Identification of the forces that determine competitiveness in the South African Dairy Value Chain – A desktop study

By
National Agricultural Marketing Council

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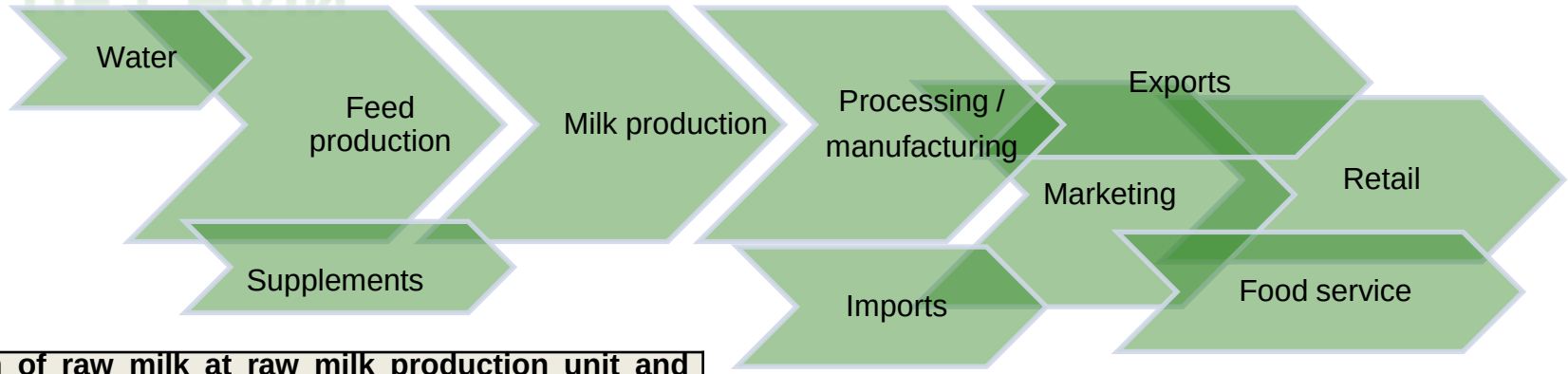
National Agricultural Marketing Council
Promoting market access for South African agriculture

MAPPING OF THE SOUTH AFRICAN DAIRY VALUE CHAIN



Collection of raw milk at raw milk production unit and delivery to processing plant

- Raw milk procurement management and administration;
- Raw milk tests at raw milk production unit;
- Raw milk pumped into container of transport vehicle;
- Transport of raw milk to processing plant;
- Testing of milk at processing plant;
- Pumping of milk from transport vehicle to bulk tank including filtering;
- During all these actions the milk must be kept cooled at 4°C.

Typical activities include actions from raw milk at the raw milk production unit to packaged pasteurised milk offered for sale in a retail outlet

Processing and packaging

- Production management and administration;
- Quality assurance;
- Heating of milk to more or less 60°C;
- Standardisation of milk;
- Homogenisation of milk;
- Pasteurisation;
- Cooling of pasteurised milk to 4°C;
- Packing of milk in containers suitable for retail sale;
- Packing of individual containers in crates;
- Crates moved to storage area;
- After pasteurisation the milk must be kept cooled at 4°C.

Marketing and distribution

- Marketing management and administration;
- Logistics management and administration;
- Products packed according to orders (milk is ordered in different packaging sizes, different types of packaging and different classes according to fat content);
- Loading of transport vehicles;
- Transport to retail shops;
- Packaging of products on retail shelves;
- Removal of damaged and outdated products;
- Collection of empty crates;
- During all these actions the milk must be kept at 4°C.

Retailing

- In retail store the milk must be kept at 4°C.

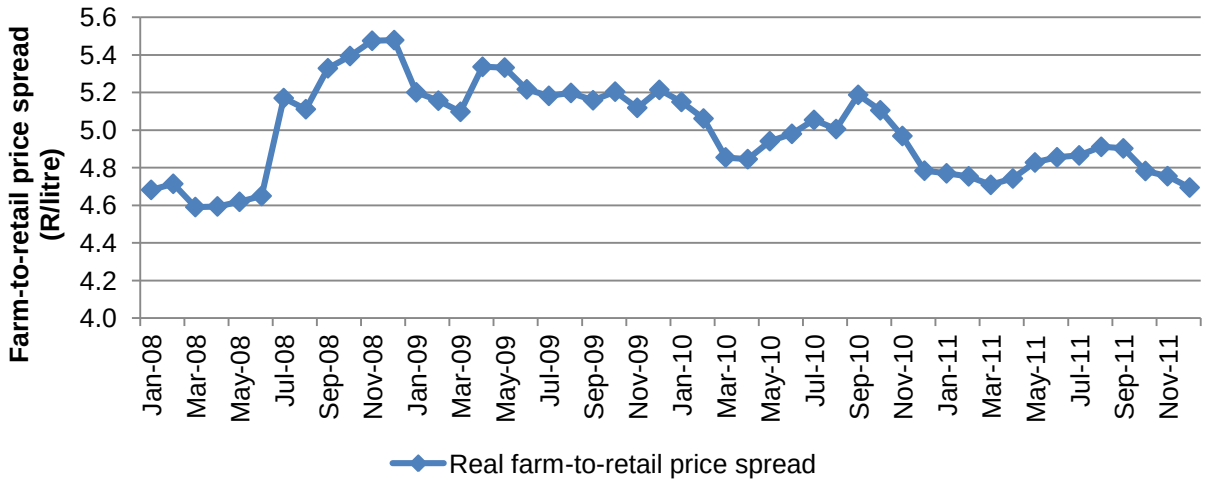
QUESTION FREQUENTLY ASKED: WHAT HAPPENS IN THE CHAIN?

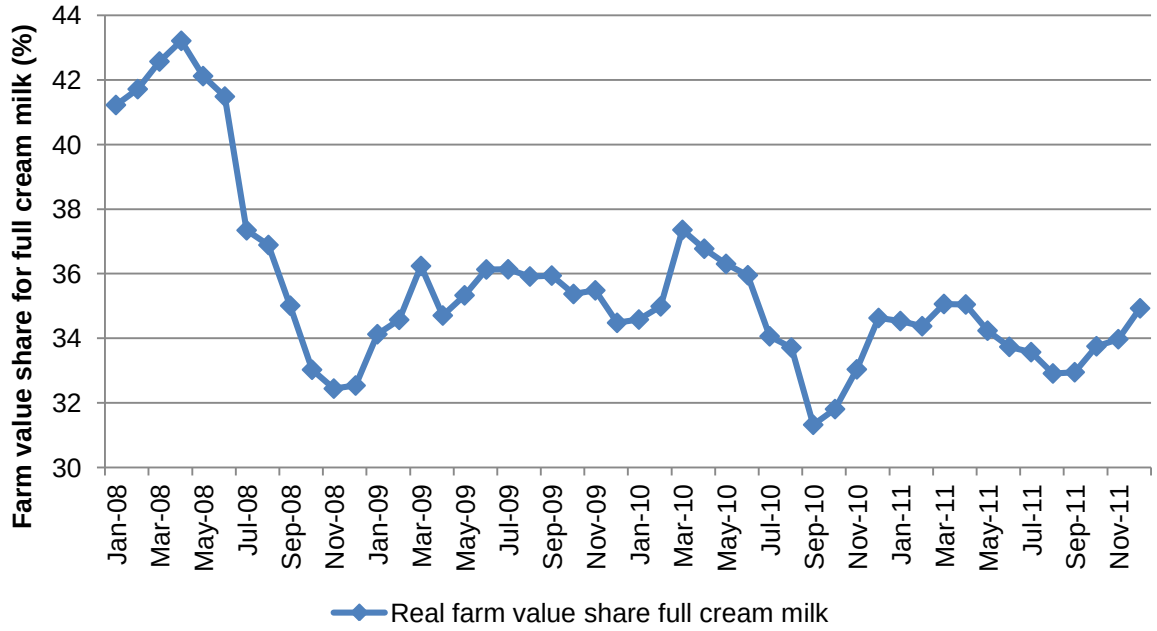
The trends in the raw milk price and retail values for full cream and low fat milk between January 2008 and December 2011.

- Average retail price in 2011 was R8.53/litre and R6.53/litre respectively for full cream and low fat milk.
- Compared to 2010, full cream milk remained stable at R8.53/litre, but low fat milk was slightly higher at R6.67/litre.
- Between 2010 and 2011, the price increased, on average, by 0.1% for full cream milk and decreased, on average, by 2.13% for low fat milk.
- The average raw milk price decreased from R2.95/ℓ to R2.91/litre (-1.27%) between 2010 and 2011.

Source: The South African Food Cost Review 2011, 2012

FARM-TO-RETAIL PRICE SPREAD





The trends in the real FTRPS for full cream milk between January 2008 and December 2011.

- From January 2008, the spread was R4.68/litre and increased to peak at R5.48/litre in December 2008.
- The real FTRPS then decreased by 14.42% over three years from December 2008 to reach R4.69/litre in December 2011.
- The average real FTRPS decreased from 5% to 4.8% (-3.95%) between 2010 and 2011.

The farm value share as a percentage of the real retail value of full cream milk, between January 2008 and December 2011.

- In January 2008, the farm value share of full cream milk was 41%.
- The farm value share of full cream milk increased to peak at 43% in April 2008, after which it declined to reach its lowest point of 31% in September 2010.
- In December 2011, the farm value share for full cream milk increased slightly to 35%.
- The average farm value share in 2011 was 34.09%, compared to 34.54% in 2010. Between 2010 and 2011, the farm value share decreased, on average, by 1.32%.

Source: The South African Food Cost Review 2011, 2012

LOOK AT AN EXAMPLE: 2L CONTAINER – THE COSTS IN THE CHAIN

Two different scenarios were constructed to explain the costs and margins in the fresh milk value chain as applicable to full cream pasteurised milk in a 2 litre container, namely:

A low value-added scenario:

- Raw milk close to processing plant;
- Less complex technology;
- Cheaper with respect to type and size of packaging;
- Direct surroundings of distribution; and
- Limiting marketing- and advertising costs.

