firms or incumbents in the cluster. With respect to the “importance” of a collective action problem, respondents generally rated a collective action problem as “important” when it needed to be coordinated at a cluster level. If it was felt that the cluster had generally mastered the issue or that it was an issue which most individual players were able to deal with on their own, the CAP was generally rated either as important, of moderate or minor importance, indeed, as not important – as was the case with innovation. These distinctions however, may have been interpreted slightly differently by respondents. As such, a combined ranking and score (weighted importance) for the two variables were allocated. See column 1 in Table 6 below.

As can be seen in Table 6, an overwhelming majority (between 75 to up to 100%) regarded all the 7 problems as relevant. In addition, with the exception of physical and virtual infrastructure, over 90% of respondents regarded all CAPs as important or very important. Respondents agreed that *training, education and labour quality* and *internationalisation* are the most relevant collective action problems facing the cluster.

Table 6: Relevance and importance of collective action problems in the Western Cape wine cluster

Rank	Weighted Importance*	Collective action problem	Relevant	Not relevant	Average Importance
1	4.7	Training, education and the quality of labour	100% (12/12)	0% (0)	4.7
1	4.7	Internationalization – geographical diversification and market penetration	100% (12/12)	0% (0)	4.7
3	4.5	Marketing, promotion and image building	92% (11/12)	8% (1/12)	4.9
5	4.1	Improving the quality of wine	83% (10/12)	17% (2/12)	4.9
5	3.7	Innovation	83% (10/12)	17% (2/12)	4.4
6	4.1	Black Economic Empowerment / BEE	92% (11/12)	8% (1/12)	4.4
7	3.2	Physical and virtual infrastructure	75% (9/12)	15% (3/12)	4.3

Notes to Table 6:

Participants were asked to rank the CAPs in order of importance, ranging from *Very Important, Important, Moderately Important, of Minor Importance to Not Important*. An average score was then calculated for *Importance*.

The weighted importance was then calculated by multiplying the average importance by the *relevance* score.

The number of respondents for this question was twelve.

The third most relevant variable affecting the cluster is marketing and promotion or image building of SA wines. Although black economic empowerment (BEE), was also rated as relevant by 92% of the respondents, its average importance was less as it was

considered as relevant mostly in relation to the development of the local market. The effect of government legislation concerning BEE may be considered one of the contributing factors affecting this result. According to some respondents, after almost 20 years after the lifting of economic sanctions, the issue of BEE is not considered a major factor in the international markets. Rather, it is the firms' competitiveness and factors such as the marketing, branding and image of SA wines, along with internal factors such as the labour quality that affects the international performance of SA wines. However, some respondents (mostly from BEE firms), noted that the majority of their wines are exported, as local entry barriers, such as the investment required to get local supermarket listings, are prohibitive. The level of price competition is also very high for newer entrants who do not always have the necessary contacts, both formal and informal, and or the required experience to sell their wines locally. One of the respondents, the owner of a black owned brand, commented that one importer needed the portfolio of a black-owned brand, and that since the WOSA Mega Tasting in London, the company now has an importer in the UK.

The quality of wine was rated as equally important to marketing and branding of SA wines as the most important factors affecting the cluster's competitiveness. This high rating (92%) can be attributed to the need to raise the perception of quality of SA wines, in order to improve the prices obtained on international markets. Table 6 refers. Respondents generally agreed that the quality of SA wine is considered imperative and a given for business survival.

With respect to collective marketing, branding and image building, the CEO of the export marketing body of the SA wine industry (WOSA) commented that *“South Africa is not generally well-known on the international markets. The opportunity exists to build and market a positive image of South Africa, as opposed to the perception that currently exists – of an African country with corruption and an underdeveloped socioeconomic infrastructure”*.

In terms of marketing, branding and image building, differentiating South African wines will require collective marketing and branding efforts on the part of the cluster participants in order to develop a coherent image of SA wines. An increased *awareness* of the relatively large variety of SA wines on international markets is required. This is evidenced in WOSA’s slogan - *“Variety is in our nature”* - which celebrates the unique diversity of South Africa’s premium quality wine, its people, landscapes and natural habitats.¹¹⁹ In contrast, in the case of Chile’s wines, differentiation means that more varieties of distinctly Chilean wines are required. Innovation was thus rated as the most important collective action problem determining the competitiveness of Chile’s wines (Visser, 2004).

However, innovation is one area in which the Western Cape wine cluster and Chile differ. In this study, innovation was rated fifth (83% of respondents considered innovation as relevant and with one exception, important or very important to the cluster’s performance). As stated by a manager of one of the largest firms in the cluster: *“from a developmental perspective, innovation does not work when looking at how BEE actors are incorporated into the cluster”*. Some respondents also regarded innovation as

¹¹⁹ DNA SA: *A Brand Blueprint for South African Wine*. A Wines of South Africa (WOSA) publication

more of a company than a collective action matter. Reasons provided for this are that individual (mostly leader) firms are able to fund their own research, generally experiment more with product and/or process innovations and reap the benefits of their investments. According to one of the respondents, innovatory practices by the more established firms eventually become available to other players in the cluster. The role of knowledge spillovers in the cluster may thus be a contributing factor in this regard.

Half of the respondents rated black economic empowerment (BEE) as very important. On the whole, BEE was not considered a major factor affecting SA wines' international competitiveness. It was considered more important in terms of its impact on the domestic market - in terms of changing the perception and buying habits of the majority of the black consumers. Current government legislation pertaining to BEE and the focus on SMME¹²⁰ development can also be considered as contributing factors affecting the ranking and importance of BEE by the participants. The general manager of one of the entities represented on SAWIC, said that the relevance of the collective action problems should be looked at in terms of its impact on SMMEs as opposed to the cluster as a whole.

The role of trust is discussed in the next section.

¹²⁰ Small, Medium and Micro Enterprises (SMMEs)

5.3.2 Role of trust

The data in Table 7 shows that the *presence of trust* was regarded as most important for the cluster's performance. However, the presence of trust was not rated as having made an important impact on the *coordination of cluster governance* activities. See Table 5. Underlying reasons for this is that trust exists among pockets of individuals and groups in the industry, but is not a general, widespread phenomenon. Trust was therefore not considered to have facilitated the effective coordination of joint actions in the cluster by the majority of respondents. However, where trust was present between incumbents, it played an important role in enhancing relations between incumbents and firm performance in the cluster.



Table 7: Importance of cluster governance variables for the performance of the Western Cape wine cluster

Cluster governance variables	Average score	Rank
Presence of trust	1.91	1
Quality of solutions to collective action problems	2.36	2
Presence of leader firms	2.54	3
Presence of knowledge intermediaries	3.18	4

Note to Table 7:

Number of respondents = 11. Ranking from 1 (most important) to 4 (least important).

The respondents were divided on whether trust facilitated the coordination of collective actions in the cluster. Half of the experts disagreed with the statement that the presence of trust facilitated the coordination of collective actions.

WIDA's Executive Manager noted that trust could facilitate the coordination of collective activities, but that this was not a given. One of Winetech's managers said: *"Pockets of trust exist within the cluster (for example on a regional basis, areas such as Robertson, can be seen to be more cohesive with respect to collective action, where they cooperate more in areas such as wine-tourism, for example, the Wacky Wine Festival"*.

A WIDA representative as well as one of the owners of a black-owned brand also disagreed with the statement that trust existed in the industry.

A general manager at one of the leader firms stated that *"not enough of a culture of trust exists. There is however an acceptance that people have to work together and cooperate on a number of aspects such as in marketing, for example with under-age marketing and with the issue of sustainable production, such as with the BWI initiative, etc"*.

The owner of a black-owned brand noted that: *"There are some people / firms in the industry with whom one can work on a quasi-trust basis (for example, Blaauklippen)"*.

Another respondent, part-owner and manager of a wine farm that grows its own grapes and sells its wines internationally, agreed with the statement that trust exists. He noted: *"Yes, trust exists on an interpersonal basis – only insofar as one person can trust*

another – for example, an emerging farmer can establish trust between himself and his workers insofar as he shows he can add value; similarly an emerging farmer can have his wines sold at a large retailer if he shows he can add value to the retailer/provide a competitive offering”.

One respondent noted that trust was generally lacking among the new entrants in the industry:

“There is ... a lack of a culture of trust between new entrants [like BEEs], but young wine makers setting out are quite helpful to each other. Depending on what level one is talking about, there are lots of levels of wine makers who share knowledge and help one another; they can also be fiercely competitive in terms of marketing with very low levels of trust – it depends on who one is talking about. There is an increasing desire among the younger generation to share information. Within WOSA competitors sit around the table and share information... some level of trust exists. Between BAWSI and the industry there are very low levels of trust”.

42% of the experts agreed that trust between the cluster participants facilitated the effective coordination of collective actions. Reasons cited was the perception of mistrust that existed between both the leader firms (i.e. KWV and DISTELL), between BEE firms, and among white participants. As such, trust was not considered to have played a major role in the interactions between industry participants. The following comment was made by a respondent: *“There is no trust in the industry, not even among whites. There*

are two camps; one, the DISTELL camp and their supporters and, two, the KWV camp and their supporters. The division exists up to this day.”

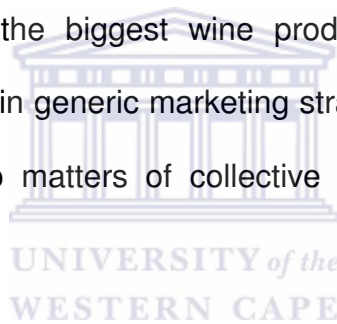
The data collected suggests that trust is more particularised, even personal and that different kinds of trust, such as “process-based, character-based and institutionally-based trust” (Rademakers, 2000) be used to further investigate and analyse the effect of trust on the coordination of cluster activities.

There were also opposing views on the presence of trust. A SALBA representative noted: *“I actually believe that there is a culture of trust”*. This was also echoed by another respondent from one of the leader firms.

Although evidence of both trust and distrust have been cited by respondents, in general, a widespread lack of trust appears to exist in the cluster. When looking at collective action problems in particular, such as those relating to BEE and transformation, (for example, the transformation levies), this lack of trust appears to be undermining effective governance of the cluster. This is a problem which needs to be addressed as a matter of urgency, in light of the high ranking afforded trust (see Table 7) in relation to the other cluster governance variables affecting the performance of the cluster.

5.3.3 Role of leader firms

Most of the respondents rated the impact of leader firms (such as KWV and DISTELL) as having made a positive impact on solving collection action problems and in improving the coordination of collective action activities (see Table 8). Respondents who disagreed felt that leader firms often behaved more competitively than cooperatively in their dealings with other firms in the industry. In addition to KWV and DISTELL, organizations such as SAB-Miller, the biggest beer producer, and Wines of South Africa (WOSA), were cited as examples of the firms that respondents considered leader firms. One expert commented that the biggest wine producer, [KWV] believed more in promoting specific brands than in generic marketing strategies. It was thus less inclined to cooperate when it came to matters of collective marketing and branding of the cluster.



Concerning leader firms, one respondent stated that leader firms:

“cause a divide in the industry. They increase the quality of governance insofar as they provide direction, but only in terms of their own specific agendas. For example, the CEO of DISTELL does not believe in generic marketing”, a key WOSA objective. A director of one of the firms participating in the study disagreed with the statement that leader firms increase the quality of governance, saying that “there is too much self-interest; they have to keep their shareholders happy. This they do by putting their own brands first”.

Another respondent stated: *“Leader firms lobby government on their own and that government institutions listen to them; whereas Wine Cellars SA and Vinpro lobby government for increased levies, BAWSI and RUDNET oppose the call and lobby for levies to remain the same and not to increase”*.

The above-mentioned comments suggest that leader firms appear to operate more competitively than cooperatively. More conservative comments such as the following were also made concerning leader firms: *“They increase the quality of coordination of the cluster, in areas where they see it is to their benefit to cooperate”*. Leader firms¹³¹ were rated as having made the most positive impact on solving collective action problems in the cluster (See Table 8).

