Selecting an appropriate process for the formulating of an operations strategy for Bridgestone/Firestone, Port Elizabeth plant, in a changed market environment.

Researched by:

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Paper presented in partial fulfilment of the requirements for the Master’s Degree in Business Administration at the Port Elizabeth Technikon.

Promoter: Dr J. J. Pieterse

December 2002
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SUMMARY

The research problem addressed in this study was aimed in assisting the management of Bridgestone/Firestone, Port Elizabeth plant, in selecting an appropriate process for the formulation of an operations strategy.

The author embarked on a literature survey to gain understanding of the challenges that are occurring in the market environment. The theories and techniques around operational strategies were extensively researched in an effort to effectively and efficiently assist the management of Firestone in achieving a competitive advantage over rival competitors.

Other areas of focus include the content, development, principles and concepts in developing an operations strategy. The author details the process of the formulation of an operations strategy as well as the discussion of four models/procedures deployed in organisations that would enhance strategy formulation.

It is evident from the findings of the empirical study that a high percentage of the respondents “agree” that the strategy deployed within Bridgestone/Firestone, Port Elizabeth plant is appropriate, yet an alarmingly high percentage believe it to be “ineffective.”
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CHAPTER ONE

INTRODUCTION, PROBLEM STATEMENT AND DEFINITION OF CONCEPTS

1.1 INTRODUCTION

In 1936 a piece of land, at the corner of Kempston and Harrower Roads, within Port Elizabeth, was purchased for a sum of 750 dollars. Harvey S. Firestone Jr. visited South Africa to approve the site and final plans for the new tyre factory. The plant was completed at a total cost of 221 000 dollars, which included the land, building, machinery and equipment.

Over the years Firestone was traded to various interested parties. Today Firestone, Port Elizabeth plant is owned by the Bridgestone tyre-manufacturing group and is currently known as Bridgestone/Firestone Port Elizabeth plant, South Africa. In this research paper Bridgestone/Firestone, Port Elizabeth plant will be referred to as Firestone.

Slack, Chambers, Harland, Harrison and Johnston (1998: 74) state that no organisation can plan in detail every aspect of its current or future actions and for all organisations to benefit from some idea of where they are heading and how they could get there, they need to have a strategic direction.

Slack et al (1998: 99) explain that the strategy of an organisation is concerned with the setting of objectives for each individual business and how it positions itself in its markets, while an operations strategy is the total pattern of decisions and actions which set the role, objectives and
activities of the operation so that they contribute to and support the organisation’s business strategy.

The management of Firestone is continually seeking measures to improve the organisation's competitiveness as well as securing and improving Firestone’s organisational position in the market place. Establishing an appropriate process for the formulation of an operations strategy will enhance its effective competitiveness in both the local and global market place.
1.2 THE PROBLEM

1.2.1 The Main Problem

For a manufacturing organisation to successfully compete in the twenty-first century markets it needs to provide better products in a wider variety and at a lower cost (Miltenburg, 1995: 13), and this needs to be completed faster than its competitors.

The purpose of the research is: To assist the management of Firestone, in selecting an appropriate process for the formulation of an operations strategy, to enable them to successfully compete in the local and global market place.

1.2.2 Sub-Problems

In order to develop a research strategy to create a solution to the main problem, the following sub-problems have been identified:

(a) How has the market environment changed and how does this change affect Firestone?
(b) What operations strategies does the literature reveal will address the changed market environment?
(c) What operational strategy do the staff and management of Firestone believe will address the changed market environment?
(d) How can the two above be integrated to formulate an operations strategy for Firestone in the changing market environment?
1.3 DEFINITION OF KEY CONCEPTS

1.3.1 Strategy

Lanigan (1992: 45) defines strategy as a course of action intended to achieve a strategic objective, and Hellriegel, Jackson and Slocum (1999: 112) explain that a strategy is the major course of action that an organisation takes to achieve its goals.

Slack et al (1998: 75) explain that the term “strategic” refers to those decisions which:

- are widespread in their effect and so are significant in the part of the organisation to which the strategy refers,
- define the position of the organisation relative to its environment,
- move the organisation closer to its long-term goals.

1.3.2 Operations Strategy

Harrison and John (1994: 1040) explain that an operations strategy is a plan to design and manage the processes needed to create the products and services of the organisation. Kratjewski and Ritzman (1990: 22) suggest that, if correctly implemented, it can achieve the organisation’s overall goals, within the framework of the corporate strategy.