A high value-added scenario:

- Raw milk farther from processing plant;
- More complex technology;
- Type and size of packaging are more expensive;
- Distribution to further outlets; and
- Marketing- and advertising costs.

TYPICAL COST COMPOSITION OF PASTEURISED FULL CREAM MILK IN 2-LITRE CONTAINERS OFFERED FOR SALE IN A RETAIL STORE

	Low Cost		Low cost		Low cost	
	Jan-12		Jan-12		Jan-12	
Item	R/2 ℓ	Percentage of selling price	R/2 ℓ	Percentage of selling price	R/2 ℓ	Percentage of selling price
Raw milk price (2 ℓ)	6.40	38.6	5.70	38.6	5.80	40.3
Action 1						
Raw milk collection and transportation to processing plant	0.70	4.2	0.53	3.6	0.50	3.5
Action 2:						
Processing and quality assurance	1.50	9.1	1.26	8.5	1.20	8.3
Container (2 ℓ plastic or 2 ℓ gable top)	1.50	9.1	1.37	9.3	1.30	9.0
Filling of 2 ℓ containers	0.12	0.7	0.11	0.7	0.10	0.7
Action 3:						
Marketing and distribution by milk processor	2.55	15.4	2.42	16.4	2.30	16.0
Interest, profit and overhead costs	1.40	8.4	1.37	9.3	1.30	9.0
Selling price to retailer	**14.17**	**85.5**	**12.76**	**86.4**	**12.50**	**86.8**
Action 4:						
Retailer mark-up	2.40	14.5	2.00	13.6	1.90	13.2
Selling price to consumer	**16.57**	**100.0**	**14.76**	**100.0**	**14.40**	**100.0**

Source: Office of SAMRO and own calculations, 2012

TYPICAL COST COMPOSITION OF PASTEURISED FULL CREAM MILK IN 2-LITRE CONTAINERS OFFERED FOR SALE IN A RETAIL STORE

	High cost		High cost		High cost	
	Jan-12		Jan-11		Jan-10	
Item	**R/2 ℓ**	**Percentage of selling price**	**R/2 ℓ**	**Percentage of selling price**	**R/2 ℓ**	**Percentage of selling price**
Raw milk price (2 ℓ)	7.30	31.9	6.70	34.2	6.80	35.6
Action 1						
Raw milk collection and transportation to processing plant	0.95	4.1	0.74	3.7	0.70	3.7
Action 2:						
Processing and quality assurance	2.25	9.8	1.47	7.5	1.40	7.3
Container (2 ℓ plastic or 2 ℓ gable top)	2.45	10.7	1.58	8.0	1.50	7.9
Filling of 2 ℓ containers	0.15	0.7	0.11	0.5	0.10	0.5
Action 3:						
Marketing and distribution by milk processor	3.75	16.4	3.47	17.7	3.30	17.3
Interest, profit and overhead costs	2.25	9.8	2.21	11.2	2.10	11.0
Selling price to retailer	**19.10**	**83.4**	**16.26**	**82.9**	**15.90**	**83.2**
Action 4:						
Retailer mark-up	3.80	16.6	3.36	17.1	3.20	16.8
Selling price to consumer	**22.90**	**100.0**	**19.62**	**100.0**	**19.10**	**100.0**

Source: Office of SAMRO and own calculations, 2012

Competitiveness in the South African Dairy Value Chain Survey and results

National Agricultural Marketing Council

Promoting market access for South African agriculture

RESPONDENTS

Framework for analysis of the dairy value chain

Information on the respondents

Three Input suppliers responded (50%). All of the input suppliers were feed suppliers.

Twenty one producers (16%) responded to the survey. Some of the producers also did their own processing, or value adding, of some sort.

Twelve processors (34%) from across the country responded to the survey.

METHODOLOGIES APPLIED

MESO-, MICRO- AND MACRO ENVIRONMENTS

In order to identify and measure the driving forces within the value chain, the different business environments, being the meso-, micro- and macro-environments, were analysed.

The **meso-environment** specifically refers to the supporting industry of the actual value chain. At national level, the supporting industries mostly include business advice & support, quality assurance programmes, training, research, technology development, skills transfer and information provision. Trade facilitation and international certification, as well as international trade information, are all supporters within the export market value chain.

The **micro-environment** relates to issues which can be managed by each role player in the industry's direct business environment. It also refers to value chain co-ordination and the level of competition between role players.

The impact of regulatory and administrative issues, global and local economic trends, together with chance factors such as the exchange rate and the political environment are measured as influences within the **macro-environment**.

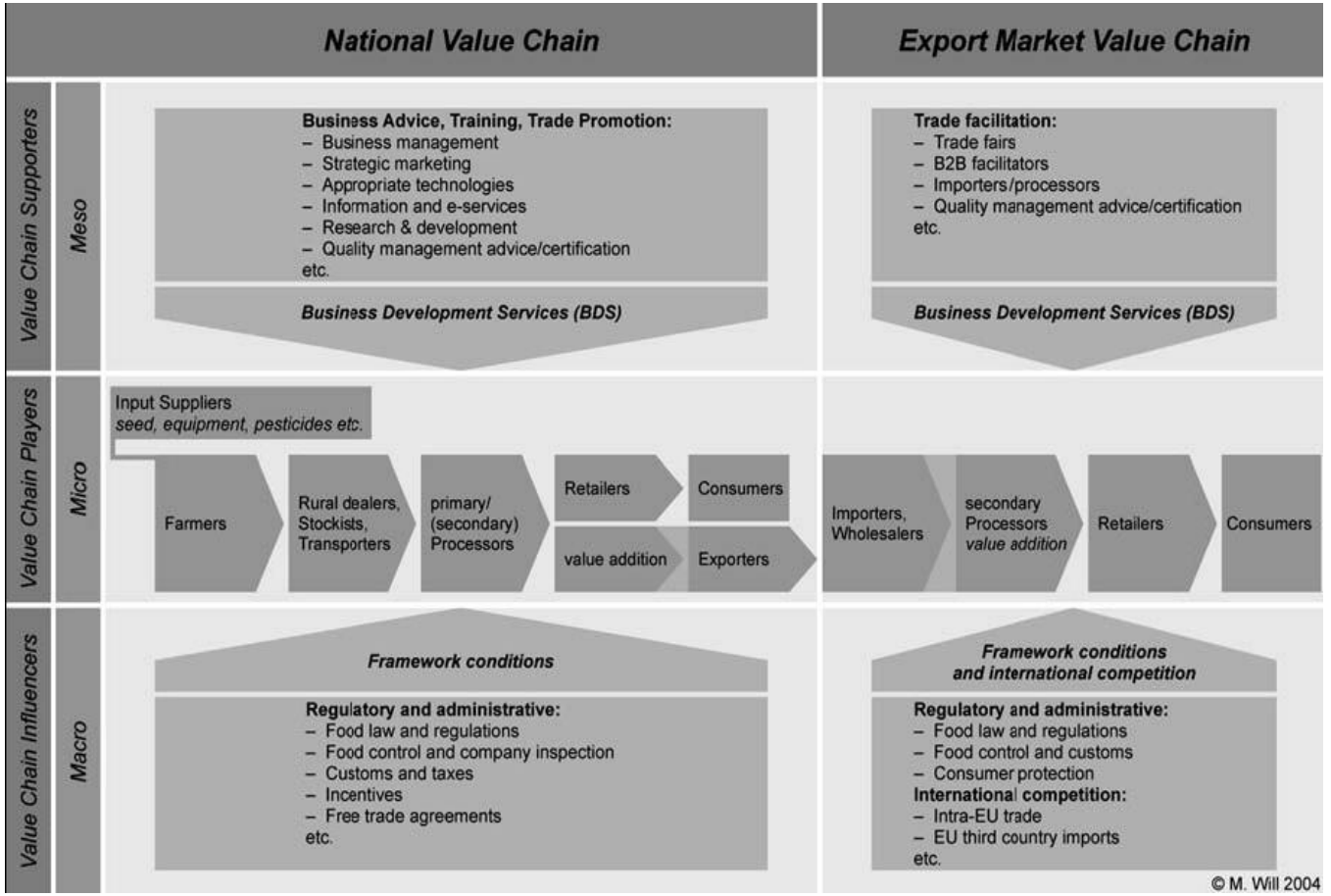
Figure 4: Graphical explanation of the meso-, micro- and macro-environments

MESO-, MICRO- AND MACRO ENVIRONMENTS

Meso – Supporters

Micro – Players

Macro – Influences



Graphical explanation of the meso-, micro- and macro-environments

METHODOLOGIES APPLIED | QUESTIONNAIRE

The questions have been put in such a manner that weights are given to the level of the specific factor as either constraining or enhancing the competitiveness of the role player completing the survey. In each case 7 indicates an enhancing factor and 1 indicates a constraining factor.

List of factors within the Macro-, Meso- and Micro environments, which was included in the questionnaire

Macro factors	Meso factors	Micro factors
Exchange rate	Relationships / Networks	Access to finance
Cost of capital	State of R&D in industry	Operational infrastructure
Purchasing power	Regulations & standards	Logistics
Input cost	Availability & quality of Industry Information	Supply chain coordination
Political environment	State of technology	Cost and compliance of traceability
Cost of crime	Nature & activities of industry organisations	Labour availability, cost & productivity
Infrastructure	State of bio-security management	Quality of inputs
Labour laws & regulations	State of training & skills development	Nature of barriers to entry
HIV / Aids	Quality assurance programs & mechanisms	Distance from market
Municipal by-laws		Business behaviour
Land & water reform		Pricing strategies
Import/export environment		Level of competition
Food safety& consumer laws		Diversification strategies
Availability of imported inputs		Reliability of input suppliers
Growth of informal market		Processors as principal price formation mechanism
Size & growth of market		Availability of water / land
Changing consumer trends		

METHODOLOGIES APPLIED | PORTER ANALYSIS

The Porter-diamond is a well trusted methodology, and was applied in this study to add additional value to analysing the meso-, macro- and micro- environments. Basically the same questions were asked in the questionnaire, however, they were differently grouped to satisfy the Porter methodology.