However, leader firms were not considered to have made an important contribution to addressing BEE as a collective action problem. One comment to this effect was made by one of the owners of a black-owned wine brand: *“They think small BEE wineries are a threat. They just see small BEE firms as marketers and don’t think what we are doing is taking us anywhere. They are not interested in and don’t help small wineries”*.

Not surprisingly, industry associations made more impact on solutions to collective action problems than did leader firms. Table 8 refers.

¹³¹ Of which, KWV and Distell are the firms with the largest market share of the SA wine industry.

With respect to the marketing and promotion CAP, WOSA was considered to be both a leader firm and an industry association¹³². Concerning internationalisation, WOSA's CEO stated that *"We only have one leader firm internationally and DISTELL is strong internationally, but still a relatively small player internationally – it's not as big as a Gallo and small wine brands can't fight the image of the country"*.

5.3.4 Role of knowledge Intermediaries

Almost all of the respondents (92%) agreed that (knowledge) intermediaries are one of the main factors affecting the co-ordination of collective cluster activities. Knowledge intermediaries referred to in the study include organisations such as Winetech, WOSA, ARC-Nietvoorbij and SAWIS. Some of the respondents also highlighted shortcomings of some of the above-mentioned institutions. The following comment about SAWIS was made by one of the firms interviewed: *"SAWIS is not seen as a knowledge intermediary [which provides useable information], it only provides statistics in the form of a data service"*. This sentiment was also echoed by an executive manager of one of the associations who participated in the study. However, a WIDA representative mentioned that plans are under way to improve the services of SAWIS to that of an information services provider, as opposed to merely providing a data service to the industry.

Concerning WOSA, one of the newer entrants in the cluster said that *"WOSA does not assist with domestic promotion of wines for the local market"*. Although development of

¹³² WOSA is a section 21 company and receives part of its funding from industry levies.

the local market is not within WOSA's mandate, a vacuum does seem to exist in terms of developing the image of local wines in the domestic market.

5.4 Quality of solutions to collective action problems

This section deals with the variables in De Langen's (2004) cluster governance framework (presented in chapter 2), which affects the quality of solutions to collective action problems. These are: (1) the role of leader firms, (2) the role of associations and knowledge intermediaries, (3) the role of public organisations, (4) community arguments, and (5) voice.

Visser (2004:4) states that voice is exerted by individual firms when not satisfied with the collective decisions or outcomes regarding the solution to a collective action problem. Williamson (1985) refers to *voice* as an alternative means of organising economic activity that requires dialogue, persuasion and sustained organisational effort. However, he also notes that the use of voice has been a relatively neglected political process for influencing outcomes.

Community arguments were operationalised to include issues such as farm worker living conditions, land tenure and security, the noxious effects of agro-chemical spraying of vineyards on farm worker health, the denial of farm-workers rights to organise, the survival of the "dop system", the banning of alcohol advertising to the youth, prohibitions on the sale of alcohol, etc. (McEwan and Bek, 2006; Ewert et.al., 2005).

The ranking of the respective variables is detailed in Table 8. Leader firms were rated as having made the greatest positive impact on the quality of the solutions to the various collective action problems in the cluster.

Concerning the quality of wine, the positive role played by Winetech, SAWIS and WOSA, who were regarded as leader firms when it came to the quality of wine, were highlighted by the respondents. As noted by WOSA's CEO: "*The Wine and Spirit Board, the Department of Agriculture and Nietvoorbij have a positive impact on the quality regime. The Wine & Spirit Board's [public organization] new label guarantees the integrity and sustainability of SA wine production*". This was considered for the branding and internationalisation of SA wines.



Table 8: Variables affecting the solutions to collective action problems

Variables influencing solutions to CAPs	SOLUTIONS TO COLLECTIVE ACTION PROBLEMS							Ave. score	Rank
	Wine quality	Internationalisation	Education & Training	Marketing and promotion	BEE	Infrastructure	Innovation		
Leader firms	4.08	3.75	3.25	3.08	2.58	3.50	3.08	3.3	1
Infrastructure for collective action	3.67	3.33	2.75	3.50	2.50	3.08	2.83	3.1	2
The legitimacy of a community argument	1.92	1.25	2.67	2.33	2.83	1.08	1.33	2.0	3
Appropriate role of public organisations	2.33	2.17	1.83	1.83	2.42	1.75	1.33	1.9	4
The appreciation of voice	1.67	2.17	1.83	1.17	1.5	1.08	1.25	1.5	5
Average score	2.7	2.5	2.5	2.4	2.4	2.1	2.0	2.4	
Ranking	1	2	2	4	4	6	7		

Notes on Table 8

The respondents (n=12) were asked to score each variable on a scale between (-5), implying a very negative influence of a variable on the quality of solutions to a collective action problem and (+5), meaning that its influence is very positive.

The ranking ranges from 1 (most important) to 7 (least important).

Source: Interviews with respondents conducted from Oct 2009 to April 2011.

Internationalisation, ranked jointly in second/third place with *education, training and labour quality*, was mostly facilitated by leader firms - particularly WOSA¹³³ as well as by industry associations¹³⁴.

Associations, with the necessary infrastructure for collective action, were rated the second most important variable which positively affects the cluster's internationalisation. The Biodiversity Wine Initiative (BWI) and the Wine Industry Ethical Trade Association (WIETA), a voluntary association governed by diverse stakeholders comprising of organised labour, large businesses and mostly progressive farmers, were specific examples of industry associations that were considered to have made a positive contribution to the internationalisation regime.

In looking at the key issues which affect the competitiveness of the cluster, two of the most relevant factors, namely internationalisation and marketing and promotion were

¹³³ WOSA was considered a lead firm by the respondents due to its impact on the internationalisation and collective branding of SA wines.

¹³⁴ Associations such as the *Pinotage Association* and the *Cape Wine-makers Guild* etc. are examples of industry associations that have contributed to the success of the internationalisation of SA wines.

found to have close linkages and complementarities. According to one of the respondents, his firm had sold unbottled wine to a foreign buyer who then subsequently bottled and labelled the wine in the Netherlands using a very similar name to that of the SA producer. Without the seller's knowledge, the buyer had also used the brand imagery of the South African firm on the packaging in which the wine was sold. This example echoes the need to actively market and brand local farms, cellars and their brands, as opposed to selling the wine of the South African vine. This is an important consideration in the light of the margin pressures in the large supermarket chains, foreign buying monopolies and the negative impact of the relatively strong valuation and high volatility of the South African Rand on international markets against the UK pound, Euro and Dollar markets, where South African wine is sold.

According to WOSA's Su Birch, *"The foreign buyers from Sweden, Denmark, Finland and Canada act as monopolies, and impact on the profitability of our industry. They also affect the codes of conduct within which our firms have to operate. The buyer at TESCO is one the most powerful buyers in the world, along with the buyer from the LCBO or the buyer from Stockholm in Sweden"*.

Industry associations were rated as having made the most positive contributions to SA's marketing and promotion initiatives. According to WOSA's Su Birch:

"The quality of SA's image and its relationship with wine is extremely problematic and does not relate to wine at all. The quality of the image of the country is extremely problematic as opposed to France, whose image helps to enhance and sell its wine. South Africa is not well-known as a country; so we first have to

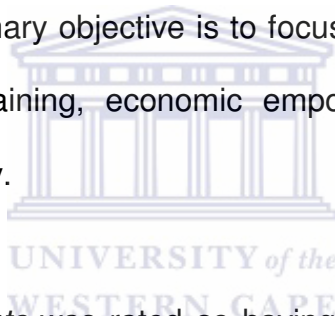
sell the image of the country. [The imagery/perception of SA currently is that of an African country with corruption, heat, animals and dusty streets etc.]. SA's image has nothing to do with a sophisticated wine industry. When we go into parts of South America for instance, we have to first sell the country, then the fact that it makes wine, then sell the wine. Individual brand owners thus have to sell all three (the country, the fact that the country sells wine and then the product itself). There is not enough funding going into the first two, which makes it extremely expensive for our firms".

According to Nosey Pieterse, BAWSI President: *"In the absence of a brand [in the respective markets], leader firms, such as KWV International, fills that vacuum. For example, when there was no 'Brand SA', KWV International played that role. This makes them critical"*.



Education, training and labour quality was ranked jointly with internationalisation in terms of the quality of solutions. A reason cited for this relatively high ranking was the progress which has been made over the last few years. Community arguments have also contributed to this development, in addition to the role of leader firms and associations. However, one of the respondents stated that for black-owned, emerging firms the situation is different and the impact of the various collective action challenges should be analysed separately from the impact on the larger, more established firms in the cluster.

According to Davidson et al. (2009), numerous viticulture and oenology programs and scholarships exist and are available at local universities. However, these programmes have not seen strong participation from the black majority of South Africans employed and studying in the wine industry. The resulting effect is a domestic shortage of qualified black winemakers and managers in the industry. An example cited in one of the interviews conducted is that of DISTELL providing bursaries through Winetech; the interviewee noted that, with respect to training, education and improving labour quality, the leader firms perform these activities on their own (without the involvement of WIDA, the industry business unit responsible for the wine industry's transformation and empowerment, of which a primary objective is to focus on social development, human resource development and training, economic empowerment and sound industrial relations in the SA wine industry.



Legitimate community arguments was rated as having made the most positive impact on the BEE regime - with some public organisations and industry associations, such as BAWSI and SAWIT cited as having played relatively major roles in this regard. Leader firms, on the other hand, had a somewhat less significant impact on BEE. According to Su Birch, WOSA is a large sponsor of black brands and has also made a positive impact on BEE. She also stated that WOSA is currently the only funder that BEE firms have.

Respondents were divided on the impact of international wine sales on BEE. Non-white owners of three of the firms who participated in the study stated that the bulk of their

sales are in foreign markets. WOSA's CEO was skeptical about the impact that internationalisation has had on BEE firms. Competing internationally generally requires huge investments in marketing and branding, together with the ability to deliver sufficient quantities on time at highly competitive prices. These require economies of scale, which BEE firms generally lack due to their size and accompanying constraints, some still as a result of the legacy of Apartheid on cluster participants and backward linkages on local demand patterns. See Section 3.1.1.

BEE's relatively low rating may also be attributed to the lack of suitable land in the wine regions (for wine tourism purposes, not necessarily for the production of grapes) and the exorbitantly high land prices, which has resulted in the lack of access to suitable infrastructure for emerging entrants into the cluster. A survey commissioned by WIDA¹³⁵ in September 2009 indicates that only 2.26% of the vineyards in the wine-producing regions of South Africa are under black ownership.¹³⁶

According to Williams (2005: 479)¹³⁷ land reform has been difficult to implement in the wine industry due to its highly capitalised nature. As a result, land ownership has continued to remain almost exclusively in the hands of the minority white population (Kruger, 2004; Kruger and Hamman, 2004; Vink, 2004, cited in McEwan and Bek,

¹³⁵ Wine Industry Development Association

¹³⁶ The survey was sent to all 4735 entities on the SAWIS database. The response rate was 13,4%; with the response rate fairly evenly spread across the 7 wine-producing regions. 88% of the respondents were classified as EME's (emerging enterprises) and 74% being grape producers.

¹³⁷ cited in McEwan and Bek (2006).

2006).¹³⁸ However, redistribution relies on the successful implementation of industry charters and BEE legislation. It appears that the BEE charter and the BEE legislation conflict – with the first aiming to reduce the cost of doing business, while the adoption of BEE legislation risks increasing the costs of doing business (*The Economist*, 17 February 2005, cited in McEwan and Bek, 2006). According to the BEE incumbents interviewed, very little state support is provided to fund education, research and development, in contrast to other wine making regions, such as France (personal interview).

