Competitiveness, Sustainability, Resilience ...new challenges for the (Table) Grape industry

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2022
Towards the new Normal?
Fragility, break-downs in agri-food bus value chains
Realities:
Reduce carbon footprints!!
This talk is about 4 statements on Strategic Action in the (Table) Grape Value Chain

1. Value Chain Competitiveness (Agri-Comp Matrix; Zyanda M Sc Agric research)

2. Dealing with the “new big issues” (WEF, “Green Deal”, IMD, FAO, ...)
   - Environment sustainability
   - Value Chain Resilience
Statement 1: Competitive value chains – the key to agribusiness success

2. Product Flows/logistics/certifications

1. Information Flows

3. Financial Flows/Returns

*Incentives

*Governance

* Policies
Value Chains are integrated and complicated but are the **Integrators** in the market:

Learn to participate and manage..

Be influential!!!
DEFINING AGRI-COMPETITIVENESS...

COMPETITIVENESS:

“THE ABILITY TO CONTINUE TO DO GOOD BUSINESS... GIVEN ALL ALTERNATIVES (INVESTMENT) ALTERNATIVES:

- SIMILAR & OTHER PRODUCTS;
- OTHER INDUSTRIES- AGRIC & NON-AGRIC; - OTHER REGIONS AND COUNTRIES”

- GAINING COMPETITIVE ADVANTAGE
  - STRATEGY THE KEY (Porter, 1998)

- Competitiveness & Profitability?
MEASURING PERFORMANCE:

TRADE BASED MEASURES (opportunity cost based)

$$RCA_{ij} = RXA_{ij} = \frac{X_{ij}}{X_{ik}} \div \frac{X_{nj}}{X_{nk}}$$

$$RMA_{ij} = \frac{M_{ij}}{M_{ik}} \div \frac{M_{nj}}{M_{nk}}$$

$$RTA_{ij} = RXA_{ij} - RMA_{ij}$$

Imports and exports (Balassa 1966, Vollrath 1991)

Data:
FAO STATS;
TRADEMAP

COMPREHENSIVE ASSEMENTS

STRATEGIC ANALYSIS:

Objective measures-
• Cost Measures
• Profitability
• Productivity and Efficiency

Subjective opinions-
• SWOT
• PORTER COMP DIAMOND
• EXEC SURVEYS, Delphi

METHODOLOGY AND ANALYSIS:
RSA Agri
Competitiveness:

RTA > 0

Competitive but marginal (ITC data 2001-
Measuring the competitiveness of RSA Grapes

Table grapes

Raisins
Figure 5.2: RTA values showing South African table grape trends
Table grape juice RTA for NH countries
Gedroogte druïwe (Rosyntjies)

SA Dried Grape RTA trends
Explaining competitive performance:

Determinants & Factors of Competitiveness to gain Competitive Advantage
Table Grapes:

33 Factors constraining/enhancing Competitive Performance (TGES, 2018/9):

Note:
- great variations
- consistency in value chain

<table>
<thead>
<tr>
<th>Factor Description</th>
<th>Code</th>
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<tbody>
<tr>
<td>Advancement of technology (PF 27)</td>
<td></td>
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<tr>
<td>Value of research available (PF 35)</td>
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<tr>
<td>General infrastructure: Water Supply (PF 7)</td>
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<tr>
<td>Suppliers of primary inputs (RSI 9)</td>
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<tr>
<td>Infrastructure: Telecommunication (PF 8)</td>
<td></td>
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<tr>
<td>Willingness to reinvest (FSR 6)</td>
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<tr>
<td>New cultivars (DF 17)</td>
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<td>Access to quality technology (PF 25)</td>
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<td>Financial service providers (RSI 1)</td>
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<td>Competition vs other industries: Capital (FSR 11)</td>
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<tr>
<td>Industry efficiency level (PF 16)</td>
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<tr>
<td>Threats of new entrants locally (FSR 3)</td>
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<td>Local consumers adaptation to new cultivars (DF 3)</td>
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<td>Use of labour saving machinery (PF 5)</td>
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<td>Long term Advance from exporters (PF 30)</td>
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<td>Longterm : loans (PF 28)</td>
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<tr>
<td>Competition vs other industries: Land (FSR 9)</td>
<td></td>
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<tr>
<td>SA macro-economic policy (GP 4)</td>
<td></td>
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<tr>
<td>Quality of technology (PF 24)</td>
<td></td>
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<tr>
<td>Growth in local market (DF 2)</td>
<td></td>
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<tr>
<td>Closed trade model: &quot;America first&quot; (DF 15)</td>
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<tr>
<td>Health conditions (CF 5)</td>
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<tr>
<td>Ease/ Difficulty in obtaining infrastructure (PF 12)</td>
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<tr>
<td>Increased VAT (GP 13)</td>
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<tr>
<td>Establishment and production costs (PF 14)</td>
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<tr>
<td>Skills of entry-level labour (PF 3)</td>
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<td>Competition from major competitors (DF 16)</td>
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<td>Local buyers: Hawkers (DF 5)</td>
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<tr>
<td>Long term Grants (PF 29)</td>
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<tr>
<td>Land expropriation (GP 17)</td>
<td></td>
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<tr>
<td>Crime in general (CF 4)</td>
<td></td>
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<tr>
<td>Unpredicted weather conditions (PF 40)</td>
<td></td>
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<tr>
<td>Government financial support (RSI 2)</td>
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</tbody>
</table>
Agenda for Strategic Action: Porter Competitive Diamond

