THE DEVELOPMENT OF A MARKETING STRATEGY FOR A TANNERY WASTE BY-PRODUCT

By

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Submitted in fulfilment of the requirements for the degree Masters in Business Administration in the Faculty of Business and Economic Sciences at the Nelson Mandela Metropolitan University

PROMOTER: DR J BURGER

30 NOVEMBER 2010
DECLARATION

I, the undersigned, hereby declare that the research contained in this document is as a result of my own original and independent work and investigation, except where otherwise stated. All sources are acknowledged and referenced.

This dissertation is submitted to the Nelson Mandela Metropolitan University in fulfilment of the requirements for the degree of Masters in Business Administration.

This work has not been previously accepted in substance or otherwise, for any degree and is not being concurrently submitted in candidature for any other degree.

________________________________
Mpendulo Colin Mkhonta
30 November 2010
ACKNOWLEDGEMENTS

I would like to thank all those that have supported me and assisted me throughout my studies. This would not have been possible had the following individuals not put in a concerted effort:

- My promoter Dr J. Burger for his experience, insight and professional guidance, and

- My parents and family (mother, wife, brothers, sisters, nephews and nieces) for the support throughout my educational life and career development.
ABSTRACT

Worldwide chromium waste from tanneries is a major environmental concern. A considerable amount of effort is being implemented by tanneries to resolve the environmental concerns. Because of the wide range of chemicals used in tanning, waste treatment is an important issue in the industry. All the tanneries put considerable money and effort into treating their effluent.

South African tanneries currently have various methods of disposing of their chrome waste. Most have systems for recycling the waste and disposing of it in municipal waste dumps or it is dumped on the company's own land. Hence the cost of disposal varies widely. Some companies are forced to pay excessive amounts to dispose of their waste at hazardous waste dumps. Others appear to get away by using municipal dumps.

Trivalent Chrome (Pty) Ltd offers a solution to the environmental concern by extracting the most dangerous compound in the waste and converting it to a by-product (green chrome oxide). However, the company must be able to then sell of the green chromium oxide. The study seeks to address how the company can market the by-product.
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CHAPTER ONE

INTRODUCTION

1.1 Introduction

Chromium remains a vitally important chemical in the production of leather. At least 80% of global leather production is tanned with safe chromium three salts (Leather International 2009:10). In South Africa, there are a number of tanneries using the wet blue process (chromium) known as chrome tanning for treating animal hides. This process is imperative for the following reasons:

- To prevent hides from being damaged by bacteria.
- Allows the hides to be stored for long periods of time.
- Allows the hides to be easily transported in wet form.

Leather International (2009:10) further state that chromium is a highly effective tanning agent producing leather with a flexible range of properties making it suitable for many end uses. The leather tanned using chromium has the following advantages:

- Outstanding dyeing properties;
- Extremely light and high mechanical strength;
- Shrinkage temperature is the highest of all the processes;
- Production times are short; and
- Tanning material costs are minimised (cost efficient process).

The leather tanning process using chrome results in significant amounts of chrome waste that has to be disposed of. Leather International (2009:10)
recognises that the manufacturing of leather does have an environmental impact, in as much as the manufacturing process is concerned. Most of these tanneries generally remove water through a precipitation process using magnesium oxide. The end result is a sludge which is sun dried (remove excess water) and then disposed of at municipality landfill sites at a substantial cost.

South Africa produces approximately 7 020 tonnes of tannery waste per annum. The largest numbers of tanneries concentrated in close vicinity to each other are located in Port Elizabeth in Markman industrial area. These tanneries produce approximately 3 120 tonnes of tannery waste per annum giving rise to environmental concerns. The large number of chemicals used in the tanning industry has put emphasis on waste treatment which is now an issue for the survival of the industry.

Consequently, tanning companies utilise considerable resources in an effort to treat its effluent to comply with municipal regulations. Tanneries are left with the following options:

- Pay high fees for disposing the tannery waste in landfills;
- Recover chrome by-products in the tannery waste before disposal; or
- Recover chrome and reuse it to reduce costs (recycling).

The process to recover tannery waste chrome as green chrome oxide has not been commercialised anywhere in the world. This will be the first of its kind.
1.2 The objective of the research

The objectives of the research are outlined below:

- Examine literature and identify critical success factors for a marketing strategy for green chrome oxide;
- Engage the potential customers to determine their needs and wants and how these factors might enhance the competitive edge in the market; and
- Recommend the appropriate marketing strategy to be implemented by Trivalent Chrome (Pty) Ltd.

1.3 The main problem

1.3.1 The main problem

To identify the ideal marketing strategy for a tannery waste by-product (green chrome oxide).

1.3.2 Sub-problems

The following sub-problems have been developed from the main problem:

- Examine what the theory (literature) states about a marking strategy.
- Determine the contemporary needs and wants for a marketing strategy in organizations.
- Determine how the above findings can contribute to the development of a marketing strategy for green chromium oxide.
1.4 Demarcation of the research

By demarcating research, the researcher is able to focus on a manageable research problem and avoid conflicting research problems and findings. This, however, does not mean that other related aspects of the problem are not of concern or are less important.

1.4.1 Geographical demarcation

The study will only consider the waste product produced by tanneries in South Africa. The study will further assume that the waste product will be transported by bulk trucks from major cities in South Africa to be processed in Port Elizabeth.

1.4.2 Subject demarcation

The study will only consider a marketing strategy for the South African market.

1.4.3 Product demarcation

The study will focus on the development of a marketing strategy for a waste by-product, which is chrome oxide.

1.4.4 Marketing strategy

The study will be restricted to the definition of marketing strategy provided by Ferrell and Hartline (2008:17), where the authors observe that an organisation’s marketing strategy describes how the firm will fulfil the needs and wants of its customers.
1.4.5 Organisational scope

The study will be limited to a marketing strategy for Trivalent Chrome (Pty) Ltd, which is the company that intends to commercialise the extraction of chromium oxide from tannery waste.

1.5 Definition of selected concepts

The following concepts are in the title of the research proposal and also appear in the main problem and sub-problems and need to be defined.

1.5.1 Market

Hoffman, Czinkota, Dickson, Dunne, Griffin, Hutt, Krishnan, Lusch, Ronkainen, Rosenbloom, Sheth, Shimp, Siguaw, Simpson, Speh and Urbany (2005:16) define a market as an individual, group of individuals, or organisations willing and able to purchase a firm’s product. They further stipulate that within a market, different groups of customers have differing needs for specific products.

Ferrell and Hartline (2008:8) state that a market is a collection of buyers and sellers. The definition includes a geographical definition due to the fact that the market is not limited to a particular location or place. In yesteryears, the market was defined by location, e.g. store or shopping mall. This has shifted to undefined space. The authors recognise this as market space, which is defined as an electronic marketplace unbound by time or space.

Ferrell et al (2008:7) further define marketing, based on the American Marketing Association definition, to be “an organisational function and a set
of processes for creating, communicating, and delivering value to customers and for managing customer relationships in a way that benefit the organisation and its stakeholders”.

Lamb, Hair, McDaniel, Boshoff and Terblanche (2008a:8) define a market to consist of people and organisations with needs and wants, who have the means to pay and the willingness to buy. This is a holistic definition of a market due to the fact that it combines the definitions of a market in terms of the role players, a place, an activity and the means.

1.5.2 Strategy

Thompson and Strickland (2003:10) define a strategy as the set of competitive efforts and business approaches that managers employ to please customers, compete successfully, and achieve organizational objectives.

Hitt, Hoskisson and Ireland (2004:4) define strategy as an integrated and coordinated set of commitments and actions designed to exploit core competencies and gain a competitive advantage. The authors allude to the fact that when choosing a strategy, firms make choices among competing alternatives. The chosen strategy indicates what the firm intends and does not intend to do. The strategy has to assist the organization achieve its stated objectives. The strategy also brings into play the critical managerial issue of how to achieve the targeted results in light of the organisation’s situation and prospects.


1.5.3 Marketing strategy

According to Ferrell et al (2008:17) an organization’s marketing strategy describes how the firm will fulfil the needs and wants of its customers. An alternative definition of marketing strategy is provided, namely, a plan on how the organization will use its strengths and capabilities to match the needs and requirements of the market.

Fifield (2007:16) defines a market strategy to be the process by which the organization aligns itself with the market it has decided to serve. The marketing strategy is then the translation of the objectives into an activity. This definition has two implications, namely: that require the understanding of the organisation’s long-term business objective and strategy as well as marking input at the onset of the business.

Lamb et al (2008a:24) state that a marking strategy is formulated to pursue a marketing opportunity. The authors further state that the marketing strategy will consist of an objective, a description of the market that will be targeted, the competitive advantage of the product, brand or firm, how the product, brand or firm will be positioned and how the marketing mix elements or 4Ps will be combined to achieve the objective of the marketing strategy.

1.6 The significance of the research

Hoffman et al (2005:16) observe that before a product is introduced into the marketplace, a viable market should be identified prior to the product being
produced. The process of identifying a target market is a critical component of the process for formulating a marketing strategy.

The findings of the proposed research can be used by:

- The proponents of the commercialisation of tannery waste by-product to determine the most appropriate marketing strategy for South Africa;
- The chromium oxide industry as to the most appropriate marketing strategy for commercialising waste by-products.

1.7 Assumptions

The following assumptions are important for this research:

- A marketing strategy is critical for the success of any business in the market;
- There is strong link between a market strategy and profitability; and
- For a new product to be successfully traded, it should be strategically marketed.

1.8 Overview of the literature

The literature review will focus on the definition of marketing strategy and the perceptions regarding marketing strategies in general. The aim will be to define the marketing strategy as well as map out the process of formulating a marketing strategy.

1.8.1 Marketing strategy

The definition of a marketing strategy as provided by Ferrell et al (2008:17) recognises the need of the organization to include activities aimed at
maintaining relationships of the organisation’s stakeholders in fulfilling the
needs of its customers as part of the marketing strategy. The definition
further outlines the process of developing a marketing strategy to include the
processes of selecting the right combination of target markets and marketing
mixes to create distinct competitive advantage over rivals.