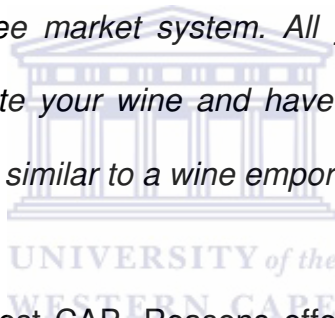
Concerning infrastructure, leader firms were also rated as having made the most impact. However, Nosey Pieterse, the President of BAWSI, stated:

“leader firms have the money and can provide infrastructure that the smaller firms can piggyback on. The leader firms have the state of the art equipment. Whereas a small firm has a R5 million cellar, the leader firm has a R105 million cellar. This means that 10 smaller vintners can come and set up companies with them. What they (leader firms) fail to understand is that the small vintners can help them with throughput of the wine and so help reduce their production costs to a very low cost. If they produce only for themselves however, they produce say 100 tons; with ten vintners they can produce 200 tons. This will bring down their unit costs, due to the benefits of scale and scope economies”.

¹³⁸ Land makes up less than ten percent of the assets of the SA wine industry; while the production of grapes produces less value-added than virtually every other part of the supply chain. Land however, contributes up to twenty percent of the quality of the wine produced (Tregurtha, 2004), cited in Williams (2005).

Nosey, who is also the developer of the *virtual winery model*, further stated:

“I have seen how people outsource their production – everything is outsourced, except for the marketing and sales. The fact that you are a reliable supplier of quality wine, albeit a black vintner, is important, that is your uniqueness; but, you have to secure and ensure that you have quality wines, you must have properly qualified wine fundi’s who will know what wines you are getting from the suppliers. If you have the money and the expertise to check the quality, then they can’t tell you what to do and that you must take their wine. You can tell the supplier that if they can’t deliver then you won’t take your wine. Business is business. This is the free market system. All you need is an address where people can come to taste your wine and have a wine experience, and/or buy souvenirs from your firm, similar to a wine emporium”.



Innovation was ranked the lowest CAP. Reasons offered by some respondents were that individual firms generally pursued innovation-related activities at company level, rather than as part of cluster-based initiatives. Lack of funding was another reason provided. According to WOSA’s CEO: *“There is not enough funds being made available to support innovation in the areas of marketing, winemaking etc. and to support the work done of WOSA, WIDA, Vinpro, etc. Yes, WOSA and Winetech bring innovation into the industry, but they do not have enough funds, although they do enough with the funds they have”.*

5.5 Effects on coordination of collective action by actor type

Respondents were asked to assess the relative impact of / importance of different types of actors on cluster governance. In terms of the data, associations and leader firms were rated as having made the most positive contributions. Table 9 refers.

Table 9: Relative importance of sub-variables (types of actors) affecting the coordination of collective activities or cluster governance

Sub-variables affecting the quality of cluster governance	Very Important	Important	Moderate Importance	Minor Importance
Presence of associations	75%	25%	-	-
Presence of leader firms	75%	17%	8%	-
Presence of public organisations	67%	8%	25%	-
Appreciation of voice by individual firms	33%	50%	17%	-
Legitimacy of community arguments	42%	42%	8%	8%

Notes on Table 9:

Number of respondents = 12; Respondents were asked to rate the importance of the respective variables on a 5-point Likert scale.

The “Not Important” column is not presented, as none of the respondents rated the sub-variables affecting cluster governance quality as “*not important*”.

The effect of *associations* on the coordination of cluster activities can be viewed as a major contributor to improving cluster governance quality. As stated by Nosey Pieterse, BAWSI's President: *"The most important thing is that the adequate organizational infrastructure must be in place. For example, SAWIC must be legitimate and recognised politically"*.

Leader firms were also considered very important contributors. As stated by one of the respondents: *"Leader firms are very important, as they have the resources, skills and exposure locally and internationally. They can give feedback and say, this works or this doesn't work. They can play a constructive role where they see that it would be to their advantage all well to cooperate"*.



However, the relationship between leader firms and associations may not work to an association's benefit. For instance, if a leader firm is so big and powerful that it doesn't believe it *necessary* to belong to any trade association and believes that it can "do its own thing". There are therefore instances where associations work better without the involvement of powerful leader firms. One interviewee noted that for an association to work, depending also on the culture of the organisations involved, synergy is needed and everyone must contribute so that the end result is better than the best results that can be obtained individually. Organisational incentives to cooperate are thus paramount for the effective functioning of associations. This may be even more important in a cluster where "all industry initiatives are funded by industry through levies", as is the case with the Western Cape wine cluster.

Public organisations were rated as having less bearing on the quality of cluster governance of the industry, compared to the role of associations and leader firms. The public organisations referred to include the Department of Trade and Industry (the dti), National Agricultural Marketing Council (NAMC), the Wine and Spirit Board, the Land Bank, etc. However, the role of the Wine and Spirit Board, owing to the adoption of its new label guaranteeing the integrity and sustainability of SA wine production was noted in terms of its positive effect on internationalisation and the marketing and branding of SA wines.

The legitimacy of *community arguments* was also rated as important by the respondents, as they add to the diversity of the cluster. According to WOSA's CEO, "*the BWI and the Wine and Spirit board has a new label, which is hugely important and has a positive spinoff in terms of land being used more sustainably. The Wine and Spirit Board also currently has a new label to guarantee the integrity and sustainability of SA wine production. Similarly, WIETA is making a good impact on the marketing of South African wines*". Community arguments have thus made a positive impact on the cluster.

Concerning the use of *voice* by individuals and firms, one of the respondents noted that individuals often raise issues which are not necessarily beneficial to the industry as a whole, but rather add to the industry's polarisation; being characterised by a culture of mistrust and bias towards inter-firm competition, rather than inter-firm cooperation.

5.5.1 Effect of intermediaries on lowering the costs of managing and coordinating collective cluster activities

From the data in Table 10, *local associations, government agencies and leader firms* were rated as the most important agents in lowering the costs of coordination within the cluster. Concerning the role of government agencies and departments, WOSA's CEO stated that the Department of Trade and Industry, the Department of Agriculture, etc. have a big role to play. However, Riaan Kruger of SALBA stated that government should assist more with the provisioning of funding, specifically for training, research and generic export promotion. This view was echoed by the WOSA's CEO.

Another respondent, who rated associations first in terms of lowering costs, stated that the industry business units (i.e. WOSA, WIDA, SAWIS and Winetech) are in fact *associations* and "are working".

WIDA's executive manager, Denver Williams, stated that public organisations, export marketing agents, foreign buyers and local associations actually *increase* the cost of managing and coordinating cooperation in the cluster, through sin taxes and export tariffs, etc. He stated: "*I don't believe that the rest [marketing agents, foreign buyers, and investors] are really relevant for coordination and lowering the costs of coordination*".

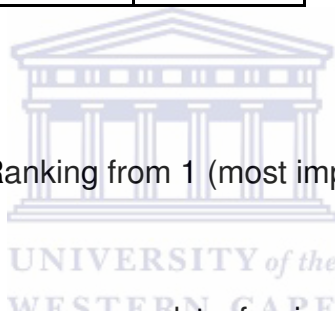
Table 10 shows the average scores for the different types of intermediaries / agents.

Table 10: Importance of intermediaries / agents for lowering the costs of managing and coordinating collective cluster activities

Agent / Intermediary	Ranking	Average score
Local associations	1	2.75
Government agencies	1	2.75
Leader firms	1	2.75
Export / Import marketing agents	4	3.58
Foreign buyers	5	4.00
Foreign investors	6	4.92

Note to Table 10:

Number of respondents = 12. Ranking from 1 (most important) to 5 (least important).



The higher ranking of exporters compared to foreign buyers, may be due to 196% increase in the number of exporters in the local wine industry over the 5 year period up to 2004 (SAWIS, 2009/10) ¹⁴⁰.

¹⁴⁰ There are about 118 bulk wine buyers (comprising of 47 wholesalers and 71 exporters compared to 103 bulk wine buyers, comprised of 76 wholesalers and 27 exporters in 2004). This represents a 35% increase in the number of wholesalers over a 5 year period.

5.6 Chapter summary

This chapter has detailed the study's empirical data and findings. The primary findings are that external (macro-environmental) factors have made the most impact on the cluster's performance. Certain collective action problems, such as the quality of wine and, to an extent, the collective branding of SA wines, appear to have been managed more effectively by the cluster as a whole. Some progress on collective action problems, such as training, education and labour quality, as well as innovation appear since 1994 have also been made. However, these are still managed mainly on an individual company basis, rather than coordinated at a cluster level. The resolution of problems of transformation and BEE might require levels of coordination that are not considered normal for the cluster. Individual efforts by industry incumbents appear to be the way that progress is being made concerning this collective action problem. With the focus of leader firms on international markets, the resolution of this collective action problem appears to have relatively low priority when considered in the context of extremely competitive international retail markets.

There also appears to be more *mistrust* than collective instances of trust operating in the cluster. The decision in 2008 by certain members of SAWIC's executive, namely SALBA, WCSA and VINPRO to resign from SAWIC, attests to this.¹⁴²

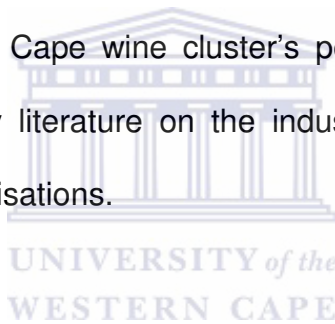
I will now present the conclusion and study recommendations in Chapter 6.

¹⁴² BAWSI Press Release: Members of SA Wine Council Resigned, 15 April 2008.

6. CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS

The events and developments after 1994 have changed South Africa's wine industry. Organisations and businesses have adapted incrementally to the emerging business and political circumstances. The Winetech Vision 2020 produced a "road map" for renewal in early 2001. Ten years later, the Vision 2020 process still needs to bring fundamental change in terms of skills development and industry transformation.

The study objective was to explore the nature of coordination or cluster governance, and its affect on the Western Cape wine cluster's performance. The research has drawn on extensive secondary literature on the industry, as well as interviews with experts from key industry organisations.



The study's primary findings are that knowledge intermediaries, leader firms and associations improve the coordination of collective actions in the cluster. Trust does not generally facilitate the coordination of collective actions in the cluster. More research into the nature of trust and its effect on cluster performance is recommended.

Public organisations were found to have a minimal impact on improving the coordination of collective cluster activities. With the exception of BEE, The role of *voice* and *community arguments* were also not found to strongly affect the many quality of solutions to the various collective action problems experienced in the cluster.

Key aspects of the study are presented in the sections below.

6.1 Outcomes related to cluster performance and coordination

Prominence of external factors

External factors such as international consumer demand and the general economic development of the domestic market were found to be the most prominent external variables affecting the performance of the Western Cape cluster. Government policies were regarded as less important.

Surprisingly, the nature of coordination or cluster governance quality was rated as having the least impact on the cluster's international performance. A major contributing factor for this low rating is the tension between the main organisation structures representing the interests of key actors in the industry coordinating body, SAWIC. SAWIC, which initially comprised of BAWSI (representing black labour), RUDNET (representing civil society), NAFU (representing emerging farmers), SALBA, WCSA, VINPRO, Winetech, WOSA, SAWIS and WIDA, now only consists of the black organization structures namely, BAWSI, Rudnet and NAFU. No "captains of industry" now represent the producers in the (SAWIC) structure. WIDA is now the representative structure or "new powerhouse" of the industry. According to Nosey Pieterse, President of BAWSI and chairperson of WIDA¹⁴³, one of the reasons cited for the split was the conflict caused over the use of the levy monies earmarked for transformation which allegedly had gone towards payment of salaries for black workers. The NAMC, following

¹⁴³ Interview with Nosey Pieterse, dated 9 April, 2011.

the delegation to the NAMC, which was led by Nosey Pieterse as president of BAWSI and WIDA, concurred that the levy monies were not meant for salaries, and instructed that the industry was not supposed to calculate a percentage of those levies for salaries. SALBA, WCSA, VinPro, Winetech, WOSA and SAWIS had also approached the Minister of Agriculture to increase the levies without consulting WIDA. WIDA then, through Nosey Pieterse as WIDA chairperson, opposed the application. The minister then concurred that the transformation levy should also be increased for WIDA. (See Section 3.3.3 on the institutional landscape).

