CHAPTER ONE

DEFINING THE COMPETITIVE ENVIRONMENT FOR THE SOUTH AFRICAN AGRIBUSINESS SECTOR

1.1 INTRODUCTION

Globalisation of the economy has contributed many new challenges to agribusinesses around the world. Agribusinesses need not only to compete in their domestic market, but also to compete in foreign markets and develop strategies to induce new customers in new markets to buy their products. The issues of competitiveness and comparative advantage have become important for agribusiness managers, strategic planners, government and policy makers, alike. These issues also have important implications for both society and its business organizations. At organisational level, companies cannot sustain their financial relevancy and growth without producing and marketing competitive products and services. Executives have come to realize that, in order to survive and continue to penetrate markets, companies must compete aggressively and in an economical sustainable manner, as opposed to "merely coping". In the broader context of society, nations failing to achieve competitive advantages and failing to nurture businesses in high-value-added sectors are destined to have a low standard of living, constrained national security and jeopardize their independent political actions and economic destiny (Ali, 1992).

From the perspective of local agribusinesses, the global "playing field" is everything except equal – competitors draw from natural resources and labour pools which vastly differ in levels of quality, skill and costs. Different countries also have varying regulatory environments that impact differently on their domestic agribusinesses (Organisation for Economic Co-operation and Development, 2002). Access to finance, technology and knowledge also differs dramatically between countries.

Furthermore, the concept of competitiveness has been radically redefined for the South African agribusiness sector. Agricultural policy and practice in South Africa has changed dramatically over the past decade (Kirsten & Vink, 1999). Several processes have reversed the impact of discriminatory legislation, while other initiatives have been implemented to deregulate and liberalise the sector.

Nearly five years after the publication of the Kassier Report (Kassier, 1992), the new Marketing of Agricultural Products Act, No 47 of 1996 spells out a set of rules that differs quite significantly from earlier legislation. The agribusiness sector in South Africa was dramatically affected by these changes in marketing legislation which promoted a free market approach. Free trade agreements also reduced the import protection for the agribusiness sector dramatically.

The South African agribusiness sector, however, has to compete within this environment. Competing under these conditions can be harsh, but given a global regulatory environment that entrenches the notions of international competition (on both regional and global level), South African agribusiness have simply no choice but to compete.

> "In today's business, the competition will bite you if you keep running; if you stand still they will swallow you" – William Knutsen, Jr. (Chairman, Ford Motor Company)

In this Chapter the elements of the competitive business environment that impact directly and indirectly on the competitive performance of the South African agribusiness sector will be defined and discussed. The problem statement, hypotheses and research objectives of the study will follow.

1.2 DEFINING THE COMPETITIVE ENVIRONMENT FOR AGRIBUSINESSES IN SOUTH AFRICA

1.2.1 The new economy

Globalisation, technology and in particular, rapidly changing trends in consumer behaviour impact heavily on the way agribusinesses conduct their business. The changes are also very dynamic, changing the nature of both farming and business. One may experience, for instance, that farmers spend less time on the land and more time on service activities such as market information gathering and analysis, contract management, marketing, finance and asset acquisition. This is the "new" economy in which agribusiness in South Africa operates. The most important changes are shown in Table 1.1.

Table 1.1: The changing business environment

The transition from an industrial/ producer driven business to an information community. For thousands of years the major source of economic power was rooted in the ability to accumulate land to extract agricultural and mineral commodities from that land. Then, 250 years go, the Industrial Revolution changed civilization in virtually all respects, and physical resources – factories, equipment and capital – became the new source of economic power. Today the major source of economic power is embodied in ideas, information, technology and knowledge (Roux, 2002).
The change from a national economy to a world economy: The opening up of trade and the reduction in import tariffs in terms of World Trade Organisation (WTO) agreements have exposed South African agribusinesses to competition. The Trade, Development and Co-operation Agreement (TDCA) between the European Union (EU) and South Africa (SA) as well as the establishment of a free trade zone in SADC will have a profound impact on the South African agribusiness sector (Poonyth, Esterhuizen, Ngqangweni & Kirsten, 2002).
The change from hierarchy towards a "network" economy: The emphasis is shifting from a pyramid structure to a horizontal one, where strategic alliances, co-operation, supply chain agreements and specialisation are facilitated. Networking empowers individuals and nurtures innovation and unity (Doyer, 2002).
The change from regulation and institutional help to self-help: The deregulation of the agricultural sector has resulted in a greater number of entrepreneurs, who add value, as well as more differentiation and a greater volume of exports. The scaling down of domestic support and export subsidies according to WTO regulations will generate an increase in business opportunities and trade between countries (Van Rooyen, Esterhuizen & Doyer, 2001).
The changes from a producer focus to a consumer focus: Because of a diverse population with individual preferences, consumers have become discerning, and open economies have increased the number of alternatives and variables. The conventional producer focus has therefore changed to a consumer-driven focus (consumer individualism) (Doyer, 2002).
The changes from a product focus to an experience focus: The satisfaction of a product is no longer only in the quality of the physical product but also in the experience in buying the product, for example the quality of a restaurant is no longer only in the food it serves, but also in the whole experience in eating there (Van Rooyen, 2005).

Source: Based on Standard Bank, 1999

1.2.2 Consumer demands

Consumer demands are probably the most important driver for change in the agricultural and food supply chain. These consumer demands are illustrated in Figure 1.1. Food quality and assurance is increasingly important to the modern health conscious consumer (Doyer, 2002). Recent food scares in Europe and the terrorist attacks in the United States of America have contributed heavily to the newfound consumer attention to the quality and safety of food.

Consumers are also becoming increasingly more health aware. Organic and natural foods are a US$30 billion industry today and are projected to reach US$100 billion in 2010 (Datamonitor, 2004). Consumers also want to know more about their food, for example, the nutritional facts and where did it come from. The percentage increase of women in the workplace is one important factor driving the trend towards convenience food. Thus, the consumers require more attention and added economic and experiential value to their food and beverage preferences i.e. pre-prepared meals, quality control, situational experience, etc.

In addition to these preferences, consumers are becoming increasingly aware of societal and ethical values such as pollution, exhaustion of natural resources, hazardous waste, child labour, corruption, usage of animals for research, usage of Genetically Modified Organisms (GMO), etc. The consumer demands more ethical and societal values in the production and value adding processes of their food.

The challenge for agribusinesses is to respond to these changing consumer preferences. The annual reports of most international companies are extending their coverage of traditional profit, loss and business trends to include ‘corporate social responsibility’. However, maximising shareholder value and spending resources on public ecological and ethical concerns contradicts each other. Agribusinesses are challenged to balance these issues in their supply chain processes (Doyer, 2002).

An example is Nestlé which is on the brink of completing its transformation from a "global diversified food company" to a "respected and trustworthy international food-nutrition health and wellness company". Nestlé also has the world's largest private nutrition research capability and is the only company in the world with a nutritious product for every meal or snack occasion (Nestlé, 2005).

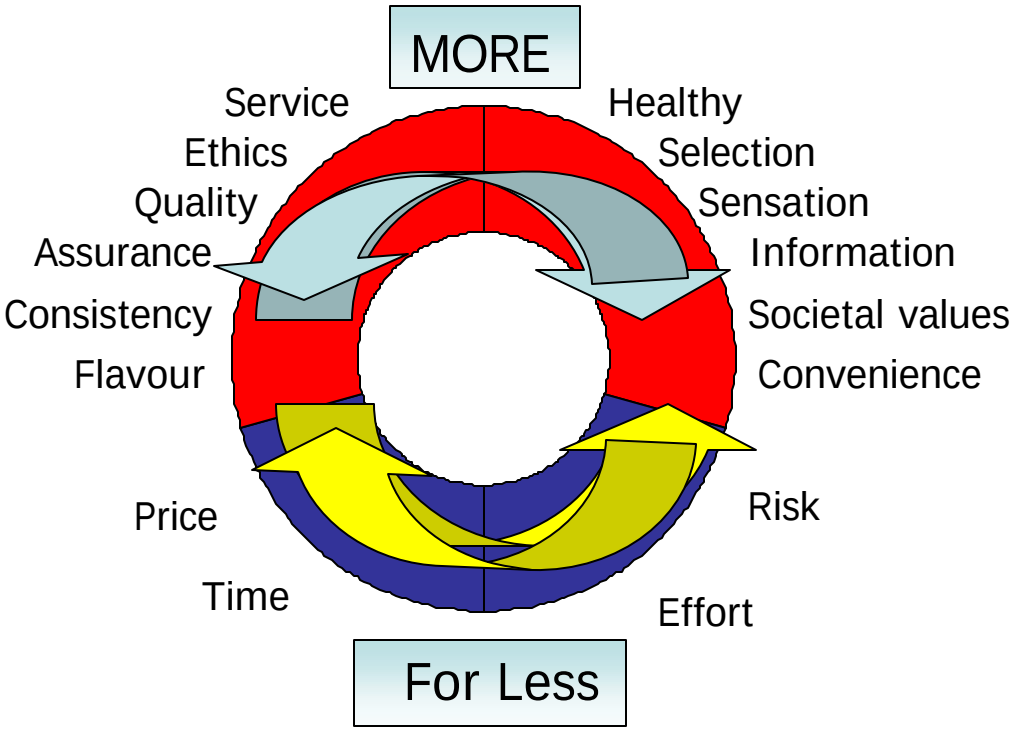

Figure 1.1: Consumer demands

Source: Based on Doyer, 2004

1.2.3 Opening up world trade

Although economic globalisation is not a new concept, some relatively new factors have contributed to its recent prominence. The opening up of global markets and the recent advances in communication and transport technology, amongst others, have resulted in a major expansion of international trade and investment.

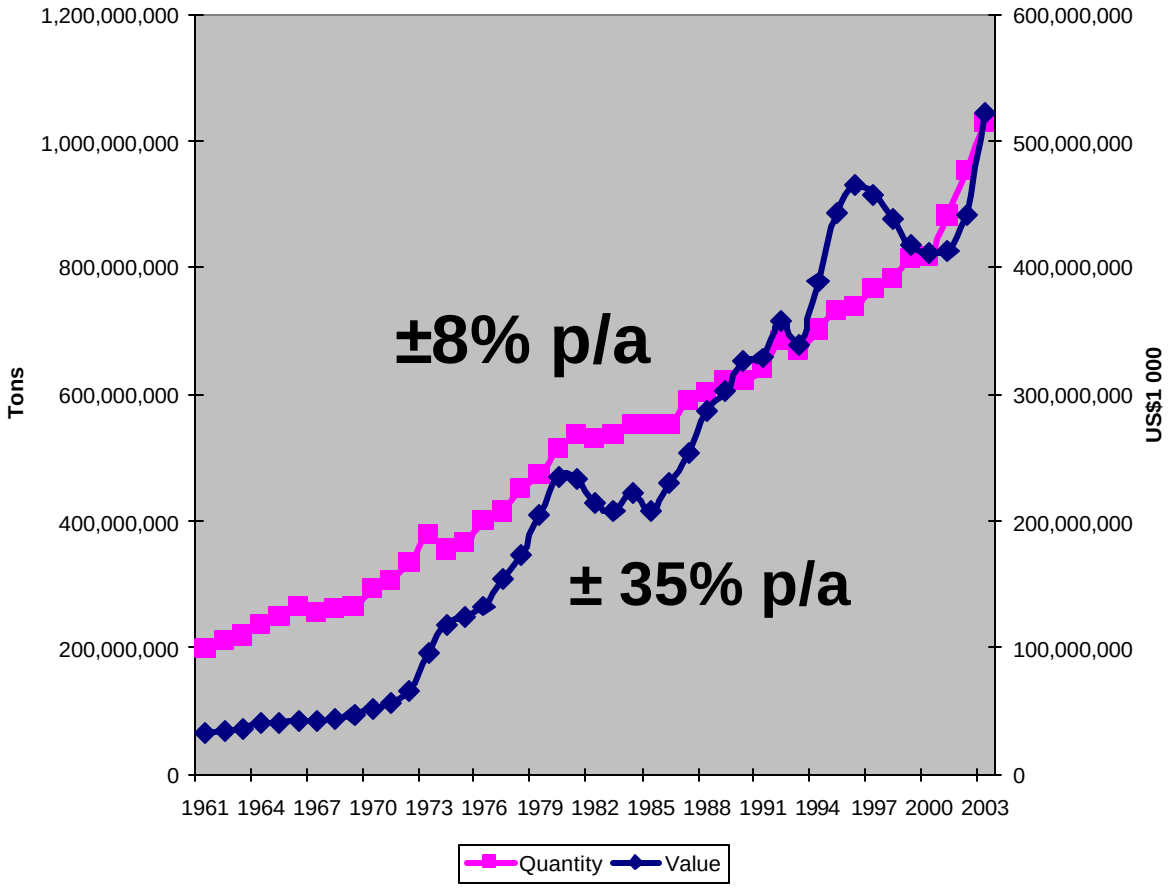

Figure 1.2: Value and quantity of world agricultural trade

Source: Own calculations based on data from FAOSTAT 2004

Figure 1.2 illustrates the value and quantity of world agricultural trade. From 1960 to 2003 world trade in agricultural products grew in quantity by approximately 8% a year; whilst the value of world trade in agricultural products increased by approximately 35% a year. The world is indeed shrinking and at the same time becoming borderless. Interdependencies and interrelatedness between nations are on the increase, whilst trade and capital flow between countries and organisations are increasing in importance.

1.2.4 Competitiveness positions

Figure 1.3 shows the top ten countries in 2004 by competitiveness as published in the Global Competitiveness Report and calculated by the World Economic Forum (WEF) (World Economic Forum, 2004). For the third time during the last four years Finland tops the rankings. The country is extremely well managed at the macroeconomic level, and it excels in the measures designed to assess the quality of its public institutions. Moreover, Finland has very low levels of corruption and its firms operate in a legal environment in which there is widespread respect for contracts and the rule of law. Finland's private sector shows a proclivity for adopting new technologies, and it nurtures a culture of innovation. An especially noteworthy fact is that, for several years, Finland has been running budget surpluses in anticipation of future claims on the budget associated with the aging of its population (WEF, 2004).

The United States ranks second, with overall technological supremacy and especially high scores for indicators such as companies' spending on R&D, the creativity of its scientific community, personal computer and internet penetration rates. However, these are partly offset by a weaker performance in those areas which capture the quality of the macroeconomic environment and its public institutions.

Compared to the results of 2003, nine out of ten of the top performers remain in this category. Amongst these leaders, the largest improvement has been registered by Norway, having moved up from ninth to sixth place since 2003. Norway improved in all three areas of the Index, most particularly with regard to its public institutions, driven by a much better score in the area of contracts and law. Indeed, the Nordic countries all occupy privileged positions in the Global Competitiveness Report's rankings (WEF, 2004). South Africa ranks only 41st in the world in terms of its ability to compete globally.

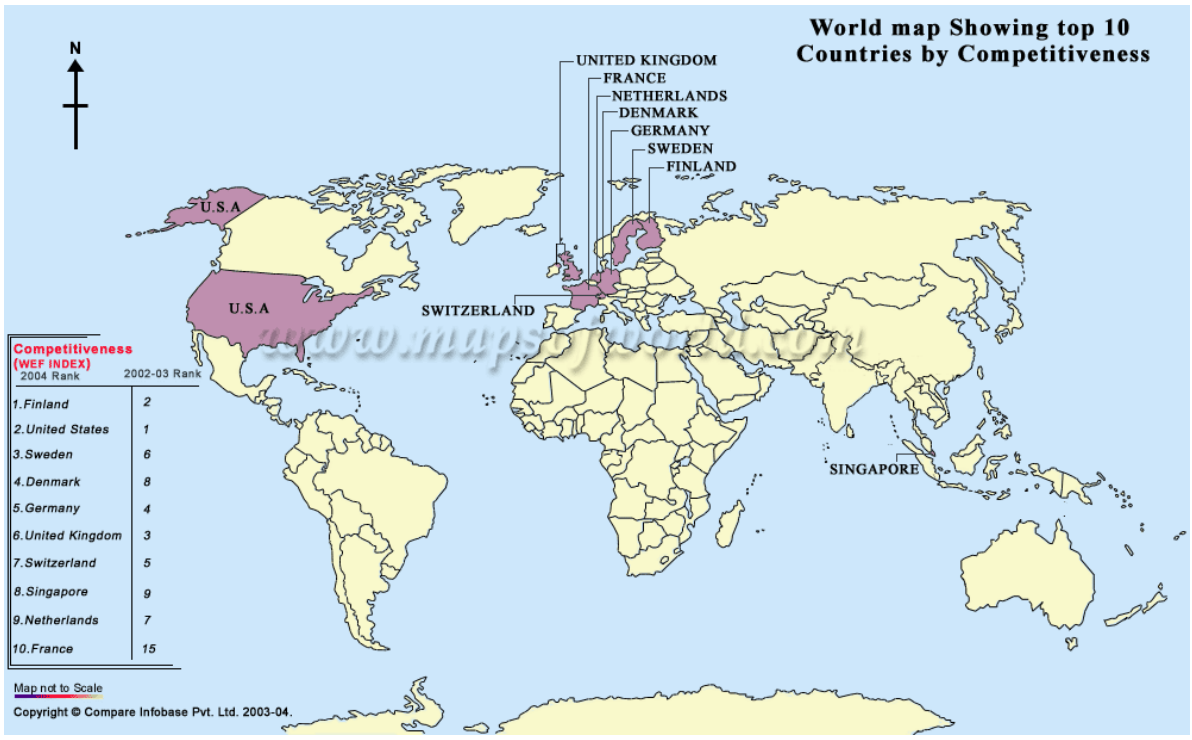

Figure 1.3: World map showing top 10 countries by competitiveness

Source: Compare Infobase Pvt. Ltd. (2004)

1.2.5 Government support, subsidisation and unequal economic "playing fields"

The global market environment has proved to be quite "unequal" from an economic point of view. Countries compete in this market with different degrees of direct and indirect government subsidies and protection. The sophisticated measures to protect/promote the agricultural economies of the USA, Canada and UK are well known and well documented (Organisation for Economic Co-operation and Development, 2002). The Organisation for Economic Co-operation and Development (OECD) countries are spending more today in subsidising agriculture than they were in either the 1986-88 period or in 1994 – the year in which the Uruguay Round Agreement came into effect. Government support to farmers across the 30 countries of the OECD was US$257 billion in 2003, accounting for 32% of farming income. This represents a rise from the 31% recorded in 2002 (National Agricultural Marketing Council, 2005)

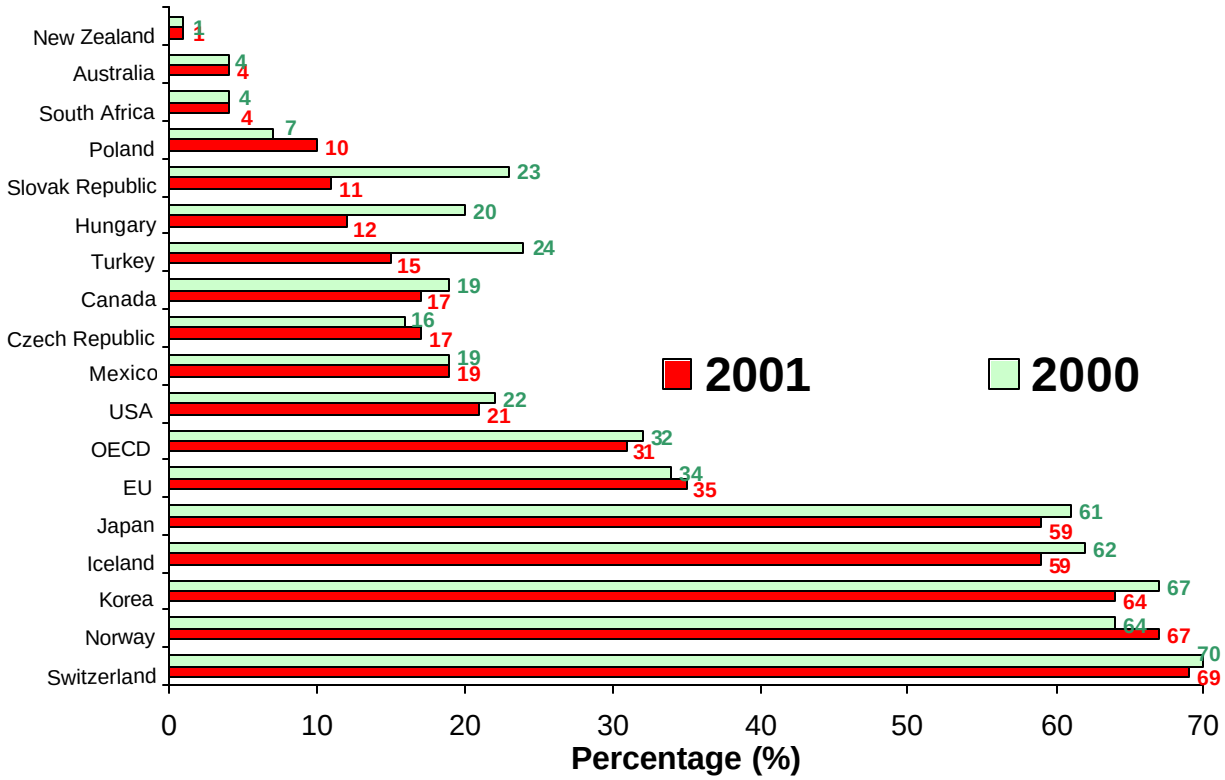

Figure 1.4: Producer subsidy equivalent by country, 2000 and 2001

Source: OECD, 2002

Figure 1.4 illustrates the producer subsidy equivalent for different countries. The producer subsidy equivalent indicates the annual direct and indirect monetary transfers to farmers. In South Africa, for every US$1 received by farmers only 4 cents are directly or indirectly contributed to by the government. In Canada, the USA and EU the government subsidised respectively 17, 21 and 35 cents for every US$1 received by the farmers. This situation must simply be considered economically distorted and unfair, as the scale of advantages is clearly tipped towards the stronger and richer countries of the world that are in a position to provide such support to their economies. South Africa and other economies such as Australia and New Zealand are, however, not operating such government support schemes and their producers will have to learn to "cope with the slope". According to the National Agricultural Marketing Council (NAMC) (2005), it may take between 10 to 20 years before significant changes towards a more even

situation will be made to the agricultural systems of the EU, Japan and North America, taking into consideration the rate at which cuts in funding are being made.