Definition

The Porter-diamond: In this research the methodology of Porter (1990) is used to discover the determinants of competitiveness in the agribusiness sector of South Africa. According to Porter, there are six broad criteria or attributes that shape the environment in which firms compete and promote the creation of competitive advantage

Relating and supporting industries – the presence or absence in the country of supplier industries and other related industries that are internationally competitive.

Factor conditions – the country's position in terms of the factors of production, such as skilled labour or infrastructure, necessary to compete in a given industry.

Firm strategy, structure and rivalry – the way companies are created, organised and managed, as well as the nature of domestic competition.

Government attitude and policy – government plays a vital role. Government can influence each of the above determinants, either positively or negatively, through policy and operational capacity.

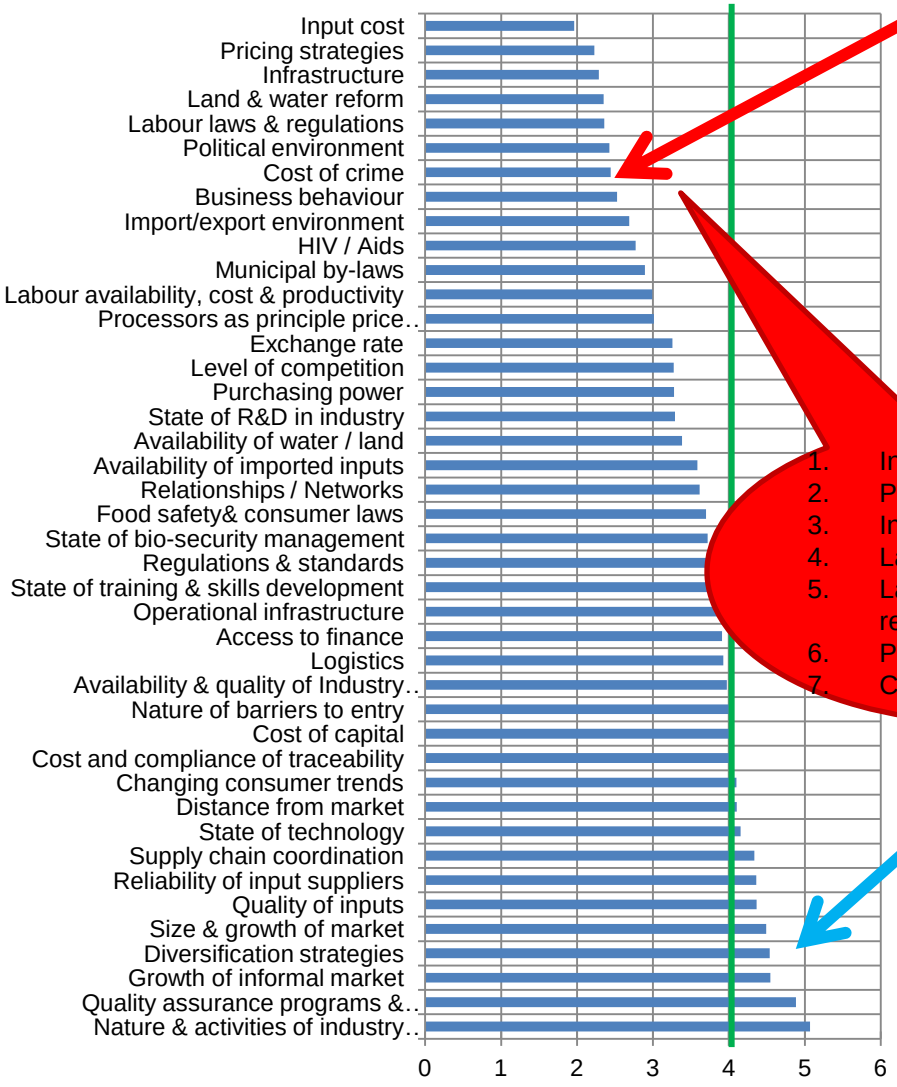
Demand conditions – the nature of home-market demand for the industry's products or services.

The role of chance – chance events are occurrences largely beyond the power of firms (and often the national government). Such events can nullify sources of competitive advantage and create new ones.

Regrouping of the relevant questions/factors for the Porter analysis

Supporting industries	Factor conditions	Firm strategy & rivalry	Government	Demand conditions	Role of chance
Availability of imported inputs	Cost of capital	Relationships / Networks	Labour laws & regulations	Purchasing power	Exchange rate
State of R&D in industry	Input cost	Regulations & standards	Municipal by-laws	Growth of informal market	Political environment
Availability & quality of Industry Information	Infrastructure	Nature & activities of industry organisations	Land & water reform	Size & growth of market	Cost of crime
State of technology	Access to finance	Supply chain co-ordination	Import/export environment	Changing consumer trends	HIV / Aids
State of training & skills development	Operational infrastructure	Nature of barriers to entry	Food safety & consumer laws		
Quality assurance programmes & mechanisms	Cost and compliance of traceability	Business behaviour	State of bio-security management		
Logistics	Labour availability, cost & productivity	Pricing strategies			
Quality of inputs	Distance from market	Level of competition			
Reliability of input suppliers	Availability of water / land	Diversification strategies			
Processors as principal price formation mechanism					

Results| Dairy industry as a whole



Results of all factors measured for the dairy industry as a whole; Factors sorted according to their mean. (1 = Constraining, 7 = Enhancing)

Major constraining factors:

Input costs, the **current pricing strategies** and the **state of infrastructure** are the most constraining factors on the dairy industry as a whole. Other constraining factors to take note of are the status of **land & water reform**, the **labour laws & regulations** and the **unstable political environment**. The cost of crime also constrains competitiveness.

Government responsibilities and regulations, specifically the status of the national infrastructure and the labour laws, should be addressed. It is also proven that a stable political environment is necessary in this regard.

1. Input costs
2. Pricing strategies
3. Infrastructure
4. Land & water reform
5. Labour laws & regulations
6. Political environment
7. Cost of crime

1. Nature & activities of industry organisation
2. Quality assurance programmes & mechanisms
3. Growth of informal market
4. Diversification strategies

Major enhancing factors:

Even though there is a lack of convincingly enhancing factors in the dairy industry, there are, however, a few factors highlighted to enhance the industry. These factors should be improved and maintained for their impact is identified to contribute significantly.

The **nature and activities of industry organisations**, such as MPO, SAMPRO, Milk SA etc., is the most enhancing factor for the industry as a whole.

The **quality assurance programmes and mechanisms** are also enhancing the competitiveness of the industry .

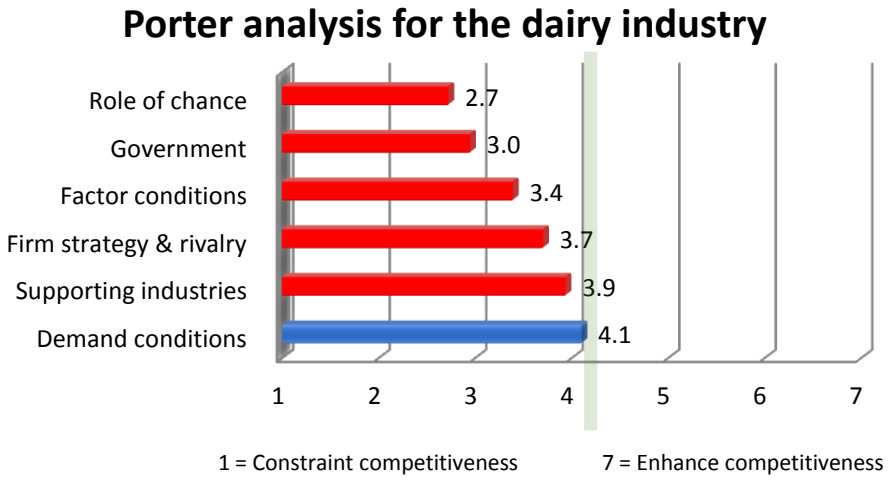
Firms also utilise their **diversification strategies** at micro-level to enhance their own level of competitiveness.

Results| Overall analysis of the industry

Five of the six factors in the Porter analysis proved to be constraining the industry's competitiveness. The **role of chance**, and the impact and role of **government** are the two most constraining factors. **Factor conditions**, which mostly reflects directly as a cost to the role player, is only slightly less constraining as a factor. Two of the three constraining factors, being role of chance and government, are to a large extent factors which are not manageable internally by the role player. Factor conditions are, only to some extent, manageable.

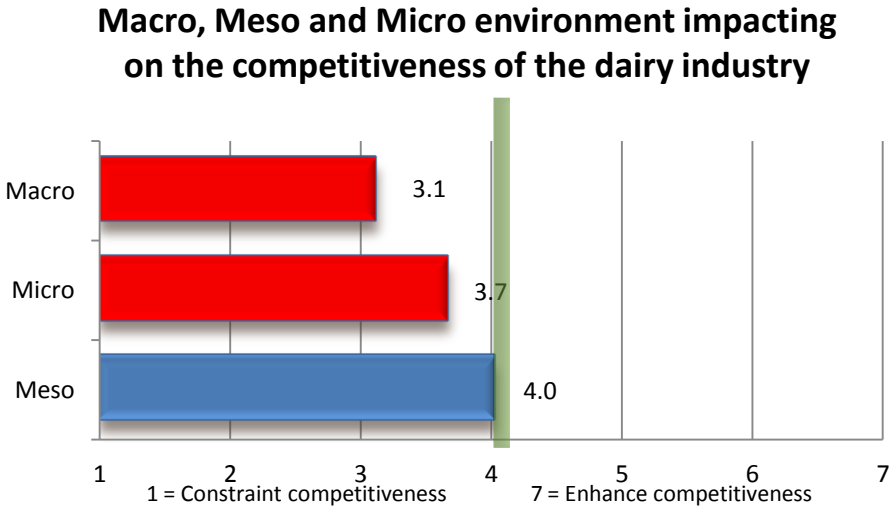
The only enhancing factor are the **demand condition**, However, it is quite unconvincingly positive.

The other two factors namely **firm strategy and rivalry** and the **supporting industries** is close to enhancing levels and interestingly, these factors are within the business environment which the role player can to some extent manage.