Note:
- 17 Constraints/13 enhancements
- Firm strategy most significant
- Unbalanced pattern

Table 5.2: Average impact scores of Porter's model determinants

<table>
<thead>
<tr>
<th>Porter determinants</th>
<th>Average factor score</th>
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</thead>
<tbody>
<tr>
<td>Production factors</td>
<td>2.78</td>
</tr>
<tr>
<td>Demand factors</td>
<td>2.75</td>
</tr>
<tr>
<td>Related and supporting industries</td>
<td>2.88</td>
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<tr>
<td>Firm strategy, structure and rivalry</td>
<td>3.45</td>
</tr>
<tr>
<td>Chance factors</td>
<td>2.3</td>
</tr>
<tr>
<td>Government support and policies</td>
<td>2</td>
</tr>
</tbody>
</table>
Industry structure and firm strategy 70/100

Enhancements:
- Entry into global markets..90%
- Traceability system..80%
- Willingness to invest

Constraints:
- Market intell..28%
Production Factor
Endowments 56%

Enhancements:
- Industry infra-90%
- Cold storage, transp
- Tech innovation
- Access to R&D
- Entry level labour

Constraints:
- Access to water 40%
- High cost -$/R - technology- 30%
- Entry level skills
- Ocean cargo costs 45%
Demand and Markets 55/100

Enhancements:
- Understanding global markets 70%
- Local retail markets 88%

Constraints:
- Local market size 20%
- Global competitor actions ? 30%
Supporting industries & agencies 58/100

Enhancements:
- Local systems (R&D, fin, supply, inputs...) 70+%  

Constraints:
- Gvt support agencies (R&D, fin, info & advice, promotion..) 40-%
Government & Policy 40%

Enhancements:
- Regulatory standards 85%

Constraints:
- Red tape admin 40%
- Policies - Labour, Land, BEE, Water, Trade 30%
- Corruption, political credibility
Managing chance factors 46/100

Enhancements:
- Low exchange rate 80%

Constraints:
- Global recession, impacts 25%
- Labour uncertainty 35%
- Exchange rate fluctuations 40%
- Crime 22%
- Social unrest 35%
Towards the future:

Strategic Action by the Table Grape industry:

1. Focus on competitiveness:
   - Activate the ‘Porter Competitive Diamond” analysis- ask the right Q’s:
   - id relevant Constraints and Enhancements
   - Consider short & long term impacts
   - Seek Industry Value Chain Co-operation on priority industry actions
   - Sharpen firm level strategies – product focus, markets, regulations, relationships

2. Dealing with the “new big issues”
   - Environmental sustainability
   - Value chain Fragility & Resilience
Statement 2:

“Value chains will have to be much more environment sustainable” (WEF; Paris Agreement)
Realities:
Reduce carbon footprint!!
.....and they are measuring!!

UN, FAO, WEF, Governments, Activists, Supermarkets, Research Political groups Financial agencies
There is a vast difference in greenhouse gases (GHG) that are produced across various food types.

**GHG emissions per kilogram of food product**

(kg CO₂-equivalents per kg product)

- **Beef (beef herd):** 60.0
- **Lamb and mutton:**
- **Cheese:**
- **Beef (dairy herd):**
- **Chocolate:**
- **Coffee:**
- **Prawns (farmed):**
- **Palm oil:**
- **Pig meat:**
- **Poultry meat:**
- **Olive oil:**
- **Fish (farmed):**
- **Eggs:**
- **Rice:**
- **Fish (wild catch):**
- **Milk:**
- **Cane sugar:**
- **Groundnuts:**
- **Wheat and rye:**
- **Tomatoes:**
- **Maize (corn):**
- **Cassava:**
- **Soy milk:**
- **Peas:**
- **Bananas:**
- **Root vegetables:**
- **Apples:**
- **Citrus fruits:**
- **Nuts:**