Table 1.2 indicates the most distorted markets as a result of the OECD countries expenditures to producers. Rice, sugar and milk producers are the most subsidised producers in the OECD countries. For every US$1 received by rice producers in OECD countries, 78 cents are directly or indirectly subsidised by the government. As for sugar, milk, and sheep producers, the OECD countries subsidise respectively 51, 48 and 38 cents for every US$1 received.

Table 1.2: OECD producer support estimates by commodity, 2001 - 2003

Commodity	US$ million	Producer support estimate (%)
Rice	22 254	78
Sugar	6 127	51
Milk	43 393	48
Other grains	8 209	41
Sheep meat	3 842	38
Wheat	15 173	37
Beef and veal	27 513	33
Other commodities	76 800	26
Maize	9 694	24
Oilseeds	6 680	24
Pig meat	10 624	21
Poultry	6 514	17
Eggs	1 377	8
Wool	113	5
All commodities	238 310	31

Source: National Agricultural Marketing Council, 2005

1.2.6 Decreasing trends in the producer's share of the consumer price

An interesting feature of the new economy is that the producer's share in the consumer dollar for food is substantially decreasing world-wide (Figure 1.5). There are many reasons for this higher marketing margin, for example increased cost of transport,

increased cost of capital, advertising, packaging, meal preparation, etc. This trend is expected to continue, *inter alia* due to the importance consumers attach to aspects such as health, environmental, ethnical and social considerations within value adding processes and the traceability thereof along the value adding chain. The implication of this trend is that the value adding chain will in future become a major business system in the agribusiness sector.

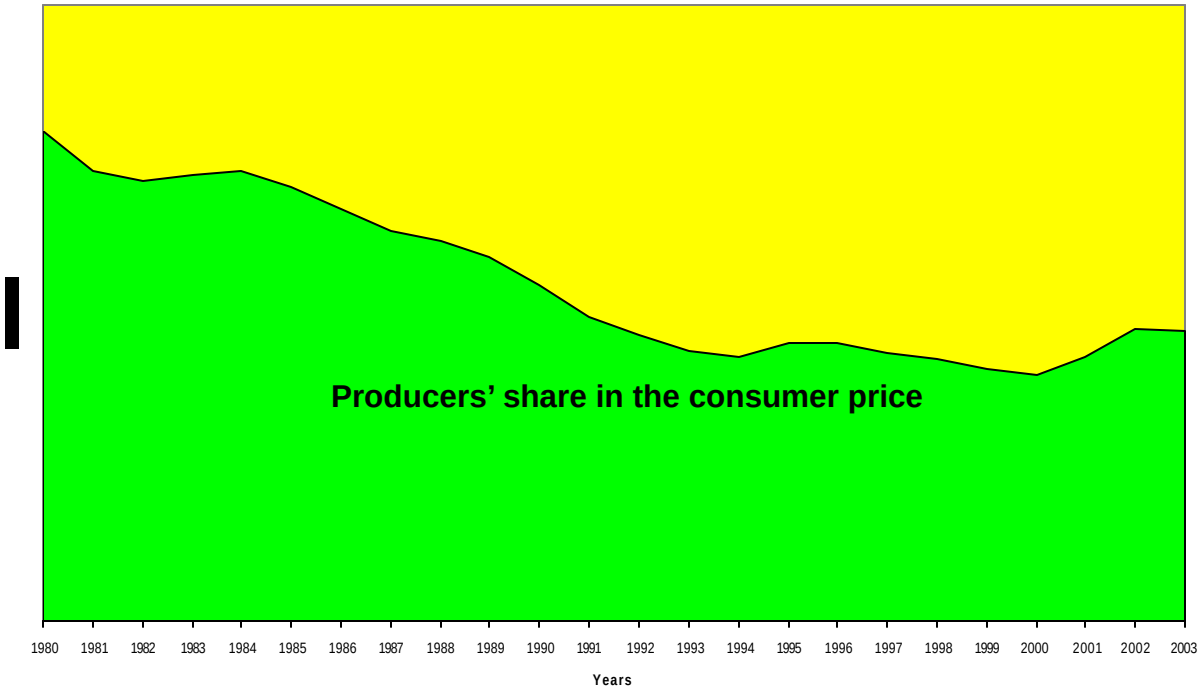

Figure 1.5: Decreasing trend of the producers' share in the consumer price worldwide

Source: Own calculations based on data from FAOSTAT 2004

1.2.7 Changing agribusiness concepts and systems

Given the changing economic environment, Boehlje (1996) identified business concepts that are important for the survival of agribusiness. Some of these concepts, relevant for South African agribusinesses, are shown in Table 1.3.

Table 1.3: Elements of changing business concepts

Old concept	New concept
? Cultivate commodities	? Specific characteristics/differentiated primary products
? Hard assets are the key to strategic competitiveness	? Soft assets are the key to strategic competitiveness
? Geographically centralised production area	? Geographically decentralised production area
? Capital/finance/assets are the primary sources of power and control	? Information is the primary source of power and control
? Impersonal markets	? Personal markets with negotiation
? Antagonistic relationship with input suppliers & buyers	? Partnership with input suppliers and buyers
? Volume production can lead to a price advantage	? Unique characteristics of products guarantee markets
? Technical skills critical for success	? People/communication skills critical for success
? Agricultural is about farming	? Agricultural is about the production of food/fibre and experiences and the distribution thereof
? USA and EU is the world's primary supplier	? Many suppliers world-wide
? Stable structures	? Transformation, flexibility

Source: Based on Boehlje, 1996; Standard Bank, 1999

Today, many agribusinesses are, however, still operating within the "old concept" where business is based on a strong production focus and highly impersonal transactions. Even though these businesses are still resistant to change, they will become increasingly under pressure to adopt the "new concepts" of more consumer and supply-chain-orientated

ways of doing business. Transformation and flexibility as opposed to structured and systematic change could thus be added as a feature of the new agribusiness concepts.

1.2.8 Towards competing supply chains

In an international survey done by Professor Zuurbier from the Wageningen University, Netherlands (Zuurbier, 1999) and adapted by Doyer and Van Rooyen (2002) for South Africa, it is indicated that vertical integrated supply chains, networks and trust relationships are expected to determine the structure of the food and agribusiness industry in the next decade (Table 1.4). Technology, consumer behaviour and multinational companies are considered to be the most important driving forces (Table 1.5).

Table 1.4: The structure of the agro-food industry in the next decade

	Percentage agreed (%)				
Item	**Netherlands**	**Europe**	**World**	**Total**	**RSA**
Larger scope of companies	73	75	70	73	48
Vertical integrated supply chains	85	91	90	88	70
Spot markets	23	19	20	21	37
Networks of companies	92	88	95	91	52
Virtual networks of companies	58	72	70	67	38
More fragmented markets	77	56	60	64	57
Increase in small companies	15	44	45	35	43
Increase in global companies	73	84	80	79	52
Electronic markets	81	78	80	79	83
Less trust/more opportunism	27	28	20	26	26

Source: Zuurbier (1999); Doyer & Van Rooyen (2002)

Table 1.5: Major factors driving the agro-food industry

	Percentage agreed (%)				
Item	**Netherlands**	**Europe**	**World**	**Total**	**RSA**
Multinational food companies	74	76	74	74	56
Supply chains	60	64	74	66	46
Regions	52	50	54	52	42
Local supply networks	58	66	64	62	54
Technology	78	80	82	80	60
Collusion/merger	76	66	70	70	46
Consumer behaviour	80	76	88	80	66
Increased competencies	68	74	72	72	42

Source: Zuurbier (1999); Doyer & Van Rooyen (2002)

The formal management of supply chain systems is thus viewed as one of the most important phenomena in the food and agricultural business for the future. The fundamental concept of a value chain is, however, not complex – it is the value-creating activities in the production-distribution process and the explicit structure of the linkages among these activities or processes (Boehlje, 1999). Added value will be lost if the chain is not functioning in an effective and efficient manner. In order for this to happen, information flows, trust, joint planning and problem solving within a value adding system is necessary (Doyer, 2002).

The importance of consumer demand, including traceability regarding environmental exploitation, health security and social and ethical aspects of production, at different stages of the chain, is expected to explode in world markets (Doyer, 2002). Unless such demands are transmitted rapidly and accurately to primary producers, agriculture will find it difficult to focus on market needs in order for it to compete effectively. In addition to that if only certain elements in the supply chain are performed efficiently, the full potential for value adding will not be realised.

Various models of "supply chain" interaction are possible, depending on the specific conditions in an industry. Figure 1.6 illustrates this range. Possibilities for collaboration will depend on the industry. Grain and livestock transactions are generally still

dominated by spot markets (also electronic markets) and contracts. Flowers, vegetables, wine and fruit are generally operating in more formal chain relationships. An increased share in value adding, however, will clearly require a movement away from spot market arrangements towards formal co-operation and integration arrangements (Zuurbier, 1999).

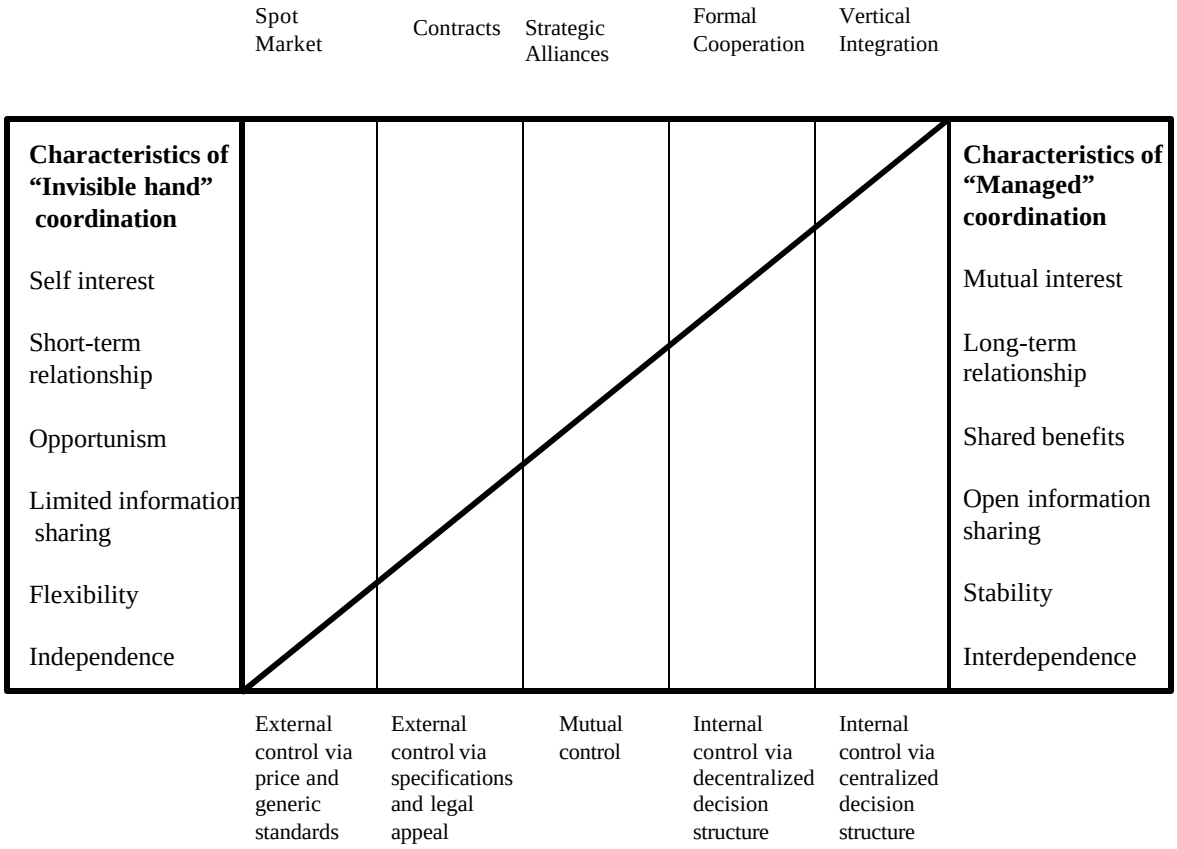

Figure 1.6: Various models of supply chain interaction

Source: Peterson & Wysocki (1997)

Note: The diagonal line represents the mix of invisible-hand and managed coordination characteristics found in each of the five alternative strategies for vertical coordination. The area above the diagonal indicates the relative level of invisible-hand characteristics and the area below the diagonal indicates the relative level of managed characteristics.

1.2.9 New types of business leaders and management competencies

New situations demand new kinds of management systems and leaders. The global world of the twenty-first century requires new, world-class leaders: leaders with a unique combination of attributes and personal characteristics. Leadership styles and skills that may have worked in stable, predictable environments will be inadequate in an era of radical uncertainty, at a time when organisations "can't even define the problem, much less engineer a solution" (Marquardt and Berger, 2000).

Given the changing environment, Marquardt and Berger (2000) identify new attributes and competencies for the twenty-first century leader (see Table 1.6)

Table 1.6: Leadership competencies necessitated by workplace transformation

World of work transformation	New global leadership attributes
Globalisation	Global mindset and competencies
Knowledge era	Teacher, coach, mentor and model learner
Changing workers	Servant and steward
Organisational restructuring and chaos	Systems thinker and polychronic co-ordination
Biotechnology, environment	Spirituality and concern for ethics
Technology	Technologist
Customer expectations	Innovator and risk-taker
Future speed of change	Visionary and vision-builder

Source: Adapted from Marquardt and Berger (2000)

Litzenberg and Schneider developed a survey instrument entitled "AGRIMASS", (Agribusiness Management Aptitude and Skills Survey) in 1983 (Litzenberg and Schneider, 1987). The AGRIMASS Survey is an attempt to identify the particular needs of agribusiness managers in the new competitive environment. Since the successful implementation of the survey in America (1986), Australia (1988) and Canada (1987), Doyer and Van Rooyen (2002) have done a similar survey for agribusinesses in South Africa.

This survey identified 74 characteristics of future agribusiness managers in six major categories: business and economics (20 questions); computer, quantitative, and management information (10); technical skills (9); communication skills (9); interpersonal skills (15); and employment and general experience (11).

The results from the different countries were more similar than dissimilar. This can be ascribed to the reality of a global environment as well as the relatively common cultural base and quantity of academic, business and cultural exchange between the countries. Agribusiness managers in all the countries consider **personal qualities** such as self-confidence, positive attitude, loyalty, high moral values, self-motivation etc. as the most important attribute ahead of **communication skills** and **business and economic skills**. South African and Australian managers ranked **computer and quantitative skills** higher than **technical skills**, as opposed to the US and Canadian rankings. The general category of previous **work experience** was rated the lowest in all the countries. The rankings of the different categories are represented in Table 1.7.

Table 1.7: Rankings of the skills categories

Category	USA	Canada	Australia	RSA
Business and economic skills	3	3	3	3
Computer, quantitative, and management information skills	5	5	4	4
Technical skills	4	4	5	5
Communication skills	2	2	2	2
Personal qualities	1	1	1	1
Employment, work, and general experience	6	6	6	6

Source: Doyer & Van Rooyen, 2002

The confidence of a manager, as a personal quality, plays a cardinal role in the competitive performance of a business (Jones & Hardy, 1990). Confidence is characterised by a high expectancy of success. It assists individuals in arousing positive emotions, facilitate concentration, set goals, increase effort, focus on strategies and maintain momentum. Lack of confidence is accompanied by over-anxiety resulting in

poor performance. At high anxiety levels reactions are slow and anticipation poor. Behaviour becomes inflexible and there is a failure to notice and respond effectively to the successful strategies of the opposition. Weaknesses are not perceived nor are they exploited. The person is hesitant, indecisive and becomes trapped in his own negative, internally focused thoughts concerning the social consequences of failure in terms of loss of status and prestige (Vealey, 2001).

1.2.10 Integrity, ethics and the natural environment

Integrity can be defined in two ways (Oxford, 2002). Firstly, there is the literal meaning, "the state of being whole or entire". This definition is appropriate within the context of concepts such as "food chain". This chain can no longer merely be seen as a complex flow of food from primary agriculture to the consumer. Today, each and every part of this flow must be considered a link, and the integrity of each link constitutes the integrity for the entire chain.

Secondly, integrity is defined as "uncompromising adherence to moral and ethical principles". It is no longer sufficient to merely ensure that the food chain is safe and efficient. Today, the consumer is increasingly more aware and concerned with the provenance of their food.

All interpretations of integrity can be distilled down to the word 'trust'. Retail brands have historically gained this trust by providing consistently safe and healthy foods and by being responsive to changing ideas and views on diet, nutrition and safety. Today, this is no longer adequate. The consumer is now better educated and more informed with complex concerns. Many of these concerns are sensitised by social interest groups raising awareness on issues such as environment, sustainability, ethics and ethical trade. This awareness, coupled with the increasing mistrust by consumers of regulatory bodies and experts, causes maintenance of this trust to become a very real issue.

The challenge for the agribusiness sector in South Africa will be to ensure that the sector is managed in a sustainable and environmentally-friendly manner, and to foster an open and trusting relationship with all elements of society to ensure that the sector is not obstructed nor controlled by confrontational special interest groups.

To meet these challenges, the agribusiness sector must be proactive and visibly progressive in addressing these issues of integrity, ethical and environmentally-friendly production. The sector should proceed towards meeting society's expectations regarding these issues. The sector must also be held accountable through assessment and monitoring of resources and activities.

The agribusiness sector, now more than ever, needs total integrity in the supply chain to provide full provenance for their products.

1.2.11 Agricultural commodities are getting cheaper

Despite the fact that the world's population has grown at an unprecedented rate over the last 200 years, the world's appetite for agricultural commodities is falling in relation to its appetite for manufactured goods and especially in relation to services (Roux, 2002). This is the source of much of Africa's economic unhappiness: the economies of many countries in central and southern Africa have been built on their production and export of commodities, but in general the world is producing a surplus of most of these commodities. This means that the prices of commodities on world markets have, on average, been falling for a number of years (Roux, 2002).

Figure 1.7 illustrates the Economist Commodity Price Index in real terms. From Figure 1.7 it is clear that the real commodity price index is about 80% lower in 2000 than in 1845, and that it has fallen by 85% since its highest point in 1920. In fact, the index has lost two-thirds of its value since 1970 alone. Clearly, countries, sectors and industries that depend heavily on primary commodities have suffered badly over the last few decades as their main source of income has been shrinking at an alarming rate.