Fifield’s (2007:16) definition of a marketing strategy is based on the process
of translating the business objective and strategy into market terms and
marketing activity. The author’s view is that there is a link between business
strategy and marketing strategy and that it is impossible to develop the
marketing strategy without a thorough understanding of the organization’s
long-term business objective and strategy. The quality of the marketing input
at the executive level will lead to success of the organization’s business
objectives and strategies will depend on it.

1.8.2 Perception of marketing strategies

According to Ferrell et al (2008:17) a marketing strategy can be composed of
one or more marketing programmes. Each programme consists of two
elements, a target market or markets and a marketing mix. In choosing the
optimal combination of target markets and marketing mixes, companies are
able to creatively differentiate themselves from competitors. The process of
formulating a marketing strategy consists of the following elements, namely:

- Market segmentation
- Target marketing
- Product decisions
- Pricing decisions
- Distribution decisions
- Supply chain decisions
- Promotion decisions
These elements are now briefly expanded below:

- **Market segmentation and target marketing:** Ferrell et al (2008:17) believe that marketers engage in market segmentation when they divide the total market into smaller, relatively homogeneous groups or segments that share similar needs, wants or characteristics. Marketers select one or more target markets, they identify one or more segments of individuals, businesses or institutions toward which the firm’s marketing efforts will be directed.

- **Product decisions:** Ferrell et al (2008:19) observe that marketers must also make decisions regarding package designs, branding, trademarks, warrantees, new product development and product positioning.

- **Pricing decisions:** Ferrell et al (2008:19) stipulate that pricing decisions are important for the following reasons:
  
  - Price is the only element of marketing mix that leads to revenue and profit,
  
  - Price has a direct connection with customer demand,
  
  - Price is the easiest element of the marketing programme to change, and
  
  - Pricing is the major quality cue for customers.

- **Distribution and supply chain decisions:** Ferrell et al (2008:20) maintain that the goal of the distribution and supply chain management is essentially to get the product to the right place, at the right time, in the right quantities, at the lowest possible costs.
• **Promotion decisions:** Ferrell et al (2008:20) recognise that modern marketing has replaced the term promotion with the concept of integrated marketing communication, which is the coordination of all promotional activities (media advertising, personal selling, sales promotion, public relations, packaging, store displays, website design, personnel) to produce a unified, customer focused message.

Fifield’s (2007:16) definition of marketing strategy is based on three differentiated components:

- Part One: Preparing for the marketing strategy
- Part Two: Developing the marketing strategy
- Part Three: From marketing strategy to tactics

Fifield (2007:21) points out that before the practitioner can hope to develop even the most rudimentary strategic decisions, a degree of analysis is required. The analysis is based on three steps concerned with understanding the:

- Step1: Internal business drivers
- Step 2: External environment
- Step 3: Business strategy

Part three of the process of developing a marketing strategy is to demonstrate an understanding of the relationship between marketing strategy and tactics by reviewing the barriers to the implementation of marketing strategy and a review of the systems to help support the implementation of the marketing strategy.
1.9 Research design and methodology

For this study, the qualitative research method will be used. Strauss and Corbin (1998:10) state that qualitative research means any type of research that produces findings not arrived at by statistical procedures or other means of qualification. The nature of the problem dictates that qualitative research be used and that the method can be used to explore substantive areas about which little is known or about which much is known to gain novel understandings.

Furthermore, Collis and Hussey (2003:13) define qualitative research as subjective. It involves examining and reflecting on perceptions in order to gain an understanding of social and human activities.

The qualitative research method is therefore appropriate particularly in circumstances where the research has to determine what people are doing and thinking, both of which translate to activities and actions in the market place. Therefore, this study seeks to capture and interpret the activities and actions that take place in the market to be able to properly develop a marketing strategy for green chrome oxide.

1.9.1 Research design

Descriptive research will be used. Collis and Hussey (2003:346) define descriptive research as a study which aims to describe phenomena as they exist. The authors further state that descriptive research identifies and obtains information on the characteristics of a particular problem or issue. In
this study, factors that will enhance the competitive advantage of the company will be observed and described in detail. The information obtained will assist in selecting an appropriate marketing strategy.

1.9.2 Research methodology

Literature study

The study will explore contemporary literature on marketing strategies with the primary objective of:

- Addressing the research problems;
- Reviewing literature for selected concepts:

  a. **Marketing**: Kotler (2000:8) provides a social and management definition of marketing. In the social definition, the author defines marketing as a social process by which individuals and groups obtain what they need and want through creating, offering and freely exchanging products and services of value with others. In the management definition, the author stipulates that marketing is the process of planning and execution the conception, pricing, promotion and distribution of ideas, goods, and services to create exchange that satisfy individual and organisational goals.

Lamb et al (2008a:4) provide a practical definition of marketing as selling, advertising and making products available in retail stores, arranging displays and maintaining inventories for future sales. The authors further state that marketing has two facets, namely:
i. A philosophy, an attitude, a perspective and a management orientation that stresses customer satisfaction, and

ii. A set of activities used to implement this philosophy.

Lamb et al (2008a:4) also provide an American marketing Association definition; to be a process of planning and executing the conception, pricing, promotion and distribution of ideas, goods and services to create exchanges that satisfy individual and organisational goals.

b. **Strategy**: Dess, Lumpkin and Taylor (2004:4) provide an elementary definition of a strategy to be a set of actions that managers take to increase their company’s performance relative to rivals. Hitt, Hoskisson and Ireland (2007:4) define strategy as an integrated and coordinated set of commitments and actions designed to exploit core competencies and gain a competitive advantage. Hill and Jones (2008:2) further expand the definition to state that the combinations of actions are formulated to create and sustain competitive advantages.

c. **Marketing strategy**: Hoffman et al (2005:17) stipulate that a marketing strategy involves the following:

1. Identifying target markets,

2. Tailoring marketing mixes that meet the needs and wants of each specific target market, and
3. Developing marketing mixes that reinforce the product’s desired positioning strategy in the market place.

- **Identifying the concept of marketing:** Lamb et al (2008a:10) note that the marketing concept comprises an intuitively appealing approach to marketing. Moreover, the authors argue that the social and economic justification for a firm’s existence is the satisfaction of consumer needs and wants while meeting the firm’s objectives and that the concept is based on three pillars:
  
  i. Customer satisfaction by focusing on customer needs and wants,
  
  ii. Integrating all firm’s activities, including production to satisfy the needs and wants,
  
  iii. Achieving long term goals such as sustained profitability, by satisfying customer needs and wants legally and responsibly.

Lamb et al (2008a:315) further suggest that if the firms accept the concept of satisfying consumer needs and wants, they must conduct studies to find out what these needs and wants are. Hence proper research is a necessity to ensure that the correct objectives are in place and that the right target market is identified.

Kotler (2000:19) observes that the marketing concept holds that the key to achieving its organizational goals consist of the company being more effective than competitors in creating, delivering, and communicating customer value to its chosen target markets. The author further stipulates that the marketing concept rests on four
pillars: target market, customer needs, integrated marketing and profitability.

- **Identifying the processes for formulating a marketing strategy:**

  Lamb et al (2008a:24) state that the process of formulating a marketing strategy proceeds as follows:

  i. Understanding the firm’s business, mission and the role marketing plays in realising the mission,
  
  ii. Setting the marketing objective,
  
  iii. Collecting, analysing and interpreting information about the firms situation, including its strengths, weaknesses, opportunities and threats (SWOT),
  
  iv. Developing a strategy,
  
  v. Implementing the marketing strategy
  
  vi. Designing marketing performance measures, and
  
  vii. Periodically evaluating marketing efforts and making changes if needed.

**Empirical study**

The study will make use of face to face interviews with key industry roles players to gather empirical evidence.

Collis et al (2003:166) point out that focus group discussion are used to gather data relating to the feelings and opinions of a group of people who are involved in a common situation. They further maintain that the selected participants are stimulated to discuss their opinions, reactions and feelings about a product, service and type of situation or concept.
According to Clive, Giampietro, Jaber and David (2005:16) interviews are by their nature social encounters where speakers collaborate in producing retrospective accounts or versions of their past actions, experiences, feelings and thoughts. Interviews make it easy to compare answers and may be face-to-face, voice-to-voice or screen-to-screen. Interviews can also be conducted with individuals or a group of individuals.

**Sample and sampling procedure**

The researcher will make use of primary and secondary data. Collis et al (2003:160) define primary data as data collected at source. The authors state that primary data can be obtained in an uncontrolled situation by asking questions or making observations. It is further stated that primary data can also be obtained in a controlled situation by making experiments. The researcher will collect data in an uncontrolled situation by implementing the following procedure:

- Face to face interviews with key industry role players will be used. The interviews will be tape recorded where the respondents agree to being recorded. Otherwise responses will be properly written down. The purpose of the interview will be to understand the respondent’s world. It will be imperative for the questionnaire used in the interview to be short and specific to the issues. Furthermore, a relaxed atmosphere is imperative so that respondents talk freely as well as listening to respondent’s views and encourage participants to voice their opinions.
• Questionnaire: Collis et al (2003:173) define a questionnaire as a list of carefully structured questions, chosen after careful considerable testing with a view to eliciting reliable responses from a chosen sample. The researcher will implement the following procedure:
  i. The first step will be to design close ended questions to enable ease of analysis.
  ii. The second step will be to conduct pilot interviews to get the feel of respondents.
  iii. The third step will be to test the questionnaire to ensure that ambiguous questions are eliminated and that straightforward answers are provided.
  iv. The fourth step will be to decide on the sample size. However, due to the fact that the chrome industry is relatively small, it is more likely that all potential customers will be interviewed.
  v. The fifth step will be to distribute the questionnaire by email to the respondents prior to the interview so that they can prepare their responses.
  vi. The sixth step will be to have face to face interviews.
  vii. The seventh step will be to follow up on interviewees in the event some questions have not been answered correctly.
  viii. The final step will be to analyse the results, interpret and make inferences on the findings.
1.10 Proposed chapters for the study

Chapter one will focus on the problem statement, demarcation of the study and significance of the study.

Chapter two will outline the literature. Emphasis will be on the defining a marketing strategy, it’s concepts and the process of formulating a marketing strategy, the importance of the strategy in the business and how strategy fits with the overall functioning of the business.

Chapter three will outline the research methodology used for the study.

The empirical study will be addressed in Chapter four.

The conclusions and recommendations will be outlined in Chapter five.