**Transport emissions are very small for most food products.**

- **Methane production from cows and land conversion for grazing and animal feed means beef from dedicated beef herds has a very high carbon footprint.**
- **Daily co-products mean beef from dairy herds has a lower carbon footprint than dedicated beef herds.**
- **Pigs and poultry are non-ruminant livestock, so they do not produce methane. They have significantly lower emissions than beef and lamb.**
- **Flooded rice produces methan, which dominates on-farm emissions.**
- **“Farm” emissions for wild fish refers to fuel use by fishing vessels.**
- **Methane production from cows means dairy milk has significantly higher emissions than plant-based milks.**
- **CO₂ emissions from most plant-based products are as much as 10-50 times lower than most animal-based products.**
- **Factors such as transport distance, retail, packaging, or specific farm methods are often small compared to importance of food type.**

**Nuts have a negative land use change figure, because nut trees are currently replacing croplands; carbon is stored in the trees.**
## CARBON FOOTPRINT: TABLE GRAPES

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Fruit</td>
<td>390</td>
<td>250-470</td>
</tr>
<tr>
<td>Table Grapes</td>
<td>110</td>
<td>62-140</td>
</tr>
</tbody>
</table>

*carbon footprints in Gg CO$_2$ e using CCC*
Carbon Footprint: Table Grapes value chain

CCC carbon footprint for Western Cape table grapes
• Take Note: The Paris Agreement on Climate Change is serious:

- Regulatory pressures are increasing….WEF, EU Green Deal
- Companies are now targeting carbon neutrality dates - 2030 to 2050 .... 90 top agri-food companies already committed!
- Pressures from buyers and consumers, activist groups, political parties-targeting supermarkets, schools, univ...

• A key step now for industries:
  - To quantify & report emissions across value chains..

• Reporting on 3 “scopes”:
  - Scope 1 & 2: internal emissions of buildings, vehicles, electricity, heating, cooling.
  - Scope 3: value chain emissions* released upstream and downstream in manufacturing/production process.

* Value chain emissions (can) account for up to 50-90% of a company’s total emissions (Oliver Wyman, IMD, 2022).
5 Steps to VC Sustainability (WEF,2022)

1. Establish transparency across all stakeholders in the value chain: Chain transparency allows a company to see the situation faced by all parties involved in the production of its goods. Using the information this reveals, stakeholders can then align and synchronize activities to reach common sustainability goals. For example, bigger firms can educate smaller suppliers on sustainability practices and commit to large volumes when sustainability expectations are met or share the additional cost required to put those standards in place.

2. Standardize Scope 1, 2, 3 measurements: Standardizing measurements of Scope 1 and 2 emissions is straightforward. However, with no reporting standards for Scope 3, companies must spend a lot of time obtaining exactly what is needed from their upstream and downstream partners, who may not be able to supply the data required. Standardized measurements for all scopes would save time and deliver the exact data required.

3. Report on reduced emissions across Scope 1, 2, 3: The GHG Protocol advises all companies to report on their Scope 1 and 2 emissions, yet states that Scope 3 emissions are optional to report, even though these may comprise the biggest share of their emissions. While many companies have already started reporting Scope 3 emissions, it will soon be made mandatory for all companies.

4. Overcome the data challenges (protocol) for sustainability accounting: Apart from transparency and standardized reporting, companies should have a centralized system for reporting and analyzing emissions from all sources. Digitalizing data collection and processing can help overcome this challenge.

5. Embed sustainability in day-to-day operations:
   • Making sustainability part of a company’s culture will lessen potential conflicts of priorities with other strategic imperatives. If sustainability measures are key performance indicators (KPIs) that all departments must report on, a company can sync its sustainability practices across its operations.
   • Getting serious about sustainability is both a leadership challenge and a supply chain challenge. Having senior chain leaders on your management team that can handle this has to be a top priority for all businesses.
Need for resilience:
Fragility, break-downs in agribusiness value chains
Statement 3: “We now need more Resilient Value Chains to manage unpredictability & fragility” (WEF, 2022; IMD-WCI, 2022)

• Competitive agri-value chains are required to:
  – Deliver customer needs - safety & integrity certifications.
  – Coordinate flows: reliable info-, product- and return/value
  – Sustain chain relationships- personal, legal, contractual…..
  – **Perform as investments** - opportunity costs threats

BUT:

• Fragile chains: Risk & uncertainty increasingly impact chain performance:
  – More frequent a typical events: Health scares, Suez blockage, Covid, unpredictable weather, social unrest, Ukrainian war.........
  – “Bull Whip” effects- greater disrupting impacts - quality, quantity, safety...
  – **Costs< and Profits>**
  – Brand reputations ruined chain relations crash!