Operations strategy, according to Harrison (1993: 91), uses a vocabulary which is derived partly from corporate planning and partly from operations management and facilitates the implementation of top-down planning while providing strategic opportunities through operational excellence.
1.3.3 The Market Environment

Kabat (1983: 78) details that the market environment represents the national and global context of social, political, regulatory, economic and technological forces while the operating environment consists of the organisation in interaction with its customers, suppliers, competitors, unions, regulatory agencies, investors and bankers.

Economic forces have a major influence on organisational behaviour and performance, therefore Harrison and John (1994: 66) suggests that organisations need to constantly scan and analyse the economic environment to monitor critical and uncertain assumptions concerning the economic future.

Uncertainty influences strategy development, but little is known about the process by which managers respond to uncertainty in formulating strategy as identified by Parnel, Lester and Menefee (2000: 8). This leads organisations, such as Firestone, to increasingly scan the market environment in an effort to predict and reduce the high level of uncertainty.

1.3.4 Strategic Planning

Strategic planning is the process of formulating and implementing decisions about an organisation’s future direction (Kerzner, 2001: 1012). Kerzner further stresses that this process is vital to every organisation’s survival since it is the process by which an organisation adapts itself to the ever-changing environment.
Hellriegel et al (1999: 219) explain that strategic planning is the process of:
- analysing the organisation’s external and internal environments,
- developing a mission and vision,
- formulating overall goals,
- identifying general strategies to be pursued, and
- allocating resources to achieve the organisation’s goals.

### 1.3.5 Tactical Planning

Tactical planning is the process of making detailed decisions about what to do, who will do it and how to do it, within a normal time frame of one year or less (Hellriegel et al, 1999: 222).

Hellriegel et al (1999: 222) further highlights that middle, first-line managers and teams are involved in tactical planning where the process generally includes the following:
- choosing specific goals and the means of implementing the organisations strategic plan,
- deciding on a course of action for improving current options, and
- developing budgets for each department, division and project.

Hellriegel et al (1999: 222) suggest that departmental managers and employee teams should develop tactical plans to anticipate or cope with the actions of competitors, and to coordinate with other departments, customers and suppliers in an effort to implement strategic plans.
1.4 DELIMITATION OF THE RESEARCH

Delimitation of the research serves the purpose of making the research topic manageable from a research point of view.

The omission of certain topics does not imply that there is no need to research them.

1.4.1 About the Organisation

Bridgestone/Firestone is the world’s largest tyre manufacturer. Today, Bridgestone/Firestone develops, manufactures and markets tyres for passenger, light truck, truck, bus, earthmoving, agricultural, motorcycle and aircraft applications. Other innovative products that complement the Bridgestone/Firestone’s product range include the manufacturing of tubes and pre-cured treads.

Firestone is one of the three local tyre manufacturers located in the Eastern Cape Province of South Africa. In the tyre manufacturing industry, within both the local and global markets, increased competition is prominent. The result, according to Parnell et al (2000: 2), is that organisations are seeking to invest in the formulation of a strategy, which assists them to cope with the uncertainty by shaping the competitive environment.

Leading the way into the new millennium, Bridgestone/Firestone will continue to remain focused, to ensure that they keep themselves at the top of their industry with innovative, quality products.
The research will be conducted for the management of Firestone, Port Elizabeth Plant.

### 1.4.2 Geographic Delimitation

The empirical component of this study will be limited to Firestone, Port Elizabeth Plant situated within the Eastern Cape region of South Africa.

### 1.4.3 Respondents

The researcher will identify and interview the staff of Firestone, Port Elizabeth Plant, to establish their opinions and recommended actions applicable to addressing the changed market environment successfully.

### 1.4.4 Scope of Research

The researcher will analyse the relevant literature outside as well as within the South African market environment context, to establish the trends in similar manufacturing organisations.

### 1.4.5 Basis for an Operation Strategy

It is the intention of the researcher to establish an appropriate process for the formulation of an operations strategy applicable for Firestone, Port Elizabeth plant, by integrating the current literature findings with that of the market environment.
1.5 SIGNIFICANT PRIOR RESEARCH

Operations strategy does not exist in a static state where decisions are made in a non-constructive manner. An operations strategy, as suggested by Boyer (1998: 8), should provide a dynamic framework to guide organisations in making a systematic, coherent set of decisions over time.