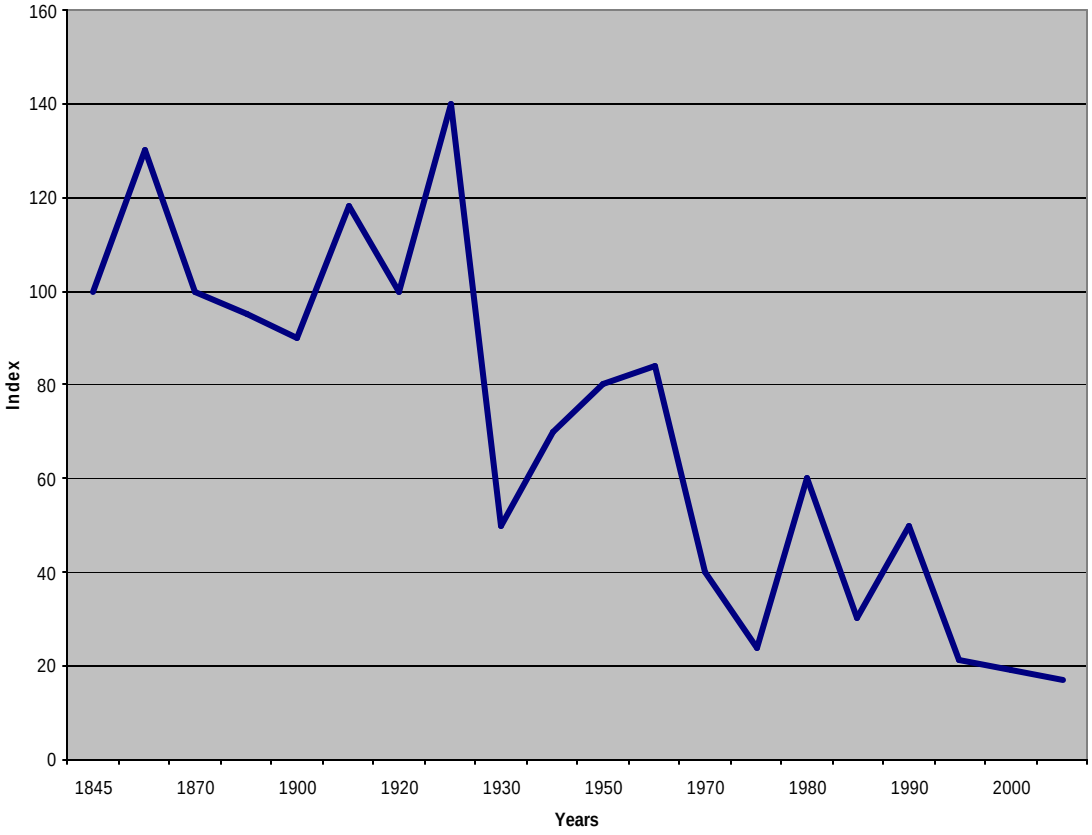

Figure 1.7: The Economist Industrial Commodity Price Index in real US$ terms (1845 = 100)

Source: The Economist, 2002

1.2.12 The need for socio-economic transformation, growth and economic development

Socio-economic transformation, growth and economic development are major forces that influence the strategic environment in which farmers and agribusinesses operate. South Africa is emerging from a historically dualistic agricultural economy, induced by policy settings and historical resource endowments, comprising a well-developed commercial sector and a subsistence orientated sector in the rural areas (Van Rooyen, Groenewald, Ngoangweni & Fenyes, 1998). This historical dualism impacts dramatically on the current development, policy and strategies in South Africa (Kirsten & Vink, 1999).

Socio-political forces which *inter alia* emphasise land reform and the integration of "historically disadvantaged groups" into the main stream of decision-making, accumulation, governance and economic participation are impacting directly on the competitive environment of agribusinesses in South Africa (Van Rooyen, Greyling & Esterhuizen, 1999).

A major challenge in South Africa is to change the historical dualism with its legacy of exclusion and discrimination along racial and gender lines, and to redress the agribusiness sector – which is characterised by skewed levels of ownership, managerial and technical skills and a lack of access to economic opportunities.

In 2001 a Strategic Plan for South African Agriculture was launched with the vision of a "*united and prosperous agricultural sector"* (National Department of Agriculture, 2001). This vision implies sustained profitable participation in the South African agricultural economy by all stakeholders, recognising the need to maintain and increase commercial production, to build international competitiveness and to address the historical legacies and biases that resulted in skewed access and representation.

A strategic goal in support of this vision for agriculture was also developed, namely: "To generate equitable access and participation in a globally competitive, profitable and sustainable agricultural sector contributing to a better life for all" (National Department of Agriculture, 2001).

In January 2004, the president of South Africa, Mr. Thabo Mbeki, signed the Broad-Based Black Economic Empowerment (BEE) Act. The objectives of the Act are to promote economic transformation; change the racial composition of ownership and management of enterprises; increase ownership and management by communities, workers and cooperatives; promote investment in enterprises owned and managed by black people; and to empower communities. Being "broad-based", the Act aims to broaden the entrepreneurial base, extend black participation in the economy, develop

local communities and employees, and to reduce income inequalities and poverty (Department of Trade and Industry, 2004).

Two ideological frameworks underpin broad-based BEE. The first is redistribution to redress the injustices of the past. The second is economic development. Development requires a balance between capacity-expanding, income-concentrating activities and demand-expanding, income redistribution or -dispersing activities (Doyer, 2004).

The "BEE framework" is the mechanism by which the objectives of the Broad-Based Black Economic Empowerment Act will be achieved. This framework consists of four elements: ownership and equity; skills transfer; indirect empowerment; and corporate social responsibility.

A broad-based black economic empowerment framework for agriculture (AgriBEE) in South Africa was launched in July 2004 (National Department of Agriculture, 2004). The AgriBEE framework is in line with existing government policy and legislation for redressing centuries of past racial discrimination and the consequences thereof. The AgriBEE framework established the guiding principles for broad based black economic empowerment in the agriculture sector.

Given the above, the agribusiness sector in South Africa will need to have an economic development and empowerment strategy. In the South African context the core focus of this strategy needs to be economic empowerment in general, to support black economic development and to enable historically disadvantaged groups in the agribusiness sector to create economic ownership, to upgrade the skills base, to gain access to assets and to sustainably exploit and participate in business opportunities along the full value chain in the sector.

1.2.13 Conclusion

It is clear that globally and locally, the agribusiness sector in South Africa is experiencing far-reaching and complex changes. These changes include technology, markets, consumer preferences, business systems, environmental, equity and social transformation to name a few. An appropriate slogan for the South African agribusiness sector could well be "adapt or perish", despite the presence of highly "unequal economic playing fields". The changes now require that the agribusiness sector in South Africa positions itself as business driven competitors in a less controlled, "free market", global trading environment.

The South African agribusiness sector also has to align itself proactively to the challenge of business systems innovation, socio-economic transformation, deracialisation and economic empowerment. These factors will influence prosperity in the South African agribusiness sector.

1.3 DEFINING THE AGRIBUSINESS SECTOR

"Agribusinesses play a significant role in the economy of South Africa as handlers, processors and marketers of agricultural products, and as suppliers of production inputs and services. In addition, agribusinesses are major employers, developers and sources of added value."

- Agricultural Business Chamber (2000)

The term "agribusiness" was coined by two economists, John Davis and Ray Goldberg, at the Harvard Business School in 1957 (Pacific Agribusiness Alliance, 1999). The agricultural industry had been changing drastically since the early 1900's, when almost all agricultural activity took place on the farm. Davis and Goldberg (1957) used the term agribusiness to convey "all the business that supports the delivery of food, clothing and shoes, tobacco, flowers and agricultural exports to their final consumers". Davis and Goldberg (1957) believed the term agribusiness was most suited to describe the whole of

all the enterprises that now take place beyond the farm gate, bringing products from the field to the consumer.

Malcolm and Davidson (1999) visualised the agribusiness sector as a vertical "slice" of an economy comprising of many parts. The agribusiness "slice" is where consumers and producers of goods and services related to agriculture operate. "Agribusiness" activity is distinguished from "business" activity in general by its proximity to and the strength of agricultural connections to the business activities. The closer and stronger an activity can be tied to the "agricultural action", the more confidently the activity can be described as being involved in agribusiness, and the further removed from the "agricultural action", the more confidently the activity can be termed to be simply "business". More specifically, agribusiness management and marketing activities can be considered to be of a different nature to business management and marketing in general, because of the nature of agriculture. The nature of agriculture – the biology, the seasonality, the nature of the products, the nature of the markets and particularly the risks involved – characterises and distinguishes agribusiness activity from "normal business" (Malcolm and Davidson, 1999).

Zuurbier (1999) defines the agribusiness sector as a chain of industries directly and indirectly involved in the production, transformation and provision of food, fibre, chemicals and pharmaceutical substrates. Soler and Tangury (1998) identify links in the agribusiness chain, which includes the following industry sectors:

? Primary production of commodities - such as unprocessed food, aquaculture, fibre, chemical and pharmaceutical substrates.
? Tertiary transformation of the commodities into value added products – where the value is derived from the process of transformation.
? Supply of inputs to the primary and tertiary sectors.
? Retail and wholesale provision of commodity and value added food, fibre and related products to consumers.
? The provision of services such as finance, insurance and technical advice.

Subsequently, agribusiness research evolved along two parallel levels of analysis, namely: the study of co-ordination between vertical and horizontal participants within the food chain - known as agribusiness economics - and the study of decision-making within the alternative food chain governance structures - known as agribusiness management (Cook & Chaddad, 2000).

In this study, without limiting its scope, businesses that have direct interaction with primary agriculture as well as value adding enterprises further down the agricultural value chain - with their core business being in the areas describe below - will be defined as agribusinesses (see also Figure 1.8):

- Intermediaries that supply basic agricultural inputs directly to agricultural producers, like fuel, fertiliser, chemicals, seed, mechanisation and all other general farm requisites, as well as crop and other financing and insurance.
- The manufactures of basic agricultural inputs and its supply, either directly or via intermediaries, to farmers.
- Intermediaries providing market access to primary agricultural produce, either by handling or preparation for market readiness or by further processing.
- Marketing agencies and traders of primary agricultural produce or commodities.
- Processors of primary agricultural produce into food, food snacks, animal feed, etc.
- Transporters and distributors of basic agricultural inputs and primary agricultural produce that have direct interaction with primary agriculture.

Agribusinesses involved in these activities will be described as the “agribusiness sector” and provide a most reliable and measurable “barometer” of the situation in the agro-food and fibre complex.

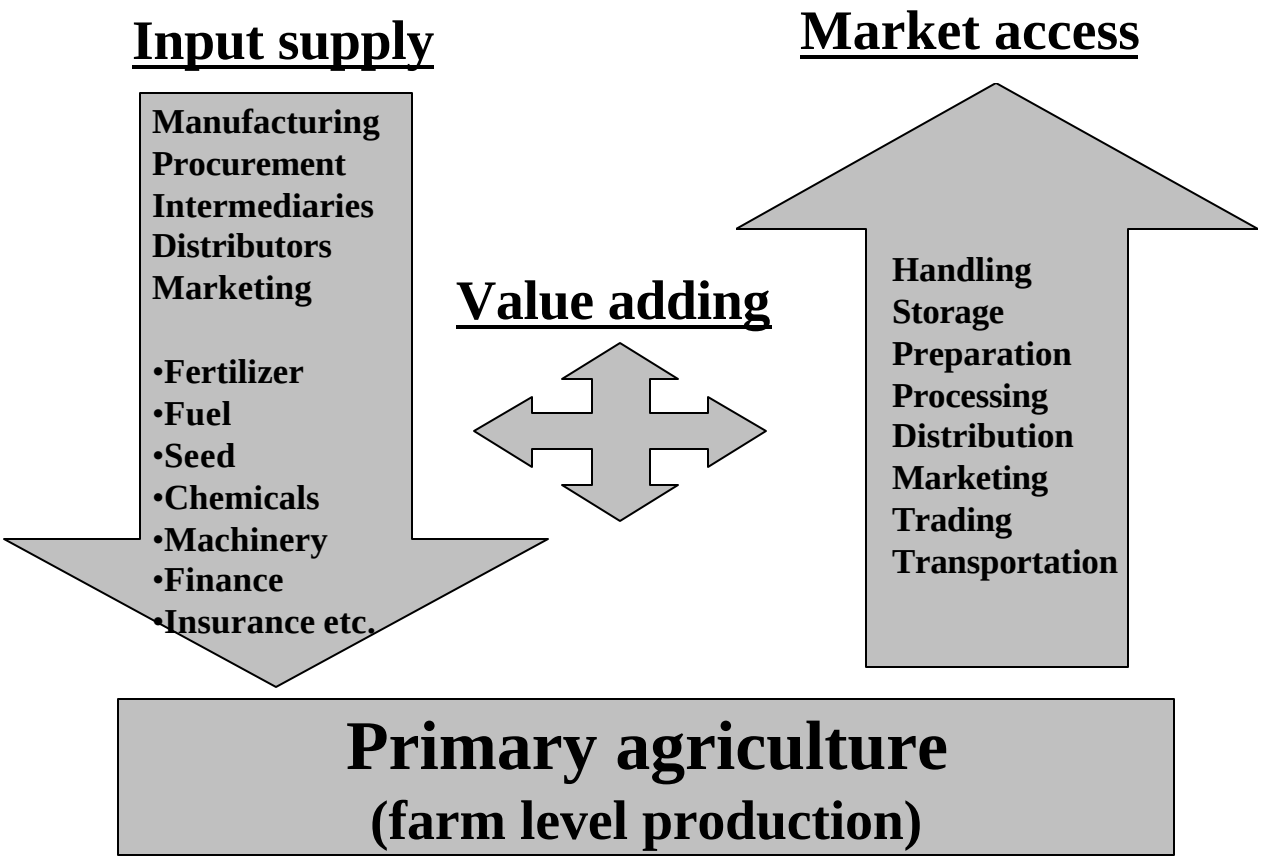

Figure 1.8: Functions of the agribusiness sector

Source: Agricultural Business Chamber, 2004

1.4 THE SOUTH AFRICAN AGRIBUSINESS SECTOR: ECONOMIC STATUS AND CONTRIBUTION

Although not often realised, the agribusiness sector makes a major contribution to the South African economy. Primary agriculture contributes about 4% to the gross domestic product (GDP) of South Africa and almost 9% of formal employment. The agribusiness sector (inputs, processing, marketing) contributes approximately R124 billion to the South Africa's GDP. The sector also has upstream or backward linkages on the supply side and downstream or forward linkages on the manufacturing side.

The sector creates approximately 1.6 jobs outside agriculture for every job in agriculture (Van Rooyen and Esterhuizen, 2000). It provides 12.5% of the country's jobs or about 20% of total recorded employment in manufacturing (National Productivity Institute, 2002) and creates employment for another 16% of the workforce in other sectors. A direct investment in the agribusiness sector creates twice as many jobs as an investment in the other manufacturing sectors (Van Rooyen & Esterhuizen, 2000).

A notable fact is that nine of the top ten employment generators in the economy as a whole are found in the agro-industrial sector. These are: tobacco products, oils and fats, basic chemicals, meat products, animal feeds, other foods, dairy products, grain milling, sugar products, paper products and canning (Van Rooyen & Carstens, 1996).

Value-added activities in the sector include the slaughtering, processing and preserving of meat, processing and preserving of fruit and vegetables, the processing of vegetable and animal oils and fats, dairy products, grain mill products, prepared animal feeds, bakery products, sugar refining, cocoa, chocolate and sugar confectionery amongst other food products.

In 2001, the value of sales of food and food products was R67 543 million; this was 13.45% of total sales of all manufacturing products in South Africa (Statistics South Africa, 2002). Total assets of the agribusiness sector in 1996 amounted to R18 billion; this amounts to 18% of the total assets in the manufacturing sector (Statistics South Africa, 1998).

In 2002, the agribusiness sector in South Africa's exports resulted in foreign exchange to the amount of R25 460 million (National Department of Agriculture, 2004). Citrus and deciduous fruit, highly in demand in foreign countries, accounted for one of the largest exports. South Africa also exports groundnuts, maize, wine, cut flowers, bulbs, mohair, karakul pelts, sugar, meat and wool, to name just a few.

South African produce has achieved remarkable successes on foreign markets and is well-known for its uncompromising quality. The agribusiness sector has seen a dramatic increase in foreign sales over the past years. This trend is expected to pick up further into the future with the implementation of more free trade agreements. The high quality and diversity of South African produce, mostly harvested during the Northern Hemisphere winter, ideally positions South Africa to exploit world demand in many products e.g., fresh fruits.

The agribusiness sector must be recognised as one of the major sectors that contribute towards economic growth, especially when taken into consideration that ±13 million people reside in and are dependent on economic activity in rural areas (Van Rooyen, Groenewald, Ngqangweni & Fenyes, 1998).

In a study of the economy of the Western Cape, it was found that primary agricultural production and related agribusiness activities in general rated much higher than the other economic activities, with regards to aspects such as employment creation, added value, foreign exchange earning and also in the redistribution of income to the 40% poorest population groups in the province (Eckert, Liebenberg & Troskie, 1997). The total development impact through the relevant multipliers of the 48 economic sectors investigated in the province also favoured agricultural and agribusiness activities. Agriculture and agro-processing (especially food, beverages, clothing, leather and leather products) tend to lead to a more equitable distribution of per capita income, also boosting trade and transportation. Moreover, these sectors all tend to create more low-skilled jobs. Agro-food industries outperformed non-agricultural related industries significantly within an economic development context.

In view of the above, the agribusiness sector's real contribution is far more substantial and crucial to sustained wealth creation, poverty alleviation, and welfare generation in South Africa than given credit for. The role of the agribusiness sector should therefore be seen in a wider context, by considering, for example, its linkages with the broader economy; the critical role it plays in regional development and food security; its

contribution towards human development, job creation, poverty alleviation, and the environment; its role as a driver of industrial development; as well as its ability to generate and redistribute income and improve the quality of life of all South Africans.

1.5 SOUTH AFRICAN STUDIES ON AGRIBUSINESS COMPETITIVENESS

Given the trends in the global food and agribusiness sector, it is not surprising that agribusiness competitiveness has become a topic of much interest in both the popular press and in academic literature. Despite the emphasis placed on evaluating the competitiveness of the agribusiness sector in South Africa, the term "competitiveness" has not been clearly defined, nor has a consensus been reached as to the proper measure of competitiveness.

In recent years, agricultural economists in South Africa have begun to conduct more focused research into competitiveness in the agricultural and agribusiness sectors (Ortmann, 2001). Various agricultural economics departments at South African universities have also introduced programmes in agribusiness. For example, the University of Natal launched an Agribusiness option in 1999. In the same year the Department of Agricultural Economics, Extension and Rural Development at the University of Pretoria introduced a Chair in Agribusiness Management in collaboration with the Agricultural Business Chamber (ABC). The ABC represents all the leading agribusinesses in the country. This chair is currently sponsored by the agribusiness division of ABSA, a major South African commercial bank, with substantial agribusiness interests.

New directions in competitiveness studies in the South African agricultural and agribusiness sectors include, in recent years, analyses and research done by Esterhuizen and Van Rooyen (1999), from the latter institutional arrangement, who calculated and analysed the competitiveness of 16 selected food commodity chains in South Africa. Although they found that most commodity chains are competitive, the competitiveness index generally decreases when moving from primary to processed products. They

concluded that, while farm level production is relatively competitive, value-adding opportunities in South African agribusiness are constrained.

In a similar study of the South African flower industry, Van Rooyen and Van Rooyen (1998) concluded that the cut foliage industry had a high competitive advantage in international trade. Cut flowers and house plants showed a competitive disadvantage, which they attribute to factors such as the industry's focus on the local market, which demands a much lower quality product than European markets.

Van Rooyen and Esterhuizen (2001) investigated the opportunities and potential for agribusiness partnerships and co-operation in Southern Africa; it was concluded that such partnerships along supply chain integration would improve the global competitiveness of local agribusinesses in the region substantially.

Vink, Kleynhans and Street (1998) reported the results of an international comparison of the cost of producing wheat in eight Western Cape, three Free State and seven foreign producing areas. Results show that South Africa competes against two types of countries: high cost, high yield countries such as France, Britain and Germany and low cost, low yield countries such as Australia and Argentina. As a low yield, high cost country, South Africa cannot compete in the global wheat market. They concluded that, if the wheat industry in the Western Cape intends to survive international competition, it will have to improve its international competitiveness.

Van Schalkwyk, Van Zyl and Jooste (1995) determined the effect of the exchange rate and other international factors on the competitive position of South African wheat producers. It was concluded that, in the medium to longer term, it is in the consumer's interest to protect local producers against imports, since locally produced wheat will probably be competitive with imported wheat in the long run in view of the expected trends in world prices and exchange rates.

Blignaut (1999) analysed the local and international competitiveness of the South African dairy industry supply chain using an integrated approach suggested by Porter (1985). The two types of competitive advantages analysed include cost leadership (low cost production) and value adding (product differentiation). Blignaut concluded that South Africa's dairy farmers produce milk relatively effectively but that the milk processing industry is not internationally competitive. Esterhuizen and Van Rooyen's (1999) analysis supports Blignaut's (1999) findings regarding the relative competitiveness of the primary sector and the relative uncompetitiveness of the value adding industries.