Concerning the quality of governance or nature of coordination, an overwhelming majority of the respondents agreed that improving the governance quality or nature of coordination would significantly enhance the cluster's performance. It is thus conceivable that efforts to facilitate coordination among the key actors in the cluster may result in improved cluster performance. Some of the ways in which this could be achieved are to improve communication between the different types of actors through involvement on shared industry forums, further align the organisational incentives towards the achievement of collective goals, and improve the transparency of the institutional processes. Milgrom, North and Weigast (1990), cited in North (1990:41), suggest raising the gains of cooperative action or raising the costs of defecting in relation to informal organisational constraints and inducing cooperative behaviour.

Structural features and cluster performance

Overall, the cluster's structural features were rated as more important than cluster governance. *Quality of labour* was considered the most important structural variable affecting the cluster's performance. *Presence of local suppliers* was rated the second most important variable. The industry's relatively rapid expansion, particularly as a result of the relatively high increase in noble grape varieties (Ponte and Ewert, 2007), has provided growth opportunities for skilled and semi-skilled labour. This may be one of the more important reasons for the prominence of both labour quality and the presence of local suppliers in the cluster's structural make-up.

The relatively low ranking of the intensity of internal cluster rivalry was surprising. However, the fact that the majority of the respondents represent collective industry bodies and are not directly involved in the production or sales of wine may account for this response.

6.2 Collective action problems and competitiveness

The effect of the seven collective action problems facing the cluster is presented below. Internationalisation, together with training, education and labour quality were ranked as the most relevant challenges facing the cluster. Marketing and promotion or image building was ranked third and black economic empowerment (*BEE*) fourth. The effect of the four most relevant collective action problems needs to be considered in concert.

Although South Africa has grown considerably in its standing on international markets, further progress is required to break into non-traditional export markets such as the US, East Asia and Russia as well as into the super and ultra-premium wine categories. This will require investments into developing the specific language and social skills, together with deeper insights into consumer behaviour in the various country markets. Internationalisation and marketing and branding are thus highly interrelated. Progress in this regard may also require the careful tracing, tracking and analysis of sales and performance data of different products, categories, channels, buyers and consumers. These skills and capabilities will have to be developed or acquired by local firms exporting into the various markets, or developed via joint ventures, strategic alliances or partnerships with importers and/or distributors and resellers familiar with these locations. It can therefore be seen that education, training and labour quality is also linked to the internationalisation and marketing and promotion regimes. Provision of consistent quality wines in the various categories and markets, in order to provide the necessary variety and consistency will also be paramount to develop and sustain South Africa's country-level reputation effects.

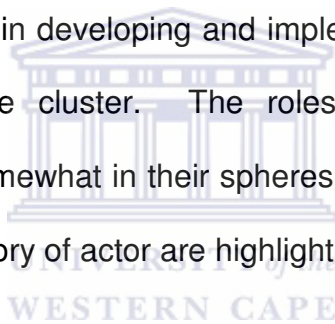
6.2.1 Solutions to collective action problems

Improving the quality of wine, rated as the most important collective action problem affecting the cluster's performance, was found to be the area where the cluster had been most successful in the past. The contributions of Winetech, WOSA and to a lesser extent SAWIS were considered important in this area.

Following the quality of wine, internationalisation and the penetration of export markets were the second most successfully implemented collective action solution. This was primarily attributed to lead firms. In the case of internationalisation, *WOSA* was considered as the lead firm which contributed the most to this regime's success. The efforts of associations such as the Biodiversity of Wine Initiative (BWI) and the Wine Industry Ethical Trading Association (WIETA) were also acknowledged in this regard.

Key actors and their effect on solutions to collective action problems

Different key actors play a role in developing and implementing responses to collective action problems faced by the cluster. The roles of various organisations are complementary and overlap somewhat in their spheres of activity. Distinctions that may be attributed to a specific category of actor are highlighted below.



6.2.2 Leader firms

Leader firms were generally found to have made the most impact on addressing the seven collective action problems identified by SAWB in the 2020 Vision for the sector. Lead firms were viewed as having made important contributions towards improving the internationalisation of the cluster. Although leader firms have made important contributions to improving the coordination of cluster activities, particularly in the areas of innovation and internationalisation, there however remain areas in which leader firms can improve their efforts in concert with the rest of the institutions in the cluster. Of concern is lead firms' failure to make significant contributions to BEE. This finding may

be attributed to BEE not being directly linked to their growth and expansion opportunities, most of which increasingly involve international trade. The implications for the domestic market is that the industry's development may be stifled, since lead firms are also seen to be at the forefront of training and development and improving labour quality. As almost 90% of the quality of wine is determined by decisions and actions performed in the vineyards, efforts by leading firms might not result in a more competitive cluster based on efficient and productive use of resources, particularly in a relatively labour-intensive industry, such as the wine industry.

6.2.3 Industry bodies / Associations

Associations have made the most important impact on the collective branding, marketing and promotion initiatives of South African wine, in particular WOSA. However, associations were not rated very positively in terms of improving BEE. This indicates that BEE is seen by the majority of participants as the preserve of small individual firms that are exempt from the requirements of the legislation. In an environment of increasing inequality, the possibility of another global economic recession on the horizon and rising socioeconomic tensions facing the country, the implications are that nationalisation and land redistribution, may once yet again rear their heads.

6.2.4 (Knowledge) intermediaries

Knowledge intermediaries increase the quality of governance of the cluster. Winetech and Infruitec-Nietvoorbij in partnership with the University of Stellenbosch's Department of Agronomy and Oenology are the most prominent knowledge intermediaries facilitating research and technology transfer in the industry. WOSA was also rated as a knowledge intermediary that positively affects the coordination of cluster activities, particularly concerning international and generic marketing and branding. The importance of establishing a strong country image and reputation for quality and reliability for South Africa on the international wine markets cannot be underestimated, particularly when the road ahead for South African wines appears to be towards producing higher quality, more differentiated wines in the growing and more lucrative segments of the market.



6.3 Nature and role of trust in cluster coordination

It emerged that a "particularistic" kind of trust exists between incumbents and that on the whole, generalised trust does not appear to reduce transaction costs or enhance the scope of collective action. This has been evidenced by the rift in SAWIC between the key role-players. On the other hand, respondents from WOSA and representatives of individual producers on WOSA's Board stated that a certain measure of trust exists between participants. Similar comments to this effect were also received from

representatives of Winetech. A measure of (dis)agreement thus exists between the respondents involved in the study.

A multilevel phenomenon such as trust, one of the four variables affecting cluster governance quality, has not been made explicit in the cluster governance framework developed by De Langen (2004). These multilevel issues have therefore not been as rigorously applied in the data collection phase, but have gradually emerged through the analysis and reporting stages of the study.

According to Rousseau et al. (1998), a multilevel phenomenon as complex as trust¹⁴⁵ requires theory and a research methodology that reflects the many facets and levels of trust. They state that disciplinary differences characterising traditional treatments of trust suggest that inherent conflicts and divergent assumptions are at work. Whereas economists tend to view trust as either calculative (Williamson, 1993)¹⁴⁶ or institutional (North, 1990)¹⁴⁷. Sociologists often find trust in socially embedded properties of relationships among people (Granovetter, 1985)¹⁴⁸ or institutions. Psychologists commonly frame their assessments of trust in terms of the attributes of trustors and trustees and focus on a host of internal cognitions developed by personal attributes.

The above-mentioned body of work suggests that trust may be a *meso*-concept, integrating micro-level psychological processes and group dynamics with macro-level

¹⁴⁵ defined as a psychological state comprising the intention to accept vulnerability based on positive expectations of the intentions or behavior of another (Rousseau et.al., 1998)

¹⁴⁶ Cited in Rousseau et.al., (1998)

¹⁴⁷ ditto

¹⁴⁸ ditto

institutional arrangements (House, Rousseau and Thomas-Hunt, 1995:85). Rousseau et. al., (1998:393) argue that a blurring of the distinction between trust and cooperation has led to a “fuzziness” in the treatment of behaviour-based trust and the construct of trust itself. Identification of shared meaning does not imply that all operationalisations of trust reflect the same thing.

Theorists and researchers of trust model trust as an independent variable (cause), as a dependant variable (effect), or as an interaction variable (a moderating condition for a causal relationship). In *transaction cost economics*, Williamson (1985) similarly views trust as a cause of reduced opportunism among the transacting parties. This results in lower transaction costs. In De Langen’s (2004) cluster governance framework, trust is conceptualised as an independent variable, along with the role of leader firms and knowledge intermediaries and associations. Rousseau et al. (1998) also note that trust is considered a cause (independent variable) in several articles. However, across a spectrum of disciplines, trust has thus not been viewed exclusively as either a result or as a cause. Robinson and Rousseau (1994) note that some authors use trust as a cause and moderator. According to Rousseau et al. (1998) the function of trust in the causal framework research model appears to reflect richer and more complex cross-disciplinary views, although other scholars model trust in all three roles - as an independent, dependant or moderator variable.

Level of theory and level of measurement

Level of theory refers to the unit (person, group or firm) that the researcher seeks to explain and about which attributions and generalisations are made, whereas the *level of measurement* refers to the source of information such as individual interviews, group surveys, and firm-level archival records of corporate performance. “Misspecification” (Rousseau, 1985) occurs when theory and measurement are inconsistent (i.e. a construct is theoretically attributed to one level when it was measured at another level), for example when a claim about parent firm trust is based on interviews with international joint venture managers (Curral and Inkpen, 2002). By referring to trust by firms, the connotation is that firms are doing the trusting. Yet Curral and Inkpen (2002) conclude that their study failed to substantiate that trust existed at the company level because data was collected only from key informants (i.e. individual persons). When such shifts in levels occur, the validity of hypothesis tests is diminished, i.e. when person-level measures of trust are the basis of statements made about firm-level trust (“trust by a firm” or “interfirm trust”). While the same conclusion may apply to the findings reported in this study, it was assumed that institutional leaders and industry experts were assumed to have well-informed views.

6.4 Chapter summary

The building blocks for competitiveness of the Western Cape wine cluster - i.e. the quality of the labour force, quality of its products, growth and development of SA wine

on international markets, the role of knowledge intermediaries, and the development of innovation capacity - were all rated positively in terms of their impact on the cluster's competitiveness.

As collective action issues and key variables thereof, the link with the above-mentioned factors and black economic empowerment should be clearer. Due to its relative unimportance to the internationalisation regime, however, BEE is not being adequately addressed. While individual advancements are being made in this area, these developments appear fairly small at the cluster level. Further research into firm-level activities relating to BEE may be instructive.

Although rated as the most important variable affecting cluster governance or the coordination of cluster activities, half of the respondents in the study disagreed that the presence of trust facilitated the coordination of collective actions in the cluster. Based on these divergent views, further research needs to be conducted to establish the link between trust and cluster governance. Although operationalised as an independent variable in this study, it would be insightful to operationalise the concept of trust in its various forms, namely as deterrence-based, calculus-based, relational trust, institution-based (Rousseau et.al., 1998) or process-based, character-based and institutionally-based (Rademakers, 2000) and as a moderating, causal and/or as an effect. Due to the above limitation and as a result of the limited sample size, general trends could thus not be extrapolated from the data regarding the mechanics of trust and the coordination of the cluster activities.

Questions about the future prospects for the cluster have certainly been raised. Without a collective voice, it is hard to discern the direction the cluster should be steered in towards its Vision 2020.