1.11 Qualifications of the researcher

<table>
<thead>
<tr>
<th>Qualification</th>
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<th>Year</th>
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<tr>
<td>Post Graduate Diploma in Business Management</td>
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1.12 Proposed programme

Table 1:2 Research programme

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<tr>
<td>Chapter two</td>
<td>September 2010</td>
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<tr>
<td>Chapter three</td>
<td>October 2010</td>
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<td>November 2010</td>
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<tr>
<td>Chapter five</td>
<td>November 2010</td>
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CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

The study seeks to determine a marketing strategy for a tannery waste by-product. The chapter will provide the theoretical background to this subject by covering the following elements of a marketing strategy:

- The definition of marketing
- The definition of a strategy
- The concept of marketing
- The definition of marketing strategy
- The process of formulating a marketing strategy

The review will take cognisant of recent (not more than ten years) literature on marketing, strategy and marketing strategies. This will include a review of books and journals available at the three libraries of the Nelson Mandela University as well as a review of electronic sources.

A matrix approach to literature review will be used. This will enable the researcher to determine whether aspects covered in definitions provided by different authors are included. A synthesized holistic definition of a marketing strategy will be generated based on the matrix analysis of the concepts. The definition generated will then be utilised in the rest of the study.
2.2 Definition of marketing

The definition of marketing must contain or include key aspects of marketing, which are namely:

a. Satisfaction of consumer needs
b. Exchange process
c. Profitability
d. Management process
e. Key stakeholders

The results of the review are contained in the Table 2:3 below. It should be noted that the mark sign denotes the presence of the key aspect of marketing in the definition. If the aspect of marketing is not included in the definition, the row is blank.

**Table 2:3 Definition of Marketing**

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<tr>
<td>Management process</td>
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<td>Key stakeholders</td>
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Kotler (2008:8) provides two definitions of marketing, namely: a social and a management definition. The social definition of marketing defines marketing as a societal process by which individuals and groups obtain what they need and want through creating, offering and freely exchanging products and services of value with others. The management definition views marketing as the process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods, services to create exchange that satisfy individual and organizational goals.

The social definition outlines the role marketing plays in society. The managerial definition is similar to the definition provided by the American Marketing Association. With regard to this view, Kotler (2008:8) states that marketing is often described as the art of selling products - yet marketing is not selling. Selling is part of marketing.

Lamb et al (2008a:4) provide a practical definition of marketing as selling, advertising and making products available in retail stores, arranging displays and maintaining inventories for future sales. Marketing has two facets, namely:

i. A philosophy, an attitude, a perspective and a management orientation that stresses customer satisfaction, and
ii. A set of activities used to implement this philosophy.

Lamb, Hair and McDaniel (2008b:6) outline the definition for marketing as per the American Marketing Association to be an organizational function and a
set of processes for creating, communicating, and delivering value to customers and for managing customer relationships in ways that benefit the organization and its stakeholders.

Lamb et al (2008b:6) observe that the condition for the mutual beneficial exchange process can take place only if the following five conditions are met:

- There must be at least two parties,
- Each party has something that might be of value to the other party,
- Each party is capable of communication and delivery,
- Each party is free to accept or reject the exchange offer, and
- Each party believes it is appropriate or desirable to deal with the other party.

Lamb et al (2008b:6) outline the critical connected stakeholders to include employees, supplies, stockholders, distributors, and others (buyers, sellers and facilitators of the exchange process).

Based on the analysis of marketing above, the researcher synthesises marketing as: the process of satisfying consumer needs through exchanging goods and services in profitable manner. Marketing further compels marketers to manage expectation of customers, suppliers, stakeholders, and buyers and sellers.

2.3 The definition of a strategy

The definition of a strategy should contain the following critical aspects:
The outcomes of the analysis on the definitions of strategy are outlined in Table 2:4 below. The mark denotes the presence of the aspects of strategy in the definitions provided by the different authors.

Table 2:4 Definition of strategy

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<td>Analysis of environment</td>
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<td>Core competencies</td>
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<td>Combination of actions</td>
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<td>Competitive advantage</td>
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<td>Continuous action</td>
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Thompson and Strickland (2003:3) stipulate that a strategy relates to a company’s competitive initiatives and business approaches. A company’s strategy is the game plan management is using to stake out a market position, conduct its operations, attract and please customers, compete successfully, and achieve organisational objectives.
White (2004:5) observes that strategy combines the articulation of human goals and the organisation of human activity to achieve goals. The setting of goals involves the identification of opportunity. Strategy is a process of translating perceived opportunity into successful outcomes, by means of purposive action sustained over a significant period of time. At a minimum there must be a clear intent translatable into specific objectives and some defined and effective means of achieving these objectives by deliberate action involving the use of resources to which one has access.

Hitt et al (2004:4) define a strategy as an integrated and coordinated set of commitments and actions designed to exploit core competencies and gain competitive advantage. A company has competitive advantage when it implements a strategy competitors are unable to duplicate or find too costly to try to imitate.

Hitt et al (2004:5) further stipulate that an organization can be confident that its strategy has resulted in one or more useful competitive advantages only after competitors’ efforts to duplicate its strategy have ceased or failed and that firms should understand that no competitive advantage is permanent.

The above definition of strategy management highlights the fact that a strategy has a full set of commitments, decisions, and actions required for a firm to achieve strategic competitiveness and earn above average returns.
Dess et al (2004:8) state that strategic marketing consists of the analysis, decisions, and actions an organization undertakes in order to create and sustain competitive advantages. This definition captures two critical issues of strategic management:

- That strategic marketing in an organization entails three ongoing processes, namely: analysis, decision making and taking actions, and
- That managers need to determine how a firm is to compete so as to obtain sustainable competitive advantage over a period of time.

Premised on the above, the researcher synthesises a strategy as: a continuous process of analyzing the organisational environment to identifying and exploit core competencies and create a combination of actions and activities designed to gain competitive advantage.

### 2.4 The concept of marketing

Kotler (2000:20) stipulates that the marketing concept rests on four pillars: target market, customer needs, integrated marketing and profitability. The marketing concept takes an outside-in perspective and that it starts with a well defined market, focuses on customer needs, coordinates all the activities that will affect customers, and produces profits by satisfying customers.

Lamb et al (2008b:8) outline the marketing concept to be a simple and intuitively appealing philosophy that articulates a market orientation. The social and economic justification for an organization’s existence is the satisfaction of customer wants and needs while meeting organizational
objectives. The notion is based on an understanding that a sale does not depend on an aggressive sales force, but rather on a customer’s decision to purchase a product. What is important is what the customers think they are buying, which is the perceived value defines a business. Organisations that adopt and implement the marketing concept are market oriented.

Lamb et al (2008b:8) and Kotler (2000:20) agree that firms that adopt and implement the marketing concept are said to be market oriented, which involves:

- Obtaining information about customers, competitors, and markets,
- Examining the information on a total business perspective,
- Determining how to deliver superior customer value, and
- Implementing actions to provide value to customers.

The researcher contends that the marketing concept must therefore include the following:

- Focusing on customer wants and needs so that the organisation can differentiate its products and services from competitor's offerings,
- Integrating all the organisation’s activities, including production, to satisfy these wants, and
- Achieving long-term goals for the organization by satisfying customer wants and needs legally and responsibly.

2.5 The definition of a marketing strategy

The elements of a marketing strategy include the following:
a. Analysis of target markets  
b. Segmentation  
c. Identifying target market  
d. Product positioning  
e. Developing market mix

The analysis of marketing strategy is outlined in Table 2:5.

**Table 2:5 Analyses of the elements of marketing strategy**

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<td>Analysis of targets markets</td>
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<td>Segmentation</td>
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<tr>
<td>Identifying target markets</td>
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<tr>
<td>Product positioning</td>
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<td>Developing a market mix</td>
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Ferrell, Hartline and Lucas (2002:2) state that marketing strategies involve the selection and analysis of targets markets and the creation and maintenance of an appropriate marketing mix that satisfies the needs of customers in those markets.

According to Hoffman et al (2005:17) a marketing strategy involves identifying target markets, tailoring marketing mixes that meet the needs and
wants of each specific target market and developing marketing mixes that reinforce the product’s positioning strategy in the market place.

Lamb et al (2008b:47) recognise that a marketing strategy involves the activities of selecting and describing one or more target markets and developing and maintaining a marketing mix that will produce mutually satisfying exchanges with targets markets.

From an integrated and synthesised perspective it is contended that a marketing strategy involves the following step by step process:

- Segmenting the market,
- Identifying and selecting one or more target markets,
- Selecting and maintaining a market mix that meets the needs and wants of the targeted markets
- Designing marketing mixes that reinforce the products desired positioning strategy in the market.

2.6 The process of formulating a marketing strategy

The process of formulating a marketing strategy should be built around the following stages:

a. Analysis of organisation environment (internal and external)

b. Formulation of vision and mission

c. Formulation of strategy

d. Implementation of strategy

e. Monitoring and evaluation of strategy
The analysis on the process of formulating a marketing strategy is outlined in Table 2.6 below.

**Table 2:6 The process of formulating a marketing strategy**

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<tr>
<td>Vision and mission</td>
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<td>Formulation</td>
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<tr>
<td>Implementation</td>
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<tr>
<td>Monitoring and evaluation</td>
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Hitt et al (2004:6) outline the process of formulating a marketing strategy as follows:

- Analysis of the external and internal environment to determine its resources, capabilities and core competencies,
- With the information, the organisation will then develop a vision and mission and formulates its strategy, and
- The strategy is then implemented by taking actions toward achieving strategic competitiveness by constantly monitoring and evaluating progress, success and failures and also taking corrective actions.

Lamb et al (2008a:24) recognise the process of formulating a marketing strategy to be as follows:
• Understanding the firm’s business, mission and the role marketing plays in realising the mission,
• Setting the marketing objective,
• Collecting, analysing and interpreting information about the firm’s situation, including its strengths, weaknesses, opportunities and threats (SWOT),
• Developing and implementing the marketing strategy,
• Designing marketing performance measures, and
• Periodically evaluating marketing efforts and making changes if needed.