In the new millennium Carrie (1999: 2) forecasts that competition will be between clusters of companies, customers, suppliers and other private and public stakeholders rather than between individual companies. Carrie (1999: 2) further explains that the emerging information technologies such as the Internet, Intranet and Workflow Systems will provide the technological infrastructure that will facilitate the integration of various organisations into an effective and efficient cluster.

Business strategies are as different as the organisations that create them, since no two businesses are exactly alike. Harrison and John (1994: 142) suggest that the classifying of strategies into generic types helps firms identify common strategic characteristics.

Business diversification and the capability development strategies are formulated to ensure operations are rebuilt according to the strengths-opportunities relationship identified through strategic analysis, as Gagnon (1999: 4) explains. Gagnon (1999: 4) further states that an operations strategy is a two-way integration process, where the operating capabilities dictate the direction of strategy, with feedback from marketing imperatives as to what operations could do to sustain competitiveness.

Kabat (1983: 81) recommends that an organisation should adopt one of the new techniques used to scan the market environment, such as: the
Delphi technique, visionary forecasting, historical analogy, morphological analysis, intuitive reasoning, relevance trees, cost impact analysis, trend impact analysis, contingency trees, model building, or scenario building which, if applied correctly, would provide reliable insight into the future.

Ellis and Williams (1995: 23) point out that it is necessary that strategies should be based on what the organisation does well relative to competitors or on capabilities that the firm wants to develop to create a competitive advantage in the future.

An organisation can only survive and prosper in the future if all the challenges of the profoundly and dynamically changing environmental forces - be they political, economic, technological or social - are successfully faced (Swink and Hegarty, 1998: 7).
1.6 RESEARCH METHODOLOGY

The researcher will attempt to formulate an operations strategy appropriate for Firestone, challenging the obstacles of an uncertain market environment where the rival competition is tough and the customer expectations high.

The following processes will be used:

- Literature survey to place the changed market environment into perspective and to determine what is meant by an operations strategy.
- Literature survey to determine specifically what operations strategy the literature reveals will address the changed market environment.
- Developing a questionnaire to assess the suitability of the operational strategies identified from the literature survey.
- Conducting interviews, if deemed necessary, with practising managers to test the degree to which an operational strategy concurs with the changed market environment, identified in the literature survey.
- Analysis of the results to establish whether there is significant concurrence or not.
- Integration of the empirical results with the literature findings.
1.7 KEY ASSUMPTIONS

The researcher assumes that the existing operations plan deployed in Firestone, is inappropriate for current and future environmental market conditions.

It is also assumed that the operational strategy of other manufacturing organisations can be applied or modified to fit the existing conditions at Firestone to enable them to achieve their designated objectives.
1.8 THE SIGNIFICANCE OF THE RESEARCH

The relationship between the environment and competitive strategy in manufacturing industries is continually adapting to changing conditions and as learning takes place on a world-wide basis, the major strategies for a modern manufacturing organisation favour the development of flexibility in its manufacturing processes (Harrison, 1993: 27).

As highlighted by Anderson (1994: 3), national boundaries are becoming less of a constraint on competition and in many industries such as Firestone a single global market is now a reality.

Ellis and Williams (1995: 25) acknowledge that there are five forces which largely determine the type and level of competition in an industry, namely:

- potential entrants,
- customers,
- substitutes,
- suppliers and
- direct competitors

which ultimately determine the organisation’s profit potential.

The research will reveal whether Firestone requires a revisionary operational strategy to ensure effective organisational competitiveness within a changed market environment and will provide an operations strategy based on theory, an analysis of the market environment and an analysis of the current situation at Firestone.
1.9 LAYOUT OF THE STUDY

The research has been planned to include the following chapters:

Chapter 1: Problem statement and the definition of key concepts.

Chapter 2: Prior literature research on the nature and process of an operations strategy.

Chapter 3: Prior literature research on the key models/procedures for formulating operations strategies.

Chapter 4: Description of the research methodology, the structure of the questionnaire and analysis of results.

Chapter 5: The result of the research and the findings.
1.10 CONCLUSION

The emphasis in successfully managed manufacturing functions is increasingly toward issues of strategy. Operational strategies require a very complex and detailed design, therefore manufacturing executives need to think and act in a more strategic manner.