Overall results of the Porter analysis for the dairy industry

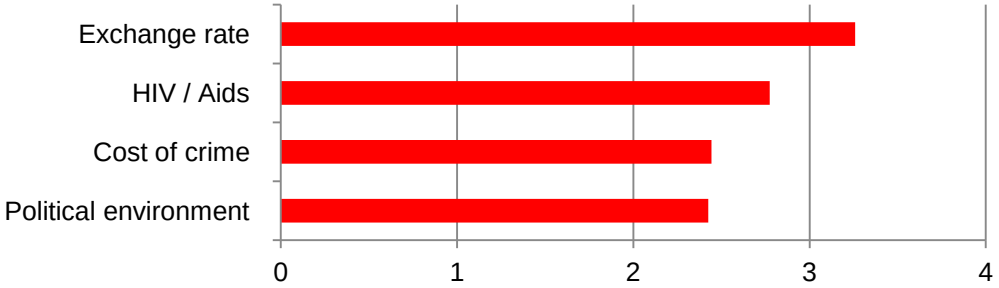
Of the three specified impacting environments which the dairy industry operates in, all three was identified to be constraining to the industry although in varying degrees. The macro-environment proved to be the most constraining – this refers mostly to the constraining impact of the regulatory environment, the direct cost implications of mostly uncontrollable external influences. The micro-environment, which refers to the role players' specific business strategies and the industry's co-ordination and effectiveness as a whole, are quite constraining. This is an area where improvement can be generated. The meso-factors, such as the supporting industries factor in the Porter analysis, refer to the supporting environment of the industry, and also proved to be the least constraining, even though only slightly.



Overall results for the meso-, micro- and macro-environments of the dairy industry

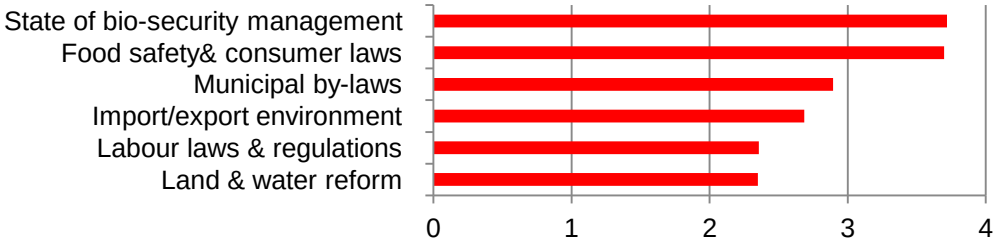
Dairy industry| Results | Porter analysis | Constraining factors

Role of chance



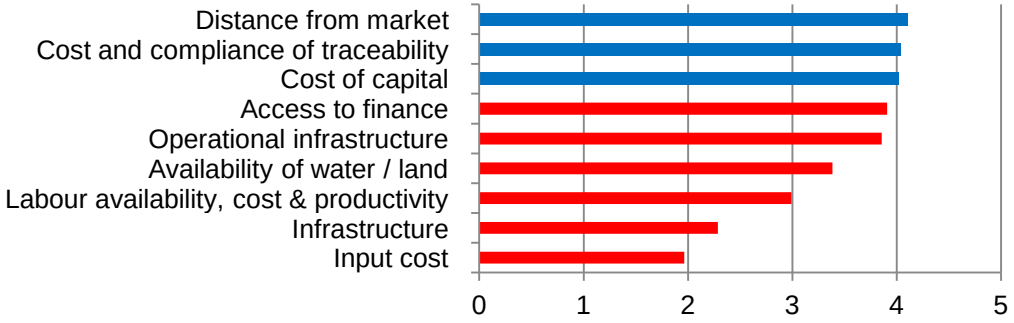
Results of the Role of Chance as a factor of the Porter analysis

Government attitude & Policy



Results of the Government attitude and policy, as a factor of the Porter analysis

Factor conditions



Results of the Factor conditions, as a factor of the Porter analysis

The Role of Chance:

The fact that the role of chance is largely beyond control is concerning, being the most constraining factor in the Porter analysis. The Political environment and the Cost of crime are the most inhibiting chance factors which impact negatively on the competitiveness of the industry.

Government attitude and policies:

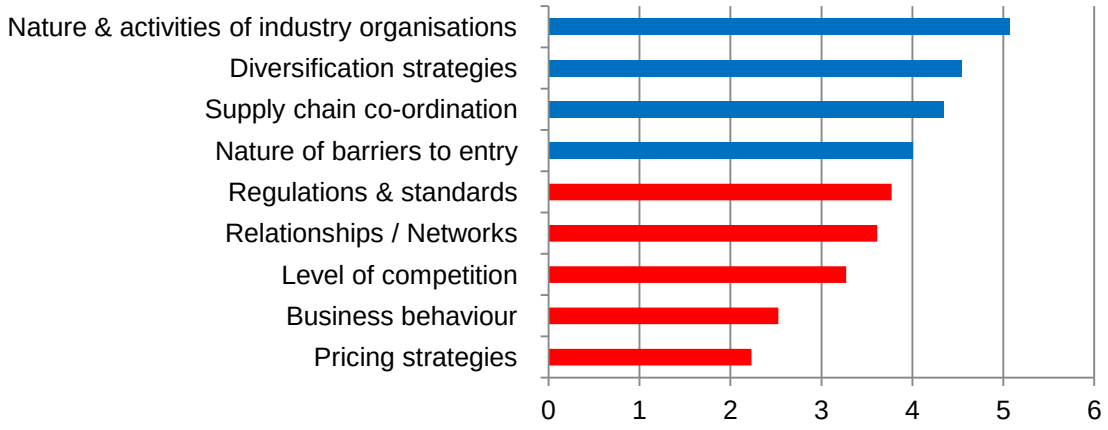
Government can, through its attitude and policies, influence almost all of the other factors measured by the Porter analysis. The land and water reform policies have a significant negative influence on the competitiveness of the industry and the Labour laws & regulations constrain the industry to a large degree.

Factor conditions:

The industry's position on factors of production proved to be generally constraining. Input costs, state of infrastructure and the labour availability, cost & productivity thereof inhibit the competitiveness and overshadow the fact that the distance from markets, compliance of traceability and the cost thereof, are enhancing the competitiveness of the industry.

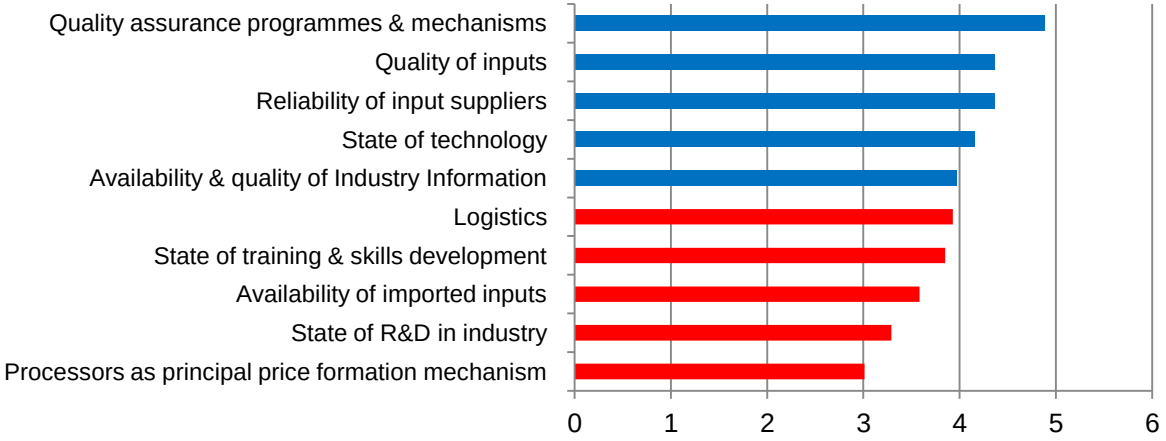
Dairy industry| Results | Porter analysis | Constraining factors

Firm strategy & Local rivalry:
The way companies are created, organised and managed, as well as the nature of local rivalry, also has a slight constraining impact on the industry's competitiveness. Pricing strategies and business behaviour of respective firms seem to inhibit competitiveness the most. The nature and activities of the industry organisations are the most enhancing factor for a role player in the industry, together with diversification strategies.



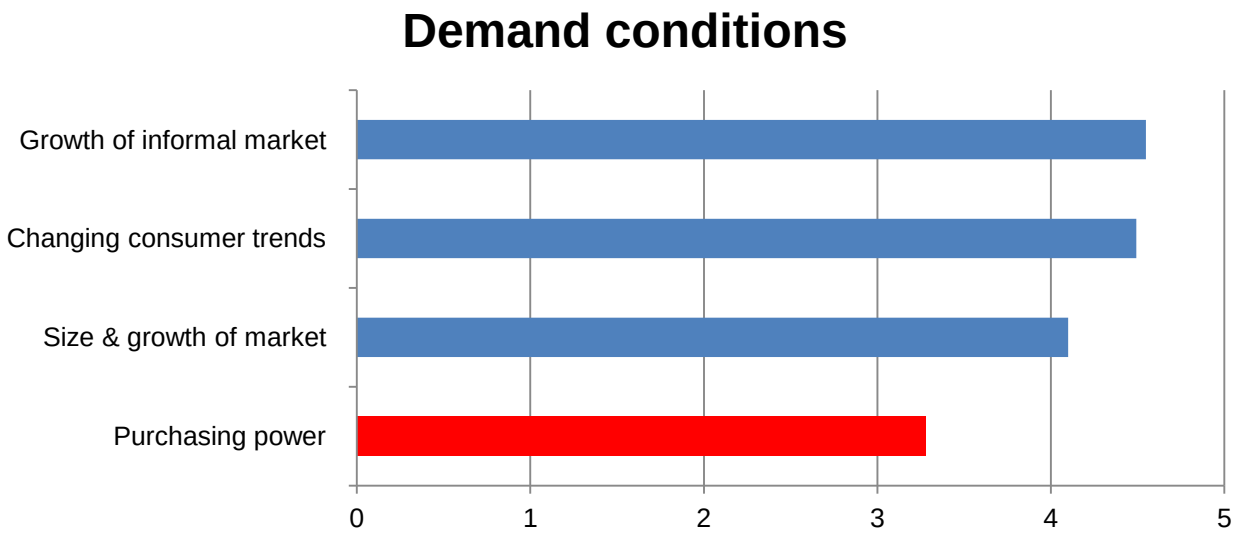
Results of the Firm strategy and Local rivalry, as a factor of the Porter analysis

Relating & Supporting industries:
The presence and nature of supporting industries are somewhat constraining. The impact of the role of processors as principal price formation mechanism and the state of research and development within the dairy industry constrain the competitiveness of the industry. The quality assurance programmes and mechanisms is proven to be the most enhancing factor.