Dess et al (2004:11) view analysis as the starting point for strategy formulation process. Analysis consists of the advance work that must be done to effectively formulate and implement strategies. The analysis should consist of the analysis of the organisational goals and objectives, external and internal environment and the organisation’s intellectual assets. The organisations must have clearly articulated goals and objectives in order to channel the efforts of individuals in the organisation towards a common goal as well as provide means of allocating resources effectively.

Dess et al (2004:11) contend that organisations must monitor and scan the environment and analyse competitors. The information gained will be used to determine opportunities and threats in the external environment. The general external environment provides information such as demographic, technological, and economic segments from which key trends and events
can have an impact on the organisation. The industry environment consists of competitors that may threaten the success of the organisation.

Analysing the organisation’s internal environment helps to identify the strengths and weaknesses that can determine how well the organisation will succeed in the environment. Key to this is analysing the relationships and activities that comprise the organisation’s value chain, namely: operations, marketing and sales as well as human resources.

Hoffman et al (2005:56) observe that the market situation analysis can be effectively organized through a SWOT analysis. Strengths are the core competencies of the organisation and talk to the organization’s resources and activities. Strengths further relate to what the organization’s customers think about it, its reputation in the market as well as what its own employees think the organization does best. Weaknesses relate to what the organization needs to improve on, what its own employees and customers perceive as areas of business the organization need to improve as well as the reputation of the company in the market compared to its competitors.

Opportunities relate to changes brought about by the business environment, competition, and the political, economic and technological forces in the market. These forces constantly interact and bring about emerging opportunities with regard to new markets, new suppliers and cost savings, which the organization should fully exploit. Threats also emanate from the same interaction of the forces that bring about emerging opportunities.
However, with regard to treats, they bring about potential competition or obstacles for the continued sustainability of the business. The organisation is challenged to avoid and address these variables by all means possible.

Hill et al (2008:7) select strategies that build on the organisation’s strengths and correct its weaknesses in order to take advantage of external opportunities and counter external treats. These strategies should be consistent with the mission and major goals of the organisation. This requires that the organisation develops its strengths, weaknesses, opportunities and treats (SWOT analysis). This will allow the organisation to identify the strategies that will best align, fit or match an organisation’s own resources and capabilities to the demand of the environment in which it operates.

These strategies are as follows:

- Functional level strategies:
- Business level strategy
- Global strategy
- Corporate level strategy

Hill et al (2008:9) are of the view that once the organisation has identified the set of strategies to achieve a competitive advantage and increase performance, managers must then put them into action. Implementation involves taking action at functional, business and corporate levels to execute a plan. The authors contends that strategy planning is ongoing, it never ends. Once strategy planning has been implemented, it has to be monitored to
determine the extent to which strategic goals and objectives are being achieved and the extent competitive advantage is created and sustained.

Thompson et al (2003:20) suggest that managers in an organisation have an ever present responsibility for detecting when new developments require a strategic response and when they do not. A manager’s job is to track the progress, spot problems and issues early, monitor the winds of market and customer change and initiate adjustments as needed. Hence the task of analysis performance and initiating corrective adjustments is both the end and beginning of the cycle of strategy formulation.

2.7 Conclusion

A variety of literature sources relating to marketing strategy have been reviewed and scrutinised. Key concepts were extracted and holistic definitions were synthesised. The core components of a marketing strategy have thus been explored.

The literature review was further extended to identify the principal elements to be used in the development of a marketing strategy for tannery waste by product. The researcher’s process is graphically outlined in Figure 2:1.

The next chapter will outline the research methodology to be implemented in the study.
Figure 2:1 The Process of formulating a marketing strategy

1. Environmental analysis
   - Political and legal issues
   - Competitive issues
   - Technological issues
   - Economic Issues
   - Socio cultural issues
   - Natural issues

2. Vision, mission and objectives of marketing

3. SWOT analysis
   - Strengths
   - Weaknesses
   - Opportunities
   - Threats

4. Formulation of strategy
   - Market segmentation
   - Target market selection
   - Tailored marketing mix
     - Product decisions
     - Place
     - Promotion decision
     - Pricing decision
   - Positioning strategy

5. Implementation of strategy

6. Monitoring and implementation

Source: Developed by researcher
CHAPTER THREE

RESEARCH METHODOLOGY AND DESIGN

3.1 Introduction

This chapter outlines the research design and research methodology used in the study. It further outlines the theoretical basis for conducting the study. The researcher will address the main problem, that is, identify the ideal marketing strategy for a tannery waste by-product.

3.2 Research design

Leedy, P. D. and Omrod, J. E (2001:93) outline the research design to be a work plan detailing what needs to be done to complete the research. The work plan should flow from the research design. When designing research, the following question needs to be answered: What type of evidence is needed to answer the research question?

Collis et al (2003:113) state that research design is the art of planning procedures for conducting studies so as to get the most valid findings. Determining the research design will give a detailed plan, to use to guide and focus the research.

Terre Blanche et al (2002:30) stipulate that a research design should provide a plan that specifies how the research is going to be executed in such a way that it answers the research question. The research design further involves
multiple decisions about how the data will be collected and analysed to ensure that the final report answers the research question.

3.2.1 Nature of the research

For the study, a qualitative market research approach based on face to face interviews will be used. The qualitative research will be exploratory and descriptive in nature.

**Qualitative research:** Collins et al (2003:253) define qualitative research to be a subjective approach which includes examining and reflecting on perceptions in order to gain an understanding of social and human activities.

**Exploratory research:** Exploratory research will be used because there are few or no earlier studies on marketing tannery waste by products to use as points of reference. Techniques used in exploratory research include case studies observations and historical data analysis.

**Descriptive research:** Descriptive research will be used so that the researcher can describe the phenomenon as they exist. Information on the characteristics of the tannery product – green chrome will be identified and collected. The information and data collected will be both quantitative and qualitative in nature.

**Interviews:** Collis et al (2003:167) state that interviews make it easy to compare answers and may be face to face based on questionnaire. Interviews are likely to be time consuming controlling the range of topics and
later analysing the data. Where applicable the researcher will record the interview in agreement with the respondent. To prevent time wasting, the questionnaire will have to be short and precise to the issues and that interviews are conducted in the same way.

3.2.2 Method of data collection

Terre Blanche et al (2002:45) define data as the basic material with which researchers work. The authors further state that to draw valid conclusions from a research study, it is essential that the researcher has sound data to analyse and interpret. The data should be valid and capture the meaning of what the researcher is observing.

Collis et al (2003:346) define data as the known facts or things used as a basis for interference or reckoning. The sources of data can be primary data collected at source and secondary data, which is data that already exists, such as in books and documents.

The researcher will make use of face to face interviews based on a questionnaire to gather data. Collins et al hold that this method is used to gather data related to the feelings, thoughts and actions of respondents, in this case – trading in green chrome oxide. The respondents will be stimulated to discuss their opinions, reactions and feelings about green chrome oxide.

The method will combine both interviewing and observations. A questionnaire will be developed and used to gather views and opinions of respondents. The interaction of the respondents will ensure that the chosen topics are covered.
The data gathered will be qualitative and will provide the issues to concentrate on.

3.2.3 Interviews

Collis et al (2003:167) define interviews as a method of collecting data in which selected participants are asked questions in order to find out what they do, think or feel about a product in this case green chrome oxide.

The study will make use of both open and closed ended questions. Open ended questions will be used in instances where the researcher will need to explore responses in more details. The researcher will need to ensure that the interviews are conducted in the same manner and ensure that respondents understand the questions in the same manner to ensure uniformity of responses. The researcher will also tape record the interviews which will allow better analysis. This will be used in instances where the respondent agrees to be recorded.

3.2.4 Questionnaire design

Terre Blanche et al (2002:293) suggest the following basic steps in the design of questionnaires:

Step 1: Identify the purpose of the questionnaire

To determine the purpose of the questionnaire, the researcher must take the following into account:

- Clarify the reason for the study,
- Determine the information required from the respondents,
• List the research questions wanted to answer with the questionnaire, and
• Identify any additional information required to address the research question.

Proctor (2000:160) suggests that attention must be paid to the kind of information that is required, the nature of the respondents who are to be surveyed and the method by which the survey is to be conducted.

Collis et al (2003:177) emphasise the importance of knowing a substantial amount of information about the subject so that it can decide what the most appropriate questions will be.

The researcher will be seeking market related information which will assist in determining an appropriate marketing strategy for green chrome oxide, which is the by-product from tannery waste. The related information will be centred on demand and supply issues of green chrome oxide in South Africa.

**Step 2: Draft questions**

Terre Blanche et al (2000:293) stipulate that drafting questions is a crucial aspect of developing any assessment instrument since “what you ask for is what you get”. Collis et al (2003:178) outline the rules for designing questions as follows:

• Explain the purpose of the questionnaire,
• Keep the questions as simple as possible,
- Do not use jargon,
- Phrase the question so that only one meaning is possible,
- Avoid vague, descriptive words,
- Avoid asking negative questions,
- Only ask one question at a time,
- Include relative questions only,
- Include questions which serve as cross-checks on the answers to other questions,
- Avoid questions which require the participants to perform calculations,
- Avoid leading questions,
- Avoid offensive questions,
- Avoid questions which are nothing more than a memory, and
- Keep your interview schedule as short as possible.

**Step 3: Choose a response format**

Collis et al (2003:179) stipulate that questions may be described as open ended, where respondents can give a personal response or opinion in their own words. These type of questions allow the respondents to articulate their opinions as precisely as possible, but they can be difficult to analyse. Questions can also be described as closed, where the respondent’s answer is selected from a number of predetermined alternatives. Closed questions are very convenient for collecting data and are usually easy to analyse since the range of potential answers is limited.
Proctor (2000:164) states that open ended questions can reveal more information and are often worthwhile during exploratory work when it is desired to discover what people think. Closed questions are easier to interpret and tabulate.

The researcher will make use of both open ended and closed ended questions. Open ended questions will be used mainly in situations where the researcher requires respondents to outline their personal experiences or opinions about a specific issue without any restriction. The research topic requires that in most instances the respondents should express their opinions since relatively limited research has been concluded in this regard.

Closed ended questions will be used in instances where respondents will be required to select one or more choices from a fixed list of answers provided and where standardised responses will be required to enable easy analysis.

**Step 4: Assemble the questionnaire**

Terre Blanche et al (2000:297) hold that assembling a questionnaire involves finalising the layout and the questionnaire format as well as the completion instructions.