Venter (1999) studied the competitiveness of Southern Africa's sheep meat supply chain relative to the Australian industry. Venter (1999) concluded that Southern African lamb producers were competitive but mutton producers were not. Venter (1999) found that the cost associated with value adding in the retail industry is much higher in Southern Africa than in Australia, resulting in a decrease in the competitiveness of the total value chain.

Recently, Esterhuizen and Van Rooyen (2005) completed a study on the competitiveness of the wine industry in South Africa. The study concluded that the wine industry can be classified as one of the winning industries in South Africa. Wine produced in South Africa is highly competitive internationally with an increasing positive trend over the past four years. The wine industry in South Africa also shows positive trends in competitiveness in the long run and it doesn't seem as if it will lose its competitiveness status in the near future.

1.6 PROBLEM STATEMENT AND RESEARCH QUESTIONS

1.6.1 Intelligence and competitiveness

It is too easy to underestimate the link between intelligence and competitiveness. As the economy moves away from a reliance on natural resources, prosperity becomes dependent on knowledge- based enterprises and other creative initiatives. In order to compete in these industries, South Africa must outsmart its rivals. Whether this involves

creating more creative products or inventing more innovative processes, one key to greater competitiveness is *knowing more*.

May (1996) reminds us that business activity, and therefore management activity, is entirely based on expectations. Management is about the uncertain future. By implication, therefore, most, if not all, business activity is concerned with the future. Indeed, the terms 'far-sighted', 'forward thinking', 'good foresight' and 'intelligence' have long been attached to successful managers. Although these thoughts relate to the commercial sector, they hold equally true for political leaders. It could be argued that they are equally applicable to ordinary human beings going about their daily lives. After all, we are constantly managing our own lives as well as those of our nearest and dearest. If we have intelligence (foresight), we are better equipped to manage a better life (Roux, 2002).

In Table 1.8 the hierarchy of intelligence is shown. Note that the consecutive layers of knowledge become more sophisticated as each layer is put into the right and appropriate context.

Table 1.8: A classification of intelligence

Level of knowledge	Meaning
Data	Untransformed or unprocessed 'bits'; the raw material of knowledge
Information	Transformed/processed 'bits' into messages that can change behaviour
Knowledge	Contextualized information; the ability to put information in a functional context
Intelligence	Contextualized knowledge; the ability to put knowledge in a purposeful context, to have insight and understanding
Wisdom	Contextualized insight and understanding; the ability to put your life, your organization, your community, your nation within the context of the whole, and understanding the meaning of life

Source: Based on Spies, 1995

So, if intelligence (foresight) is so important and desirable, how is it acquired? First of all, it comes with appropriate experience, which is enhanced in the second instance by

regular open and informed discussions between like-minded and concerned individuals, who are willing and able to introduce different opinions and perspectives into the discussion. Thirdly, it is only by measuring, analysing and understanding that sound judgment regarding the possible outcomes of current events can be made.

The third aspect is important for this study - measuring, analysing and understanding – in order to create intelligence to increase the ability of the agribusiness sector in South Africa to compete in the global environment.

1.6.2 The questions to be answered

Many questions are being asked about the competitiveness of the South African agribusiness sector. For example: "What is competitiveness?"; "How competitive are the sector?"; and, "How can it be measured practically?". The competitiveness of the agribusiness sector in South Africa furthermore depends on a number of technological, socio-political, economic, etc. factors. One of the most pervasive influences is that of the external environment, and in particular, the set of policies which operate in the market for agricultural goods. These factors have also a direct influence on the business confidence of agribusinesses in South Africa. Appropriate adjustments could therefore contribute to changing negative situations into positive status. It will, however, be important to identify the particular set of factors which needs to be adjusted.

The main question to be answered by this study is: "Can the South African agribusiness sector successfully compete on a sustainable basis within the global environment?". The result or outcome of being in a position to successfully compete will clearly be manifested in a number of propositions. These will include acceptable levels of profits and returns on resources invested in the South African agribusiness activities and the concomitant ability of such economic activities to consistently attract resources from other (non-agribusiness) economic activities to sustain the sector.

Five secondary questions are locked into this main question. The first question to be answered is: "How is competitiveness defined and measured?" The second question to be answered is: "How competitive is the South African agribusiness sector globally?" The third question that needs to be examined is: "What are the key success factors and what are the main constraints impacting on the competitiveness of the South African agribusinesses sector?" The fourth question to be considered is: "How favourable is the decision-making environment in which South African agribusinesses operates?" Knowing the state of competitiveness and the factors impacting on competitiveness the last question can be answered: "How can the competitiveness of the South African agribusiness sector be enhanced?" (i.e. the strategic approach to achieve and sustain competitiveness).

These questions are well motivated by Michael Porter (1998): "A firm must understand what (it is about its home nation that) is most crucial in determining its ability or inability to create and sustain competitive advantage in international terms".

In a static view of competition, a nation's factors of production are fixed. Firms deploy them in the industries where they will produce the greatest return. The essential character of today's competition is dynamic and requires innovation and change. Instead of merely being limited to passively shifting resources to where the returns were greatest, the real issue is rather how can firms increase the returns achieved through new products and processes. Instead of simply maximizing within fixed constraints, the question is how firms can gain competitive advantage from changing the dynamic environment of constraints. Instead of merely deploying a fixed or static pool of factors of production, a more important issue is how can firms and countries create the environment to improve the quality of factors, raise the productivity with which they are utilized, and create new ones (Porter, 1998).

In order to meet the challenges imposed by this situation, economic analysis has an important contribution i.e. to pinpoint inefficiencies and weaknesses in the business systems, whilst emphasizing elements that could provide a sustainable competitive

advantage to the agribusiness sector in South Africa with regard to both the challenge of global competition, the satisfaction of customer demand and the incorporation of socio-economic and equity considerations - and thus developing new competitiveness strategies to respond to these dynamic challenges.

1.6.3 Problem statement and study focus

A number of problem situations exist in answering the above questions. The term "competitiveness" has not yet been clearly defined, and nor has a comprehensive framework for determining and analysing the agribusiness sector's competitiveness been established in South Africa. Also, no attempt has been made to measure the changing decision-making environment in which agribusinesses must operate. Ad hoc and relatively reductive analysis has been conducted to date (see previous references to South African studies on competitiveness).

In this study the focus will be on these issues: a description of the theoretical foundation of competitiveness and the development of a clear definition and measurement methodology of competitiveness; the development of a framework for measuring, explaining and analysing competitiveness; the development of a framework to determine and analyse the status of the decision-making environment; and to apply this framework on the agribusiness sector in South Africa.

This study also aims to provide a contribution to structural strategic analysis and development in the agribusiness sector of the South African economy.

1.7 HYPOTHESES

In order to focus the analysis the following hypotheses for this study are formulated:

i) There is an increasing trend in the competitiveness of the agribusinesses sector in South Africa after the deregulation of the sector in the early nineties.

ii) Both micro and macro factors are impacting on the competitiveness status of the agribusiness sector in South Africa. These factors are either enhancing or constraining the competitiveness status of the sector. These factors also have a direct impact on the sustainability of the competitiveness status of the agribusiness sector in South Africa.

iii) A clear relationship exists between changes in the decision-making environment of the agribusiness sector in South Africa and the competitiveness performance of the sector. Changes in the decision-making environment of the agribusiness sector in South Africa have a direct influence on the status of business confidence in the sector. The business confidence of agribusinesses, on the other hand, has a direct influence on the competitive performance of the sector.

iv) The business confidence of the agribusiness sector in South Africa is influenced by a complex set of activities and expectations. The particular risks and nature of agriculture distinguishes agribusiness activities and expectations from other businesses. There is a direct correlation between the changes in the business confidence of agribusinesses and changes in macro economic influences suh as agricultural conditions, interest rates, the exchange rate and economic growth. Furthermore, micro economic expectations like an increase or decrease in turnover, an increase or decrease in nett operating income, employment trends and capital investments also influence the confidence of the agribusiness sector in South Africa. The performance of the political system also has an influence on business confidence.

1.8 RESEARCH OBJECTIVES

1.8.1 General objectives

The challenge to the South African agribusiness sector is to achieve and maintain competitiveness in order to survive in the competitive environment of the new global economy. The sector must achieve this while addressing societal issues such as social

and economic equity, environmental responsibilities and ethical business practises (Doyer, 2002).

The general objective of this study is to analyse the competitiveness of the agribusiness sector in South Africa. Through the analyses the following questions will be answered and conclusions will be reached:

(i) *"How is competitiveness defined and measured?"*

(ii) *"How competitive is the South African agribusiness sectors globally?"*

(iii) *"What are the key success factors and the constraints impacting on the competitiveness of the South African agribusiness sector?"*

(iv) *"How favourable is the decision-making environment in which South African agribusinesses operates?"*

(v) *"What strategies are needed to enhance the competitiveness of the South African agribusiness sector?"*

By answering these questions it will be possible to explain the role played by the economic environment, institutions and policies in the competitive success of the agribusiness sector in South Africa. Amongst others, such an analysis will highlight the ability of each activity in a particular value chain (production, marketing, processing etc.) to adapt to market changes and structures, to produce and adopt technological innovations, its particular access to capital and its capacity to obtain and retain market share within the international market. In short, these variables will measure and evaluate the efficiency, effectiveness, and sustainability of the agribusiness sector in South Africa.

The competitiveness analysis can also be seen as an instrument capable of not only evaluating the existing state of international competitiveness of the South African

agribusiness sector, but also of outlining hypotheses, scenarios and strategic choices for the future. The analysis can therefore form the basis for round table discussions, for policy and strategic positioning and for planning by participants in the chain to promote value adding and to address weaknesses.

1.8.2 Specific objectives

The specific objectives of the study are:

i) To describe the theoretical foundations of competitiveness and develop a definition of competitiveness as applicable to the agribusiness sector in South Africa.

ii) To develop a framework for measuring and analysing the competitiveness of the agribusiness sector in South Africa.

iii) To measure the competitiveness status and long and short term trends in competitiveness of selected industries in the South Africa agribusiness sector.

iv) To determine the major constraints and enhancements to the competitive success of the agribusiness sector in South Africa.

v) To analyse the decision-making environment of the agribusiness sector in South Africa and to determine the major micro and macro factors impacting on the decision-making environment of the sector.

vi) To develop strategies from the above results in order to enhance the competitiveness of the agribusiness sector in South Africa.

1.9 OUTLINE OF CHAPTERS

The outline of this study will be as follows: **Chapter one** describes the competitive environment for agribusinesses, defines the problem statement and develops hypotheses and specific objectives in order to focus the study. **Chapter two** describes the theoretical foundations of competitiveness and defines competitiveness. In **Chapter three** a framework for analysing the competitiveness of the agribusiness sector in South Africa is developed.

In **Chapter four** the competitiveness status and long and short term trends in the competitiveness of the agribusiness sector in South Africa is determined. The competitiveness of selected commodity and product chains is also determined. Chapter four serves as a basis for the exploration of a number of opportunities and relationships for South African agribusinesses which is discussed in **Chapter five**.

In **Chapter six,** the major constraining and enhancing institutional factors that influence the competitive success of the agribusiness sector in South Africa is discussed. In **Chapter seven** trends in the determinants of competitiveness in the South African agribusiness sector are analysed.

The changes in the decision-making environment, as it impacts on the business confidence of the agribusiness sector in South Africa are discussed in **Chapter eight.** The major factors influencing the business confidence of agribusinesses are also identified.

Strategies to enhance the competitiveness of the agribusiness sector in South Africa are developed and discussed in **Chapter nine**. Finally, **Chapter ten** consists of a summary of major findings and concluding remarks.

CHAPTER TWO

LITERATURE SURVEY AND THEORETICAL FRAMEWORK

2.1 INTRODUCTION

The neo-classical trade theorists such as Heckscher (1919), Ohlin (1933), Stolper (1941) and Sameulson (1941) have long influenced us to define competition in terms of comparative advantage, a notion that lends itself especially well to agriculture, with the relatively simplistic division of factor endowments among land, capital, natural and human resources. Recent developments in competitiveness theory have, however, revealed certain limitations to this static concept of comparative advantage.

The new competitiveness theory has also revealed certain limitations in viewing indicators such as the wealth and power of nations, share in world markets or economic performance as the only measures of competitiveness. For example, competitiveness is not necessarily an indicator for economic performance. Economic performance focuses on added value over the short-term, commonly expressed as Gross Domestic Product (GDP) growth. However, the GDP indicator has some shortcomings as it does not take into account the depletion of non-renewable capital, such as natural resources, the volatility of the economy, the sustainability of growth or the impact of non-tangibles, such as education and research (International Institute for Management Development (IMD), 2003).

Competitiveness theory has been revised in order to keep up with an evolving world, consisting of a dramatically different community from what it used to be 20 or even 10 years ago. The manner in which businesses combine their resources, the distribution channels through which they choose to distribute their products to the consumer, and the use of strategic alliances with government, customers or even suppliers, all contribute now to making the world environment intensely more competitive and complex. The

new competitiveness theory therefore has to make us think in terms of dynamic and expanded factors affecting competitiveness.

The globalisation of finance, industry, consumer markets, information and communication infrastructures and services has accentuated the transformation of competition from a means and a particular mode of economic functioning to an ideology and an aggressive goal for survival and hegemony (The Group of Lisbon, 1995). Competing in the global economy has become the everyday slogan of multinational corporations' advertisers, business school managers, economists and political leaders.

Through localisation and transplants of production facilities and fierce competition – or alternatively, via strong alliances to enable more successful competition at the world level – the global networks of multinational corporations are reshaping the sectoral and territorial configuration of the world economy. The new global economy looks like a battle among economic giants, where no rest or compassion is allowed to the contenders.

All this clearly shows that competitiveness could be viewed as a complex notion. This theme will be examined in this Chapter. The aim of this Chapter is to describe explicitly the evolution of competitiveness thought to the current perspectives on the concept of competitiveness. This will contribute to a more common and widespread understanding of the diverse and dynamic factors that affect the competitiveness of firms, sectors and nations.

Firstly, the evolution of competitiveness theory is described. This is followed by an illustration of the different perspectives on the concept of competitiveness to be found in literature. A definition for competitiveness is then developed that will be used throughout this study. Lastly, the relationship between competitive performance and confidence is described.

2.2 COMPETITIVENESS THEORY FROM ADAM SMITH TO MICHAEL PORTER

Competitiveness as a field of economic knowledge is relatively new in itself, and has only been researched and taught since the beginning of the 1980's. However, it is built on numerous economic concepts, which can be traced all the way back to the Classical Economists - the founding fathers of modern economic theory such as Adam Smith, David Ricardo, etc.

Traditionally, a nation's international competitiveness has been explained by international trade theories originating from Adam Smith (1776). However, today's global economy is too complicated to be explained by the traditional trade theories. Recently, Michael Porter (1990, 1998) of the Harvard Business School introduced a new competitiveness theory, the so-called diamond model. Michael Porter (1990, 1998) differentiated his theory from the traditional trade theories by arguing that national prosperity is not inherited, but created by choices; in other words, national wealth is not set by factor endowments, but created by strategic choices. Porter (1990, 1998) showed different choices of creating wealth, which has been quite limited in the world of traditional trade theories. His diamond model has lately been extended by several scholars.

The evolution of competitiveness theory from Adam Smith to Michael Porter is illustrated in Figure 2.1 and summarised in Table 2.1. Some of the essential elements of the historical development of economic thought in the area of competitiveness will now be discussed.

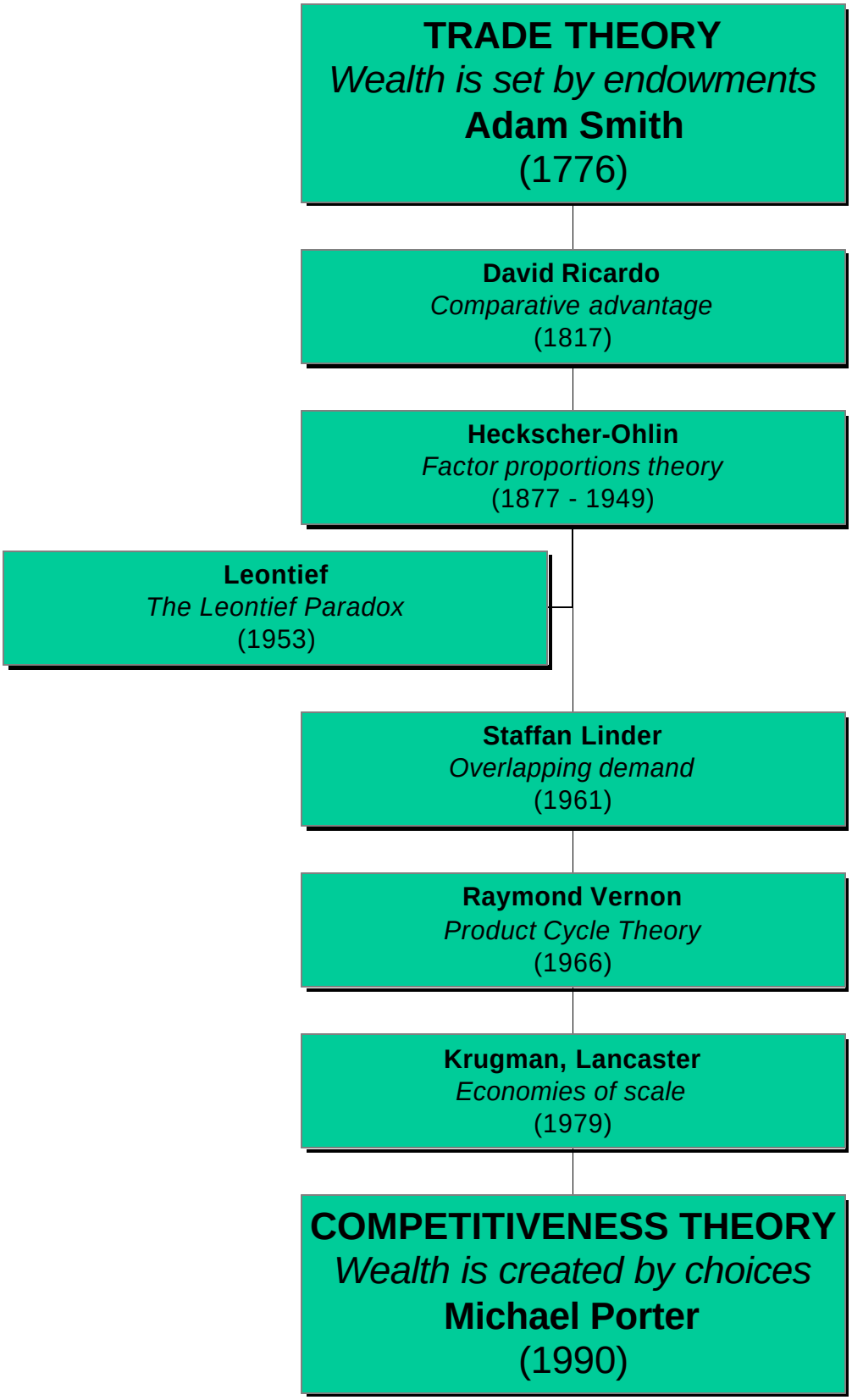

Figure 2.1: The evolution of competitiveness theory

Table 2.1: The evolution of competitiveness theory

Theories	Key concept(s)
Mercantilism Approximately 1500 – 1800	The object was to make the state strong; the economic basis for strength, wealth, was given great weight. The most important form of wealth was considered to be precious metals; foreign trade was generally preferred above other forms of industry to furnish a supply of the desired form of wealth.
Classical Trade Theories	
Adam Smith (1776)	Absolute advantage
David Ricardo (1817)	Comparative advantage
J.S. Mill (1848)	International values
J.S. Mill (1873)	Politics of protection
Neoclassical Models:	
Heckscher-Ohlin (1919, 1933)	Factor endowment
Stolper-Samuelson (1941)	Stolper-Sameulson theorem - highlights the relationship between output prices and factor prices within a single country
P.Samuelson (1948)	Factor price equalization theorem – the relationship between relative prices in two countries
T.M. Rybczynski (1955)	Rybczynski theorem – the relationship between the supply of a factor and the output of the commodity that uses that factor
Salter (1959) Swan (1960)	Exchange rates
Challenges to Comparative Advantage:	
Leontief (1953)	Leontief Paradox
S. Linder (1961)	Overlapping demand
R. Vernon (1966)	The product cycle
Krugman (1979) Lancaster (1979)	Economies of scale
Competitiveness theories:	
Michael Porter (1990, 1998)	Determinants of competitive advantage (diamond-model)
Rugman & D' Cruz (1993)	Double diamond model
Cho (1994)	The nine-factor model
Moon, Rugman & Verbeke (1995)	Generalized double diamond model

Source: Based on Masters (1995) and Cho & Moon (2002)

2.2.1 The Mercantilist School

As described in the evolution of the competitiveness environment, the period before A.D. 1500 represents an epoch far different than the period from 1500 A.D. to the present. There was little trade before 1500 A.D., and most goods were produced for consumption in the community that produced them without first being sent to the market. In contrast, markets and trade expanded rapidly after 1500 A.D. In 1492 Columbus reached the New World; in 1501 Amerigo Vespucci discovered the mainland of the continent; and in 1519 Magellan reached the Philippines around the southern tip of South America and opened the Western route to India (Brue, 2000). The money economy superseded the natural or self-sufficient economy with an increase in competition. National states with unified economies became dominant forces. Economic schools arose, representing systematic bodies of thought and policy formation.