The development of an operations strategy provides an important advantage, according to Hill (1994: 154), since it offers a meaningful and realistic way for manufacturing to communicate with the rest of the business. By doing this it provides the base on which to build, creating a positive move to stop the drift into unfocussed manufacturing.

In an environment traditionally geared to meeting output targets, the pressure on manufacturing has been to manage reactively and to be operationally efficient rather than strategically effective, as Hill (1994: 14) explains.

The purpose of thinking and managing strategically is not just to improve operational performance or to defend market share. It is to gain competitive advantage and it implies, according to Hill (1985: 22), an attempt to mobilise manufacturing capability to help gain this competitive edge.

In the chapters to follow the writer will detail the theories and techniques around operational strategies, which will effectively and efficiently assist an organisation in achieving a competitive advantage over rival competitors.
CHAPTER 2

PRIOR LITERATURE RESEARCH ON THE NATURE AND COMPILATION PROCESS OF AN OPERATION STRATEGY

2.1 INTRODUCTION

“If you don’t know where your business is going, any road will get you there.” Strategic Planning: Business Strategy (2002), explains that senior business managers are often too preoccupied with immediate issues so that they lose sight of their ultimate objectives. This is one of the main reasons why a strategic plan is a virtual necessity. A strategic plan may not be a recipe for success, but without it an organisation is much more likely to fail.

In this chapter the author will explain the importance of an operations strategy, including the strategy concept. Other focus areas within this chapter include the characteristics of today’s markets, the content, development, principles and concepts in developing an operations strategy. To sum up this chapter the author will detail the process of formulating a strategic plan and comment on the impact globalisation has on an organisation.

It is important to establish these concepts of content since they dictate the overall structure of this chapter.
2.2 THE IMPORTANCE OF AN OPERATIONS STRATEGY

Often, the question arises in most organisations as to why operations should go to the trouble of putting a strategy together. The obvious answer, according to Slack et al (1998: 796), is that an effective operations strategy helps the organisation to compete more effectively. Companies which have formulated an operations strategy which is consistent with their business strategy achieve higher business performance than those without an operations strategy.

A shared strategy not only allows both areas to measure their own decisions against the common purpose, but also allows the implications of each other’s strategy areas to be explored. A formally constructed operations strategy gives the basic structure which ensures that the many individual decisions taken around the organisation all point in the same direction.

A credible operations strategy reinforces the centrality of competitiveness in the culture of an organisation. This is achieved by concentrating on the linkages between overall company strategy, operations objectives, the various operations decision and the individual resources of the operation (Slack et al, 1998: 796).
2.3 THE STRATEGY CONCEPT

The concept of strategy is dynamic since it evolves as the environmental conditions evolve. According to Ketelhohn (1993: 4), “the nature of a network organization changes in different environments: what works well in Italy may not do so in Japan, and vice versa, this is why organisations need to adapt to the local conditions and culture”.

Ketelhohn (1993: 4) further explains that the concept of strategy is a strategic management process that adapts the organisation’s basic posture to the different environments in which it is present.

The decisions taken as part of a company’s operations strategy are considered strategic because they:

- are widespread in their effect and so are significant in the part of the organisation to which the strategy refers;
- define the position of the organisation relative to its environment;
- move the organisation closer to its long-term goals.

Slack and Lewis (2002: 6) explain that “strategy” is more than a single decision, but rather a total pattern of decisions. A company’s operations strategy is shown in the pattern of decisions that the organisation takes to develop its operations resources. Such decisions include the magnitude and nature of its total capacity; the way in which it relates to customers, competitors, suppliers and partner operations; its approach to acquiring or developing process technology and the way in which it organises and develops its resources (Slack et al, 1998: 94).
2.4 STRATEGIES AND ETHICS

Ethics, as explained by Slack et al (1998: 801), can be considered as the framework of moral behaviour which determines whether a particular decision is judged as being either right or wrong. Table A identifies some ethical issues that need to be carefully considered.