Proctor (2000:165) states that the sequencing of questions is important and that the earlier questions should attempt to create interest in the respondent as well as that they should follow a logical order. The questionnaire should appear logical and carefully thought out.
The format that is used in the design of the questionnaire outlined in Annexure A is as follows:

- **Part A:** A background information on for respondents will be provided mainly outlining the purpose of the research, why the information is being collected, how the information collected will be used, statement on confidentiality and a description on how to complete the questionnaire.

- **Part B:** Demographic and company information will be collected. Demographic information will be on the respondent representing the company. Company information will be on the general information on the company being represented by the interviewee. The questions will be mainly close ended questions.

- **Part C:** This will consist of the main body of the questionnaire. Information will be subdivided to five sections, namely:
  - Product quality expectations
  - Local demand for green chrome
  - Local supply for green chrome
  - Industry pricing structure
  - International market and its dynamics (price, demand and supply).

The questionnaire is outlined in Annexure A.
Step 5: Evaluate measures included in the questionnaire (Piloting)

Terre Blanche et al (2000:299) state that the first step once the questionnaire has been developed is that it should then be piloted to check the questionnaire before it is administered to the final sample. Respondents in the questionnaire pilot can recommend that certain questions be changed. The questionnaire outlined in Annexure A was pilot tested with Joyce Jabane Bauwens. She is the project proponent and a major shareholder of Trivalent Chrome, the company seeking to market green chrome oxide. She holds a Masters in Chemical Engineering and has for a number of years been a Chemical Engineer at Eskom.

All improvements emanating from the pilot test were incorporated in the questionnaire outlined in Annexure C.

Proctor (2000:169) states that once the questionnaire has been developed, it has to be pre-tested, which is a means of discovering the faults in a questionnaire before it is administered. To pre-test a questionnaire a small sub sample of the intended respondent group is selected.

In piloting the questionnaire, the researcher interviewed one of the major role players in the industry before the full sample was administered to all the role players. Corrections were incorporated in the interview questions during the actual interviews.
3.2.5 Sample population

Malhotra et al (2006:357) are of the view that a population is the aggregate of all the elements that share some common set of characteristics and that comprise the universe for the purpose of the marketing research problem. The authors further observe that a sample is a subgroup of the elements of the population selected for participation in the study.

Terre Blanche et al (2000:44) identify the first concern of sampling to be the ability to select a sample that will be a representative of the population about which the researcher aims to draw conclusions. The second concern is the size of the sample. A very small random sample may be quite unrepresentative and that the same is true for a very large non-random sample. The researcher must also justify why a particular sampling strategy suits the research.

Collis et al (2003:155) observe that a good sample is one in which the results obtained for a sample can be taken to be true for the whole population. In other words, the results will be able to be generalised from. A good sample must be:

- Chosen at random,
- Large enough to satisfy the needs of the investigation,
- Unbiased, and
- Representative of the population from which it is drawn.

Malhotra et al (2006:358) outline the sampling process as in Figure 2:
The researcher will utilise the sampling process outlined by Malhotra et al (2006:358). The target population is all the green chrome oxide buyers and sellers. The sampling frame will be the industry role players identified by Trivalent Chrome in its feasibility study which management independently initiated. The register of companies as publicised in Who Owns Whom was also used to identify potential respondents. Because the green chrome sector is specialised and limited, the researcher was compelled to include all role players in the sample.

Source: Malhotra (2006:358)
The companies that were selected in the study are as follows:

- Rolfes Technology Holdings
- Cathay Pigments (Africa) (Pty) Ltd.
- Chemgrit SA (Pty) Ltd.
- Independent Mineral Distributors (Pty) Ltd.
- Servochem (Pty) Ltd.

The researcher initially contacted the senior company representatives via email. The purpose was to solicit voluntary participation in the study as well as to determine the contact details of all the relevant company executives responsible for marketing and purchasing.

The questionnaire was then be distributed to all the executives via email with a request for a specific date of the interview. The purpose was to ensure that the executives could prepare responses in advance. The interviews were then held in Johannesburg as most of the companies have their operations located there.

Follow up discussions were held through telephone discussions or via email. The purpose of which was to solicit clarity and follow up questions on issues that were not properly recorded and documented during the interview. Once all the responses have been received and follow up discussions held, the sample was then validated by screening the responses in the data collection phase.
3.2.6 Data analysis

Terre Blanche et al (2000:47) note that it is important to ensure that the type of data analysis which is employed matches the research paradigm and data and can answer the research question. In qualitative research (similar to the research to be undertaken in this study), it is important to identify themes in the data and relationships between the themes.

Malhotra et al (2006:207) outline the process of data analysis for quantitative data to be as outlined in Figure 3. The authors define data assembly as the gathering of data from a variety of sources, including the following:

- Field notes taken during interviews and after interviews,
- Observations made during the data collection process,
- Secondary data and from documents sourced from respondents, and
- Audiotape and videotape recordings.

Collis et al (2003:253) define data reduction as a form of analysis that sharpens, focuses, discards and reorganises data in such a way that final conclusions can be drawn and verified. In qualitative research, researchers might have collected a mass of field notes, documents and transcripts of interviews, which must be condensed and made manageable. The only way of summarising the data is to code it.

Malhotra et al (2006:212) outline data display as summarising and presenting the structure that is seen in the collected data and that this allows a public view of how the researcher has made connections between the different data
chunks. Data verification is regarded as seeking alternative explanations through other data sources and theories as well as the fact that researchers need to demonstrate that they have presented a valid meaning of the data that they have collected.

**Figure 2:3 The process of qualitative data analysis**

![Diagram of qualitative data analysis process]

Source: Malhotra (2006:207)

The data analysis process outlined by Malhotra et al (2006:207) will be used by the researcher in the study.

### 3.2.7 Validity of the research

A questionnaire is valid if it measures what it is supposed to measure. The researcher should seek to address both internal and external validity. Collis et al (2003:58) hold that validity is the extent to which the research findings accurately represent what is really happening in the situation and that a test is valid if it demonstrates or measures what the researcher thinks or claims it does.
Internal validity is the degree of confidence the researcher has on the causal effects between variables. Terre Blanche et al (2000:62) define internal validity as the extent to which causal conclusions can be drawn.

External validity is the ability to generalise the findings of the research from a specific setting and sample to a much broader range of populations and settings. External validity is the extent to which generalising from the data and context of the research study to the broader populations and settings is possible.

### 3.2.8 Reliability of research

Research reliability refers to the findings of the research and is one aspect of the credibility of the findings. Collis et al (2003:58) state that the researcher has to ask himself or herself the question of whether the evidence and conclusions will stand up to the closest scrutiny? The author further states that if the research can be repeated, it is considered to be reliable.

Terre Blanche et al (2000:63) observe that reliability is the degree to which the results are repeatable. This applies to both scores on measures (measurement reliability) and to outcomes of the study as a whole.

### 3.4 Research ethics

Collis et al (2003:37) note that in social science it is difficult to conduct research without running into ethical arguments. The researcher will need to consider ethical issues and find out what rules there may be for conducting research at an early stage in the domain of the study.
De Vaus (2001:83) stipulates that regardless of the research design, social research should conform to four broad ethical principles, namely: voluntary participation, informed consent, no harm to participants and anonymity and confidentiality.

The researcher will include a covering letter explaining the ethical issues and attach it to each questionnaire. Furthermore, the Nelson Mandela University Code of Ethics for Research will be adhered to at all times and will comprise observing the following ethical issues:

3.4.1 Confidentiality and anonymity

Terre Blanche et al (2000:68) note that any limits to confidentiality should be clearly specified and that participants should be told how the data is to be recorded, stored and processed for release. Researchers should only ask participants for information that is central to the study to reduce the risk of invasion of privacy and thereby reduce inadvertent disclosure of confidential information.

De Vaus (2001:146) recognises that in some cases of research, it is impossible to assure participants of anonymity. In instances where divulging information that would compromise any person’s privacy, there is a strong need to ensure that data are securely stored and further that the data is stored in such way that no unauthorised person can match the information with other respondents.
Information should also be collected in such a manner that confidentiality can be guaranteed and that the people collecting the information also respect the confidentiality requirements. Furthermore, the Researcher should be required to provide assurances on confidentiality and that these should not be provided blankly without taking the necessary measures to observe them.

3.4.2 Voluntary participation

De Vaus (2001:83) observes that people should not be required or led to believe that they are required to participate in a study. Respondents should also be made aware of their right to withdraw from participating in a study at any point in time.

In this regard, the external validity of a study is always threatened by voluntary withdrawal from a study thereby producing biased samples. On the other hand, compulsion is certainly discouraged as it may undermine the quality of the study.

The ideal situation is therefore to encourage voluntary participation. Because sample bias can be adjusted, it therefore best to maximise the quality of responses.

3.4.3 Dignity

Collis et al (2003:38) point out that in research it would not be ethical to embarrass or ridicule participants. Unfortunately this can be done due to the complexity between the researcher and the phenomenon being studied.
Researchers in positions of authority should not make participants feel obliged to participate in the research.

NMMU’s Code of Conduct for Researchers stipulates that the researcher may not misuse his/her for personal gain and that NMMU endeavours to conduct research with due regard and dignity of the individual and basic human rights. Participants rights for religious, political, economic and social rights will be observed at all times. Hence it will be unethical to embarrass participants and that the rights of participants are observed and their views respected.

3.4.4 Integrity and honesty

Researchers are required not to falsify information and findings of their research. The research must be conducted with honesty, objectively and with integrity. This will in part ensure that NMMU’s integrity is upheld at all times and the trust by respondents is not prejudiced.

3.4.5 Protection from harm

According to De Vaus (2001) the wellbeing of research participants should take priority and that, by inviting people to participate in a study, the researcher takes some responsibility for the safety and wellbeing of the participants, even where it’s people other than the investigator causing harm.
3.5 Conclusion

The chapter outlined the key issues relevant to the research design. Issues covered include the research and questionnaire design, reliability and validity issues to be observed in the research. Lastly, the ethical issues to be observed in the research were covered.

