

# Developing and applying a Competitive Intelligence model to enhance extruder exports from South Africa

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## Outline

1. Introduction
2. Research question
3. Aims of study
4. Research design and method
5. Results
  - CI and exports
  - Extruders, extrusion & extruder industry in SA
  - Exports of extruders
6. Conclusions and recommendations



## 1. Introduction

- Export promotion is a priority
- Role of government in export promotion
  - Information provision
  - Allocation of resources to activities in various export markets
  - Allocate resources to alternative export promotion instruments
  - Challenge arises – limited funds - therefore important to identify realistic export opportunities
- 2006: Decision Support Model (Viviers & Pearson)
- 2007: DSM results for South Africa
- SITC 7284: Machinery for specialised industries
  - extruders : one of the products



## 2. Research question

Investigating the export opportunities for extruders to southern Africa using Competitive Intelligence to improve understanding of customers, markets, competitors, regulations...



## 3. Aims of the study

1. Describe CI and its role in exports
2. Describe extruders and their applications
3. Describe the extrusion process
4. Determine information needs and sources of information of exports of manufactured goods, in particular extruders
5. Determine gaps between needs and what is available
6. Collect required information – in-depth market analysis of exports of extruders to southern Africa
7. Make recommendations to TPOs and relevant exporters



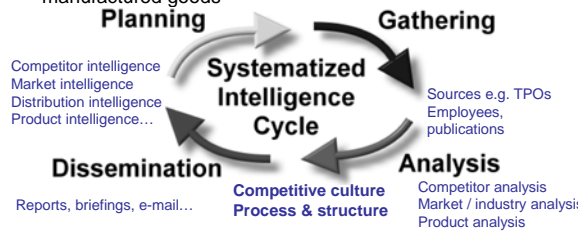
## 4. Research design and method

1. Literature review on:
  - a. CI for exporters
  - b. Extruders and extrusion
  - c. How CI can be applied to assist extruder exports to southern Africa
2. Empirical research:
  - a. F2F interviews with
    - i. Extruder manufacturers
    - ii. Extruder importers
    - iii. Export promotion organisations
  - b. Population
  - c. Three different questionnaires



## 5. Results: CI and exports

- The CI process
- CI can assist exporters in exploiting market opportunities
- Information needs / sources of information of exporters of manufactured goods



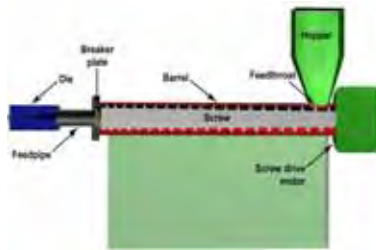
## 5. Results (etc): Description of extruders

- Standard International Trade Classification (SITC) and Harmonized System (HS) = two different trade classifications - SITC focuses more on economic functions of products at various stages of development; HS deals with precise breakdown of products' individual categories

SITC Rev. 3	HS
<b>Section: 7:</b> Machinery and transport equipment	<b>Ch 84:</b> Nuclear reactors, boilers, machinery and mechanical appliances
<b>Division: 72:</b> Machinery specialised for particular industries	<b>Sub-code 8477</b> Machinery for working rubber or plastics, parts thereof injection-molding, extruders, blow-molding, vacuum-molding, retreading tires
<b>Group: 728</b> Other machinery and equipment specialised for particular industries; parts thereof, n.e.s.	<b>Sub-code 847720</b> Extruders

## 5. Results (etc): Description of extruders

- A machine for producing more or less continuous lengths or forms of various products i.e. food, feed, plastics, rubber, metal
- Various types
  - Single-screw
  - Twin or double-screw
- Differences in number of screws, cost, efficiencies