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<td>• Fume and emission pollution</td>
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<td>• Repetitive/alienating work</td>
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<td>• Energy efficiency</td>
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<td>Job Design</td>
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<td>• Repetitive/alienating work</td>
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<td>• Unsocial working hours</td>
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<td></td>
<td>• Customer safety (in high contact operations)</td>
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<tr>
<td>Planning and Control</td>
<td>• What priority to give customers waiting to be served</td>
</tr>
<tr>
<td>(including MRP, JIT and Project</td>
<td>• Material utilisation and waste</td>
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<td>Planning)</td>
<td>• Unsocial staff hours</td>
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<td>• Workplace stress</td>
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<td></td>
<td>• Restrictive organisational cultures</td>
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<td>Capacity Planning and Control</td>
<td>• Recruitment policies</td>
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<td>• Working hour fluctuations</td>
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<td>• Unsocial working hours</td>
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Selecting an appropriate process for the Formulating of an Operations Strategy for a Manufacturing Organisation

<table>
<thead>
<tr>
<th>Process</th>
<th>Considerations</th>
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<tbody>
<tr>
<td>Inventory Planning and Control</td>
<td>- Service cover in emergencies</td>
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<td>- Relationships with sub-contractors</td>
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<td>- “Dumping” of products below cost</td>
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<td>Supply Chain Planning and Control</td>
<td>- Price manipulation in restricted markets</td>
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<td>- Energy management</td>
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<td>- Warehouse safety</td>
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<td>- Obsolescence and wastage</td>
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<tr>
<td>Quality Planning and Control and Total Quality Management</td>
<td>- Honesty in supplier relationships</td>
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<td>- Transparency of cost data</td>
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<td>- Non-exploitation of developing country suppliers</td>
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<td>- Prompt payment to suppliers</td>
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<td>- Minimising energy consumption in distribution</td>
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<td>- Using re-cycled materials</td>
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<tr>
<td>Failure Prevention and Recovery</td>
<td>- Customer safety</td>
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<td>- Staff safety</td>
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<td>- Workplace stress</td>
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<td>- Scrap and wastage materials</td>
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<td>- Environmental impact of process failures</td>
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<td></td>
<td>- Customer safety</td>
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<td>- Staff safety</td>
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Table A: Some ethical considerations of operations management decisions (Slack et al, 1998: 800).

Slack et al (1998: 803), explain that organisations which understand the importance of ethical dimensions to operations decisions tend to take a proactive approach to their own ethical stance. This involves deciding the principles upon which they will make ethical-sensitive decisions by developing an explicit set of principles which allow the organisation to avoid ethically ambiguous activities and gradually build up an ethical framework which becomes accepted within the organisational culture of the operation.
2.5 CHARACTERISTICS OF TODAY’S MARKETS

Hill (1994: 45) explains that for a company to formulate an operations strategy it must first clearly understand and agree about the markets in which it wishes to compete in today and tomorrow. Past markets were characterised by similarity and stability, while current markets are characterised by difference and change.

Market segmentation is primarily a way of understanding markets so as to match a company’s marketing efforts to its customer requirements. Slack and Lewis (2002: 16) explain that the purpose of segmentation is usually to ensure that the product or service specification, its price, the way it is promoted and how it is channeled to customers are all appropriate to customer needs. This could lead to the identification of new market opportunities as well as highlight any changes in the market characteristics.

Kerzner (2001: 1009) explains that during favourable economic times management style and corporate culture move very slowly: unfortunately favourable times do not last forever. He further states that the period between realising the need to change and garnering the ability to manage change is usually measured in years. As economic conditions deteriorate, change occurs more and more quickly in business organisations, but not fast enough to keep up with the economy (Kerzner, 2001: 1012).

On the other hand, for a company to improve, Hill (1994: 46) states that it needs to continuously review its markets to ensure that it arrives at a successful and workable strategic decision. The understanding of today’s varied and fast changing market is an essential ingredient in the success of any organisation.
2.6 DEVELOPING AN OPERATIONS STRATEGY

According to Hill (1994: 26), companies require a strategy not based solely on marketing, manufacturing or any other function, but rather one that embraces the interface between markets and functions, and both functions must have a common understanding and agreement about the company’s markets.

Miltenburg (1995: 1) agrees that the business strategy of a firm is the sum of the individual strategies of its component functions. In a successful firm these strategies interlock to provide the maximum competitive advantage of which the firm is capable.

Hill (1994: 27) emphasises that there is no shortcut to moving forward. However, there are five basic steps that provide an analytical and objective structure in which the corporate debate takes place and consequent actions can be taken.