The next chapter will outline the results gathered during the empirical study and analysis of the key issues and findings.
CHAPTER FOUR
PRESENTATION, ANALYSIS AND INTERPRETATION OF
DATA

4.1 Introduction

The chapter presents the analysis and interpretation of the data collected by means of a questionnaire on the development of a marketing strategy for green chrome oxide outline in Annexure C. The research findings are based on using cognitive mapping. Collis et al (2003:265) define cognitive mapping as a method of analysis which can be used to structure, analyse and make sense of written or verbal accounts of problems. The technique has frequently been used in projects designed to the development of strategies. The data analysis will be coded according to the questionnaire sub headings. In addition data displays such as network matrices will be utilized.

4.2 Response rate

A total of five questionnaires were distributed to the major players in the green chrome oxide sector in South Africa as outlined in Section 3.2.5. Cathay Pigments (Africa) (Pty) Ltd based in Walmer, Port Elizabeth declined to complete the questionnaire citing that they no longer trade in chrome oxide. Servochem (Pty) Ltd management refused to complete the questionnaire on the basis that they are not allowed to disclose company information. Repeated attempts to solicit participation from one of the directors of the company Mr Andre Du Plessis were not successful.
Consequently, three out of five companies participated in the research. This is equivalent to 60% completed questionnaires. Saunders, Lewis and Thornhill (1997:129) observe that the most important aspect of a probability sample is that it represents the population. A perfect representative sample is one that exactly represents the population from which it is taken. Zikmund (2003:215) states that a questionnaire that is boring, unclear or too complex gets thrown in the wastebasket. He adds that poorly designed mail questionnaire may be returned by 15% of those sampled. In other words, there will be a 15% response rate. Hence a response of 60% indicates that the sample is a representative of the whole population.

4.3 Questionnaire distribution and interviews

The researcher first contacted to explain the purpose of the research and seek participation. The questionnaires were then distributed by email. Two of the companies completed the questionnaire and declined appointments for interviews and only one company accepted the request for an interview and it happened to be the biggest of all the companies in terms of its market share of the pigment and refractory sector for green chrome oxide traded in South Africa.

4.4 Analysis and interpretation

4.4.1 Company information

The profiles of the three companies which responded to the questionnaire are as follows:
• **Rolfes Technology Holdings**: The Rolfes Technology Holdings is a JSE listed company formed by two Rolfes brothers in 1925. In 1938 a third brother joined the company to start the Pigments division, which focused on the manufacturing of chrome containing inorganic pigments and the production of organic pigments. In 1999 the company was restructured and was converted into a Holding. In 2007 it was successfully listed on the AltX. The group of companies is now well established in manufacturing, mining and beneficiation in South Africa. The company also distributes various solvents, waxes, speciality and commodity chemicals, key competence in the group. The group also sells significant tonnes of traded materials to the local and international markets. To date, the company no longer manufactures chrome containing inorganic pigments.

• **Chemgrit SA (Pty) Ltd**: This Company was formed in 1993 and is located in Jet Park, Johannesburg. Chemgrit SA is a chemical distribution and trading company of chemical raw materials such as plastics, rubber, coatings, abrasives, refractory, food and associated sectors. The company operates in the coastal regions of South Africa through C-Tec Costal with offices in Durban, Port Elizabeth and Cape Town. In 1996 the company established trade offices in China, Korea and Taiwan. Between 1998 and 1999 trade offices were established with links in India and Australia, respectively.

• **Independent Mineral Distributors (Pty) Ltd**: This is a family owned company formed in 1988 to market industrial minerals and chrome ores. The company currently has 75 products which include minerals,
alloys, metals and chemicals used in the abrasive, foundry, refractory, steel and paint industries. The company sources materials for the local market from a variety of sources including local and China.

4.4.2 Product quality

The quality of green chrome oxide is dependent on the use of the product. There are two uses of the product and they are:

- In paints as a pigment, and
- In refractory industry.

The paint industry standards are for either top shade or tint shade. All different paint colours are manufactured from a base of white paint. The basic rule is that, the stronger the colour or shade of the oxide, the less the volume is required to change the colour of the base white paint. Hence in paints, it is used as a pigment to provide green colouring to concrete and roof paint products. The best quality for the pigment grade, even though it is vague, is that it must have a particle size of 4 microns with a dark colour. Most of the companies then mill the sizes further to the required particles for the particular pigment sector.

Chrome is further used as a heat resistant, high melting point material for high temperature refractory applications. This includes applications in blast furnaces, cement kilns, mould for firing of bricks and as foundry sands for the casting of metals. The refractory grade of green chromium must be 98% pure.
The two firms that supply the best quality of green chrome oxide internationally, are Elementis which is based in the USA with offices in South Africa and Lanxess, a German company with firms in China and offices in South Africa and both companies also supply a Beyer Chromium (chromium 3/Cr₂O₃) product with 99.9% purity, considered the best in the market.

Locally, a company owned by Johan Van der Veld in Brits used to produce green chrome oxide, however the operation closed down.

4.4.3 Market demand for green chrome oxide

The size of the green chrome oxide market is estimated at 2 000 tonnes per annum. Rolfes is the major player in the market for green chrome oxide. The company controls 90% of the market for the refractory grade for green chrome oxide.

Rolfes further signed an exclusivity contract with Elementis where the company can only supply 90% of the product for the paint industry to Rolfes and 10% of the product to other companies in South Africa. Rolfes does not have a similar deal with Lanxess.

Lanxess only offers the South African market a fixed formulation of the product and it is not flexible to the requirements of the South African customers. Therefore, the demand for their product is only fixed to the formulation which they offer.
Rolfes on the other hand supplies approximately eight (8) tonnes per month of the refractory grade green chrome oxide to the South African Market. The company further supplies six (6) tonnes per month of the pigment grade to the market.

4.4.4 Distribution of green chrome oxide

The market for green chrome oxide is a speciality market. Most of the producers of the product, do not sell directly to end users. Instead, they sell the product through agencies who further mill or blend green chrome oxide to right quality for their market. Furthermore, in most situations, the agencies sign exclusivity agreements with the producers. For example, Rolfes has exclusivity agreements on the refractory grade with Elementis and a 90 % exclusivity agreement with the same company for the pigment grade of green chrome oxide. The exclusivity agreements present a significant barrier of entry for new producers unless they sign exclusivity agreement or are linked with one of the major players in the green chrome industry. Graphically the current distribution channel is depicted in Figure 4.4.
4.4.5 Industry pricing structure

The pricing structure is dictated by the following key factors:

- Scarcity of supply due to most know factories going out of the market as a result of environmental regulations,
- Steel prices and international chrome prices,
- Raw material and importation costs, and
- The fluctuations of the Rand/Dollar exchange rate.

All the respondents acknowledge that the green chrome oxide market cycle is dependent on the demand in the construction sector and refractory sector especially during shut down cycles. The pigment sector demand is usually high during the months of September, October and November when most
construction companies push the rate of construction to completion to avoid the festive season.

On the other hand the demand for refractory grade is high in most times of the year except in November, December and January when most refractory companies shut down operations to refurbish their plants during the festive season.

4.4.6 International markets

The international markets are mainly affected by China’s influence on the following issues:

- **China’s production capacity:** China is fast becoming a major player in the supply of green chrome oxide. Lanxess for example closed down all operations in Germany and then reallocated operations to China. China is now supplying cheap and huge quantities of green chrome oxide. However, the supply is still inconsistent with the demands of the market.

- **Consistency of supply:** as highlighted above, most of the Chinese firms are not consistent with supply.

- **Quality of product:** The have been complaints about the quality of green chrome oxide supplied by Chinese firms not being guaranteed.

The respondents further perceive that international companies are very competitive when it comes to pricing, quality which includes purity and colour and consistency of supply.
4.4.7 Customer analysis

The companies which were interviewed place a lot of emphasised the following factors:

- **Consistency of supply and quality:** The respondents require consistency in the supply and quality of the product. The respondents perceive Chinese suppliers to be inconsistent in terms of supply and product quality. These elements contribute to the high rate of company closures that affect the supply and the quality.

- **Short lead times:** The respondents require short lead times from ordering the product to supply. Currently they are compelled to order the product two months in advance, which puts a lot of pressure on their ability to manage cash flow, stock, logistics and production.

- **Competitive pricing:** The companies place significant value in the competitive prices. Due to the fact that the product is imported, the Rand/Dollar exchange rate fluctuation affects the prices. Hence any local supplier should offer prices competitive with the international prices in real terms.

- **Low stock holding:** The companies are also forced to stock between two to three months value of stock. This places significant pressure on stock control and logistics management. Thus a local supplier of green chrome oxide would be ideal and will come with the advantages of just-in-time stock management.
4.4.8 Competitor analysis

All the companies consider the following to be serious threats to their business interests:

- Other viable companies that would have the ability to import significant stock at once in very low prices without inconsistent supply,
- Importers with the ability to secure huge stock at very low prices from China,
- A new local entrant tied to international suppliers with extensive networks to source green chrome oxide, and
- The current international players if they made a decision to enter the South African market directly.

Most of the respondents felt that the international companies do not consider the South African market to be attractive. Otherwise, they would be a serious treat if they made a decision to enter the South African market.

All the respondents confirmed that there are no alternative products to refractory grade of green chrome oxide available on the market. Furthermore, Rolfes believes that green chrome oxide has by far, the best characteristics than any other material or compound on the market. Green chrome oxide is durable and resistant to abrasive materials. These two characteristics are vital for prolonging the life expectancy of smelters.

All the respondents identified a cheap and less durable product called Brunswick to be a threat to green chrome oxide for the pigment sector.
However, Brounswick is not a stable material and is less durable, consequently easily corroded.

4.4.9 Potential for growth of the market for green chrome oxide

Rolfes manufactures organic pigments. Their view is that the potential for organic pigments has not yet been fully explored. Organic products in general, are pricey and so is the organic pigment that can substitute green chrome oxide. Hence they cannot be applied in industrial scale. Growth prospects for the paint grade are dependent on the development of the construction sector and house owners preferring green roof paints for tiles and walls.

All the respondents observed that the growth prospects for refractory grade green chrome oxide are very limited.