The economic theory of Mercantilism (1500 – 1776) appeared between the middle ages and the period of the triumph of *laissez-faire* (a policy of leaving things to take their own course without interfering). The self-sufficiency of the feudal community slowly gave way to the new system of merchant capitalism. Cities, which had been growing gradually during the Middle Ages, became increasingly important. Trade flourished both within each country and between countries, and the use of money expanded. National states were rising, and the most powerful of them were acquiring colonies as well as a sphere of influence. Economic rivalries between nations were intensified. It is not surprising then that a body of doctrine evolved that superseded feudal concepts, promoted nationalism, gave new dignity and importance to the merchant, and justified a policy of economic and military expansion.

Some of the main principles of the Mercantilist School were (Brue, 2000):

? **Gold and silver as the most desirable form of wealth.** Mercantilists tended to equate the wealth of a nation with the amount of gold and silver that it possessed. The policy of accumulating precious metal was called “bullionism”.

? **Nationalism.** All countries could not simultaneously export more than they imported. Therefore one's own country should promote exports and accumulate wealth at the expense of its neighbours. This policy soon shifted toward regulating international trade to achieve a favourable balance of trade. Only a powerful nation could capture and hold colonies, dominate trade routes, win wars against rivals, and compete successfully in international trade.

? **Duty-free importation of raw materials that could not be produced domestically.** Protection for manufactured goods and raw materials that could be produced domestically, and export restriction on raw materials. The interest of the merchant took precedence over those of the domestic consumer. Merchants received inflows of gold in return for their exports, while the restrictions on imports reduced the availability of goods for consumption at home. Consequently gold and silver accumulated, supposedly enhancing the country's wealth and power.

? **Strong central government.** A strong central government was needed to promote Mercantilist goals. The government granted monopoly privileges to companies engaged in foreign trade. It restricted free entry into business at home to limit competition. Agriculture, mining and industry were promoted with subsidies from the government and protected from imports via tariffs.

The Mercantilists made a lasting contribution to economics by emphasising the importance of international trade. In that context, they also developed the economic and accounting notion of what today is termed the "balance of payments" between a nation and the remainder of the world. Beyond these contributions, the Mercantilists contributed little to economic theory, as we know it today.

2.2.2 The Classical School

The Classical School began in 1776, when Adam Smith published his "Wealth of Nations". It ended in 1871 when W. Stanley Jevons, Charl Menger and Leon Walras independently published works expounding neoclassical theories (Brue, 2000).

The Classical doctrine is frequently called economic liberalism. Its bases are personal liberty, private property, individual initiative, private enterprise and minimal government interference.

Classical economics rationalised the practices being engaged in by enterprising people. It justified the overthrow of mercantilist restrictions, which had outlived their usefulness. Competition was a growing phenomenon, and reliance upon it as the great regulator of the economy was a tenable viewpoint.

Several of the classical "laws" are today taught as "principles" of economics:

- The law of diminishing returns.
- The law of comparative advantage.
- The notion of consumer sovereignty.
- The importance of capital accumulation to economic growth.
- The market as a mechanism for reconciling the interests of individuals with those of society.

Much of contemporary international trade theory is rooted in the writings of classical economists, notably Adam Smith (1723-1790), David Ricardo (1772-1823), and John Stuart Mill (1806-1873). The central conclusion of these authors' work is that, although there are exceptions, almost all countries can reach their highest possible levels of income and economic growth by maintaining open international trade. Domestic production and consumption should thus be guided by the prices at which foreigners are willing to trade. Rather than restricting trade, governments should focus on maintaining competitive

national markets and investing in public goods such as research and education (Master, 1995).

2.2.2.1 Adam Smith

The major problem with mercantilism was that it viewed trade as a zero-sum game in which a trade surplus of one country is offset by a trade deficit of another country. In contrast, Adam Smith viewed trade as a positive-sum game in which all trading partners can benefit. Smith's 900-page economic treatise "An inquiry into the nature and causes of the wealth of Nations" appeared in 1776, the year of the American Revolution. This was the book that established him as one of the premier economic thinkers in the history of economic thought.

The first chapter of Wealth of Nations is titled "Of the Division of labour" - an unfamiliar phrase in Smith's time. Production, the creation of a product for exchange, always requires the use of society's primary element of value, namely human labour. Smith noted that some countries, owing to the skills of their workers or the quality of their natural resources, could produce the same products as others with fewer labour-hours. He termed this efficiency absolute advantage. The division of labour (assigning stages of production to several individuals rather than each producing an entire good or service), said Smith (1776), increases the quantity of output produced. The mercantilists were concerned mainly with how the exchange of goods, once produced, could add to the nation's well-being. By beginning his book with a discussion of how the same number of workers could produce substantially more output by dividing their labour, Smith immediately made it clear that "Wealth of Nations" was a break away from the prominent economic notions in existence at that time.

Smith (1776) pointed out that participants in the economy tend to pursue their own personal interests. The person of business pursues profit: *"it is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest"*. The consumer looks to find the lowest price for a good, given its

quality. The worker tries to find the highest pay, given the non-wage aspects of the job. However, hidden within the apparent chaos of economic activity is a natural order. There is an invisible hand that channels self-interested behaviour in such a way that the social good emerges.

The key to understanding Smith's invisible hand is the concept of competition. The action of each producer or merchant attempting to garner profit is restrained by the other producer or merchants who are likewise attempting to make money. Competition drives down the prices of goods and in so doing reduces the profit received by each seller. In situations in which there is initially only a single seller, extraordinary profit attracts new competitors who increase supply and erase the excessive profit.

In an analogous way, employers compete with one another for the best workers, workers compete with each other for the best jobs, and consumers compete with one another for the right to consume products. Stated in contemporary economics terms, the result is that resources get allocated to their highest valued uses; economic efficiency prevails.

Furthermore, because businesspersons save and invest – again out of their self-interest - capital accumulates and the economy grows. The pursuit of self-interest, restrained by competition, thus tends to produce Smith's social good – maximum output and economic growth. This harmony of interests implies that intrusion by government into the economy is unneeded and undesirable. According to Smith (1776), governments are wasteful, corrupt, and inefficient and the grantors of monopoly privileges to the detriment of the society as a whole.

Adam Smith (1776) extended his division of labour in the production process to a division of labour and specialised products across countries. Each country would specialise in products for which it was uniquely suited. More would be produced for less. Thus, if each country specialised in products for which it possessed absolute advantage, all countries could produce more in total and then exchange products for goods that were cheaper in price than those produced at home, and in the process maximise the nation's

income and therefore the per capita income. In practice, however, Smith saw various barriers set by governments that restricted the free flow of international trade. In a direct attack on mercantilism, Smith argued that government should not interfere in international trade. Nations, like individuals and private families, should specialise in producing goods for which they have an advantage and trade for goods that other nations have an advantage for. His famous passage reads as follows:

"It is the maxim of every prudent master of a family, never to attempt to make at home what it will cost him more to make than to buy. The tailor does not attempt to make his own shoes, but buys them of the shoemaker. The shoemaker does not attempt to make his own clothes, but employs a tailor. The farmer attempts to make neither the one nor the other, but employs those different artificers…"

"What is prudence in the conduct of every private family can scarce be folly in that of a great kingdom. If a foreign country can supply us with a commodity cheaper than we ourselves can make it, better buy it of them with some part of the produce of our own industry, employed in a way in which we have some advantage…"

"The natural advantages which one country has over another in producing particular commodities are sometimes so great, that it is acknowledged by all the world to be in vain to struggle with them. By means of glasses, hotbeds, and hotwalls, very good grapes can be raised in Scotland, and very good wine too can be made of them at about thirty times the expense for which at least equally good can be brought from foreign wines, merely to encourage the making of claret and burgundy in Scotland?" (Smith, 1776).

It has often been said that it was more than a coincidence that both the Declaration of Independence and The Wealth of Nations were given to the world in 1776 (Cho & Moon, 2002). One was a declaration of political freedom. The other was a declaration of commercial independence. The effect of the Wealth of Nations was revolutionary. Smith's thoughts on trade gave businessmen a significant place in history. Their pursuit of profit was justified. Their social respectability as an important class was identified. In

the same year of 1776, individuals attained political freedom in the United States and economic freedom in England.

2.2.2.2 David Ricardo

Although Smith was the founder of the Classical School and set its dominant tone, David Ricardo (1772 – 1823) was the leading figure in the further development of the ideas of the school. Ricardo (1817) demonstrated the possibilities of using abstract methods of reasoning to formulate economic theories. Smith (1776) advocated foreign trade without impediments in order to widen markets and remove surpluses; trade was based on differences in absolute costs.

Ricardo (1817) made a brilliant and lasting contribution to economic thought by showing that even if a country is more efficient than another in producing all commodities, trade between the two nevertheless can be of mutual benefit. His theory of comparative costs is now known as the "law of comparative advantage". One important implication of this theory is that even if a country did not have an absolute advantage in any good, this country and other countries would still benefit from international trade.

To explain this, Ricardo used an illustration (Ricardo, 1817). In trade between England and Portugal, if Portugal could produce cloth with the labour of 90 men and wine with the labour of 80 men, and England could produce the same quantity of cloth with 100 men and the wine with 120, it would be advantageous for these nations to exchange English cloth for Portuguese wine. By concentrating upon what each nation could do with the least effort, each had a greater comparative advantage. Thus, each nation had more wine and more cloth than it could have had by producing each commodity independently without the benefit of exchange.

In this example Portugal can benefit from trading with the less efficient England because Portugal's cost advantage is relatively greater in wine than in cloth. Portugal's production cost of wine is only two-thirds the cost in England, but its cost of cloth is

nine-tenths the cost in England. Portugal thus has greater efficiency in wine than in cloth, while England has less inefficiency in cloth than in wine. Each nation should produce the product for which it has a relative advantage - that is the product for which it has the lowest domestic opportunity cost.

Ricardo (1817) explicitly assumed in his theoretical proof of the gains from trade that capital and labour did not flow between countries. He implicitly assumed that cost remained constant as output increased. Otherwise, specialisation would not be carried on to its fullest extent. All costs were measured in terms of labour hours, an approach consistent with the labour theory of value.

The Ricardian model of international trade is thus a very useful tool for explaining the reasons why trade may happen and how trade increases the welfare of the trading partners. However, this model is incomplete. In particular, there are two major problems (Cho & Moon, 2002). Firstly, the simple Ricardian model predicts an extreme degree of specialisation, but in practice countries produce not one but many products, including import-competing products. Secondly, it explains trade based on differences in productivity levels between countries, but it does not explain why these differences exist.

The first problem can be solved when diminishing returns to scale (i.e. a convex production possibility frontier) is assumed, implying that, as resources are shifted from one sector to another sector, the opportunity cost of each additional unit of another sector increases. Such increasing costs may arise because factors of production vary in quality and in suitability for producing different commodities. Under these circumstances, the theory can predict that a country will specialise up to the point where gains from specialisation become equal to increasing costs of specialisation (Cho & Moon, 2002). The theory can then explain the reason why a country does not specialise its production completely. The second problem is solved by the theory of factor endowment that will be discussed later in this chapter.

Ricardo made several lasting contributions to economic analysis. Of particular significance were his contributions to the use of abstract reasoning, his theory of comparative advantage, his employment of marginal analysis, his presentation of the law of diminishing returns in agriculture, and his widening of the scope of economic analysis to include the distribution of income (Brue, 2000).

2.2.2.3 John Stuart Mill

Johan Stuart Mill (1806 – 1873) was the last great economist of the Classical School, undoubtedly the greatest since Ricardo's death in 1823. Mill (1848) made some significant original contributions, and he systematised and popularised the whole body of economic thought of his predecessors. The classical school was already in decline during Mill's mature years, and he departed from some of the key concepts built into the classical structure by Smith and Ricardo. Even before his death, neoclassical economics had appeared on the scene, ultimately to replace its classical forbearers. Mill's great "Principles of Political Economy", first published in 1848 and reprinted in the United States as late as 1920, was the leading textbook in the field - at least until the publication of Alfred Marshall's "Principles of Economics" in 1890 (Brue, 2000).

Mill (1848) endorsed Ricardo's advocacy of free international trade based on the law of comparative costs. However, Mill added to this a law of international values, one of his important original contributions to economic analysis. Ricardo's international trade theory failed to show how the gains from trade are divided among trading countries. Mill (1848) showed that the actual barter terms of trade depend not only on domestic costs but also on the pattern of demand. More specifically, the terms of international exchange depend on the strength and elasticity of demand for each product in the foreign country.

Although the intricacies of Mill's theory are complex, the general notion is relatively straightforward. He began by pointing out that the value of an imported good is the value of the commodity exported to pay for it. The things that a nation has available to sell abroad constitute the means for purchasing goods from other nations. Thus, the supply of

commodities made available for exports could be thought of as the demand for imports. Mill (1848) referred to this idea as "reciprocal demand".

Mill (1848) also noted that some activities would be profitable only if the government intervened to protect them through a period of "learning-by-doing". He argued that trade restrictions against current comparative advantage "*will sometimes be the least inconvenient mode in which the nation can tax itself for the support of such an experiment*" (Mills 1848: 922). It is clear, however, that there are often more cost-effective forms of support for "learning-by-doing", such as state-subsidised research and education.

In an autobiography published at the end of his life, John Stuart Mills (1873) argued that policies to restrict trade "against" comparative advantage generate transfers to a few specific beneficiaries at the expense of all other market participants. Potential beneficiaries tend to use up resources to solicit protection, and only relatively wealthy groups tend to succeed. Consequently, removing protection often helps the poor.

2.2.2.4 Concluding points about the Classical School

The Classical School contributed much to the understanding of how production and trade operate in the world economy. Although, like all economic theories, it is often criticised for being unrealistic or out-of-date, the purpose of a theory is clearly to simplify reality so that the basic elements of the logic can be seen. Several of these simplifications have continued to provide insight in understanding global business:

? Division of labour – Adam Smith's explanation of how industrial societies can increase output using the same labour-hours as in preindustrial society is fundamental to our thinking even today. Smith extended this specialisation of the efforts of a worker to the specialisation of a nation.

? Comparative advantage – David Ricardo's extension of Smith's work for the first time explained how countries that had seemingly no obvious reason to trade, could individually specialise in whichever production they performed best at, and trade it for the product they did not produce.

? Gains from trade – The theory of comparative advantage argued that nations could improve the welfare of their populations through international trade. A nation could actually achieve consumption levels beyond what it could produce by itself. To this day, this is one of the fundamental principles underlying the arguments for all countries to strive to expand and "free" world trade.

2.2.3 Neoclassical models

Perhaps the greatest contribution by the Neoclassical models is the identification of the sources of comparative advantage and specialisation, or the reasons why one industry can profitably expand while others cannot. Although the Ricardian model powerfully demonstrates the gains from trade, neoclassical thinkers wanted to look for additional explanations of why opportunity costs differ. Without such explanations for the rise and fall of major industries, it could be argued that the theory of "learning-by-doing" (i.e. experience) is the only real source of comparative advantage. It therefore implies that only trade restrictions can "create" comparative advantage by providing a "kick-start" to industries. Neoclassical models counter this argument and quantify contributors to an industry's comparative advantage (Masters, 1995).

2.2.3.1 Heckscher-Ohlin model

Trade theory, like all economic theory, changed drastically during the first half of the twentieth century. The factor proportions theory developed by the Swedish economist Eli Hecksher (1919), and later expanded by his former graduate student Bertil Ohlin (1933) formed the major theory of international trade that is still widely accepted today. Whilst Smith and Ricardo emphasised a labour theory of value (the amount of labour

involved in manufacturing a product gives it its value), the factor proportions theory (or the Heckscher-Ohlin theory) is based on a more modern concept of production that raises capital to the same level of importance as labour.

According to the "Heckscher-Ohlin" (HO) model, there are two basic characteristics of countries and products. Countries differ from each other according to the factors of production they possess. Goods differ from each other according to the factors that are required in their production. The HO model states that a country will have comparative advantage in, and will therefore export, the good that's production is relatively intensive in the factor with which that country is relatively well endowed with. The logic follows that the more abundant the factor, the lower the cost. Therefore, differences in the factor endowments of various countries explain the differences in factor costs, which result in different comparative advantages. For example, a wealthy country with relatively more capital would tend to specialise in capital-intensive goods, importing more labour-intensive goods from poor countries.

For many years such "Hecksher-Ohlin" models were limited to two domestic resources (capital and labour) and two traded goods. The HO model assumes that technology is identical, but that production methods are different between countries. Different production methods indicate different combinations of capital and labour. That is, different countries may choose different production methods depending upon factor prices in those countries. Therefore, patterns of production and trade are explained by different factor endowments or factor prices.

The HO model has been expanded by three important theorems, which will be discussed later: the Stolper-Samuelson theorem, the factor price equalisation theorem and the Rybczynski theorem.

The HO model is referred to as the neoclassical theory of international trade because it builds upon and complements the classical theory of comparative advantage. The HO model contains several appealing elements. It is simple, logical, makes common sense,

and appears to be virtually self-evident. However, an empirical test produced a paradoxical result.

2.2.3.1.1 The Leontief Paradox

The famous empirical study of the HO model was conducted by Leontief (1953), who was awarded the Nobel Prize in 1973. Leontief expected that the United States, the most capital-abundant country in the world, should export capital-intensive goods and import labour-intensive goods, but found that the United States import-competing goods required 30% more capital per worker than its export goods. According to his calculations, the capital-labour ratio was about US$14 000 per worker per year in export goods and about US$18 100 per worker per year in import-competing goods. This finding proves the opposite of what the HO model predicted. It has become known as the Leontief Paradox.

Many economists, including Leontief, have attempted to explain this Paradox. Leontief tried to explain the Paradox by the difference in labour skills. Jaroslav Vanek (1968) allowed the effects of additional resources such as natural resources to be incorporated in the model e.g. "Hecksher-Ohlin-Vanek" model. These two and several other explanations that have been attempted failed, however, to satisfactorily reconcile the Leontief Paradox.

2.2.3.2 The Stolper-Samuelson theorem

This theorem is named after Wolfgang Stolper and Paul Samuelson, who co-authored the 1941 paper in which the theorem was explained. In its most general form, the theorem states that a change in the price of a good changes, in the same direction and more than proportionally, the price of the factor used intensively in the good's production. By adding the assumption of the HO model (which implies that a country has a comparative advantage in the good that uses the abundant factor intensively), the Stolper-Samuelson

theorem means that opening trade raises the real reward to the abundant factor and lowers the real reward of the scarce factor (Yarbrough & Yarbrough, 2000).

The reason behind this is that trade boosts production of the good that has a comparative advantage and it increases the opportunity cost and the relative price of the good in question. The HO model defines comparative advantage in terms of intensive use of the abundant factor; whilst trade raises the price of the good that uses the abundant factor intensively - thereby raising the price of the abundant factor.

The Stolper-Samuelson theorem clarifies one reason for the controversial nature of trade policy. The opening up of trade leads to output price changes that alter real factor rewards, thus creating incentives for owners of the abundant input to support unrestricted trade and for owners of the scarce input to resist moves towards unrestricted trade. It is important to remember that the country as a whole is potentially better off by trade; that is, the winners from trade (owners of the abundant factor) gain enough from open trade to allow them to compensate the loser (owners of the scarce factor) and still be better off. However, such compensation, although theoretically possible, rarely occurs. Therefore, the Stolper-Samuelson theorem clearly pinpoints the existence of at least one constituency for protectionist policies or restrictions on trade.

The Stolper-Samuelson theorem highlights the relationship between output prices and factor prices within a single country. The next result to emerge from the basic trade model deals with the relationship between relative factor prices in the two countries.

2.2.3.3 The Factor Price Equalisation theorem

It is easy to see that trade tends to equalise the price of each good traded across countries. Autarky output prices converge to the international terms of trade. But what about factor prices in various countries? The Factor Price Equalisation theorem which Paul Samuelson first demonstrated in 1948 states that trade raises the real reward of a factor in the country where that factor is abundant and lowers its price in the country where it is

scarce. Thus, even when factors are immobile between the two countries, unrestricted trade on goods tends to equalise the price of each factor across countries (Leamer, 1984).