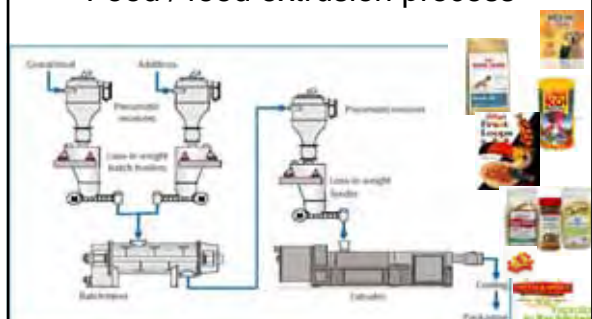
## Plastic twin-screw extruders

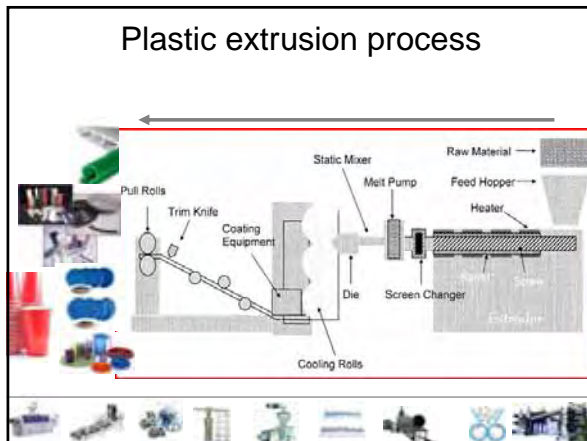


## 5. Results (etc): Extrusion process

- Continuous or semi-continuous process of forming of raw material into a uniform shape by forcing it through a die under controlled conditions
- Material is shaped often after previous heating
- Significant use in food, feed, aluminium, steel and plastics industries
  - Food: Cereals, crisps, soy-based products – Tiger brands, Premier Foods etc
  - Feed: Beenos, petfood e.g. Hills
  - Aluminium: Wispeco
  - Steel: Automotive parts
  - Plastics: Pipes

## Food / feed extrusion process





- ### 5. Results (etc): Extruder industry in South Africa
- High potential in southern Africa to alleviate food security
  - High potential to stimulate small business
  - High cost of extruders → mainly used by large co's and multinationals
  - New technologies lower costs opening new opportunities in southern Africa
  - Opportunities can be exploited with assistance of CI → detailed knowledge about such opportunities

- ### 5. Results (etc): Extruder manufacturers
- Only a single extruder manufacturer in South Africa
  - Number of importers
    - Direct to end-user
    - Through local offices to end-user
    - Through agents / distributors to end-users
  - End-users typically Kellogg's, Royal Canin, Petzetakis Plastics etc
  - Other potentially important end-users: Small businesses producing plastics or food - Tanzania case study
  - Trade figures indicate exports of extruders to the SADC

- ### 5. Results (etc): Exports of extruders
- Potential in southern Africa to alleviate food security
  - High potential to stimulate small business
  - High cost of extruders → mainly used by large co's and multinationals
  - New technologies lower costs opening new opportunities in southern Africa
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- ### 5. Results (etc): Exports of extruders
- Barriers to exports:**
1. High cost of extruders: limited to large end-users
  2. Difficulty in financing extruders
  3. Need for fast service
  4. Cost of keeping spare parts
  5. Quality assurance

- ### 5. Results (etc): Export assistance of extruders
- South African Capital Equipment Export Council (SACEEC)
    - 160 active exporters as members
    - No extruder exporters as members
    - Promotes SA manufacturers in international capital equipment market
    - Means: exhibitions, trade shows, international trade missions, introductions, trade lead facilitation
  - Department of Trade & Industry (the dti)
    - Same aim as SACEEC
    - Provides financial and non-financial assistance
    - Means: exhibitions, trade shows, international trade missions, introductions, certain information
- GAP: DETAILED AND UNIQUE PRODUCT, COMPETITORS, PRICING INFORMATION**

## 5. Other results To be completed 2009 / 2010

- Southern Africa's need for extruders
- Extruder applications: Food security alleviation; economic stimulation
- Exporters' information gaps
- Market profile of opportunities to Tanzania



## 6. Conclusions and recommendations for further studies

- Analysis will focus on trade opportunities and challenges
- Results to be presented to appropriate forums
- Initial results point to significant opportunities especially in African countries
- Providing and using the right information on feasible opportunities will exploit this opportunity
- Whereas this research focuses only on extruders, a need was expressed for similar research on the export potential of specialised equipment in the mining industry.



Questions??

Thank you



Supplementary slides

Examples of extruded products



### Plastics & Polymers



### Metal



## Feed & Food