COMPETITIVE, RESILIENT VALUE CHAINS THE KEY
....and the “most fragile/vulnerable” value chains are:

- Tightly aligned efficient VC (high traceability, certifications, efficiencies)
  most vulnerable = greater interdependency = greater fragilities = new & greater strategic risks..

  = **Table grapes, fruit meat, wine, veggies, bev, oils, food...**

- Integrated and responsive VC management systems increasingly required - sharing intelligence and decisions &

- Focusing on biggest risks & relationship break downs
Value Chain Fragility
Creating a management system of RESILIENCE to ensure that:

- Inputs, strategies mobilised from key chain stakeholders

- Risks are identified and analysed: natural disasters—fire, flood; weather-related events; social disruptions, wars, pandemics, cyber attacks...; crime and corruption; internal production processes; changing demand/markets....

- Personnel and assets are protected and able to function in the event of a disaster.

- Find the “weakest links”
Competitiveness, resilience and sustainability in the Grape Value Chain

- Towards a “new (Table) Grape Industry Strat (Plan)” to manage:
  - **Value Chain Factors** – create a “Grape Value Chain Agenda”
  - **Internal/firm factors** - establish Internal performance indicators (to fit ethical/environmental regulations, and related standards- carbon foot prints, etc)
  - **External Factors** – monitor/engage government actions, world events, regulatory bullying...
- **Lobby smart**.... Focus on right questions/issues...and get industry & govt to “bring sy kant” ...sometimes they can!!!
Sitrusdispuut: Boere, DA verwelkom staatsingryping

Francois Williams

Die DA het die regering se besluit verwelkom om ‘n handelsdispuut met die Europese Unie (EU) by die Wêreldhandelsorganisasie (WHO) te verklar.

Dit gaan oor die EU se staande komitee oor plante, diere, kos en voer se besluit om Suid-Afrikaanse sitrus aan uiterste koue behandeling te onderwerp in ’n poging om die besmetting van valsokdalingmot te bestry.

Die plaaslike sitrusbedryf is baie besorg oor dié besluit weens die inkomsteverlies en moontlike werkverliese.

Volgens Mat Cuthbert, DA-woordvoerder oor handelskwesties, kan die EU-besluit ernstige gevolge vir die bedryf inhoud as dit nie betwis sou word nie.

Die DA het selfs ’n brief aan pres. Cyril Ramaphosa geskryf om by die kwessie in te gryp.

Die EU is die grootste handelsvenoot van Suid-Afrika en die handelsverhouding is meestal opbouend en wedersyds bevoordeelend, maar sitrusuitvoer is steeds ’n verdelende kwessie, waarso Cuthbert.

Dit blyk ook uit die uitgerekte verskille tussen Suid-Afrika en die EU oor die beste fitosanitêre maatreëls om swartvlek by sitrus te bestry.

Justin Chadwick, uitvoerende hoof van die Sitruskewersvereniging van Suid-Afrika, verduidelik in sy jongste nuusbrief dat lede van die WHO instem om nie teen invoer van verskilende lande te diskrimineer of om sanitaire en tegnieke versperrings teen handel in te stel wat diskriminerend is of nie op internasionale standaarde of gesonde wetenskaplike bewyse geëgrond nie.

Volgens hom is dit duidelik dat die EU se jongste invoerreëls vir Suid-Afrikaanse sitrus rondom valsokdalingmot juist hierdie voorwaardes oortree. Suid-Afrika het 21 aspekte in die EU se nuwe reëls gevind wat nie konsekwent is en nie volgens die WHO-riglyne is nie.

Tet 3,2 miljoen kartonne sitrus ter waarde van R605 miljoen is reeds deur die nuwe EU-reëls geraak en daar kom berigte van honderde vraghouers van Suid-Afrikaanse sitrus wat met hul aankoms in Europa deur amptenare teruggehou word, het Chadwick gewaar.

As daar nie politieke ingryping is nie, bestaan die gevaar dat dié besendings sitrus verenig sal word.

Die Sitruskewersvereniging het ook die regering se ingryping verwelkom.

Spanje is die grootste sitrusproduusent in Europa, gevolg deur Italië, Griekeland, Portugal en Ciprus.

Dit blyk Spanje het al sedert Oktober verlede jaar met sy plan begin om ’n stokkie voor Suid-Afrikaanse sitrus te steek.
Die departement van landbou, grondhervorming en landelijke ontwikkeling het ’n ooreenkomst met die Europese Unie aangegaan wat die uitvoer van sitrus betref.
Thank you