4.4.10 Sector SWOT analysis

Strength

All the respondents identified the strengths of the green chrome oxide sector to be that:

- It is durable, therefore, it is the preferred pigment in paint and refractory sectors,
- It is resistant to abrasive materials in the refractory sector,
- It has a consistent colour compared to other pigments, and
- The demand for green chrome oxide because of lack of substitutes or alternative products.
Weaknesses

Most of the respondents identified the following weaknesses:

- Negative environmental issues associated with Chromium 6,
- The maturity of the market resulting to limited profit margins,
- Price fluctuations due to Rand/Dollar exchange, and
- Volume volatility.

Opportunities

The following opportunities were identified:

- There are opportunities for the establishment of a local manufacture of green chrome oxide. The company would have the exclusive control of the supply and demand of green chrome oxide in the country,
- The local market for paint grade of green chrome oxide is heavily dependent on the construction sector, which is presumed to be growing tremendously in South Africa, and
- There are also opportunities for a local manufacturing company to also export green chrome oxide to other countries.

Threats

The threats identified by the respondents are as follows:

- The threat of green chrome oxide (Chromium 3) comes from the environmental concerns that associated with Chromium 6, which is a similar but exactly the same to Chromium 3. Chromium 3 is stable, totally benign and un-reactive, which is why it is used in paints and smelters,
• The possibility of new entrants tied to international role players with extensive networks in China to source green chrome oxide in relatively low prices and with the added ability to consistent supply and can not guarantee product quality, and

• Potential production of organic colourants even though the development is at a premature stage.

4.14 Conclusion

The chapter focused on the presentation and analysis of data. In the next chapter conclusions and recommendations will be presented.
CHAPTER FIVE
CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The objective of the study was to examine literature and identify critical success factors for a marketing strategy. The study focused on engaging potential customers to determine their needs and wants and how these can enhance the competitive edge in the market. Furthermore, the study recommended the appropriate marketing strategy for the tannery waste by-product. The objective was achieved through the review of literature and the empirical study.

The chapter is aimed at integrating the results obtained in the empirical study with the finding of the literature review. Recommendations from the empirical study and the conclusion drawn from the data gathered will further be outlined. Recommendations will also be detailed on the appropriate marketing strategy for green chrome oxide in South Africa.

5.2 Motivation and rationale underpinning the study

The motivation for the study was to seek the most appropriate marketing strategy for Trivalent Chrome. Green chrome oxide is an industrial product which cannot be traded openly in the market compared to most consumer related products. The sector is characterised a small number of role players and is heavily dependent on international markets. As a result, the success of
Trivalent Chrome will in turn be dependent on an effective and an appropriate marketing strategy.

The main problem was to identify an ideal marketing strategy for green chrome oxide. In solving the main problem, the following sub-problems were resolved:

- The literature on marketing strategies,
- The needs and wants for a marketing strategy in the green chrome oxide market, and
- The factors to be considered in formulating a marketing strategy for green chrome oxide.

The review on literature revealed the following:

- Definition of marketing,
- Definition of a strategy,
- The concept of marketing,
- Definition of marketing strategy, and
- The process of formulating a market strategy.

The researcher used a matrix approach to review literature. This enabled the researcher to determine whether key elements are included in definitions provided by different authors. The researcher further synthesised a holistic definition of a marketing strategy based on the matrix approach.
5.3 Needs and wants for market strategy

The findings of the empirical study are outlined in Chapter 5. The study revealed that potential customers place great value in the following:

- Consistency of supply and product quality,
- Short lead times from ordering to delivery of product,
- Competitive product prices, and
- Low stock holding of the product.

5.4 Strategy formulation

The author reviewed literature and synthesised it to formulate a holistic process for formulating a marketing strategy. The formulation of a market strategy includes the following steps.

Step 1: Environmental analysis

The market for green chrome oxide is dominated by large multinationals. In South Africa however, it is dominated by Rolfes Technical Holdings. The market is further characterised by cycles influenced by construction of buildings and houses and shut downs by companies in the refractory industry. The demand for chrome pigment is high during the months of September, October and November. Whereas the demand for refractory grade is high during most times of the year except in November, December and January when most companies are closed.

The international market is dominated by mainly Lanxess and Elementis. Lanxess has operations in China allowing the company access to cheap
prices for green chrome oxide. However, the Chinese supply is heavily affected by issues of suspect quality and inconsistent supply of green chrome oxide.

Green chrome oxide is further distributed in the country by agencies that further purify the product or blend it to create the desired quality for their customers. These agencies are either independently owned companies that have business links or exclusivity agreements with the international companies and supply the product directly to end users.

The local agencies are unanimous in agreement that there is no alternative product to green chrome oxide for the refractory sector. The main reason lies in the fact that green chrome oxide is stable under high temperatures and resistant to abrasives and other materials. Hence it is the only preferred lining for the insides in blast furnaces, cement kilns and foundry sands for the casting of metals.

However, the development of organic pigments may pose a serious threat to the pigment sector for green chrome oxide. The current challenges with organic pigments is that they are very expensive to produce hence they cannot be manufactured in large quantities to meet the demand of the industry.
Step 2: Vision, mission and the role of marketing

After studying the business environment (internal and external), Trivalent Chrome (Pty) Ltd has the information it needs to formulate a vision statement. A vision is a picture or overview of what the firm wants to be, do and what it wants to ultimately achieve. This forms the foundation of any business.

A mission statement is an outline of the business or businesses in which any company intends to compete in and customers it wants to serve. The mission is more specific that the vision. Hoffman et al (2005:42) observe that a mission is a guideline for the organization’s decision making for both the short and long run. Based on the vision and mission, Trivalent Chrome should then specify the role of marketing or the marketing objective.

Step 3: SWOT analysis

The strength of the marketing plan is heavily enhanced by the fact that there are no alternatives to green chrome oxide. Hence the demand for the product is high. In addition, Trivalent Chrome will be the only producer of the product locally.

The only weaknesses that will have an impact on the plan is the negative environmental factors associated with Chromium 6, which is generated during the manufacturing process and is converted to the environmentally friendly Chromium 3.
The opportunity lies in the fact that Trivalent Chrome will be the only local producer of green chrome oxide. Hence it will be able to fulfil the needs and wants of its potential customers, who are mainly concerned with consistency of supply, short lead times from ordering to product supply and will enable the customers to keep low stock. In addition the prices will be more stable due to the elimination of the Rand/Dollar exchange rate fluctuations.

The main threat lies in the possibility of international companies deciding to enter the South Africa market as well as a new local producer of green chrome oxide. Furthermore, the possibility of reasonably priced organic chrome being developed in the near future for the paint pigment grade is also a significant threat that cannot be ignored. However, green chrome oxide will remain the only option for the refractory grade and will have no alternatives in the near future.

**Step 4: Formulation of strategy**

The marketing strategy should take this form:

- **Market segmentation:** The market is clearly segmented into two, the refractory sector and the pigment sector. The size of the market is estimated at 2 000 tonnes per annum of green chrome oxide. This is not significant compared to other markets such as Food and Beverages. Hence further segmenting the refractory sector to the blast furnaces, cement kilns, mould for firing of bricks and the foundry sands sub-sector and targeting these separately will not be viable.
• **Target market selection:** The chrome market is a chemical speciality market with limited marketing opportunities in terms of size and the number of potential customers is small. Hence Trivalent Chrome must select both the refractory and pigment markets and choose a production process that will ensure the company produces a product to fulfil both markets. It should be noted that all the industry role players have manufacturing operations that allows them to blend or purify the product to suit their established client’s needs. Targeting both sectors will ensure that its product has wide use and improve the chances of success in the market.

• **Marketing mix:** The product Trivalent Chrome will trade in will be Chromium 3. The product will be sold to agencies that will either blend it or further purify it to suit the end-user specifications. The company should have exclusive agreements with the agencies it sells its product too. This will ensure that all the company’s product is sold. The challenge will be to negotiate an attractive price for its products. Signing exclusive off-take agreements with one or two agencies will eliminate the need for a comprehensive promotional strategy. The price Trivalent Chrome may receive for it’s product, will depend on the agency’s perceived value in terms of short lead times, good quality product, consistency of product supply and the benefits that will accrue to the agency in terms of carrying low stock. Furthermore, the prices for agency will now be stable through the elimination of the Rand/Dollar exchange rate fluctuations. Through this, Trivalent
Chrome will be able to derive an attractive price for green chrome oxide.

- **Position strategy:** As a new entrant in the market, Trivalent Chrome should avoid selling directly to end users and should instead sell to established agencies so as to limit direct competition with agencies that are well entrenched in the market and have exclusive agreements with end users. It is advisable the Trivalent Chrome consider an exclusive supply or off-take agreement with the largest company, which is Rolfes technical Holdings on condition that the company offers an attractive price.

**Step 5: Implementation monitoring and evaluation of strategy**

Hoffman et al (2005:257) observe that the final steps in the target-market process are to develop and implement a marketing mix matched to the needs of the target market and control the plan. For trivalent Chrome (Pty) Ltd, this means developing a specific plan of action and timeline, which means; who will do what, when, where, how and why. This will only be possible once the company has finalised its human resources structure and identified the people with the right skills to execute the plan.

Concrete and measurable indicators of marketing effectiveness, such as sales and consumer perceptions, must be specified for each marketing mix component and continually monitored and evaluated at predetermined times to access effectiveness of the marketing mix in meeting desired plan objectives. This includes the use of customer surveys to determine the needs
and wants of customers and seeks new opportunities. The ultimate strategy will also include continuous research in new technologies so that it’s not caught out by the entrants of new alternative products.

Trivalent Chrome (Pty) Ltd must identify new segments, new needs that are not identified at the moment and new opportunities that may arise due to innovation and research. It will be imperative for the company to continuously monitor target markets, scout for opportunities and threats as well as seek changes in the marketing mix and respond accordingly.

5.5 Recommendations

In resolving the main problem, the following recommendations are outlined. The recommendation must also form the main basis of Trivalent Chrome (Pty) Ltd’s marketing strategy:

- Build relationship and networks with already active agencies in the green chrome sector.
- Seek to align or sign exclusivity agreements with the major agency on condition the price is competitive to international prices.
- Seek to address the current needs of agencies in the market, which is sustainable product quality, stable prices, short lead times and allow agencies to keep low stocks.
- Provide quality of green chrome oxide to satisfy the refractory and pigment grades.
- Continuously invest in research and development to seek better and improvement alternative products to green chrome oxide.
Hoffman et al (2005:8) argues that the vast majority of businesses achieve long term success by conducting customer oriented business practices as well as focusing on long-term success. This requires Trivalent chrome (Pty) Ltd to integrate customer needs and wants into its business philosophy.