Results of the Relating and Supporting industries, as a factor of the Porter analysis

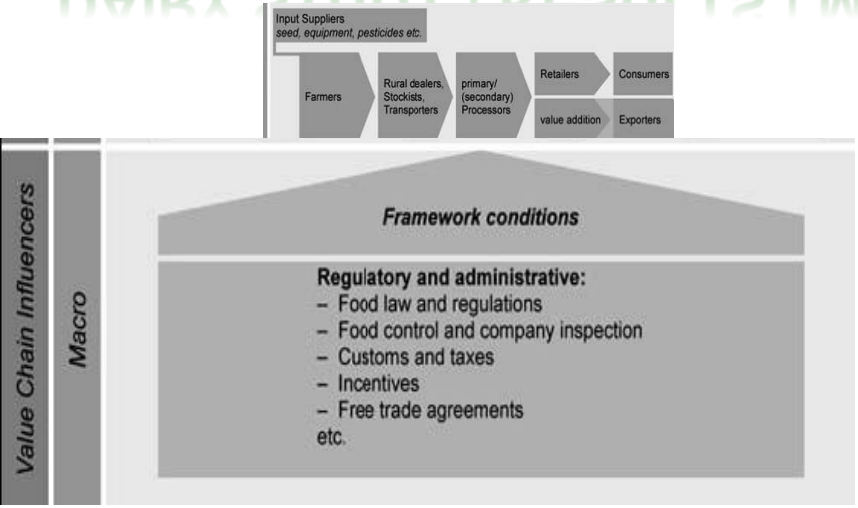
DAIRY STUDY | RESULTS | PORTER ANALYSIS | ENHANCING FACTORS



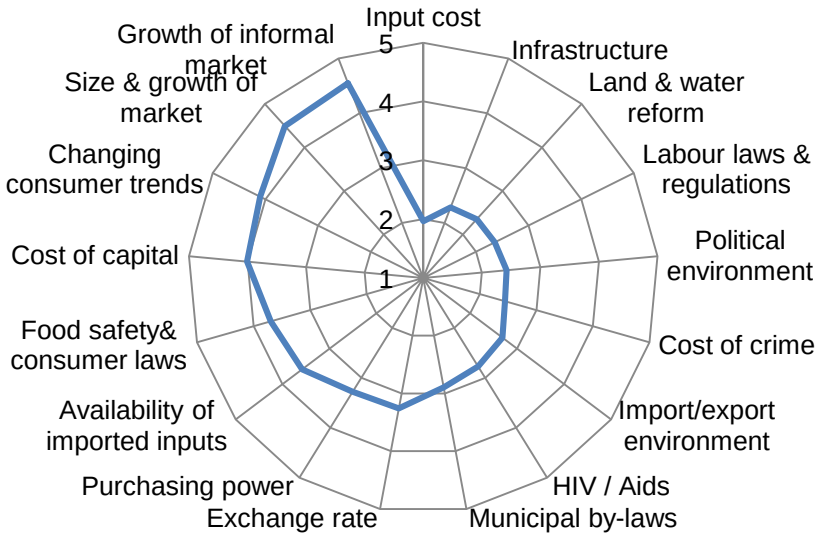
Results of the Demand conditions, as a factor of the Porter analysis

Demand conditions:
The nature of the home-market demand is slightly enhancing. Changing consumer trends and the growth of the informal market were identified as enhancing the industry's competitiveness. However, the industry is very dependent on the purchasing power of the consumers, which is currently under pressure.

DAIRY STUDY | RESULTS | MACRO ENVIRONMENT



The macro-environment, which includes the impact of regulatory and administrative issues, global and local economic trends, together with certain chance factors, such as the exchange rate and the political environment, was the most constraining to the competitiveness of the dairy industry as a whole. It is essential that the macro-environment creates stable conditions for the industry and to guarantee the functioning of the market. The industry role players should be pressured by the macro-environment to improve their productivity. Pressure could sometimes be perceived as constraining; therefore the impact of the macro-environment on the industry should be monitored to differentiate between constraining and pressuring factors.



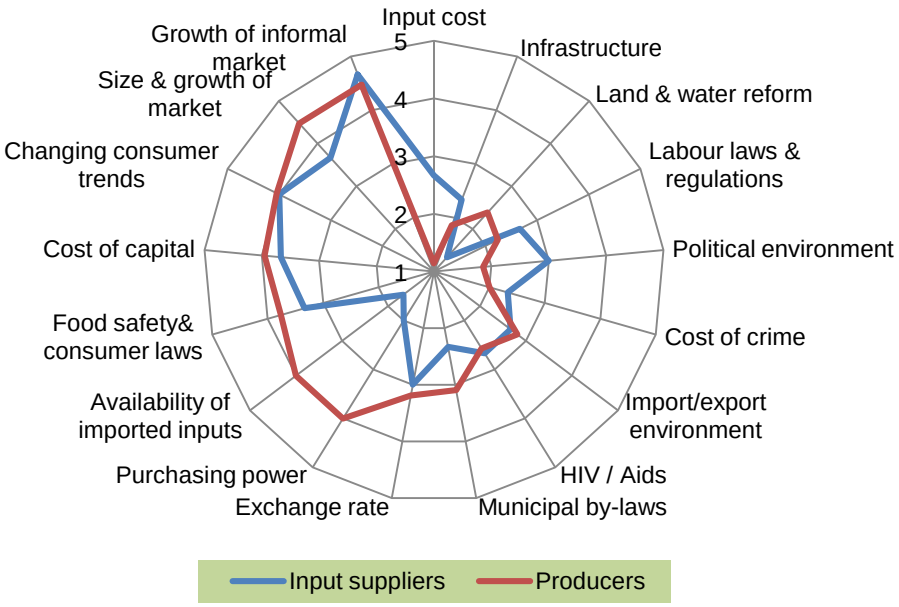
Macro-environment's impact on the dairy value chain

Considering that the macro-environment is perceived to be the most constraining on the competitiveness of the industry, it is important to identify the specific element within the macro-environment which should be addressed.

The figure indicates the most constraining factor at the top, followed by the lesser constraining factors listed according to each factor's mean, in a clockwise direction.

Input cost, such as the cost of fuel, labour and electricity, was the most constraining, followed by the state of national infrastructure, and the impact of land and water reform have. The impact of size and growth of the market as well as informal market is the most enhancing factors in the macro-environment.

Dairy Study | Results | Macro-environment



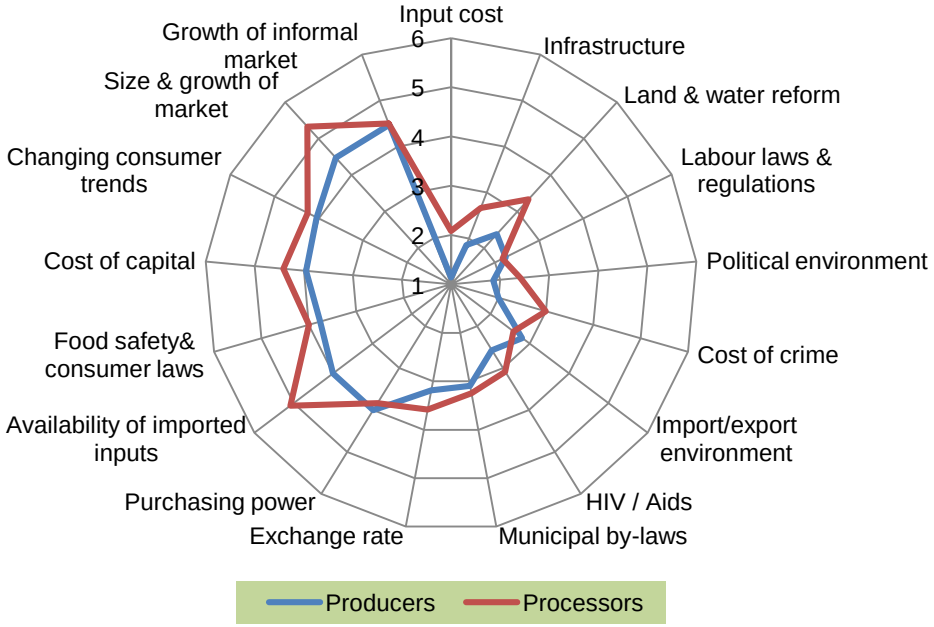
Impact of the Macro environment on input suppliers and producers

Producers versus Processors

Processors and producers feel the burden of high input costs. The state of the national infrastructure, the current political environment as well as the labour laws & regulations is seen as constraining factors.
The growth of the informal market was the most enhancing factor for producers. However, processors considered the size and growth of market in terms of local and export market as the most enhancing factor.