6.5 Study recommendations

A limitation of this study has been its focus on cluster-level activities which ultimately, are grounded on firm-level research. I recommend that more research be conducted into the different types of firm-level (inter-firm) collaboration to develop a more accurate picture of the interventions that may be required to assist producers, labour, marketers, resellers and other key stakeholders. It will be insightful to investigate if and how individual firms and institutions strategically interact, whether they do so with shared purposes, and learn through specialisation, mutual contracting and inter-firm division of labour. According to Visser and De Langen (2006), these kinds of collaborative approaches are important, as it is only in the more developed clusters that incumbents adopt collaborative efforts to successfully compete on global markets.

Opportunities to improve the competitiveness of the Western Cape wine cluster include the development of a generic export promotion capability, combined with higher levels of industry support and involvement in its collective institutions, both locally and internationally.

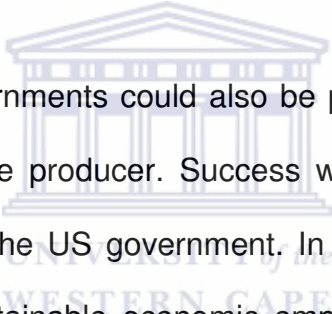
The promotion of the strengths of South African wines (such as its high quality, value for money, variety, etc.) should be continued. Positive developments are expected by cluster participants, some of which have already started seeing the benefits. The instances of BEE firms involved in this study have already shown how facilitated access to international markets (in the UK and elsewhere), as a result of export promotion programmes, have kept them afloat. However, access to local production, distribution and retail channels have been problematic. Opportunities to diversify and build the newer black-owned brands are limited, due to the high capital costs, notably very high land prices. Initiatives to facilitate the access of new entrants into the wine-tourism value chain should be continued.

In terms of developing the black-owned brands, it is important that the Wine Charter be ratified and implemented. Increased access to specialist information is required in order to address the B-BBEE policy, which is perceived by industry insiders as not working effectively. The current policy is perceived as being too broad in scope As well as impractical, thus hampering its implementation. The procurement policies of retailers (industry buyers) should be monitored and evaluated to establish alignment with the Wine Charter.

Increasing the accessibility to and commitment of the relevant government institutions to the industry's success, along with the establishment of a working body that will serve as a mouthpiece of the industry, is also required. This should assist in furthering the cluster's development on a more sustainable basis. The industry body should not regulate or direct the industry, but should represent the collective interests of its multiple

stakeholders. Vision 2020 provides a guide towards a prosperous future. However, effective coordination mechanisms of strategic activities are necessary to steer it towards this horizon.

A review the roles and achievements to date of the various wine industry bodies, their associations and primary actors are required. More transparency and communication between the role-players responsible for the steering of the cluster may also be needed in light of the seemingly (fragmented) structures and activities of the multiple, disparate institutions representing the cluster.



Collaboration with foreign governments could also be pursued, such as in the case of South Africa's first organic wine producer. Success would not have come as easily, were it not for the backing of the US government. In terms of regional collaboration, there is potential for more sustainable economic empowerment through partnerships between existing farmers, farm workers and communities, between firms in the wine making and fruit-distribution sector, and between the state and retailers in the local and international segments of the wine value chain. While the supply chain is becoming increasingly buyer-led, it should also become more agile, flexible and responsive.

Developing a more integrated supply chain with the necessary management systems is therefore required. Who will develop and harness these collective assets for the benefit of the cluster participants? Are there opportunities to make information more accessible to small firms that are struggling to survive amidst mounting cost pressures and

recession-prone markets? Improved access to information, such as the AC Nielson data, would also be valuable to particularly SMME firms, as the smaller firms generally, do not have access to this kind of information, due to cost constraints¹⁴⁹.

As wine farmers have been faced with low wine prices and rising costs¹⁵⁰, a concerted effort is required to change the “cheap” image of South African wines on international wine markets, where they primarily occupy the lower price categories (Financial Mail, 24 June 2010). A focus on differentiating South African wine alone will not be enough in fiercely contested international markets. A productivity drive, involving the provision of higher-quality products with increased cost efficiencies and the ability to effectively manage the delivery pipeline are required to simply stay in the game – amongst the likes of Australia, Chile, France and other wine producing countries.

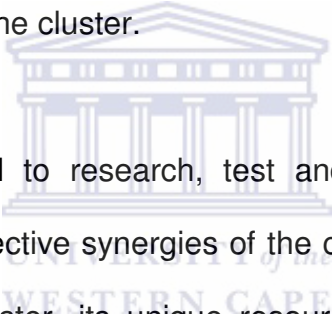
On a final note, trust or distrust is developed through consistent behaviour over time. Trust is a way of dealing with ignorance and uncertainty - uncertainty about future contingencies that may arise and about how partners will react to these future events. It is fundamental for any relationship, business or otherwise, when there is insufficient knowledge and understanding of the other person or group. (Child, J. 2001). Based on the findings of this study, it is important that the specific role and different manifestations of trust in the cluster be explored further.

¹⁴⁹ Interview with Rydal Jefftha, CEO of Koopmanskloof.

¹⁵⁰ Since 2003, average red wine prices have fallen by a third, while that of white wine has risen by less than twenty percent (Financial Mail, 24 June 2010).

6.6 Concluding remarks

The relatively weak collaboration and evidence of mistrust found between the different types of key actors involved in the coordination or governance of the Western Cape wine cluster points to the need to better capture the essence of the "social glue" and collective synergies alluded to by Porter and other scholars. Some call it the "atmosphere" or "milieu". This forms the basis - indeed, the foundation - for the success of most industry initiatives, no matter how grand or smart they may be. For now, this still appears out of the reach of those most in need of it and its corresponding benefits, amidst all the pressures facing the cluster.



More effort is indeed required to research, test and implement viable, innovative approaches to harness the collective synergies of the cluster. The *particularistic* nature of the Western Cape wine cluster, its unique resources, heritage and opportunities require critical reflection on the part of the institutions that make up this cluster. While much has been achieved, much more can be done amidst fierce competition from wine brands and producers the world over.

What are the unique ingredients required to make this cluster a thriving one? What is the "glue" needed to hold it together? Further research is needed on whether Porter's cluster model is indeed sufficient or whether it needs a modification to style a vibrant cluster in the heart of the Western Cape.

7. BIBLIOGRAPHY

Anderson, K. (2001). *Where in the World is the Wine Industry Going?* CIES Discussion Paper No.0101, Centre for International Economic Studies, Adelaide University, Australia. Available from: <https://maths2.web-prod.development.adelaide.edu.au/wine-econ/papers/0101.pdf> (Accessed 25 March 2009).

Bekker, S.B, Dodds, M & Ewert, J. (1999). *A Strategic Social Analysis of the South African Wine Industry*. Cape Town: University of Stellenbosch. Available from <http://www.worldcat.org/title/strategic-social-analysis-of-the-south-african-wine-industry/oclc/46315041> (Accessed 7 September 2010).



Benítez, M. (2006). *Assessment of Corporate Social Responsibility within the Stakeholder Theory in Commercial Microfinance Institutions in Bolivia*. Unpublished Masters Mini-thesis. Cape Town: University of the Western Cape.

Bessant, J., Kaplinsky, R. & Morris, M. (2003). "Developing Capability through Learning Networks". *International Journal of Technology Management and Sustainable Development*. 2(1):19-38. Available from: EBSCOhost database: http://content.ebscohost.com/pdf25_26/pdf/2003/L2K/01Jan03/11755736.pdf?T=P&P=AN&K=11755736&S=R&D=aph&EbscoContent=dGJyMNxb4kSep7Q4zOX0OLC

mr0mep7BSrq64Ta%2BWxWXS&ContentCustomer=dGJyMPGvtU2vqrJMuePfgeyx44Dt6fIA (Accessed 2 June 2009).

Best, M (1990), "The New Competition – Institutions of Industrial Restructuring". Harvard University Press, Cambridge, Massachusetts.

Blok, T. (2007). *The cost breakeven point of wine*. Unpublished thesis. Cape Town: Cape Wine Academy Available from:

http://www.capewineacademy.co.za/dissertations/TomBlok_CWM_Thesis.pdf

(Accessed 17 June 2010).

Boekholt, P. & Thuriaux, B. (1999). *Public Policies to Facilitate Clusters: Background, Rationale and Policy Practices in International Perspective*. In "Boosting Innovation: The Cluster Approach". Proceedings of the OECD. Available from:

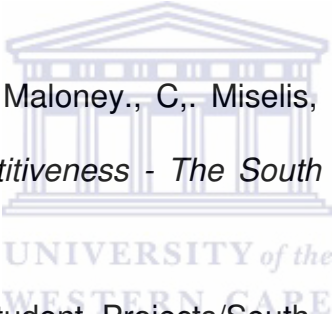
[http://www.clusterbg.net/content/library/EN/Boosting Inovations Cluster Approach.pdf](http://www.clusterbg.net/content/library/EN/Boosting_Inovations_Cluster_Approach.pdf) (Accessed 5 October 2011).

Campbell, G. & Guibert, N. (2007). *Wine, Society, and Globalization – Multidisciplinary Perspectives on the Wine Industry*. (Electronic version). New York: PalmGrove Macmillan. Available from:

<http://dc136.4shared.com/doc/oAUzxxG0/preview.html> (Accessed 28 January 2009).

Child, J. (2001). Trust – The Fundamental Bond in Global Collaboration. *Organisational Dynamics*, 29 (4): 274-288. Available from: Business Source Complete. <http://web.ebscohost.com.ezproxy.uwc.ac.za/ehost/detail?sid=d01738a9-824e-4613-97f6-591f5dd0e7a7%40sessionmgr12&vid=1&hid=21&bdata=JnNpdGU9ZW9vc3QtbGl2ZQ%3d%3d#db=bth&AN=4795145> (Accessed 6 August 2011).

Child, J. & Faulkner, D. (1998). *Strategies of Cooperation*. New York: Oxford University Press Inc.

Chironga, M., Demeke, M., Maloney., C., Miselis, L., & Scheuermaier, M. (2006). *Micro-Economics of Competitiveness - The South African Wine Cluster*. Available from:

[http://www.isc.hbs.edu/pdf/Student Projects/South African Wine Cluster 2006.pdf](http://www.isc.hbs.edu/pdf/Student%20Projects/South%20African%20Wine%20Cluster%202006.pdf)
(Accessed 8 September 2008).

Coelho, A.M. & Castillo-Giron, V.M. (2005). *Multinational Corporations, Collective Action Problems and the Tequila Cluster*. Paper presented at the International Workshop on “Innovation, Multinationals and Local Development”: Montpellier, Italy.

Collison, C. (2001). *The Business Costs of Ethical Supply Chain Management: South African Wine Industry Case Study*. Available from:
<http://www.nri.org/projects/nret/2606.pdf> (Accessed 7 April 2008).

Cooper, D.R. & Schindler, P.S. (2006). Exploring, Displaying and Examining Data. In *Marketing Research*. Boston: McGraw-Hill/Irvin.

Curral, S.C. & Inkpen, A.C. (2002). A Multilevel Approach to Trust in Joint Ventures. *Journal of International Business Studies*.33,3: 479-495. Available from: JSTOR database: <http://www.jstor.org/pss/3069526> (Accessed 16 July 2011).

Davidson, N., Ouane, F., Phillipotts C., Thelwell, A., Tung, E. (2009). *Microeconomics of Competitiveness: The South African Wine Cluster*. Available from: http://www.isc.hbs.edu/pdf/Student_Projects/SouthAfrica_Wine_2009.pdf (Accessed 3 June 2010).



Davies, M.R. (2007). *Doing a successful research project using Qualitative or Quantitative Methods*. Hampshire: Palmgrave Macmillan.

De Langen, P.W. (2004). The Performance of Sea Port Clusters: a framework to analyze cluster performance and an application to the seaport clusters in Durban, Rotterdam and the lower Mississippi. PhD Dissertation

Denzin, N.K. & Lincoln, Y.S. (2000). *Handbook of Qualitative Research*. 2nd edition. London: Sage Publications Inc.