However, strong conditions are needed for factor price equalisation to occur. These conditions include zero transportation costs, no trade barriers and identical technology. One interesting implication of factor price equalisation is that foreign investment may not be necessary if there is free trade. Foreign investment can be understood as an international transfer of production factors such as technology, capital and labour (Cho & Moon, 2002). This is a viable strategy only when the prices of these factors are not equal between countries. With factor price equalisation, there is no need to invest abroad. In the real world, however, there are many obstacles or market imperfections that stand in the way of complete equalisation of factor prices.

The Factor Price Equalisation theorem is still useful and some important implications can be derived from it. For example, the manner in which trade liberalisation affects income gaps between countries. The theorem predicts that income gaps will be reduced by lowering trade barriers. Two important conclusions can be derived from this: Firstly, with the formation of a trading bloc, the country of low income will benefit more than the country of high income. Secondly, a lesser developed country should actively pursue an open door policy to increase its income levels.

2.2.3.4 Rybczynski theorem

The Rybczynski theorem, developed by T.M. Rybczynski and published in 1955 in the November issue of the Economica, states that at constant commodity prices an increase in the supply of a factor will lead to an increase in the output of the commodity that uses that factor intensively and a reduction in the output of the other commodity (Leamer, 1984).

Suppose a country's capital stock increases by 10 percent and its labour force remains unchanged. As the capital stock increases, the output of the capital-intensive good

expands with the utilisation of the extra supply of capital. In contrast, the output of the labour-intensive goods decreases because labour is leaving the sector. As the capital stock increases, the production possibility frontier bulges out in the direction of the capital-intensive good so that the country's production should be larger than before. Since the output of the labour-intensive good decreases absolutely, the output of the capital-intensive good should increase by more than 10 percent.

This theorem is useful in explaining the pattern of economic development of Japan and Korea (Cho & Moon, 2002). These countries have had high savings and investment, and produced more capital-intensive goods. Labour-intensive sectors have actually shrunk in these countries because the labour force has been released into the booming capital-intensive sectors. Therefore, an important implication of this theorem is that a country can change its relative factor endowments by changing its investment patterns, while factor endowments are fixed in the world of the classical theories of Smith and Ricardo.

2.2.3.5 Salter-Swan theorem

Exchange rates became an essential determinant of comparative advantage with the work of Salter (1959), Swan (1960), and other Australian economists. Perhaps because of their remote geographical location, their "Salter-Swan" or "Australian" models emphasise the fact that not all goods, which are consumed domestically, can be traded internationally. Goods with high transport costs relative to their value will be "none traded", so their prices will not be influenced by imports and exports. In this case, for a given level of domestic prices and inflation, a higher ("devalued") currency exchange rate leads to more goods being exported while fewer are imported.

2.2.3.6 Concluding remarks about the Neoclassical models

From Ricardo to Salter-Swan, these Classical and Neoclassical models are all fundamentally compatible and all yield the same conclusions as to the central determinants of comparative advantage. They suggest that the pattern of national

comparative advantage can best be measured by comparing production costs with product value, where non traded goods and national resources are valued at domestic opportunity costs while tradable goods are valued at opportunity costs in trade.

Economists have developed alternative theories of international trade because the neoclassical models do not work well in the real world. The alternative theories led to somewhat different measurement techniques. Recognising the increasing diversity of international trade, the new theories are useful in explaining some special cases of international trade. Next, the essential challenges to neoclassical comparative advantage theory will be described.

2.2.4 Challenges to the Comparative Advantage theory

2.2.4.1 The Linder theory of overlapping demand

Another Swedish economist, Stefan Linder (1961), recognised that although the supply-oriented Heckscher-Ohlin theory, which depended on factor endowments, was adequate to explain international trade in primary products, another explanation was needed for trade in manufactured goods. Linder's (1961) demand-oriented theory stated that customers' tastes are strongly affected by income levels and therefore a nation's income per capita level determines the kinds of goods they will demand. Because industry will produce goods to meet this demand, the kinds of products manufactured reflect the country's income per capita level. Goods produced for domestic consumption will eventually be exported (Hitt, Ireland & Hoskisson, 2001).

The Linder theory deduces that international trade in manufactured goods will be greater between nations with similar levels of per capita income than between those with dissimilar per capita income levels. The goods that will be traded are those for which there is an overlapping demand (consumers in both countries are demanding the same good). Note that the Linder model differs from the model of comparative advantage in that it does not specify in which direction a given good will flow. In fact, Linder

specified that a good may go in either direction. Thus intra-industry trade occurs because of product differentiation.

2.2.4.2 Technology-based theory of trade: The Product Cycle

A very different path was taken by Raymond Vernon in 1966 with what is now termed "the Product Cycle theory". Diverging significantly from traditional approaches, Vernon (1966) focused on the product, and not its factor proportions. Most striking, however, was the appreciation of the role of information and knowledge, as well as for the cost and power that go hand-in-hand with knowledge.

The Product Cycle hypothesis begins with the assumption that the stimulus to innovation is typically provided by some threat or promise in the market. In other words, firms tend to be stimulated by the needs and opportunities of the market closest at hand, the home market. The home market plays a dual role in this hypothesis. Not only is it the source of stimulus for the innovation; it is also the preferred location for production.

Using many of the same basic tools and assumptions of factor proportions theory, Vernon (1966) added two technology-based premises to the factor-cost emphasis of existing theory:

? Technical innovations leading to new and profitable products require large quantities of capital and highly skilled labour. These factors of production are predominantly available in highly industrialised capital-intensive countries.

? Both the product itself and more importantly the methods for its manufacturing, go through three stages of maturation – the new product stage, the maturing product stage and the standardised product stage – as the product becomes increasingly commercialised. As the manufacturing process becomes more standardised and low-skill labour-intensive, the comparative advantage in its production and export shifts across countries.

Although interesting in its own right for increasing the emphasis on the impact of technology on production costs, the most important contribution by the product cycle theory was to explain why international investment takes place. Not only did the theory recognise the mobility of capital across countries, it also shifted the focus away from the country to the product. In order to examine competitiveness, this theory proved it essential to match the product by its maturity stage with its production location (Hough & Neuland, 2000).

2.2.4.3 Economies of scale and the experience curve

In the 1920's, economists began to consider the fact that most industries benefit from economies of scale; that is, as a plant gets larger and output increases, the unit cost of production decreases. This is because larger and more efficient equipment can be employed, companies can obtain volume discounts on their larger volume purchases, and fixed costs such as those of research and design and administrative overheads can be allocated over a larger quantity of output. Production costs also drop because of the learning curve. As firms produce more products, they learn ways to improve production efficiency causing production costs to decline by a predictable amount (Cho & Moon, 2002).

Economies of scale and the experience curve affect international trade because they permit a nation's industries to become low-cost producers without having an abundance of a certain class of production factors. Then, just as in the case of comparative advantage, nations specialise in the production of a few products and trade with others to supply the rest of their needs.

The basic HO model assumes constant returns of scale. Thus, if input were doubled, output would be doubled. In many industries, however, there exist economies of scale (or increasing returns). Thus, if input were doubled, output would become more than doubled. The existence of economies of scale explains some trade patterns that cannot be explained by the HO model. If economies of scale exist, countries (or firms) could

benefit from specialisation in the production of a limited range of goods. The specification of a market structure consistent with economies of scale internal to firms, delayed for many years the formal modelling of trade based on increasing returns of scale. The breakthrough came in the late 1970s, when Krugman (1979) and Lancaster (1979) independently developed models of trade in differentiated products.

Suppose there are two countries and two types of cars (large cars and small cars). Also suppose that there is a demand for both cars in each of the two countries. If there were economies of scale, it would be advantageous for each country to specialise in the production of only one type of car rather than both types. If there is free trade between the two countries, consumers in each country can buy both cars. Economies of scale and international trade make it possible for each country to produce goods more efficiently without sacrificing the variety of goods (Yarbrough & Yarbrough, 2000).

There are basically two types of trade: inter-industry trade (reflects comparative advantage) and intra-industry trade (trade in which a single country both imports and exports products in the same industry) (Krugman & Obstfeld, 1991). Countries that are relatively similar and therefore have few comparative differences may not engage in inter-industry trade. As an extreme example, suppose that two countries have identical factor endowments. The HO model would then predict no trade. If there were economies of scale, however, there would be benefits of trade from specialisation by each country. Therefore, trade between countries with dissimilar factor endowments is largely inter-industry, but trade between countries with similar factor endowments is largely intra-industry. Intra-industry trade comprises a significant share of world trade, particular in manufactures and it increases over time. (Balassa, 1967; Yarbrough & Yarbrough, 2000). The intra-industry trade model, based on economies of scale, is useful in explaining the trade of manufactured goods among developed countries.

There are two problems with the model. Firstly, the empirical measures of intra-industry trade are overstated because the aggregation is too broad. Much of the apparent trade would disappear if goods were further desegregated. Secondly, the model does not

explain which country produces which goods, so the pattern of intra-industry trade is unpredictable (Cho & Moon, 2002).

2.2.5 Conclusion on traditional trade theories

The traditional trade theories have been discussed. None of these theories has discontinued existing. They remain useful in understanding many of today's industrial and trade policies. For example, the theory of comparative advantage is a basic guideline for many countries when they consider trade policies. Even mercantilism, a popular theory before Adam Smith, is important for some countries. However, no single theory is satisfactory in explaining today's international trade and competitiveness because today's world is much more complicated than before.

The primary goal of theory is to recognise the most important variables in order to simplify the phenomena and to make it easier to understand the world. For example, the theory of comparative advantage treats only one variable, i.e. factor endowments, but not other important variables such as demand conditions. It was effective at the time this theory was introduced because the world was not so complicated. Today's global economy is different, as explained in Chapter one. Several important variables have to be considered simultaneously in the trade or competitiveness formula. One recent, important development that addresses this issue is Michael Porter's (1990, 1998) "diamond model", which will be discussed next.

2.2.6 Competitiveness theories

2.2.6.1 Porter's Competitive Advantage of Nations

Competitive advantage analysis, as practiced by Michael Porter (1990), an economics professor at Harvard University, consists of examining case studies of successful industries to identify why they are located in particular countries: "*we need a new perspective and new tools – an approach to competitiveness that grows directly out of an*

analysis of internationally successful industries, without regard to traditional ideology or current intellectual fashion. We need to know, very simple, what works and why." Porter (1990) studied 100 firms in ten developed nations to learn if a nation's prominence in an industry can be explained more adequately by variables other than the factors of production on which the theories of comparative advantage and Heckscher-Ohlin are based.

The product of a four-year study of the patterns of competitive success in ten leading trading nations, which contradict the conventional wisdom that guides the thinking of many companies and national governments today, will be discussed now.

According to Porter (1990, 1998) national prosperity is created, not inherited. It does not grow from a country's natural endowments - its labour pool, its interest rates, or its currency's value - as classical economics insists. A nation's competitiveness depends upon the capacity of its industry to innovate and upgrade. Companies gain advantage against the world's best competitors because of pressure and challenge. He argued that countries benefit from having strong domestic rivals, aggressive home-based suppliers and demanding local customers.

"In a world of increasingly global competition, nations have become more, not less important. As the basis of competition has shifted more and more to the creation and assimilation of knowledge, the role of the nation has grown. Competitive advantage is created and sustained through a highly localized process. Differences in national values, culture, economic structures, institutions and histories all contribute to competitive success. There are striking differences in the patterns of competitiveness in every or even most industries. Ultimately, nations succeed in particular industries because their home environment is the most forward-looking, dynamic and challenging" (Porter, 1990).

Porter (1990) criticised the traditional doctrine, that it is at best incomplete and at worst incorrect. Around the world, companies that have achieved international leadership,

employ strategies that differ from each other in every respect. While every successful company will employ its own particular strategy, the underlying mode of operation – the character and trajectory of all successful companies – is fundamentally the same.

Companies achieve competitive advantage through acts of innovation. They approach innovation in its broadest sense, including both new technologies and new ways of doing things. They perceive a new basis for competing or find better means for competing in old ways. Innovation can be manifested in a new product design, a new production process, a new marketing approach, or a new way of conducting training (Porter, 1990).

Why are certain companies, based in certain nations, capable of consistent innovation? Why do they ruthlessly pursue improvements, seeking an evermore sophisticated source of competitive advantage? Why are they able to overcome the substantial barriers to change and innovation that so often accompany success?

According to Porter (1990:71-128) the answer lies in four broad attributes of a nation, attributes that individually and as a system constitute the diamond of national advantage, the playing field that each nation establishes and operates for its industries. These attributes are – see Figure 2.2:

- **Factor conditions.** The nation's position in factors of production, such as skilled labour or infrastructure, necessary to compete in a given industry.

- **Demand conditions.** The nature of home-market demand for the industry's products or service.

- **Relating and supporting industries.** The presence or absence in the nation of supplier industries and other related industries that are internationally competitive.

? **Firm strategy, structure and rivalry.** The conditions in the nation governing how companies are created, organised and managed, as well as the nature of domestic rivalry.

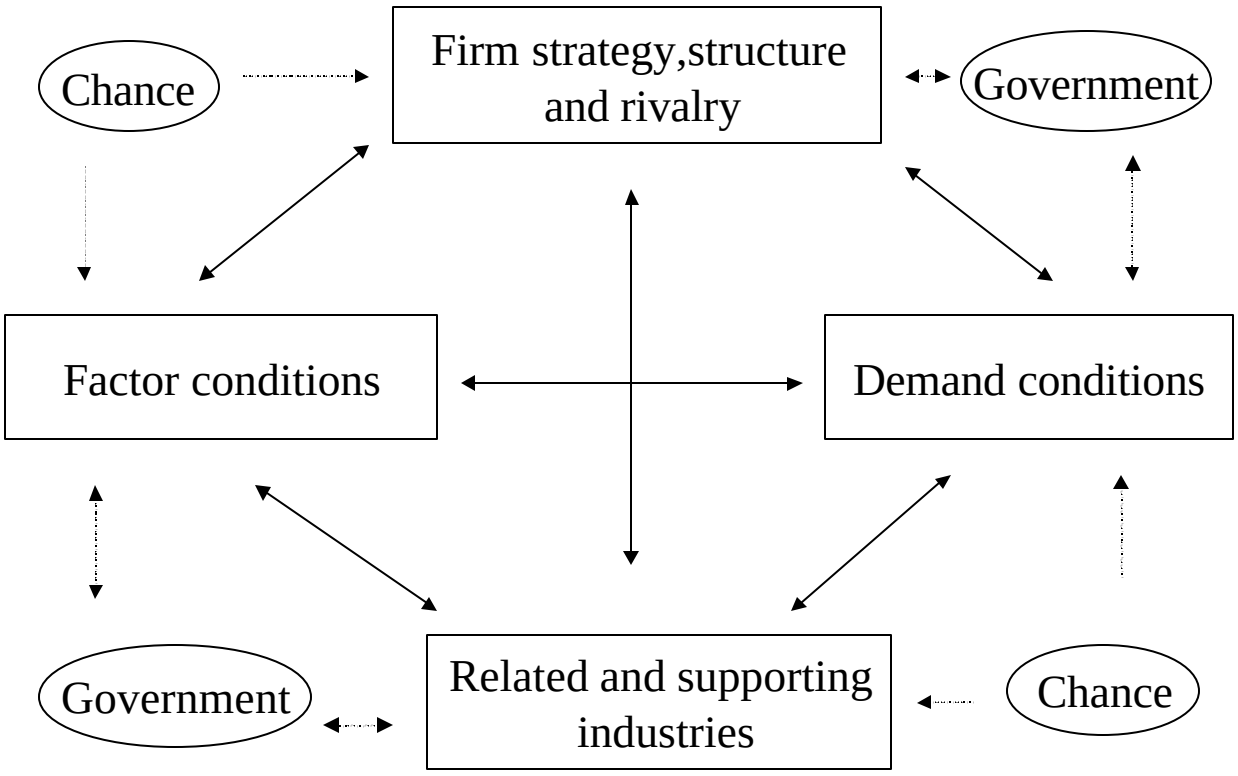

Figure 2.2: Porter's diamond

Source: Porter, 1990

According to Porter (1990), these determinants create the national environment in which companies are born and learn how to compete. Each point on the diamond – and the diamond as a system – affects essential ingredients for achieving international competitive success. The availability of resources and skills necessary for competitive advantage in an industry; the information that shapes the opportunities that companies perceive and the directions in which they deploy their resources and skills; the goals of

the owners, managers and individuals in companies; and most important, the pressure on companies to invest and innovate.

Porter (1990: 124 – 128) also includes two outside variables to the model, namely the role of chance and the role of government. Chance events are occurrences that have little to do with circumstances in a nation and are often outside the power of firms (and often the national government) to influence. Examples include new inventions, major new technologies such as biotechnology, and discontinuities in input costs such as the energy crisis, financial market shifts, foreign government decisions and wars. Such events can nullify sources of competitive advantage and create new ones. The ability of an industry to respond will depend upon the status of other parts of the competitive diamond. The latter also affects the environment for invention and entrepreneurship and hence where they will occur.

The role of government is best view in terms of its influence on the four determinants of competitiveness rather than as a separate determinant. Porter explicitly rejects trade intervention, which he writes, just "guarantees a market for inefficient companies" (Porter, 1990). Porter further argued that government's proper role is as a catalyst and challenger; to encourage – or even push – companies to raise their aspirations and move to higher levels of competitive performance, even though this process may be inherently unpleasant and difficult. Government cannot create competitive industries, only companies can do that. Government plays a role that is inherently partial, this succeeds only when it works in tandem with favourable underlying conditions in the diamond. Still, government's role of transmitting and amplifying the forces of the diamond is a powerful one. Government policies that succeed are those that create an environment in which companies can gain competitive advantage rather than those that involve government directly in the process. It is an indirect, rather than a direct, role.

Porter's new model on competitiveness was not without criticism (Ryan, 1990; Rugman, 1991; Rugman & D' Cruz, 1993; Moon, Rugman & Verbeke, 1995). In particular, Porter's treatment of multinational activities and government is not convincing. In the

next section, extensions to the Porter model will be discussed. With respect to this study, the Porter framework will largely be adopted to analyse the competitiveness of the agribusiness sector operating in South Africa.

2.2.6.2 Extension to the Porter Diamond Model

2.2.6.2.1 Double Diamond framework

The Double Diamond framework, developed by Rugman and D' Cruz (1993) suggest that managers build upon both domestic and foreign diamonds to become globally competitive in terms of survival, profitability and growth.

Rugman and D' Cruz (1993) believed that in a world of liberalised trade, Porter's definition of "home market", and hence the size and shape of the "diamond", needed to be modified. In particular, they argued that the Canada-USA Trade Agreement meant that the Canadian diamond is really a Canada-USA diamond. The reason is that Canadian manufacturers, for example, can and must respond to USA buyer needs and have ready access to USA supplier firms. Rugman and D' Cruz (1993) also disagree with Porter's treatment of multinational firms, citing the major contribution that such firms make to the Canadian economy, even though the firms may not consider Canada their "home base".

Porter and Amstrong (1993) responded to Rugman and D' Cruz's criticism by saying that they have a lack of understanding of the diamond model. Porter and Amstrong (1993) said they fail to distinguish between the geographic scope of competition and the geographic locus of competitive advantage, as reflected in the diamond. Competition in the automobile industry is global, but that does not mean there is a 'world diamond' for automobile manufacturing and that firms based in all nations are equally positioned. For example, Japanese-based firms, with their striking competitiveness, have been fuelled by a strong local diamond in which rivalry was intense, customers demanding and related and supporting industries well developed (Porter & Amstrong, 1993).

2.2.6.2.2 The Generalised Double Diamond model

Although Rugman and D' Cruz (1993) Double Diamond framework fits well for Canada, it does not apply well to other small nations such as Korea and Singapore. Moon, Rugman and Verbeke (1995) adapted the Double Diamond framework to a Generalised Double Diamond, which works well for analysing all small economies.

Firms from small countries, such as Korea and Singapore, target resources and markets not just in a domestic context, but also in a global context. Therefore, a nation's competitiveness depends partly upon the domestic diamond and partly upon the "international" diamond relevant to its firms. The difference between the international diamond and the domestic diamond represents international or multinational activities. The multinational activities include both outbound and inbound foreign direct investment.

In the Generalised Double Diamond model, national competitiveness is defined as the capability of firms engaged in value added activities in a specific industry in a particular country to sustain this value added over long periods of time in spite of international competition.

Theoretically, three methodological differences between Porter and this new model are important. Firstly, sustainable value added in a specific country may result from both domestic and foreign owned firms. Porter, however, does not incorporate foreign activities into his model as he makes a distinction between geographic scope of competition and the geographic locus of competitive advantage (Porter & Amstrong, 1992). Secondly, sustainability may require a geographic configuration spanning many countries, whereby firm specific and locational advantages present in several nations may complement each other. In contrast, Porter (1990) argues that the most effective global strategy is to concentrate as many activities as possible in one country and to serve the world from this home base. Thirdly, the new model includes government, not as an

exogenous parameter, but as an important variable which influences the four determinants of the diamond model.