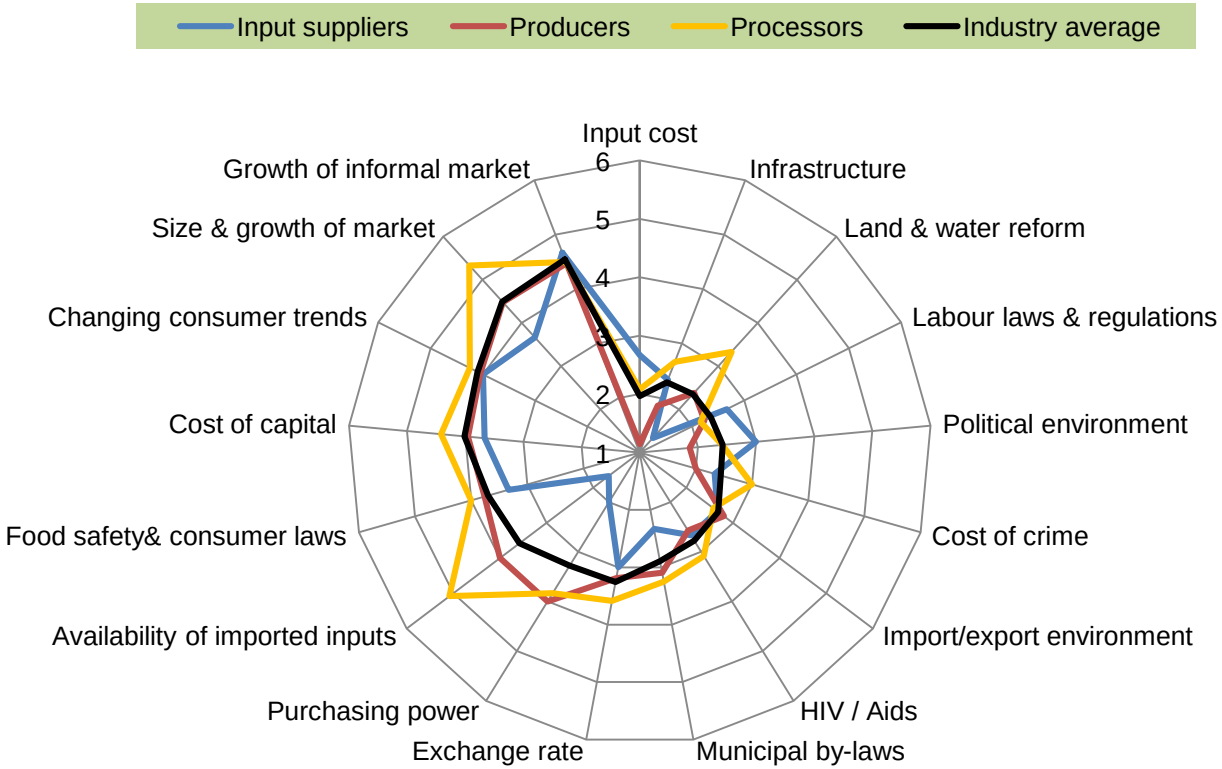
Input suppliers versus Producers

Input suppliers and producers did not reacted very similarly to the impacts of macro-level factors on their competitiveness. For the feed manufacturers the land and water reform process, the availability of imported inputs and purchasing power were identified as the most constraining factors. For the producers high input costs, the state of national infrastructure and the unstable political environment were identified as the most constraining factors.
The growth of the informal market was the most enhancing factor for input suppliers. However, producers considered the size and growth of market in terms of local and export market as the most enhancing factor.



Impact of the Macro environment on producers and processors

Dairy Study | Results | Macro-environment



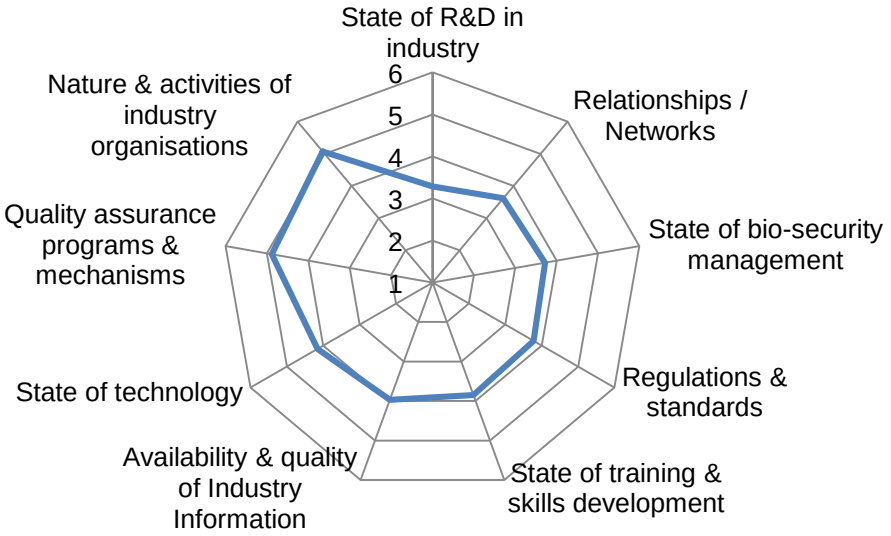
Impact of the Macro environment on input suppliers, producers and processors

Input suppliers, Producers, Processors versus Industry average

The most noticeable conflicts are around Availability of imported inputs with the input suppliers seeing it as constraining and the producers and processors above industry average as enhancing. Another macro factor that have conflicting impact, is land and water reform.

DAIRY STUDY I RESULTS | MESO-ENVIRONMENT

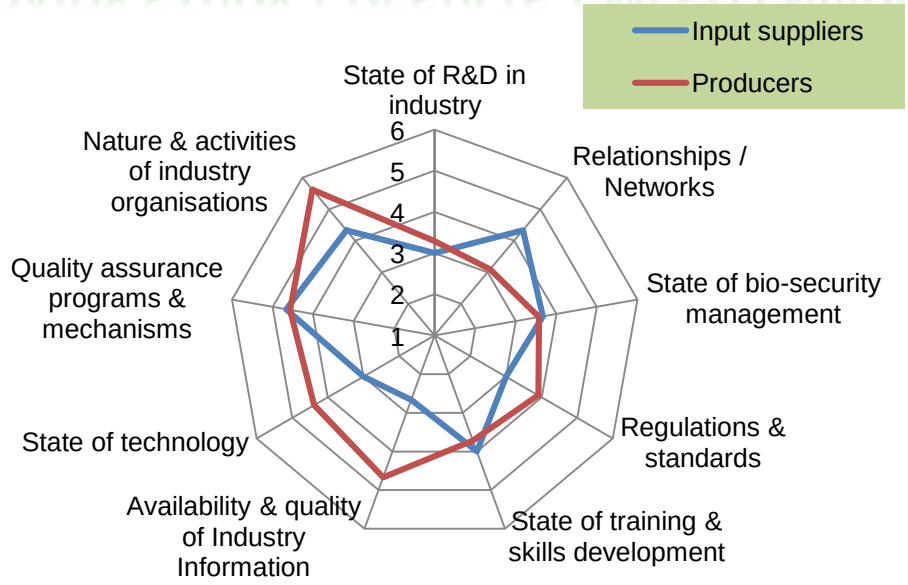
The meso-environment, referring to value chain supporters, is identified to be the most enhancing environment for the dairy industry in South Africa. However, though it is enhancing, it is not very convincingly so. Training, research and development, regulations, standards and quality assurance programmes and mechanism, together with relationships, networks and co-ordination through the organisation of the industry, define the meso-environment. The supporting industry is vital for collective action of an industry to enhance its competitiveness.



Most of the factors measured within the meso-environment were enhancing for the dairy industry as a whole, except the state of R&D, relationships & networks in the industry and to a lesser degree bio-security management. The combined impact of the nature and activities of industry organisations and the current quality assurance programmes and mechanisms implemented by input suppliers, producers and processors, are the most enhancing factors to the industry's competitiveness.

Meso-environment's impact on the dairy value chain

DAIRY STUDY | RESULTS | MESO-ENVIRONMENT



Impact of the meso-environment on input suppliers and producers

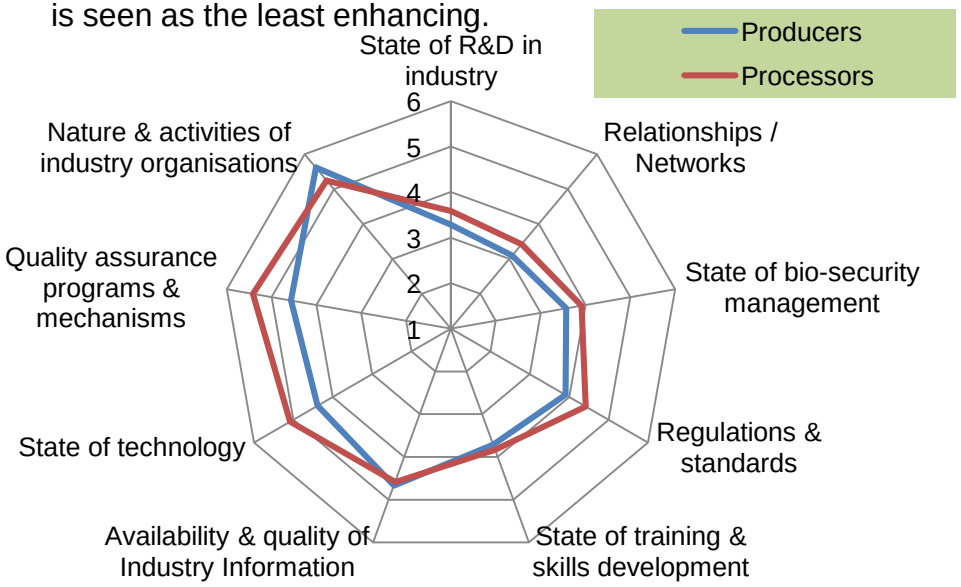
Input suppliers versus Producers

The input suppliers found almost all of the meso-environment factors as enhancing, except for the availability and quality of industry information, the state of R&D in the industry, current regulations and standards as well as the state of technology. The most enhancing factor is the state of quality assurance programs and mechanisms.

For the producers, the nature and activities of industry organisations, such as MPO, SAMPRO, Milk SA, etc., as well as the availability and quality of industry information and the state of quality assurance programs and mechanisms to be the most enhancing factors.
The state of R&D in the industry and relationships and networks is seen as the least enhancing.