Doyer, O.T. (2002). *An inquiry into evolving supply chain governance structures in South African agribusiness*. Doctoral Dissertation. Pretoria: University of Pretoria. Available from: <http://upetd.up.ac.za/thesis/available/etd-08012005-145938/> (Accessed 3 March 2009).

Esterhuizen, D. & Van Rooyen, C. (2005). Implementing the Porter Framework to develop strategies to improve the Competitiveness of the South African Wine Industry Available from: https://ifama.org/events/conferences/2007/cmsdocs/1023_Paper.pdf (Accessed 8 July 2009).

Ewert, J. (2005). How competitive is South Africa? Advances and challenges in the transformation of the Cape wine industry. *Les Cahiers d' Outre-Mer*, 231-232: 371-396. Available from: <http://com.revues.org/index305.html> (Accessed 17 September 2011).

Ewert, J. & Du Toit, A. (2005). A Deepening Divide in the countryside: Restructuring and Rural Livelihoods in the South African Wine Industry. *Journal of Southern African Studies*, 31: 315-332. Available from: http://enviro.lclark.edu:8002/rid=1194491278320_1819055299_2191/South%20African%20Labor.pdf (Accessed 16 February 2009)

Ewert, J., Martin, A. & Nelson, V. (2005). *Assessment of the Social Impact of Adoption of Codes of Practice in the South African Wine Industry*. Available from: http://www.nri.org/projects/nret/revised_final_sa_main_report.pdf (Accessed 2 September 2011).

Ewert, J. Eva G. & Hamman J. (2007). *Innovative Practise South Africa: the inclusion and empowerment of farm workers through partnerships – the case of Thandi Fruit and Wine*. Available from: <http://www.regoverningmarkets.org/en/filemanager/active?fid=574> (Accessed 3 May 2010).

Fensterseifer, J.E. & Rastoin, J. (2010). *Wine cluster strategic resources, firm value creation and competitive advantage*. Available from: <http://academyofwinebusiness.com/wp-content/uploads/2010/04/FensterseiferRastoin-Wine-Cluster-Strategic-Resources.pdf> (Accessed 1 October 2011).

Gereffi, G., Humphrey, J., Kaplinsky, R. & Sturgeon, T.J. (2001). *Introduction: Globalisation, value chains and development*. IDS Bulletin 32:1-8. Available from: <http://www.ids.ac.uk/files/dmfile/gereffietal323.pdf> (Accessed 4 February 2009).

Gereffi, G. (2005). *The Global Economy: Organisation, Governance, and Development*. In *The Handbook of Economic Geography*. Edited by Smelser, N.J. & Swedberg, R. 2nd Edition. New York: Princeton University Press. (Electronic

version). Available from:

http://books.google.co.za/books?id=2ZAV5fCs1NcC&pg=PR8&lpg=PR8&dq=Gereffi+2005+Chapter+8+in+smelser&source=bl&ots=p32bGuix9h&sig=Ct-SsYS_8be3BhVq-WGtpqBTvx8&hl=en&ei=U2fDTp6iPM2xhAe80uzxDQ&sa=X&oi=book_result&ct=result&resnum=1&ved=0CBoQ6AEwAA#v=onepage&q&f=false (Accessed 10 March 2009).

Gibbon. P. & Ponte, S. (2005), "Global Value Chain (GVC) Analysis in Trading Down: Africa Value chains and the Global Economy" in *Understanding Business Systems in Developing Countries*. Templeton University Press, Philadelphia.

Guiliani, E. (2003). *How Clusters Learn: Evidence from a Chilean Wine Cluster*.

Draft paper presented at the EADI Workshop on Clusters and Global Value Chains in the North and the Third World. Available from:

<http://oldweb.eco.unipmn.it/eventi/eadi/papers/giuliani.pdf> (Accessed 15 August 2009).

Gwynne, R. (2006), Governance and the wine commodity chain: Upstream and downstream strategies in New Zealand and Chilean wine firms. *Asia Pacific Viewpoint*. 47(3):381-395. Available from Wiley Online Library:

<http://onlinelibrary.wiley.com/doi/10.1111/j.1467-8373.2006.00321.x/pdf> (Accessed 10 February 2010).

Gnyawali, D. & Madhavan, R. (2001). Cooperative Networks and Competitive Dynamics: A structural Embeddedness Perspective. *The Academy of Management Review*. 26 (3):431-445. Available from JSTOR database:
<http://web.ebscohost.com.ezproxy.uwc.ac.za/ehost/pdfviewer/pdfviewer?sid=2c2db05b-fea9-47c6-8b3a-7e7f855f0fac%40sessionmgr4&vid=4&hid=111> (Accessed 23 September 2011).

Granovetter, M. (1985). Economic Action and Social Structure: The Problem of Embeddedness. *American Journal of Sociology*, 91.3:481-510. Available from:
<http://glennschool.osu.edu/faculty/brown/home/Org%20Theory/Readings/Granovetter1985.pdf> (Accessed 12 July 2011).

Hillman, A.J. & Keim, G.D. (2001). Shareholder Value, Stakeholder Management, and Social Issues: What's the Bottom Line? *Strategic Management Journal*. 22(2):125-139. Available from JSTOR database:
<http://www.jstor.org/stable/3094310> (Accessed 20 August 2011).

Hirschsohn, P. (2009). *South African Capitalism in Transition: Contradictions of Embedded Economic Behaviours and Innovative Cooperative Labour Market Institutions*. Unpublished paper.

House, R. J., Rousseau, D. M., & Thomas-Hunt, M. (1995). The Meso Paradigm: A framework for the integration of micro and macro organisational behaviour. In L.L.

Cummings and B.M. Staw (eds), *Research in organisational behaviour* (vol 17). Greenwich CT: JAI Press, 71-114. Available from: <http://www.uta.edu/management/Dr.Casper/Spring2011/6311/Articles/WK%2010%20-%20House,%20Rousseau%20Thomas,%20&%20Hunt.pdf> (Accessed 5 July 2011).

Human Sciences Research Council (HSRC) *Code of Research Ethics*. Available from: <http://www.hsrc.ac.za/Page-168.phtml> (Accessed 12 February 2009).

Humphrey, J. & H. Schmitz. (2001). Governance in global value chains, *IDS Bulletin* 32.3:19–29. Available from: <http://onlinelibrary.wiley.com/doi/10.1111/j.1759-5436.2001.mp32003003.x/abstract> (Accessed 9 November 2009).

Humphrey, J. & Schmitz, H. (2002). How does insertion in global value chains affect upgrading in industrial clusters? *Regional Studies* 36(9): 1017–1027. Available from: <http://www.tandfonline.com/doi/abs/10.1080/0034340022000022198> (Accessed 6 March 2009).

Hunt, S.D. (2000). *A General Theory of Competition*. California: Sage Publications Inc.

Kaplinsky, R. & Morris, M. (2002). *A Handbook for Value Chain Research*. Presented at the Bellagio IDRC Workshop (September 2000). Available from:

<http://www.srp-guinee.org/download/valuechain-handbook.pdf> (Accessed 5 May 2009).

Ketels, C. & Memedovic, O. (2008). From clusters to cluster-based economic development. *International Journal of Technological Learning, Innovation and Development*.1(3):375-392. Available from:

<http://inderscience.metapress.com/openurl.asp?genre=article&eissn=1753-1950&volume=1&issue=3&spage=375> (Accessed 3 September 2011).

Lorenzen, M. (2005). Localised Learning and Social Capital: The Geography Effect in Technological and Institutional Dynamics. Danish Research Institute for Industrial Dynamics. Available from: http://www2.druid.dk/conferences/working_papers/05-22.pdf (Accessed 23 July 2011).



Marsh, I. & Shaw, B. (2000). “Australia’s Wine Industry: Collaboration and Learning as Causes of Competitive Success”. Report to the Australian Business Foundation. Available from: http://www.strategic-partnership.tsemedia.com/f/wine_study.pdf (Accessed 8 February 2009).

McEwan, C & Bek, D (2006). (Re)politicizing empowerment: Lessons from the South African wine industry. *Geoforum* 37: 1021–1034. Available from: <http://www.mendeley.com/research/re-politicizing-empowerment-lessons-south-african-wine-industry/> (Accessed 10 July 2010).

Meissenheimer, J. Karaan A. & Vink, N. (2008). *Sources of Transaction costs in the South African Wine Supply Chain: Implications for enhancing chain competitiveness.*

Cape Town: University of Stellenbosch. Available from:

http://ifama.org/events/conferences/2001/cmsdocs/Tregurtha_Norma.PDF

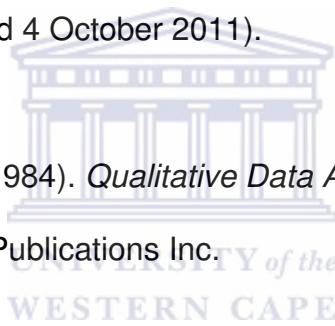
(Accessed 3 March 2010).

Meyer-Stamer, J. & Harmes-Liedtke, U. (2005). *How to Promote Clusters.*

Mesopartner Working paper. Argentina: Duisburg and Buenos Aires,. Available

from: http://www.mesopartner.com/fileadmin/user_files/working_papers/mp-wp8_cluster_e.pdf (Accessed 4 October 2011).

Miles, M. & Huberman, M. (1984). *Qualitative Data Analysis. A Sourcebook of New Methods.* California: SAGE Publications Inc.



Morgeson, F.P. & Hofmann, D, A. (1999). The Structure and Function of Collective Constructs: Implications for Multilevel Research and Theory Development. *The Academy of Management Review.* 24(2):249-265.

National Agricultural Marketing Council (December 2002). *Report on the Investigation into the Effects of Deregulation on the South African Wine Industry.*

Available from:

http://www.namc.co.za/dnn/LinkClick.aspx?fileticket=uy_v8zRRcHQ%3D&tabid=72&mid=538 (Accessed 16 March 2008).

Neuman, W. (2000). *Social Research Methods: Qualitative and Quantitative Approaches*. 4th edition. Boston: Allyn and Bacon.

Neven, D., Reardon, T. & Hopkins, R. (2005a). *Case Studies of Farmer Organizations Linking to Dynamic Markets in Southern Africa: Bouwland Landgoed Ltd, South Africa*.

Available from: <http://ageconsearch.umn.edu/bitstream/11568/1/sp05-21.pdf>

(Accessed 8 August 2010).

Neven, D., Reardon, T., Weatherspoon, D. & Hopkins, R. (2005b). *South Africa's Rural Poor in the Era of Supermarkets: The Role of Commercial Farmers in Adaptive Organizational, Institutional and Technological Responses to Access and Compete in Dynamic Markets*. Available from:

http://www.rudnet.org.za/index.php?option=com_content&view=article&id=71&Itemid=81 (Accessed 20 May 2010).

Nooteboom, B. (1999). *Inter-firm Alliances – Analysis and Design*. London: Routledge.

Oetzel, J. G., Ting-Toomey, S., Rinderle, S. (2006). Conflict communication in contexts: A social ecological perspective. In J. G. Oetzel & S. Ting-Toomey (Editors). *The SAGE handbook of Conflict Communication*. California: Sage.

Peng, M.W., Lee, S. & Tan, J. (2001). The keiretsi in Asia: Implications for multilevel theories of competitive advantage. *Journal of International Management*. 7: 253-276. Available from: <http://www.utdallas.edu/~mikepeng/pdf/Peng01JIM.pdf> (Accessed 6 July 2011)

Platter, J. (2009). *Wine Guide: Platter's South African Wines 2009: The Guide to Cellars, Vineyards, Winemakers, Restaurants and Accommodation*. Edited by van Zyl, P. Cape Town: Andrew McDowall.

Ponte, S. & Ewert, J. (2009). 'Which Way is "Up" in Upgrading? Trajectories of Change in the Value Chain for South African Wine'. *World Development*.37(10):1637 – 1650. Available from: <http://www.sciencedirect.com/science/article/pii/S0305750X09000813> (Accessed 13 July 2011).