- The company must also create and sustain mutually satisfying long-term relationship not only with its customers but also with other key stakeholder such as employees, suppliers, distributors, retailers, the surrounding community and society as a whole. It will be imperative for the company to seek to re-educate the community and society as a whole on the differences between Chromium3 and Chromium 6 to eliminate the negative connotations to Chromium 3.

- Trivalent Chrome (Pty) Ltd should further seek to formulate an effective strategy based on the issues uncovered by the study before it introduces the green chrome oxide into the market. The company is advised to target the entire green chrome sector (pigment and refractory sectors). In the words of Hoffman et al (2005:16), as markets become increasingly fragmented, the potential payoff becomes smaller and smaller because the market segments become smaller and smaller as well.
REFERENCE LIST


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ANNEXURE A – ORIGINAL QUESTIONNAIRE

Dear Respondent

Questionnaire on the Development of marking Strategy for Green Chrome Oxide

I’m currently investigating the issues that will assist formulate a marketing strategy for selling green chrome oxide as part of my MBA studies at the Nelson Mandela Metropolitan University. The aim of my research is to:

- Engage the potential customers to determine the needs and wants regarding green chrome oxide,
- Determine how the needs and wants might enhance the competitive edge of a company selling green chrome oxide,
- Determine the ideal marketing strategy for a green chrome oxide, and
- Recommend the appropriate marketing strategy to be implemented by Trivalent Chrome (Pty) Ltd.

The researcher undertakes to treat all information confidential and will not disclose confidential information without the approval of the respondent and his or her company. The information will also be used for academic purposes and by Trivalent Chrome (Pty) Ltd. The researcher is also guided by the research ethics of the Nelson Mandela Metropolitan University.

The questionnaire will be administered by the researcher. Respondents will be allowed to read and study the questionnaire prior to the interview. Respondents are requested to respond as accurately as possible.

Respondent Information

Name of Respondent .................................................................
Name of Company .................................................................
Designation ...........................................................................

Contact Details

- Tel: .....................................................................................
- Cell: ..................................................................................
- Email: ..............................................................................

Brief Description of Company

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Part C – Marketing Information

1. Product life quality

1.1 What is the acceptable quality range?
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1.2 What quality do you buy?
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..........................................................................................

1.3 What is the best quality on the market?

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1.4 Who is /are the producer or supplier of the best quality product?

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2. Market Demand for the Product

2.1 What quantity is sold in South Africa and globally?

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2.2 Who are the major end users of the product?

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2.3 How much do they buy?

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2.4 Where are they based?

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3. Distribution of the product

3.1 Who are the distributors in South Africa?

…………………………………………………………………………………………………………………………

3.2 Where are they located?

…………………………………………………………………………………………………………………………

3.3 How is the product distributed?

…………………………………………………………………………………………………………………………

3.4 Where do they source their products?

…………………………………………………………………………………………………………………………

4. Industry Pricing Structure

4.1 Pricing is the industry practice (norm) when it comes to pricing strategies for the product?

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4.2 What are the current market prices for the product?

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4.3 In what volumes is the products generally sold in?

4.4 What are the price sensitivities?

5. International Markets
5.1 Which countries does SA have trade agreements with that might require the product?

5.2 Who are the major buyers and producers globally?

5.3 How do different suppliers compete internationally?

6. Customer Analysis
6.1 What value do customers seek?

6.2 What is the number of customers?

6.3 What is the concentration of customers for a particular quality type?

7. Competitor Analysis
7.1 Who do you consider to be the main competitor in the market and what is their Market Position?

7.2 What is their Market Share?

7.3 What are your competitor’s general strengths?
7.4 What are your competitor's general weaknesses?
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7.5 What is the alternative products green chromium oxide and comment on their availability?
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Annexure B – Test Questionnaire

Dear Respondent

Questionnaire on the Development of Marketing Strategy for Green Chrome Oxide

I’m currently investigating the issues that will assist formulate a marketing strategy for selling green chrome oxide as part of my MBA studies at the Nelson Mandela Metropolitan University. The aim of my research is to:

- Engage the potential customers to determine the needs and wants regarding green chrome oxide,
- Determine how the needs and wants might enhance the competitive edge of a company selling green chrome oxide,
- Determine the ideal marketing strategy for a green chrome oxide, and
- Recommend the appropriate marketing strategy to be implemented by Trivalent Chrome (Pty) Ltd.

The researcher undertakes to treat all information confidential and will not disclose confidential information without the approval of the respondent and his or her company. The information will also be used for academic purposes and by Trivalent Chrome (Pty) Ltd. The researcher is also guided by the research ethics of the Nelson Mandela Metropolitan University.

The questionnaire will be administered by the researcher. Respondents will be allowed to read and study the questionnaire prior to the interview. Respondents are requested to respond as accurately as possible.

Respondent Information

Name of Respondent: Joyce Jabane-Bauwens
Name of Company: Trivalent Chrome cc
Designation: Managing Member
Contact Details:
- Tel: 011 783 7062
- Cell: 083 617 3673
- Email: joyce.jabane@trivalentchrome.co.za

Brief Description of Company
Manufacturing and marketing of chromium oxide pigment grade product.

Marketing Information
1. Product quality
1.5 What is the acceptable quality of green chrome oxide would your company be willing to purchase?
Between 96% and 99% Cr₂O₃ chromium content

1.6 What is the best quality of green chrome oxide available on the market today?
Bayer chromium oxide with 99.9% Cr₂O₃ content
1.7 How do you source your product and in what quantities?
Manufacture at least 1.8 tons/day of the product.

1.8 Who is the producer or supplier of the best quality of green chrome oxide?
Bayer Chrome so far

2. Market Demand for the Product
2.1 Do you have an idea of the amount of green chrome oxide that is imported into South Africa?
At least 2000 tons per annum so far.

2.2 Who are the major end users of the product?
Paint industry

2.3 What do the major end users use green chrome oxide for?
as a pigment in paint for thermal stability and longer life span of the paint.

2.4 Where are the major users of green chrome oxide located in South Africa?
Everywhere in SA, but the biggest are in JHB.

3. Distribution of the product
3.1 Who are the major distributors of green chrome oxide in South Africa?
Rolfes Colour Pigment International (Pty) Ltd

3.2 Where are the distributors located in South Africa?
Everywhere around SA, but the biggest are in JHB

3.3 How is the product distributed locally?
By agents

4. Industry Pricing Structure
4.1 What are the current market prices of green chrome oxide?
About R69/kg for the retail price.

4.2 How volatile are the prices for green chrome oxide?
Highly based on steel price and the exchange rates. Thus, it is highly volatile.

4.3 In what volumes is the product generally sold in?
25kg bags

4.4 What are influences the changes in the market price of green chrome oxide?
Raw material and the transport price, exchange rates, import duties, etc.
5. International Markets

5.4 Which countries does SA have trade agreements that might require the product?

China and Germany

5.5 Who are the major buyers and producers globally?

Paint and Pigment suppliers

5.6 How do different suppliers compete internationally?

Pricing, quality (Cr$_2$O$_3$ content) and the green colour spectrum

6. Customer Analysis

6.1 What value do customers of green chrome oxide seek?

Quality, colour and price

6.2 What is the number of customers for green chrome oxide in South Africa?

About 11 big paint and pigment consumers

6.3 What is the concentration of customers for a particular quality type?

96% Cr$_2$O$_3$ content in the paint industry has high demand

7. Competitor Analysis

7.3 Who do you consider to be the main competitor in the market and what is their Market Position? ……………………Rolfes locally and China, Bayer and Elementis overseas.

7.4 What is their Market Share?

Currently supplying the entire local demand amongst themselves

7.6 What are your competitor’s general strengths?

History, off the shelf technology/process and branding

7.7 What are your competitor’s general weaknesses?

Price

7.8 What are the alternative products to green chromium oxide? Please comment on their availability?

None – to replace the green colour in paint.

There are other pigments in the market for giving different colours, such as titanium oxide for white colour and ferric oxide for red colour, etc.

8. Potential for growth of green chrome oxide market

8.1 What are the substitutes for green chrome oxide? Extend your comments to address the issue of organic colourants.

8.2 How mature is the market for green chrome oxide?

Well matured. In existence from the 1800s.
8.3 What would be the drivers of demand for green chrome oxide?
Demand in paint and other product with chromium oxide content.

9. Sector SWOT Analysis
9.1 In your view, what are the strengths of the green chrome oxide market?
Stable price and quality

9.2 What are the weaknesses of the green chrome oxide?
Volatile price

9.3 What are the opportunities for producers of green chrome oxide?
Stable prices, quality and production

9.4 What are the threats for producers of green chrome oxide?
Declining demand of chromium oxide pigment products. Increased prices for the raw material
Dear Respondent

**Questionnaire on the Development of marketing Strategy for Green Chrome Oxide**

I’m currently investigating the issues that will assist formulate a marketing strategy for selling green chrome oxide. The aim of my research is to:

- Engage the potential customers to determine the needs and wants regarding green chrome oxide,
- Determine how the needs and wants might enhance the competitive edge of a company selling green chrome oxide,
- Determine the ideal marketing strategy for a green chrome oxide, and
- Recommend the appropriate marketing strategy to be implemented by Trivalent Chrome (Pty) Ltd.

The researcher undertakes to treat all information confidential and will not disclose confidential information without the approval of the respondent and his or her company. The information will also be used for research purposes and by Trivalent Chrome (Pty) Ltd. The researcher is also guided by the research ethics of the Nelson Mandela Metropolitan University.

The questionnaire will be administered by the researcher. Respondents will be allowed to read and study the questionnaire prior to the interview. Respondents are requested to respond as accurately as possible.

**Respondent Information**

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Name of Company .........................................................................................................................
Designation ....................................................................................................................................

**Contact Details**

- Tel:  ........................................................................................................................................
- Cell: ........................................................................................................................................
- Email: ........................................................................................................................................

**Brief Description of Company**

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1.10 What is the best quality of green chrome oxide available on the market today?

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1.11 How do you source your product and in what quantities?

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1.12 Who is the producer or supplier of the best quality of green chrome oxide?

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