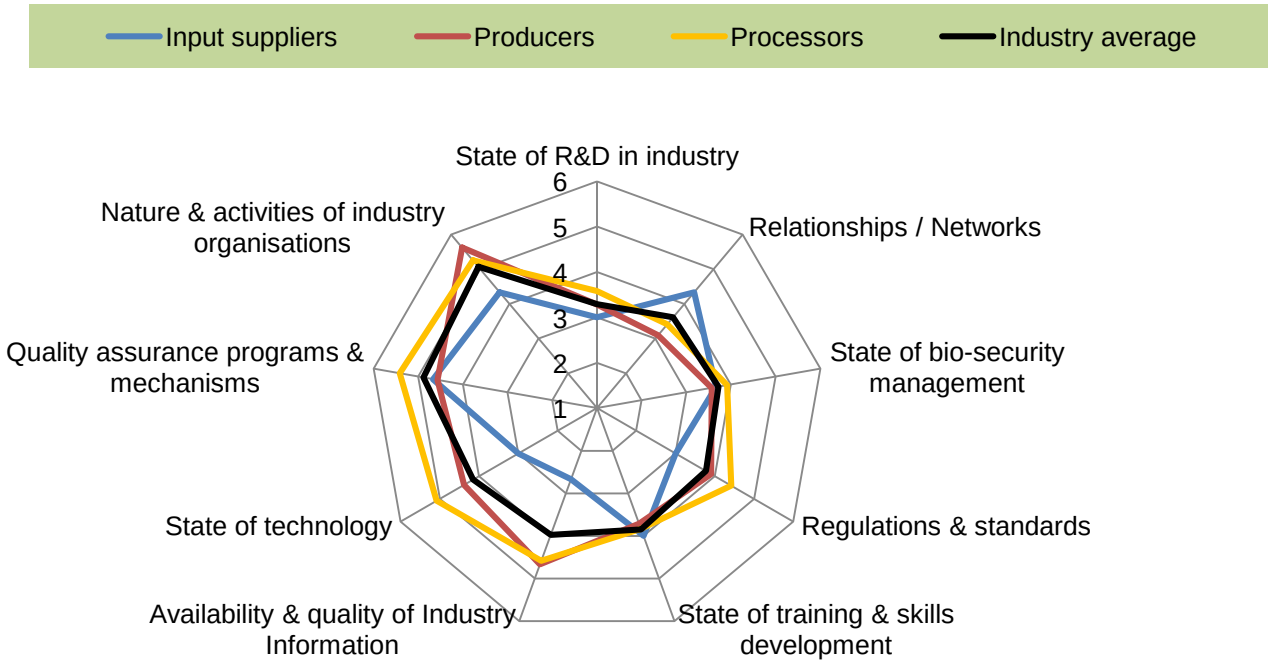
Producers versus Processors

There was not much difference in the perception between producers and processors on the overall enhancing impact of the meso-environment factors, it is just the level of enhancement that differ.
Both considered the state of research and development as well as relationships and networks to constrain their competitiveness.
The nature and activities of industry organisations, such as MPO, SAMPRO, Milk SA, etc., as well as the state of quality assurance programs and mechanisms are perceived to be the most enhancing factors.



Impact of the meso-environment on producers and processors

DAIRY STUDY | RESULTS | MESO-ENVIRONMENT

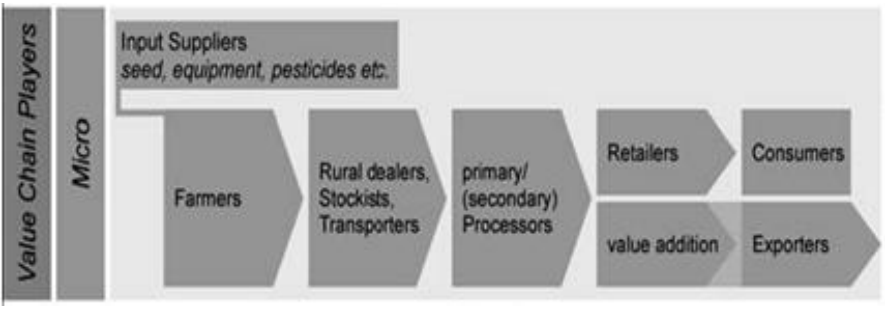


Impact of the Meso environment on input suppliers, producers and processors

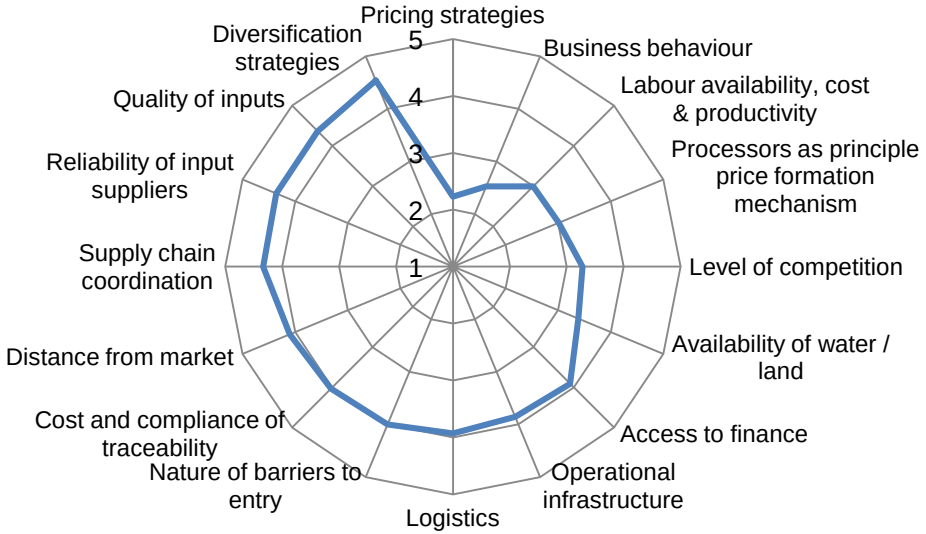
Input suppliers, Producers, Processors versus Industry average

The most noticeable conflicts are around Availability and quality of industry information with the input suppliers seeing it as constraining and the producers and processors above industry average as enhancing. Another meso factor that have conflicting impact is Regulations and standards and the state of technology.

DAIRY STUDY | RESULTS | MICRO ENVIRONMENT



The micro-environment, which includes pricing and business strategies, supply chain management and level of competition in the industry, was unconvincingly enhancing to the competitiveness of the dairy industry. The micro-environment, referring largely to the business level impact of different role players within the value chain, can usually be influenced by the role player itself. Ideally businesses/enterprises strive for ultimate effectiveness in their operations and ensure a fair level of competition. Businesses/enterprises can improve their own positioning and collectively the competitive position of the industry.



Micro-environment's impact on the dairy value chain

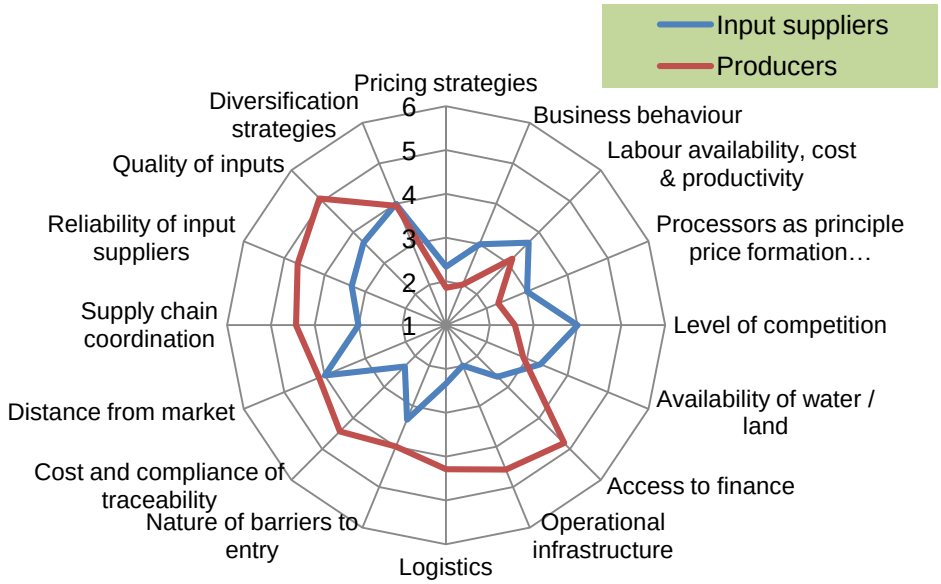
Only 6 of the 17 indicators of the micro-environment impacting on the dairy industry were constraining to the industry.

Pricing strategies, business behaviour in terms of procurement policies, monopolistic/oligopolistic behaviour, current labour availability, cost & productivity, the impact of the processors as principle price formation mechanism, the level of competition as well as the current availability of water and land were the only significant constraining factors.

Access to finance, the operational infrastructure utilise and the state of logistics are factors that can be managed to become enhancing.

Diversification strategies within the industry proved to be the most enhancing micro-environment factor.

Dairy Study | Results | Micro-environment



Impact of the micro-environment on input suppliers and producers

Input suppliers versus Producers

Input suppliers and Producers considered the impact of the impacting micro-environment factors very differently.

The impact of the micro-environment factors on producers seems to be more enhancing than on input suppliers, especially when considering the quality of inputs, access to finance, the reliability of input suppliers and the state of operational infrastructure. The most constraining micro factors for the producers are current pricing strategies and business behaviour.

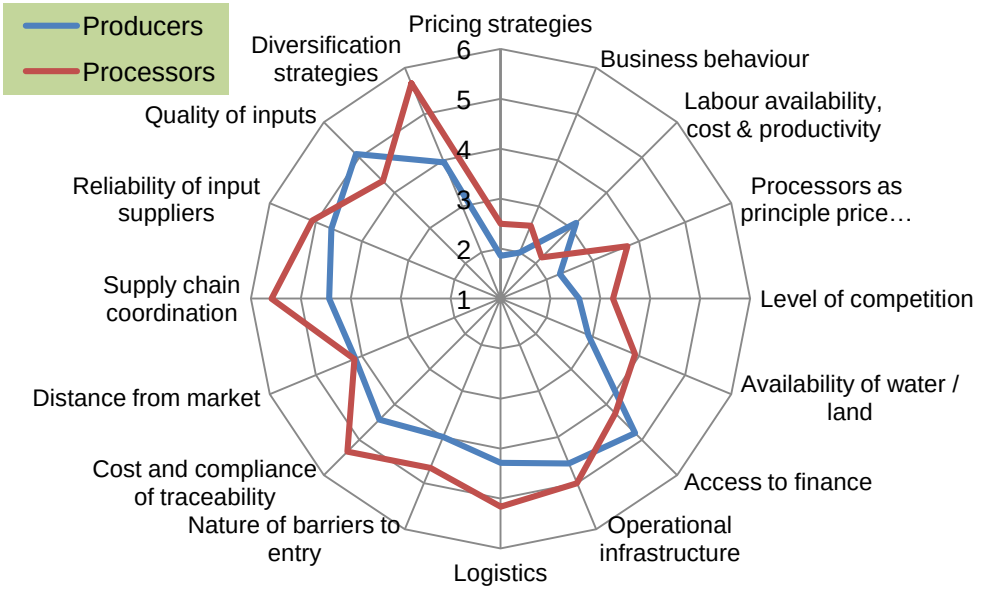
Input suppliers specified the distance from the market, the level of competition as well as their diversification strategies, to be enhancing to their competitive positioning. Their most constraining factor is their own operational infrastructure.