2.2.6.2.3 The Nine Factor model

Cho (1994) also argues that Porter's original model is limited in its application to developing countries such as Korea. Cho (1994) modified Porter's diamond model to take into account the Korean experience. He divided sources of international competitiveness into two broad categories: "physical" factors and "human" factors. By "physical" factors, Cho (1994) referred to endowed resources, the business environment, related and supporting industries and domestic demand, which combined determine the level of international competitiveness of a given nation at a given time.

Human factors include workers, politicians and bureaucrats, entrepreneurs and professional managers and engineers. By creating, motivating and controlling the four physical elements, these human factors drive the national economy from one stage of international competitiveness to the next.

An external factor of pure chance is added to these eight internal factors to make the new paradigm a nine-factor model. The relative importance of each of the eight physical and human factors changes as the national economy moves from a less developed stage to a development stage, to a semi-developed stage and finally to a fully developed stage.

The difference between the nine-factor model and Porter's diamond model are in the division of factors, and in the addition of new factors (see Figure 2.3). The diamond model includes both natural resources and labour in factor conditions, but the nine-factor model places natural resources under endowed resources, while labour is included within the category of workers. Human factors mobilise the physical factors with the aim of obtaining international competitiveness.

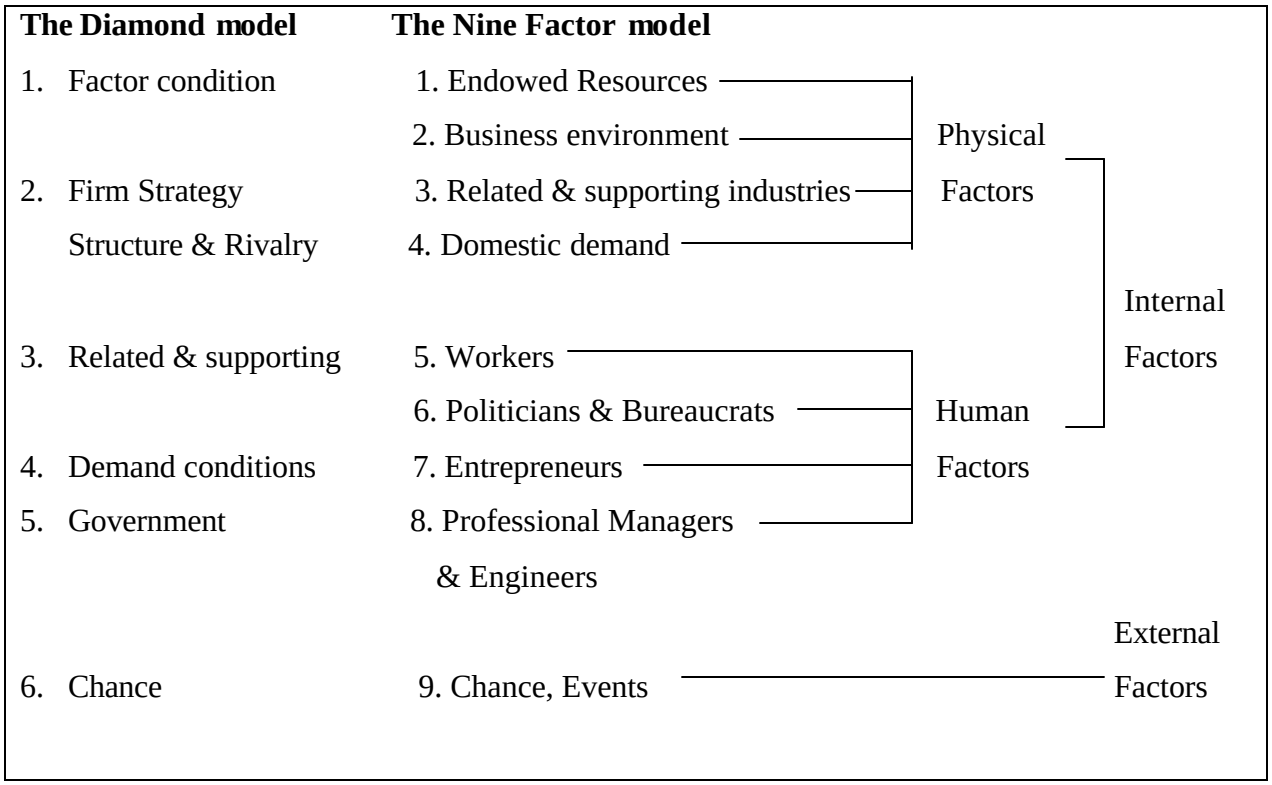

Figure 2.3: Comparison of the Diamond and the Nine-Factor models

Source: Cho & Moon, 2002

2.3 DEFINING COMPETITIVENESS

The volume of literature on competitiveness is growing in economics and business studies but there is little agreement on what the term means. However, there has been no shortage in definitions for competitiveness and why some nations, industries and sectors are competitive and others not. Expressing his frustration with the term "competitiveness", the American Secretary of Labour, Robert Reich, has remarked that "rarely has a term in public discourse gone so directly from obscurity to meaninglessness without an intervening period of coherence" (Wall Street Journal, 1992). This lack of coherence regarding the definition and measurement of competitiveness makes it difficult to compare research results as they accumulate around the world.

Freebairn (1986) defined competitiveness as an indicator of the ability to supply goods and services in the location and form and at the time they are sought by buyers, at prices

that are as good as or better than those of other potential suppliers, while earning at least the opportunity cost of returns on resources employed. This definition was also used in a study by the Institute of Mathematical and Economic Sciences Applied (ISMEA) in analysing the challenges of global competition on the European Agro-Food system (ISMEA, 1999). Two types of competition are included in this definition. Firstly, the competition on domestic and international product markets and thus the ability to gain and maintain market shares, and secondly, the competition in factor markets, where those factors employed in producing the goods have to earn at least the opportunity costs.

Sharples (1990) argued that comparative advantage is theoretical, explaining trade and optimal welfare in an undistorted world. Competitiveness, on the other hand, relates to the observable reality, he argued. If firms and industries cannot survive by selling at the going price, they are not competitive. If they are able to survive and increase market share, they have become more competitive. Note, however, that an increase in competitiveness of an industry, possibly the result of government support, does not necessarily imply an increase in national welfare.

Petit and Gnaegy (1994) stated that competitiveness is the ability to produce and provide goods and services to international markets, while ensuring rising levels of real income as well as investment. The Agri-food Policy Directorate of Agriculture Canada (1993:v-vi) describe the concept of international competitiveness as follows: As applied at the product, firm, industry or sector level, there are basically two common approaches to defining competitiveness. One is in terms of its results, especially the ability to profitably gain and maintain market share. The second is to define it in terms of its attributes, that is, the ability to profitably provide buyers with a product-price combination that is at least as attractive as that offered by other suppliers. More specifically, the definitions are:

"The sustained ability to profitably gain and maintain market share in domestic and/or export markets" - Agri-food Policy Directorate of Agriculture Canada (1993)

The American definition of competitiveness that was developed by the President's Commission on Industrial Competitiveness (1985) is stated as the degree to which a nation can, under free and fair market conditions, produce goods and services that meet the tests of international markets while simultaneously expanding the real incomes of its citizens.

South Africa's previous minister of Trade and Industry, Mr. Alex Erwin (1999) argued the following important notions about competitiveness:

? It is firms or industries that are competitive – government can only create the enabling environment.

? Competitiveness is the ability to sustain a firm/industry's economic performance in the long run.

? Competitiveness is the ability of firms/industries to perform in international markets i.e. global economy.

Worley (1996) explains the difference between comparative advantage and competitive advantage as follows: Comparative advantage explains how trade could potentially benefit nations through more efficient use of the resource base (land, labour, and capital input) when trade is totally unrestricted. Competitive advantage, on the other hand, explains existing trading patterns as they occur in the real world, including all distortions and barriers to free trade i.e. policy effects, price effects, product quality differences and industry marketing skills - which are ignored by comparative advantage (Worley, 1996). Competitive advantage therefore reflects real business opportunities within current policy and price distortions.

Cho (1994) argued that there is a widespread misconception about competitiveness, caused by dividing international competitiveness into two categories, namely: price competitiveness, such as nominal wages, exchange rates and labour productivity; and

non-price competitiveness, such as quality, marketing, service and market differentiation. In order to gauge price competitiveness, export price, production cost and consumer or wholesale price indices are used. Rising prices are seen as weakening a nation's international competitiveness. In reality there are cases in which nations with strong international competitiveness can and do raise the price of their products. Quality status, durability, designs and consumer satisfaction are used to evaluate non-price competitiveness, but there are no empirical studies to prove their influence. Price and non-price factors are not the causes but the results of a nation's international competitiveness (Cho, 1994).

Cho (1994) then defined international competitiveness of a national industry by its having a superior market position through high profits and constant growth when compared to competitors. A country cannot possess international competitiveness simply because it has one or two successful industries. A nation needs to have a multitude of industries with strong competitiveness. A nation needs the sources of competitiveness, which can then be applied to a number of industries. A nation, therefore, is internationally competitive when it has many industries with competitive advantage based on common sources of competitiveness.

The Oxford English Dictionary (Oxford, 2002) defines competitiveness as derivatives of "competitive" which means the following:

- having to do with competition
- strongly wanting to be more successful than others
- as good as or better than others of a similar nature

Competition is defined as:

- the activity of competing against others
- an event or contest in which people compete
- the person or people with whom one is competing

Compete, competes, competing, competed means to try to gain or win something by defeating others. The origin for compete is from the Latin word *competere,* which means, "to strive together".

A competitor is:

- A person who takes part in a sporting contest
- An organisation competing with others in business.

From these definitions it is clear that when you compete you can either win or lose. To win is to be successful, victorious or to gain in a contest or conflict. To lose means to fail to win a game or contest.

Let us consider the psychology of competition. When do we compete? We compete at any time when we are involved with another person or business and we are not in cooperation with that person or business. Psychiatrist Karen Horney (1990), stated that there are three ways of dealing with others: moving toward them, moving against them (aggression), and moving away from them (withdrawal). From our perspective, there are only two options for involvement: cooperation, in correspondence with Horney's "moving toward", and competitive, in correspondence with her "moving against" and "moving away".

"Moving against" can be simply defined as competing, but the question is how "moving away" qualifies as being competitive. It is simply passive competition. The person moving away refuses to give, thereby robing you of the benefits of his or her contribution. Whoever is not cooperating with you is therefore competing against you.

Cooperation implies relating as equals. This can be called the "horizontal" dimension - two people coming together on a horizontal level. Competition, by definition, is a vertical orientation. It implies vertical thinking: who is above, who is below, how do I

rate in relation to others? True equality and competitiveness do not coexist! (Olson, 1990).

Why do we compete? People and companies will often behave in accordance with the manner in which the system is set up. If it is competitive, they will compete. If the system rewards cooperation, cooperative behaviour is more likely to occur, provided people can move beyond the imperatives of their culturally ingrained competitiveness (Olson, 1990).

Today, nations and companies compete because world markets are open. The aftermath of the Great Depression had persuaded nations to start lowering their trade barriers. Many scholars and J.M. Keynes in particular, have shown that an economic slowdown in 1929 developed into a worldwide depression in the 1930's because nations adopted protectionist policies. In order to prevent such a situation occurring again, liberalized trade was argued. Currently, tariffs on non-agricultural goods are less than 4% among members of the World Trade Organization (WTO). In addition, the OECD, since its creation, has fostered the development of the free movement of capital, goods and services worldwide (IMD, 2005).

When contests exist as part of everyday life, it is nearly impossible to avoid thinking in win-lose terms. Competing comes naturally. Creating win-win situations is much more difficult.

On a deeper level, competition is rooted within our personal insecurity, which manifests itself in a desperate desire to prove our own worth and capabilities as much to ourselves as to others. We have the mistaken notion that, through competing, we might earn love and approval. This rarely occurs on any permanent basis, instead, and more often a winner faces envy from his or her opponents. Winning is transitory - it's always up for grabs. This is the insidiousness of competition. Once you are "inside the system", it is very difficult to break free.

The various social theories regarding competition all boil down to one practical definition: Competition is to vie with an opponent whom you are trying to beat, or to compete against an external or internal standard in order to achieve a particular goal.

When opponents are involved, the implication is that the goal cannot be shared equally amongst all contestants. Therefore, the closer your opponents get to the goal, the worse your chances become of achieving it. This aspect is critical. If you are both competing for a goal that cannot be shared, your opponent's behaviour is linked to yours in a negative way. Your changes of achieving the goal are out of your direct control, because they depend not only upon what you do, but also upon what your opponent does.

Consequently, there are two ways of improving your chances of winning: Improve your performance or advantage (honestly or by cheating) or undercut or impede your opponent's progress. Either one or both these methods can be used. Theoretically, in a competition in which your chances of success are directly related to your opponent's actions, either of the two options will work equally well. Unfortunately, it is usually easier to "trip" your opponent than to be consistently excellent.

The more scarce or limited the goal, the stiffer the competition usually becomes. In a limited competition the prize is limited to either one or merely a few. For example, at the Rugby World Cup, there can only be one winner. This situation can be compared to an unlimited contest where anyone who meets a certain criterion "wins" the prize.

What then is the value of competition? Competition is a powerful tool and an essential dimension of economic life among firms and countries. Competing for the efficient exploitation of natural resources and the generation of new means to satisfy individual and collective needs at lower costs and higher quality has contributed greatly to the improvement of both material and non-material levels of well-being. Competition has stimulated new levels of human aspiration and made great achievements possible by being one of the driving forces behind technological innovation and productivity growth (The Group of Lisbon, 1995).

Beyond the economic sphere, competition is also one of the fundamental sources of mobilisation and creativity in the political arena, the artistic culture sphere, as well as in the world of sports. Democracy – one of the greatest social achievements in the history of humankind - is based on both political competition (between groups and parties) and co-operation.

Returning to the economics of competitiveness, however, Krugman (1994) warns against a dangerous obsession with competitiveness. He argues that competitiveness is a meaningless word when applied to national economics and that the obsession with competitiveness is both wrong and dangerous. If national competitiveness is interpreted in very broad terms (say, as the ability to produce income or productivity growth), it can be simply considered as part of a development or growth strategy - there is no need to consider it separately. A narrower, more tractable definition is to consider the country's ability to compete in trade (particularly exports). Lall (2001) warns that while this is the way in which most governments understand competitiveness, it must be handled carefully. For instance, an increase in the export of unprocessed resources may not necessarily count as enhanced competitiveness; in fact, it often leads to the contrary. Similarly, improved short-term performance in manufactured exports based on the exploitation of a static advantage such as cheap, unskilled labour, may not be regarded as 'real' improvement in competitiveness.

Competitiveness is intuitively a relative concept (Pitts & Lagnevik, 1997). Competitiveness is concerned with performance *vis-à-vis* that of a competitor, whether it be a firm or an economy. Nowadays, with the dramatic changes in markets, it is important to emphasise that competitiveness is also a dynamic concept, concerned with maintaining or gaining market share into the future (Pitts & Lagnevik, 1997).

Porter argues (2002:30) that competitiveness remains a concept that is not well understood, despite the widespread acceptance of its importance. The most intuitive definition of competitiveness is a country's share of world markets for its products. This makes competitiveness a zero-sum game, because one country's gain comes at the

expense of others. This view of competitiveness is used to justify interventions to skew market outcomes in a nation's favour. It also underpins policies intended to provide subsidies, the holding down of local wages, and the devaluation of a nation's currency, all aimed at expanding exports.

Porter (2002) argues then that true national competitiveness is measured by productivity. Productivity allows a nation to support high wages, a strong currency, and attractive returns to capital – and with that comes a high standard of living. Productivity is the goal, not export per se. National productivity will only rise if a nation expands exports of products or services that it can produce productively. Productivity is the goal - not whether the firms operating in the country are domestic or foreign owned. In a particular country what matters most is not ownership, but the nature of productivity of the companies' activities. Purely local industries also have an influence on competitiveness, because their productivity has a major influence on the cost of living and the cost of doing business, not to mention their level of wages. The productivity of the entire economy impacts on the standard of living, not just the traded goods sector (Porter, 2002).

The world economy is not a zero-sum game. Many nations can improve their prosperity if they can improve productivity. The central challenge in economic development is then to create favourable conditions for rapid and sustained productivity growth (Porter, 2002).

Given the inherent ambiguities, however, it is not surprising that analysts use different definitions. For instance, Boltho (1996) defines international competitiveness as the highest possible growth of productivity that is compatible with external equilibrium. This formulation leaves open what 'productivity' means and how it is to be measured. In contradiction to this, Corden (1994) argues that one might call an industry "internationally competitive" if it produces tradables and if it is profitable. A reduction in competitiveness is then a reduction in profitability in some or all tradable industries.

The OECD (1994) defines competitiveness as the ability of companies, industries, regions, nations and supranational regions to generate, while being, and remaining, exposed to international competition, relatively high factor income and factor employment levels on a sustainable basis.

The principal feature of competition is the conflict of interests between entities in general, expressed by their desire to be more successful than the others. Therefore, competitiveness is an ability to co-exist with other institutions under conditions of conflicting interests. Reiljan *et al* (2000:11) identified three levels that characterised this type of coexistence (competitiveness):

? The ability to survive – the lowest level of competitiveness - refers to the ability to adapt passively to the competitive environment without significantly changing or developing itself.

? The ability to develop – the medium level of competitiveness - refers to the ability to respond actively to the changes in the competitive environment and thereby improving its own qualities by making its activities more efficient.

? Superiority – the highest level of competitiveness - refers to the ability to influence the competitive environment through more efficient operation, quicker development or better qualities than competitors.

Other definitions and views of competitiveness found in literature, include:

? Competitiveness is “the ability of a nation to produce, distribute, and service goods in the international economy in competition with goods and services produced in other countries and do so in a way that earns a rising standard of living” – Scott and Lodge (1985).

? Competitiveness is "a national ability to produce and market products in international trade while earning a level of returns to the resources (both human and physical) used to produce those products which is at least comparable to what those resources could earn in alternative activities" – Langley (1986).

? "… the measure of US agriculture's international competitiveness may not necessarily be whether the peak market shares of the 1970's can be regained. Rather, the focus for the future may resolve around whether USA producers can profit from their exports" – USA Congress, Office of Technology Assessment (1986).

? "Competitiveness is relative and not absolute. It depends on shareholder and customer values, financial strength which determines the ability to act and react within the competitive environment and the potential of people and technology in implementing the necessary strategic changes. Competitiveness can only be sustained if an appropriate balance is maintained between these factors which can be of conflicting nature." – Feurer & Chaharbaghi (1994).

? "For a firm, competitiveness is the ability to design, develop, manufacture and market products at home and in other nations in competition with other firms. For a nation, it means doing all this without a decline in the real standards of living of its citizens." – US Congress, Office of Technology Assessment (1986).

? "Competitiveness includes both efficiency (reaching goals at lowest possible cost) and effectiveness (having the right goals). It is thus the choice of industrial goals which is crucial. Competitiveness includes both the ends and the means towards those ends." – Buckley, Christopher & Prescott (1988).

? "Competitiveness is a statement about differences in market prices, government interventions and everything else factored in." – Dunmore (1989).

? "Competitiveness can be broadly defined as the ability to sell commodities to overseas buyers at prices as low as or lower than those of other potential suppliers while earning at least opportunity cost returns on domestic resources used to produce and market these commodities." – Volrath (1989).

? Competitiveness of a country is the "ability to achieve sustained high rates of growth in GDP per capita" - World Economic Forum (1996).

? Competitiveness of an enterprise is the "ability to design, produce and market goods and services, the price and non-price characteristics of which form a more attractive package than those of competitors." – World Economic Forum (1996).

? "Competitiveness is a field of Economic knowledge, which analyses the facts and policies that shape the ability of a nation to create and maintain an environment that sustains more value creation for its enterprises and more prosperity for its people." - International Institute for Management Development (IMD) (2003).

? "… comparative advantage applies to a world of efficient well–functioning and undistorted markets. Competitiveness applies to the world as it actually is." – Barkema, Drabenstott and Tweeten (1990).

? "Competitiveness is a structural quality built into public and private institutions and ultimately woven into its social, economic and political fabric. […] Competitiveness depends on competition and economic efficiency; and innovation is the result." – Purchase (1991).

? "National competitiveness is better defined by reference to broader indicators that show the extent to which a country's involvement in global markets through trade, investment and technology, flows to growth in real income." – Economic Council of Canada (1992).