The logo of Western Cape University, featuring a classical building facade with columns and a pediment, with the text 'WESTERN CAPE' below it.

Ponte, S. (2007). Governance in the Value Chain for South African Wine. Available from: <http://www.diis.dk/graphics/Subweb/SAFE/ponte%20wine%20wp2%20tralac.pdf> (Accessed 29 June 2009).

Ponte, S. & Ewert, J. (2007). *South African Wine - An industry in Ferment*. Available from:

<http://www.diis.dk/graphics/Subweb/SAFE/ponte%20wine%20wp1%20tralac.pdf>

(Accessed 30 June 2009).

Porter, M. E. (1990). *The Competitive Advantage of Nations*. New York: Free Press.

Porter, M.E. (1998a). *On Competition*. Boston: Harvard Business School Publishing Corporation.

Porter, M. E. (1998b). Clusters and the New Economics of Competition. *Harvard Business Review*. Available from:

<http://iic.wiki.fgv.br/file/view/Clusters+and+the+New+Economics+of+Competition.pdf>

(Accessed 10 April 2008).



Porter, M. E. (2000a). Locations, Clusters and Company Strategy. *The Oxford Handbook of Economic Geography*. Available from: http://isi.fraunhofer.de/isi-de/p/hannover/theoret/ansaetse/materialien/Porter_2000_Locations_clusters_and_economic_strategy.pdf (Accessed 13 March 2009).

Porter, M. E. (2000b). Location, Competition, and Economic Development: Local clusters in a Global Economy. *Economic Development Quarterly*. 14(1):15-34.

Available from: <http://edq.sagepub.com/content/14/1/15.full.pdf+html> (Accessed 10 March 2010).

Porter, M.E. (2000c). *On Competition*. Boston: Harvard Business School Publishing Corporation.

Porter, M.E. & Fuller, M. B. (1986). *Coalitions and Global Strategy*. Edited by M. E. Porter (editor) In *Competition in Global Industries*. Massachusetts: Harvard Business School Press.

Rademakers, M. (2000). Agents of Trust: business associations in agri-food supply systems. *International Food and Agribusiness Management Review* 3:139-153.
Available from: <http://ageconsearch.umn.edu/bitstream/34283/1/03020139.pdf>
(Accessed 13 September 2011).

Rodríguez-Clare, A. (2005). *Coordination Failures, Clusters and Microeconomic Interventions*. Inter-American Development Bank. Available from:
http://siteresources.worldbank.org/EXT/EXPCOMNET/Resources/2463593-1213887855468/19_CoordinationFailuresandClusters.pdf (Accessed 12 September 2011).

Rousseau, D.M., Sitkin, S.B., Burt, R.S. & Camerer C. (1998). Introduction to Special Topic Forum: Not so Different After All: A Cross-Discipline View of Trust. *The Academy of Management Review*, 23(.3):393-404. Available from Ebscohost database:

http://business.tepper.cmu.edu/facultyAdmin/upload/ppaper_47663385940298_AMR.trust_1998.pdf (Accessed 4 July 2011).

Rousseau, D. M., & House, R. J. (1994). Meso organizational behavior: Avoiding three fundamental biases. Cooper, C. L. & Rousseau D. M. (Editors). In *Trends in organizational behavior* 1:13–30. New York: John Wiley.

Salganik, M.J. & D.D. Heckathorn (2004). Sampling and Estimation in Hidden Populations Using Respondent-Driven Sampling. *Sociological Methodology* 34 (1): 193–239. Available from: www.princeton.edu/~mjs3/salganik_heckathorn04.pdf (Accessed 6 July 2011).



Schmitz, H. (1999a). From ascribed to earned trust in exporting clusters. *Journal of International Economics*, Vol. 48, pp.139-150. Available from: <http://www.sciencedirect.com/science/article/pii/S0022199698000749> (Accessed 8 August 2011).

Schmitz, H. (1999b). Collective efficiency and increasing returns. *Cambridge Journal of Economics*, Vol. 23, pp.465-483. Available from: <http://cje.oxfordjournals.org/content/23/4/465.full.pdf+html> (Accessed 22 February 2012).

South African Wine and Brandy Company. (2003). *The South African Wine Industry Strategic Plan*. Available from:

<http://www.pmg.org.za/docs/2003/appendices/030610sawbstatement.htm> (Accessed 6 March 2008).

South African Wine and Brandy Company. 2005. *Vision 2020: Setting the Strategic Course for Excellence*. Available from:

<http://www.pmg.org.za/docs/2003/appendices/030610sawbdraft.htm> (Accessed 6 March 2008).

South African Wine Council. (2007). *The Wine Industry Transformation Charter*.

Available from: <http://www.wine.co.za/attachments/PDF-View.aspx?PDFID=400> (Accessed 14 April 2009).



South African Wine Industry Information and Systems (9 December 2009). *Macroeconomic Impact of the Wine Industry on the South African Economy* Final Report.

Available from: http://www.sawis.co.za/info/download/Macro_study_2009.pdf

(Accessed 4 May 2010).

Spies, P.H. (2007). *South African Wine Industry Business Foresight: Design for a Wine Industry Foresight and Business Intelligence Service*. Unpublished Manuscript.

Svenson, L. (2009). *An evaluation of the role of institutional complementarities in marketing, quality and innovation: the case of the Italian Piedmont wine cluster*. In "A GAME OF MIRRORS: Economic Development and Social Cohesion in Piedmont and South Africa". Edited by Barbera F. & Osche E. Turin: Frame-Lab, Consorzio per la Ricerca e l' Educazione Permanente. Available from:

http://www.frame.corep.it/download/A_game_of_mirrors_1.pdf (Accessed 30 January 2010).

Thomas, S. (June, 2010). Wine Industry –The Economic case: What SA's wine industry contributes. *Financial Mail*. (24 June 2010). Available from:

<http://www.fm.co.za/Article.aspx?id=112789> (Accessed 2 July 2010).

Van Rooyen, C. (2004.). *Trends and Challenges in the wine industry*. Presentation at NAMC Seminar (October 2004).

Van Rooyen, C & Esterhuizen, D. (2006). An Inquiry into factors impacting on the competitiveness of the South African wine industry. *Agrekon*. 45:4. Available from:

<http://www.tandfonline.com/doi/abs/10.1080/03031853.2006.9523758> (Accessed 4 November 2010).

Van Rooyen, C & Esterhuizen, D. (2005). An Inquiry into the competitiveness of the South African wine industry. Paper presented to the South African Wine and Brandy Company (SAWB). Available from:

https://www.ifama.org/events/conferences/2006/cmsdocs/1038_Paper.pdf

(Accessed 5 March 2009).

Van Rooyen, C.J. & Esterhuizen, D. (2008). Measuring Competitiveness in the South African Wine Industry: 1990-2006. Paper presented at the American Wine Economics Conference, Portland, Oregon, USA, August 2008. Available from:

[http://web.up.ac.za/sitefiles/file/48/2052/Wine for Black Diamonds Agrekon.pdf](http://web.up.ac.za/sitefiles/file/48/2052/Wine%20for%20Black%20Diamonds%20Agrekon.pdf)

(Accessed 3 April 2011).

Vernon-Wortzel, H. & Wortzel L. (1997). *Strategic Management in the Global Economy*. 3rd edition. London: John Wiley and Sons, Inc.

Visser, E. (2003). *A Chilean wine cluster? The quality and importance of local governance in a fast growing and internationalizing industry*. Available from:

http://oldweb.eco.unipmn.it/eventi/eadi/papers/Visser_p.pdf (Accessed 28 March 2008).

Visser, E. (2004). *A Chilean wine cluster? Governance and upgrading in the phase of internationalisation*. Available from:

<http://www.cepal.org/publicaciones/xml/8/20498/LCL2138.pdf> (Accessed 3 June 2009).

Visser, E. & De Langen, P. (2006). The importance and quality of governance in the Chilean wine industry. *GeoJournal* 65: 177-197. Available from JSTOR database: <http://www.jstor.org.ezproxy.uwc.ac.za/stable/pdfplus/41148034.pdf> (Accessed 3 April 2008).

Webb, T. (1998). *Researching for Business: Avoiding the “nice to know” trap*. London: Europa Publications Ltd.

Whitley, R. (2002). Business Systems. In *Organization*. Edited by Sorge, L.W. London: Thomson Learning.

Whitley, R. (2002) “Developing innovative competencies: The role of institutional frameworks. *Industrial and Corporate Change*.11(3):497-528. Available from: [ICC \(2002\) 11 \(3\): 497-528. doi: 10.1093/icc/11.3.497](#) (Accessed 20 September 2009).

Wickham, M. (2005). *Regional Economic Development: Exploring the ‘Role of Government’ in Porter’s Industrial Cluster Theory*. Refereed Paper presented at the CRIC Cluster conference, “Beyond Cluster- Current Practices & Future Strategies”. Available from: <http://eprints.utas.edu.au/9541/1/Wickham-refereed.pdf> (Accessed 5 August 2011).

Williamson, O. (1985). *The Economic Institutions of Capitalism – Firms, Markets, Relational Contracting*. New York: The Free Press.

Williamson, K. & Wood, E. (2003). The dynamics of the South African wine industry cluster: a basis for innovation and competitiveness? Working paper of the University of Cape Town, South Africa.

Wilson, M. & Goddard, R. (2004). Creating value in the New Zealand wine industry. *International Journal of Wine*. 16(2):62-73.

Wolfe, R. & Putler D.S. (2002). How Tight Are the Ties that Bind Stakeholder Groups? Analyzing External Environments. *Organization Science*.13(1):64-80.
Available from: [citeseerx.ist.psu.edu./viewdoc/download?doi=10.1.1.198.4085.pdf](http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.198.4085.pdf)
(Accessed 25 June 2011).

Wood. E & Kaplan. D. (2005), Innovation and Performance Improvement in the South African Wine Industry. *International Journal of Technology and Globalisation*. 1(3/4):381-399. Available from:
<http://inderscience.metapress.com.ezproxy.uwc.ac.za/openurl.asp?genre=article&eissn=1741-8194&volume=1&issue=3&page=381> (Accessed 4 August 2009).

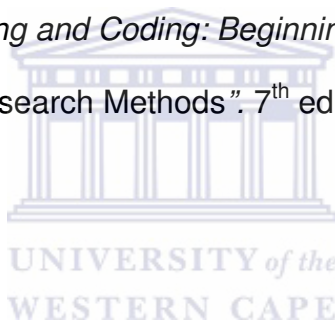
Yin, R. (2003). *Case Study Research Design and Methods*, 3rd edition. London: Sage Publications.

Zaheer, A., MeEvily, B. & Perrone, V. (1998). Does Trust Matter? Exploring the Effects of Interorganisational and Interpersonal Trust on Performance. *Organisation*

Science, 9:(2):141-159. Informs. Available from: <http://www-e.uni-magdeburg.de/evans/Journal%20Library/Ethical%20Management%20and%20Trust/Does%20trust%20matter.pdf> (Accessed 3 June 2011).

Zeng, D.Z. (2008). "Knowledge, Technology and Cluster-based Growth in Africa", Washington D.C.: The World Bank. Available from: <http://www.tdic.or.tz/DouglasAfricaClusterBook%5B1%5D.pdf> (Accessed 2 May 2011).

Zikmund, W.G. (2003). *Editing and Coding: Beginning to transform raw data into information*. In "Business Research Methods". 7th edition. Ohio: Thomson/South-Western.