Producers versus Processors

The impact of micro-environment factors on the competitiveness of producers and processors showed a lot of similarities with only level differences.

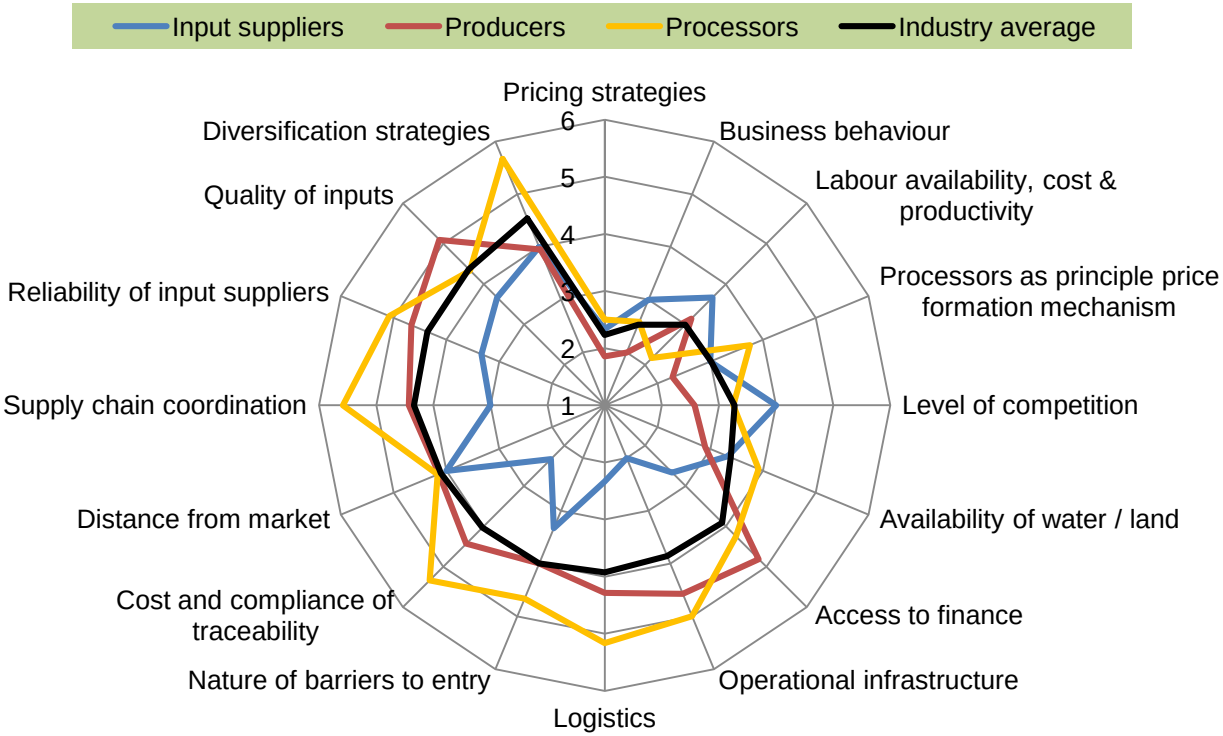
The current pricing strategies, business behaviour, labour availability and cost thereof, the impact of processors being the principal price formation mechanism, the level of competition as well as the availability of water & land was seen as constraining factors on their competitiveness.

The most enhancing factor for the producers is the quality of their inputs whilst their diversification strategies of the processors is their most enhancing factor.



Impact of the micro-environment on producers and processors

DAIRY STUDY | RESULTS | MICRO-ENVIRONMENT



Impact of the Micro environment on input suppliers, producers and processors

Input suppliers, Producers, Processors versus Industry average

The most noticeable conflicts are around operational infrastructure with the input suppliers seeing it as constraining and the producers and processors above industry average as enhancing. Another micro factor that have conflicting impact is cost and compliance of traceability and supply chain coordination.

DAIRY STUDY | SUMMARY | TABLE OF ALL IMPORTANT & RELEVANT FACTORS

In the following tables an overview of the most important and relevant constraining and enhancing factors within the micro-, meso- and macro-environments, impacting on the Dairy Industry and various role players within the value chain, is listed. Constraining factors for each grouping of role players, which were rated on an **average below 3,5** out of 7, were considered as important and relevant constraining factors. Enhancing factors for each grouping which were rated **above 4,5** were considered important and relevant. All factors, listed and not listed, are considered to be relevant determining factors to the competitiveness of the industry and each grouping of role players within the value chain. However, when a factor is not listed here, it was identified to have a neutral impact on the competitiveness during the September 2012 period.

LIST OF THE MOST IMPORTANT AND RELEVANT CONSTRAINING AND ENHANCING **MACRO FACTORS** FOR THE INDUSTRY AS A WHOLE, THE INPUT SUPPLIERS, PRODUCERS AND PROCESSORS.

		Average		Input suppliers		Producers		Processors	
Macro environment	Constraining	Input cost	2.0	Land & water reform	1.3	Input cost	1.1	Input cost	2.1
		Infrastructure	2.3	Availability of imported inputs	1.7	Infrastructure	1.9	Labour laws & regulations	2.2
		Land & water reform	2.3	Purchasing power	2.0	Political environment	1.9	Political environment	2.4
		Labour laws & regulations	2.4	Infrastructure	2.3	Cost of crime	2.0	Import/export environment	2.6
		Political environment	2.4	Cost of crime	2.3	Labour laws & regulations	2.2	Infrastructure	2.7
		Cost of crime	2.4	Municipal by-laws	2.3	Land & water reform	2.4	Cost of crime	3.0
		Import/export environment	2.7	Input cost	2.7	HIV / Aids	2.6	HIV / Aids	3.1
		HIV / Aids	2.8	Labour laws & regulations	2.7	Import/export environment	2.8	Municipal by-laws	3.3
		Municipal by-laws	2.9	Import/export environment	2.7	Municipal by-laws	3.1	Land & water reform	3.3
		Exchange rate	3.3	HIV / Aids	2.7	Exchange rate	3.2		
				Political environment	3.0				
				Exchange rate	3.0				
				Food safety& consumer laws	3.3				
	Enhancing	Growth of informal market	4.55	Growth of informal market	4.7	Size & growth of market	4.48	Size & growth of market	5.3
						Growth of informal market	4.48	Availability of imported inputs	5.1
								Growth of informal market	4.50

LIST OF THE MOST IMPORTANT AND RELEVANT CONSTRAINING AND ENHANCING **MESO FACTORS** FOR THE INDUSTRY AS A WHOLE, THE INPUT SUPPLIERS, PRODUCERS AND PROCESSORS.

		Average	Input suppliers	Producers	Processors
Meso environment	Constraining	State of R&D in industry 3.3	Availability & quality of Industry Information 2.7 State of R&D in industry 3.0 Regulations & standards 3.0 State of technology 3.0	Relationships / Networks 3.1 State of R&D in industry 3.3	Relationships / Networks 3.4
	Enhancing	Nature & activities of industry organisations 5.1 Quality assurance programs & mechanisms 4.9	Quality assurance programs & mechanisms 4.7	Nature & activities of industry organisations 5.6 Availability & quality of Industry Information 4.7 Quality assurance programs & mechanisms 4.6	Quality assurance programs & mechanisms 5.4 Nature & activities of industry organisations 5.3 State of technology 5.1 Availability & quality of Industry Information 4.6

LIST OF THE MOST IMPORTANT AND RELEVANT CONSTRAINING AND ENHANCING **MICRO FACTORS** FOR THE INDUSTRY AS A WHOLE, THE INPUT SUPPLIERS, PRODUCERS AND PROCESSORS.

		Average		Input suppliers		Producers		Processors	
Micro environment	Constraining	Pricing strategies	2.2	Operational infrastructure	2.0	Pricing strategies	1.9	Labour availability, cost & productivity	2.2
		Business behaviour	2.5	Pricing strategies	2.3	Business behaviour	2.0	Pricing strategies	2.5
		Labour availability, cost & productivity	3.0	Logistics	2.3	Processors as principle price formation mechanism	2.3	Business behaviour	2.6
		Processors as principle price formation mechanism	3.0	Cost and compliance of traceability	2.3	Level of competition	2.6	Level of competition	3.3
		Level of competition	3.3	Access to finance	2.7	Availability of water / land	2.9		
		Availability of water / land	3.4	Business behaviour	3.0	Labour availability, cost & productivity	3.1		
				Processors as principle price formation mechanism	3.0				
				Supply chain coordination	3.0				
				Availability of water / land	3.3				
				Nature of barriers to entry	3.3				
				Reliability of input suppliers	3.3				
	Enhancing	Diversification strategies	4.54			Quality of inputs	5.1	Diversification strategies	5.7
						Access to finance	4.8	Supply chain coordination	5.6
						Reliability of input suppliers	4.7	Cost and compliance of traceability	5.3
						Operational infrastructure	4.6	Logistics	5.2
								Reliability of input suppliers	5.1
								Operational infrastructure	5.0
								Nature of barriers to entry	4.7

THE SOUTH AFRICAN DAIRY VALUE CHAIN

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  - Input suppliers, producers and processors who submitted their questionnaires on time;
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