? "We should be a knowledge economy where the basis for competitiveness will be the capabilities and intellectual capital to absorb, process and apply knowledge. We should have a strong technological capability and a vibrant entrepreneurial culture that thrives on creativity, nimbleness and good sense". – Singapore's Competitiveness Vision, Committee on Singapore's Competitiveness (Nabi & Luthria, 2002).

? "Competitiveness has emerged as the pre-eminent issue in many nations. Achieving global competitiveness calls for a nation to upgrade its exports. Competitiveness also requires a nation's government and companies to have a shared vision about what competitiveness is and how it can be achieved. Competitiveness is not a simple macroeconomic adjustment, a favourable exchange rate, a positive trade balance, industrial subsidies, or a low inflation rate. Rather, competitiveness is the ability to achieve high productivity, relying on an innovative deployment of human resources, capital and physical assets. Competitiveness is the capacity to create value for increasingly sophisticated consumers who are willing to pay premium prices for the improved value that they perceive." – The Monitor Company (Nabi & Luthria, 2002).

? "The need to improve our competitiveness is not imposed by Government, but by changes in the world economy. Improving competitiveness is not about driving down living standards. It is about creating a high skills, high productivity and therefore high wage economy where enterprise can flourish and where we can find opportunities rather than threats in changes we cannot avoid." – UK Government, third competitiveness White Paper, UK Cabinet Committee (Nabi & Luthria, 2002).

? "Competitiveness in industrial activities means developing relative efficiency along with sustainable growth" and "national competitiveness does not mean just being a low-cost producer but being competitive in activities that lead to long-term income growth, as income and wages rise" – Lall (2001).

? "Competitiveness implies elements of productivity, efficiency and profitability. But it is not an end in itself or a target. It is a powerful means to achieve rising living standards and increasing social welfare – a tool for achieving targets. Globally, by increasing productivity and efficiency in the context of international specialisation, competitiveness provides the basis for raising peoples' earnings in a non-inflationary way." – Competitiveness Advisory Group (First report) (1995).

? "Competitiveness should be seen as a basic means to raise the standard of living, provide jobs to the unemployed and eradicate poverty." - Competitiveness Advisory Group (Second report) (1995).

Given the diversity of thinking on the issue of competitiveness, it is not surprising that the academic debate on competitiveness has become so convoluted and emotional. There is also little sign of a consensus being reached on practical guidelines for policy makers. Furthermore, the connection between national and enterprise-level competitiveness still seems vague and there appear to be contradictory views on its policy implications (Wignaraja, 2003).

The difficulty in defining competitiveness is due to the various dimensions of the concept. Some definitions focus on the underlying sources of competitiveness. For example, competitiveness is defined as the ability to profitably create and deliver value through cost leadership or product differentiation. This definition implies that competitiveness is directly related to factors that influence a firm's cost and demand structure. Other definitions place greater emphasis on the indicators of competitiveness. For instance, competitiveness may be defined as the sustained ability to profitably gain and maintain market share. Much of the diversity of concepts and measures of competitiveness emanate from the variety of perspectives and objectives originating from the relevant research.

Wignaraja (2003: 15) conveniently distinguishes three distinct views on competitiveness:

? A **macroeconomic perspective** which deals with internal and external balance at country-level that focuses on real exchange rate management as the principle tool for competitiveness;

? A **business strategy perspective** which is concerned with rivalries between firms and countries and a limited role for public policies in fostering competitiveness;

? A **technology and innovation perspective** that emphasises innovation and learning at the enterprise and national-levels and active public policies for creating competitiveness.

The objective of this Chapter is not to criticise previous perspectives or to prescribe one over the other as the most appropriate in all circumstances, but to employ the evolution of competitiveness thought as described, as well as the different perspectives on the concept of competitiveness in order to develop a definition of competitiveness that can be used in this study.

As described in Chapter one, the focus of this study is on the agribusiness sector of South Africa. Activities included in this sector is the tertiary transformation of commodities into value added products, the supply of inputs to the primary and tertiary sectors, the retail and wholesale provision and the provision of services such as finance, insurance and technical advice. In doing so, the study is also concerned with the competitiveness of products, firms and industry segments. The possibility that some parts of a sector may be more competitive than others is recognised.

Four notions of competitiveness emerge as important in the context of agribusinesses operating for gains in the new globalise world economy, namely:

(i) The ability to trade for gain by competing at both export and import levels under real world conditions such as uneven economic "playing fields", distorted economies and different regimes.

(ii) The ability to sustain the gains achieved through the consistent mobilisation and attraction of scarce economic resources from other, less competitive economic endeavours, thus allowing it to reinvest, innovate, expand and perform in a sustainable and profitable manner.

(iii) The ability to predict change correctly and act upon such predictions in an innovative manner to mobilise rents and returns.

(iv) Competitiveness is not a clear theoretical economic notion but a business concept depending on profits, business strategies, corporate culture, etc., and also non-economic issues such as innovation, ethics and political stability. Economics has sometimes a too narrow scope on competitiveness. Competitiveness is a holistic viewpoint on the continuously ability of companies to exploit the market reality for gain. Therefore, a situation whereby government, for example, positions a particular firm to compete favourably must be accepted. However, such action may not be sustainable as markets will be distorted leading to inefficiencies and eventually uncompetitiveness.

Furthermore, a business that operates in a country where education, science and infrastructure is not upgraded continuously or social and political stability lacks, will not be able to compete in the long-term, despite having a mere perfect business strategy or making sufficient short-term profits. Competitiveness should thus not be defined in economic terms; however, the notion of sustainability clearly requires that competitiveness be contextualised by an economic framework to ensure a sustainable process.

From these four notions competitiveness will be defined as ***the ability of a sector, industry or firm to compete successfully in order to achieve sustainable growth within the global environment while earning at least the opportunity cost of returns on resources employed. To compete means to try to gain or win something (which can be any given strategy determined by the sector, industry or firm e.g. market share, increased rate on investment or increased profits, etc.) by defeating other competitors.*** For example, a competitive firm has the ability to continuously satisfy the consumer with a product of the right price, quality, packaging, etc. Such a firm therefore beats the competitors to the scarce Rand, Dollars, Pounds, etc. of the consumer.

Competitiveness is thus rather a dynamic and involved process, instead of an absolute state of affairs, and it can therefore only be assessed with in a relative sense. Moreover, the growth produced by competitive activities should be sustainable rather than short-lived. Short-term features such as opportunistic "price wars and cost cutting" will not sustain a competitive position.

Furthermore, from the definition it is clear that competitiveness must be link to a goal or outcome and can not be the goal or outcome *per se*. For example, if the goal is too continuously gain from trade (by selling locally and/or by selling globally), the tool or ability for achieving that goal on a sustainable manner relative to the other competitors will then be competitiveness.

Competitiveness is thus one of the most powerful concepts in modern economic thinking. Competitiveness does not only depend on the comparative advantage of the sector or the efficient use of the resource base (land, labour or capital) but it also depends on the ability to innovate and upgrade. The fact that competitiveness encompasses the economic consequences of non-economic issues, such as education, sciences, political stability and value systems is one of its key contribution to the classical economic theories (IMD, 2003).

In the next section, the relationship between competitive performance and confidence will be discussed. This relationship is important in analysing competitiveness. Changes in the global food and agribusiness sector have a direct effect on the confidence of managers and it usually influences their strategic approach to business decisions. Research shows that confidence is closely related to competitive performance (Jones & Hardy, 1990). This link between competitive performance and confidence is also prominent in both the World Competitiveness Yearbook prepared by the IMD and the Global Competitiveness Report prepared by the WEF, where qualitative survey data from business executives on their perception of the business environment in the countries in which they operate are afforded an important weight in the completion of competitiveness rankings (IMD, 2003; WEF, 2003).

2.4 THE RELATIONSHIP BETWEEN COMPETITIVE PERFORMANCE AND CONFIDENCE

2.4.1 The psychology of confidence

Certainly, the vast majority of elite performers cite confidence as a major feature of their success (Woods, 1998). Persons who are truly outstanding are confident. Confident people think about themselves and the action at hand differently from those who lack confidence. Confidence is a sense of assurance. It is derived from the Latin word *confidere*, which means to trust. To be confident is to have faith in someone or something. Self-confidence means to have self-assurance arising from a belief in one's own ability to achieve things. Vealey (1986) defines confidence as the belief or degree of certainty that individuals possess about their ability to be successful. Sport psychologists define self-confidence as the belief in your ability to successfully perform a desired behaviour. The desired behaviour might be scoring a goal in soccer, staying on an exercise regimen, recovering from a knee injury, serving an ace, or hitting a home run. The common factor is that you believe you will get the job done (Weinberg & Gould, 2003).

Kanter (2004) nails the definition of confidence as the "sweet spot" between arrogance and despair. Arrogance involves the failure to perceive any flaws; despair, the failure to acknowledge any strength. Business confidence is a belief, an assurance in the business environment, company personnel and in one's own abilities.

Thus, confidence is characterised by a high expectancy of success. It can assist individuals in arousing positive emotions, facilitate concentration, set goals, increase effort, focus on strategies and maintain momentum. In essence, confidence can influence affect, behaviour and cognition (the ABC of psychology).

An individual with feelings of confidence has good concentration skills and can attentively focus on the task at hand. Reactions are therefore quick, accurate and decisive. A further important feature of confidence is that of persistence. With high expectations of success, the competitor continues to persist despite initial problems and difficulties. In contrast to emotional feelings which accompany lack of confidence, the confident competitor experiences feelings of satisfaction and enjoyment. On the way up, success creates positive momentum. People who believe they are likely to win are also likely to put in the extra effort at difficult moments in order to ensure victory (Kanter, 2004).

What people think or say is critical to performance. Unfortunately, the conscious mind is not always an ally in this regard. We all spend vast amounts of time talking to ourselves, but most of the time we are not even aware of this internal dialogue, much less its contents. Nevertheless, thoughts directly affect feelings and therefore ultimately also actions. Inappropriate or misguided thinking usually leads to negative feelings and poor performance, just as appropriate or positive thinking leads to enabling feelings and good performance (Weinberg & Gould, 2003).

THOUGHTS ⟶ FEELINGS ⟶ BEHAVIOUR

Confidence is certainly mental, but it is not a mindset in the sense that it is always present. Confidence is a situational expectation – an expectation of a positive outcome. The expectation leads to all kinds of investments in making the outcome true. Because of confidence, people put in the effort. They invest financial and other resources. Instead of giving up, they stay in the game longer and therefore have more chances to succeed. Confidence is definitely a response to specific situations (Kanter, 2004). Success, whether achieved by a person, a company, a team or a country, breeds the confidence that it is possible to win again…and again…and again.

2.4.2 Confidence and competitive performance

"Confidence does not come from winning. Winning comes from confidence.
Confidence comes from hard work."

- Vijay Singh (2005)

Vealey (2001:555) has developed a model of confidence and its relationship with performance that can be used in research and practice. In Figure 2.4 the model is illustrated.

The diamond shape in the centre of the model contains the core psychosocial constructs and processes that define confidence, fuel its existence and explain its mediating influence on performance. These include the confidence construct itself, the three domains representing sources of confidence (achievement, self-regulation and social climate) and the ABC (affect, behaviour, cognition) triangle, which is predicted to most directly influence performance.

Confidence is situated at the heart of the model; it is defined as the beliefs or degree of certainty in the ability to be successful. Confidence involves more than perceived competence. It is, rather, a perceived competence to do something. That is, confidence like competitiveness is linked to a goal, or an outcome. However, where competitiveness

is the ability to achieve that goal; confidence is the belief or sense of assurance to achieve the goal, and thus influence competitiveness directly.

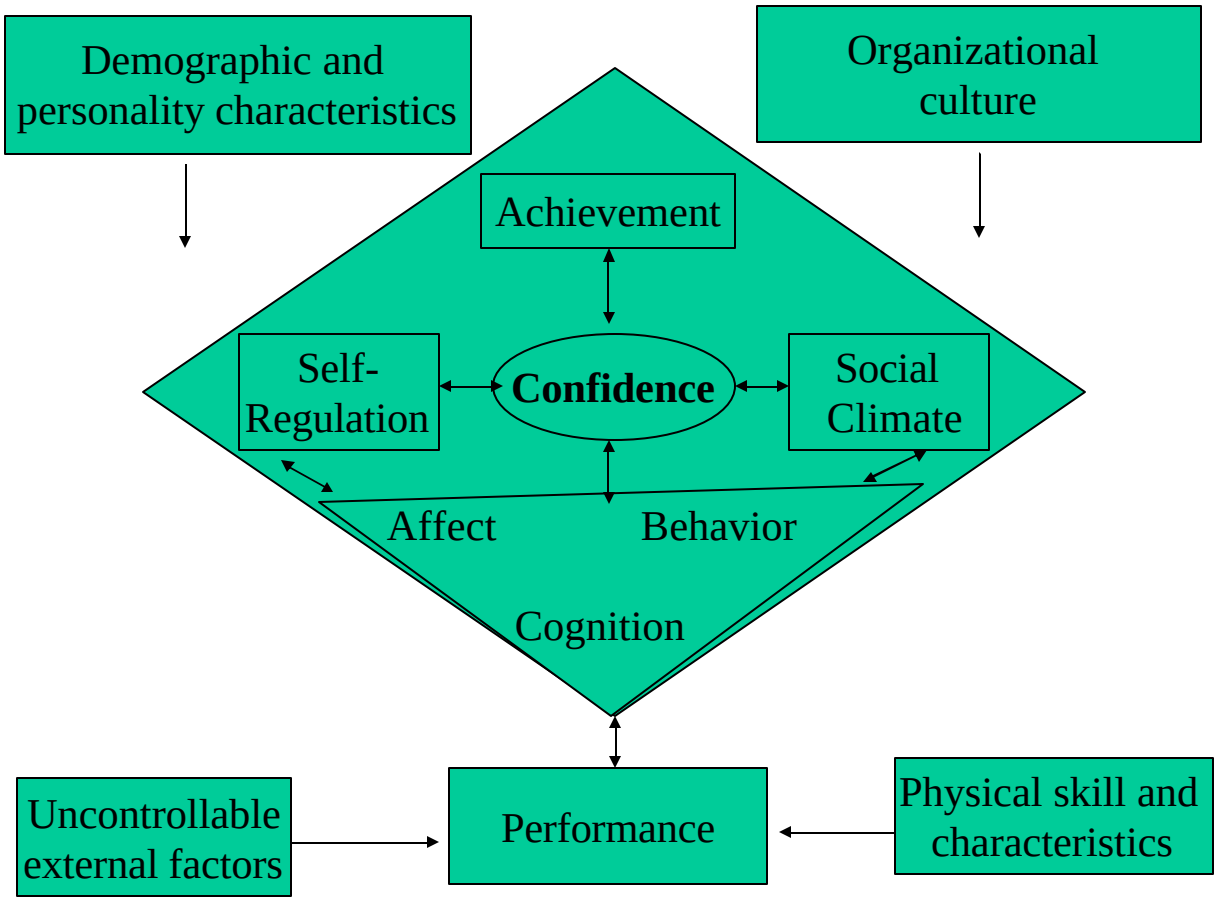

Figure 2.4: The relationship between confidence and performance

Source: Vealey (2001)

The **ABC triangle** shown directly below confidence in the model contains the ABC's of psychology: affect, behaviour and cognition. That is, the main focus in psychology is on how people feel, act and think. In the social-cognitive perspective of psychology, the ABC is termed the "domains of personal adjustment," or the feeling (affect), doing (behaviour) and thinking (cognition) of human functioning (Maddux & Lewis, 1995). The ABC is so interactive, or reciprocally determined (Bandura, 1978), that they are

illustrated together within a triangle in Figure 2.4 to emphasise their continuous reciprocal interactions.

As a primary mediator of the ABC, confidence may be considered the "mental modifier", meaning that confidence modifies how people feel about, respond to, and think about everything that happens to them in life. This is the most critical link in the model because it represents the importance of understanding why and how confidence influences performance through its effect on how people feel, think and act.

Firstly, confidence arouses positive emotions ("A"), whereas a lack of confidence relates to negative effects such as anxiety, depression, and dissatisfaction (Martens, Vealey & Burton, 1990; Vealey & Greenleaf, 1998). Strong beliefs about personal competence and ability produce adaptive emotional states, whereas a lack of confidence (or beliefs about incompetence and lack of ability) are emotionally painful and lead to ineffective actions and thoughts (Maddux & Lewis, 1995). Interestingly, researchers have demonstrated that higher levels of confidence are associated with more positive perceptions of arousal and anxiety (Jones, Hanton & Swain, 1994; Jones & Swain, 1995). Thus, confidence seems not only to enhance positive emotions, but also to provide a productive belief system in which emotions generally viewed as negative (e.g. anxiety) are reframed to be viewed as necessary and facilitative to performance.

Secondly, confidence has been linked to productive achievement behaviours ("B") such as effort and persistence (Weinberg, Yukelson & Jackson, 1980). A strong sense of confidence motivates people to set challenging goals, expand maximal effort and persist in the face of obstacles in an attempt to reach these goals and, as a result of this proactive behaviours, accomplish more than is expected (Bandura, 1986; Maddux & Lewis, 1995).

Thirdly, confident individuals are more skilled and efficient in using cognitive resources ("C") that are necessary for success. Confident persons have more productive attributional patterns, attentional skills, goal orientations, self-perceptions of success, as well as ability and coping strategies, as compared to less confident persons (Vealey.

1986). Confident individuals remain task-diagnostic by focusing on process solutions to problems in the face of obstacles, whereas less confident individuals are more likely to become self-diagnostic and focus on their perceived inadequacies (Weinberg & Gould, 2003). Remaining cognitively efficient via productive thinking is an essential skill for success in a competitive environment, thus emphasising the importance of confidence as a mental modifier of this cognitive efficiency.

Along with confidence and the ABC triangle, the other three constructs in the central diamond portion of the model represent source domains, or categories of factors that develop and/or enhance confidence in people. **Achievement** is used to represent the source of confidence based on people's past accomplishments. **Self-regulation** is the second source domain for confidence. It emphasises that the human ability to use self-reflection in order to plan and regulate behaviour in pursuit of personal and business goals is paramount to developing confidence. Vealey & Greenleaf (1998) found that physical and mental preparation were important sources of confidence, as well as positive self-perceptions about one's physical self.

The third source domain for confidence is the **social climate**, the myriad social processes that are typical to achievement situations. Social climate factors that have emerged as salient sources of confidence include social support, vicarious experience or available models, feelings of comfort and acclimation to the competitive environment, and an intuitive feeling of situational favourableness (Vealey & Greenleaf, 1998).

All constructs in the central processing part of the confidence model (represented inside the diamond shape) interact continuously to influence performance. The three source domains were shown to directly influence levels of confidence. Secondary arrows acknowledge the direct relationships between self-regulation and the ABC triangle and the social climate and the ABC triangle. This means that, although the focus of the model is on the determinants and consequences of confidence, self-regulatory forces and social climate factors also impact directly on how people think, feel and respond in the

competitive environment. The two-way arrows emphasise that all processes in the core of the model interact in a reciprocal manner.

The core of the model illustrates that, from a psychosocial perspective, the influence of confidence on performance is mediated by the ABC triangle. Specifically, performance is influenced by the thoughts, emotions and behaviour of people. Performance is ultimately shaped by the goals that people set, the behavioural choices they make, the effort they engage in order to pursue their goals and the persistence they demonstrate when obstacles arise. Performance is also shaped by the ability of people to elicit productive emotions and thoughts, as well as their ability to manage and cope with counterproductive emotions and thoughts.

As seen at the bottom of the model, performance is also influenced by the **physical skill and characteristics** of the persons as well as **uncontrollable external factors** (e.g. weather, luck, opponents). It is important to acknowledge these influences to remind and ensure individuals and business that they cannot control all things that influence their performance.

Organisational culture remains an important factor in the overall model of confidence. Organisational culture represents the structural aspects that influence the ways in which confidence is developed and manifested in people.

The final box in the model represents all the **personality characteristics**, attitudes and values of individuals, as well as **demographic characteristics** such as age, experience, gender and ethnicity. These characteristics are predicted to influence the development and manifestation of confidence in individuals as well as the sources that they use to gain confidence.

2.5 CONCLUSION

Compete or perish! That is the harsh reality of today's world. We're living in the midst of a global explosion of competition. In every profession, in every area of life, the competition is getting stiffer and fiercer. The number of competitors has increased faster than the number of jobs, resources and opportunities. The pressure is on. To become a winner today is an ever more demanding task – it demands more talent, more guts, more preparation and more "savvy".

In this chapter the evolution of competitiveness theory was described, competitiveness was defined and the relationship between competitive performance and confidence was discussed. The next chapter will build on this theoretical framework to develop an analytical framework to analyse the competitiveness of the agribusiness sector in South Africa.