Other Internet ReferenceSources:

www.busrep.co.za (Business Report article: Increased excise duty on wine threatens industry jobs, May 19, 2010).

www.koopmanskloof.co.za

www.nlsa.ac.za (National Library of South Africa)

www.sawb.co.za

www.wosa.co.za

www.wine.co.za

www.wikipedia.com

8. ANNEXURES

8.1 ANNEXURE 1: Questionnaire

Questionnaire Instructions:

- The aim of this questionnaire is to identify which factors influence the performance of the Western Cape wine cluster and how.
- In the questionnaire, we will be analysing the influence of *governance* on the performance of the Western Cape wine cluster. A number of variables related to the governance of the cluster have been identified.
- Your opinion about the validity and importance of these variables is required.
- If you do not know how to answer a question, please leave the question open.
- The definitions of terms that may be unclear is provided in the “grey boxes” below.
- All answers will be treated confidentially.
- Provision for your responses has been made in the following sections below.

Industry expert:

1. Name and organisation: _____
2. Function _____
3. Years of experience in the wine industry _____
4. Number of employees of organisation _____
5. Involvement in cluster governance YES/NO
6. Date _____

Cluster governance: Definition of terms

Cluster governance:

The co-ordination of joint activities in the cluster. Different mechanisms, such as markets, inter-firm alliances, associations and public-private organisations, are used to co-ordinate these activities.



Leader firms:

Firms that have a superior ability/incentive to coordinate activities.

Knowledge intermediaries:

Firms or associations which possess, gather and disseminate or 'distribute' valuable knowledge and information.

7. Indicate whether you agree or disagree with the following propositions:

Proposition	Opinion
There is a culture of trust in the Western Cape wine industry that increases the quality of cluster governance. This trust enables co-operation by reducing the risks of cooperation.	Agree / disagree / no opinion
The presence of 'leader firms' in this industry increases the quality of governance of a cluster.	Agree / disagree / no opinion
The presence of knowledge intermediaries increases the quality of governance of a cluster.	Agree / disagree / no opinion
Improving the local governance of the Western Cape wine cluster will significantly enhance the (export) performance of the industry	Agree / disagree / no opinion
The development of the Western Cape wine industry is the result of market forces and (inter)national policies. The quality of local cluster governance does not have a substantial effect on the performance of the industry.	Agree / disagree / no opinion

8. Please indicate the importance of six agents for lowering the costs of managing and coordinating co-operation in the cluster, by ranking them from 1 (*most* important one) to 6 (*least* important one).


Agent / Intermediary	Rank	Agent / Intermediary	Rank	Agent / Intermediary	Rank
Government agencies		Foreign investors		Local associations	
Export marketing agents		Foreign buyers		Leader firms	

Solving collective action problems: Definition of terms

The collective action problem: The problem that even though cooperation among a large group of firms would be beneficial for all members of that group, cooperation does not develop spontaneously, because individual firms are even better off when they 'free ride'.

Cluster governance issues: Issues for which 'collective action' would be advantageous.

9. Indicate of the seven issues given below, whether or not the collective action problem is relevant in the SA wine cluster.



Collective action problem	Relevance	
Innovation	Relevant	Not relevant
Training, education, improving the quality of labour	Relevant	Not relevant
Internationalization (geographical diversification and penetration of markets)	Relevant	Not relevant
Marketing and promotion (image building)	Relevant	Not relevant
Physical and virtual infrastructure	Relevant	Not relevant
Improving the quality of wine	Relevant	Not relevant
Broad-based Black Economic Empowerment	Relevant	Not relevant

10. Indicate the importance of these seven collective action problems for the performance for the SA wine cluster.

Collective Action Problem	Importance in the cluster				
Innovation	Not important	Of minor importance	Of moderate importance	Important	Very important
Training and education	Not important	Of minor importance	Of moderate importance	Important	Very important
Internationalisation	Not important	Of minor importance	Of moderate importance	Important	Very important
Marketing and promotion	Not important	Of minor importance	Of moderate importance	Important	Very important
Physical infrastructure	Not important	Of minor importance	Of moderate importance	Important	Very important
Quality of Wine	Not important	Of minor importance	Of moderate importance	Important	Very important
Broad-based Black Economic Empowerment	Not important	Of minor importance	Of moderate importance	Important	Very important

Governance regimes: Definition of terms

<u>Regimes:</u>	The way in which firms deal with a Collective Action Problem (CAP) / issue.
<u>Infrastructure for collective action:</u>	Organizational infrastructure that facilitates coordination and cooperation. Well/functioning association(s), with complementary roles
<u>Community argument:</u>	An argument to persuade firms in the cluster to contribute to joint projects, because they are part of a community.
<u>Voice:</u>	Firms that, when not satisfied with a solution to a collective action problem strive to <i>improve</i> it, by raising their voice.

11. How important are the below mentioned variables for the quality of governance in SA wine cluster?

Variable	Importance for the quality of governance				
The presence of leader firms	Not important	Of minor importance	Of moderate importance	Important	Very important
Adequate organizational infrastructure for collective action, well-functioning associations	Not important	Of minor importance	Of moderate importance	Important	Very important
An appropriate role of public organizations in the cluster	Not important	Of minor importance	Of moderate importance	Important	Very important
The legitimacy of a 'community argument'	Not important	Of minor importance	Of moderate importance	Important	Very important
The appreciation of voice	Not important	Of minor importance	Of moderate importance	important	Very important

12. Indicate the quality of the above mentioned variables for the seven Collective Action Problems (CAPS) in the SA wine cluster, with scores ranging from -5 (very bad) to +5 (very good).

CAPS VARIABLES	Innovation	Marketing and promotion	Infrastructure	Training, education & Labour Quality	Internationalisation	Wine Quality	BBBEE
Leader firms							
'Infrastructure for collective action'							
Appropriate role of public organizations							
The legitimacy of a 'community argument'							
The appreciation of voice							

The importance of different variables for the performance of the SA wine industry

13. (a) Indicate the importance of four classes of variables for the performance of the SA wine industry, by ranking them from 1 (most important) to 5 (least important) presently.

Classes of variables	Rank
The structure of the cluster (number and size of firms, ownership, vertical integration, quality of the labour force, inflow of foreign investment, etc)	
The governance of the cluster	
General economic development	
National and international policies	
International consumer demand	

13. (b) Indicate the importance of four classes of variables for the performance of the SA wine industry, by ranking them from 1 (most important) to 5 (least important) up until 2000.

Classes of variables	Rank
The structure of the cluster (number and size of firms, ownership, vertical integration, quality of the labour force, inflow of foreign investment, etc)	
The governance of the cluster	
General economic development	
National and international policies	
International consumer demand	

14. Indicate the importance of 10 'cluster structure variables' for the performance of the SA wine industry, by ranking from 1 to 10, where 1 is the most important variable and 10 the least important variable.

Cluster structure variables	Rank
The quality of the labour force	
The presence of local suppliers	
Knowledge spillovers between firms	
The level of land prices and other costs	
The presence of distribution/logistic firms	
The intensity of competition within the cluster	
The presence of cluster entry barriers	
The presence of cluster exit barriers	
The diversity of the cluster population	
The diversity of the resource base of the cluster	

15. Indicate the importance of each of the 'cluster governance variables', for the performance of the SA wine cluster by ranking them from 1 (most important variable) to 4 (least important variable).

Cluster governance variables	Rank
The presence of trust	
The presence of intermediaries	
The presence of embedded leader firms	
The quality of solutions to the collective action problems	

Open questions:

What opportunities to improve the quality of governance of the SA wine cluster can you identify?

What opportunities to improve the structure of the cluster and hence the performance can you identify?



Any other comments you think are pertinent to improving the competitiveness of the SA/Western Cape wine industry cluster?

8.2 ANNEXURE 2: Laws governing the SA wine industry

The Customs and Excise Act, No. 91 of 1964

In 2008 wine producers earned R3 319,8 million, compared with state revenue of R3 459,1 million from excise duties and taxes on products of the vine.

The Marketing of Agricultural Products Act, No.47 of 1996

- Statutory levies are collected to fund the collection and dissemination of industry information and statistics, to fund research and development, generic export promotion campaigns and certain empowerment objectives.

The Liquor Act, No 59 of 2003 and provincial legislation

- regulates the large scale manufacture and distribution of liquor and requires all large scale manufacturers and distributors to be registered with the National Liquor Authority. Micro-manufacturers and retail sellers have to register under provincial legislation. Where provincial legislation has not yet been promulgated, the old Liquor Act (27 of 1989) applies. In the Western Cape the Western Cape Liquor Act has been approved, but as the Regulations under the Act has not yet been finalised, the Act has not yet been promulgated. The Act and Regulations are expected to come into effect in August or September 2009.

The Liquor Products Act, No 60 of 1989

- sets production, quality and health requirements for and classifies almost all liquor products, with limited exceptions such as beer and sorghum. It contains provisions to ensure that consumers are properly informed and not misled; grants authorisation for Wine of Origin, Integrated Production and Estate Brandy schemes administered by the Wine and Spirit Board; and regulates the import and export of liquor products.

Competition Act, No 89 of 1998

- impacts on all businesses generally and provides for the investigation, control and evaluation of restrictive practices, abuse of dominant positions and mergers.

Labour legislation includes:

- Labour Relations Act (No 66 of 1995)

- Basic Conditions of Employment Act (No 75 of 1997)
- Employment Equity Act (No 55 of 1998)
- Skills Development Act (No 97 of 1998)

Environmental Legislation includes:

- Conservation of Agricultural Resources Act (No 43 of 1983)
- Environment Conservation Act (No 73 of 1998)
- Cape Nature and Environmental Conservation Act (No 19 of 1974)
- National Water Act (No 36 of 1998)
- National Environmental Management Act (No 107 of 1998)
- Health Act (No 63 of 1977)
- Occupational Health and Safety Act (No 85 of 1993)
- Atmospheric Pollution Prevention Act (No 45 of 1965)
- Fertiliser, Farm Feeds, Agricultural Remedies and Stock Remedies Act (No 36 of 1947)
- Conservation of Agricultural Resources Act (No 43 of 1983)

Biodiversity Act, No. 10 of 2004 includes:

- National Veld and Forest Fire Act (No 101 of 1998)
- Protected Areas Act (No 57 of 2003)
- Subdivision of Agricultural Land Act (No 70 of 1970)
- Western Cape Nature Conservation Laws Amendment Act (No 3 of 2000)

Source: SAWID 2009/10: 23

8.3 ANNEXURE 3: List of Interviewees and Respondents

No.	Date	Organisation	Position	Name
1	28/07/09 01/04/11	Wine Industry Development Association (WIDA)	Executive Manager	Denver Williams
2	14/10/09	WIDA	Project Manager	Henry Pieterse
3	14/07/09	Wines of South Africa (WOSA)	Communications Manager	Andre Morgenthal
4	12/08/09	WOSA	Regional Manager – Americas & Africa	Matome Mbatha
5	28/10/09	Winetech	Project Manager	Gerard Martin
6	14/12/09	Winetech	Executive Manager	Jan Booysen
7	30/06/08	South African Wine Industry Trust (SAWIT)	CEO	Charles Erasmus
8	04/11/09 11/04/11	BAWSI / South African Wine Industry Council (SAWIC)	President & Acting Chairperson	Nosey Pieterse
9	29/09/09 26/11/09	Koopmanskloof Winery	CEO / WOSA Boardmember	Rydal Jeftha
10	08/11/09	African Vintners Alliance (AVA) / African Roots Wine Brands	Chairperson / Owner	Vivien Kleynhans
11	03/11/09	South African Liquor Brandowners Association (SALBA)	Chairperson	Riaan Kruger
12	13/11/09	Lathitha Wines Coop	Owner/Manager	Sheila Hlanjwa
13	25/11/09	WOSA	CEO	Su Birch
14	19/11/09	DISTELL	BEE Manager	Kurt Moore
15	09/10/09	Sagila Wines	Owner/Winemaker; Board Member: Pebbles Project	Mkhonza Mvemve
16	22/12/09	DISTELL	General Manager: Corporate Affairs	Vernon De Vries
17	20/04/11	South African Wine Industry Trust (SAWIT)	Project Coordinator/Fieldworker	Dr Gerhard Van Wyk

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