These five steps are as follows:

Step 1 Define corporate objectives.
Step 2 Determine marketing strategies to meet these objectives.
Step 3 Assess how different products qualify in their respective markets and win orders against competitors.
Step 4 Establish the most appropriate process to manufacture these products.
Step 5 Provide the manufacturing infrastructure to support production.

Although each step has substance in its own right, each has an impact on the others. This explains the involved nature of strategy formulation.
2.7 THE CONTENT OF AN OPERATIONS STRATEGY

The essence of strategy stems from the need for companies to gain a detailed understanding of their current and future markets. Functions are then required to develop strategies based on supporting the characteristics of agreed markets. Manufacturing strategy, as Hill (1994: 43) explains, consists of the strategic tasks that manufacturing must accomplish to support the company’s order-winners and qualifiers relating directly or indirectly to that function.

Order-winning factors are those that directly and significantly contribute to winning business. Customers regard them as key reasons for purchasing the product or service, which will result in more business or improving the chances of gaining more business. Order qualifying factors may not be the major competitive determinants of success, but are important to ensure that the product or service be considered by the customer (Slack and Lewis, 2002: 51).

An operations strategy comprises a series of decisions concerning process and infrastructure investment, which over time provides the necessary support for the relevant order winners and qualifiers of the different market segments of a company. It is built on keeping the strategic developments relevant to the business and it must reflect those aspects of manufacturing critical to those segments of the firm under review (Hill, 1994: 42).
2.8 PRINCIPLES AND CONCEPTS IN DEVELOPING AN OPERATIONS STRATEGY

Companies invest in a wide range of functions and capabilities in order to make and sell products at a profit, according to Hill (1994: 17), and consequently the degree to which a company functions are aligned to the needs of its markets will significantly affect its overall revenue growth and profit. The size of investment in processes and infrastructure in manufacturing is fundamental to this success.

Hill (1994: 17) acknowledges that companies need to be aware of how well manufacturing can support the marketplace while still being conscious of the investments and time dimensions involved in changing current positions into future proposals.

Hill (1994: 18) explains that, in most organisations, the corporate strategy statements are a compilation of functional strategies and nothing more, since they are derived independently both of one another and the corporate whole, as indicated in figure 1.

Figure 1: Functional strategies are developed independently of one another and the corporate whole (Hill, 1994: 18).
Functional strategies need to be developed which support the agreed markets with consistency between the various parts of the business, therefore the corporate strategy is the outcome of functional strategies and can only be achieved by integration across the functional boundaries. The corporate strategy then is both the binding mechanism for and the end result of this process as illustrated in figure 2 (Hill, 1994: 19).

![Corporate Strategy Diagram](image)

**Figure 2:** Integrating functional strategies and forging the corporate strategic outcome (Hill, 1994: 19).

The independent formulation of functional strategies and the failure to cross-relate them has become the order of the day. This failure to debate strategy has led to essential perspectives and contributions of key functions being left out of strategic outcomes. Hill (1994: 19) explains that the existence of increasing world competition, over-capacity in many sectors of manufacturing industry, increasing scarcity of many key resources, and decreasing product life cycles make it logical for businesses to incorporate all the key functional perspectives when determining policy decisions.
All the functions within a business need to be party to agreeing on the blueprint of the corporate strategy. They are then party to the debate and its resolution that facilitate the identification of the individual strategies necessary to support agreed direction and for which each function takes responsibility.
2.9 FORMULATING A STRATEGIC PLAN

The formulation process of a strategic plan as explained by Kerzner (2001: 1012) is the process of deciding where an organisation wishes to progress to, what decisions need to be made, and when must they be made, in order to achieve its objective.

The formulation process of a strategic plan is as follows:

- Scan the external environment and industry environment for changing conditions.
- Interpret the changing environment in terms of opportunities or threats.
- Analyse the organisation’s resource base for asset strengths and weaknesses.
- Define the mission of the business by matching environmental opportunities and threats with the resource strengths and weaknesses.
- Set goals for pursuing the mission based on top management’s values and sense of responsibility.

The outcome of this process, as emphasised by Kerzner (2001: 1012), is that the organisation does the right thing by producing goods or services for which there is a demand or need in the external environment.
2.10 WHAT IMPACT DOES GLOBALISATION HAVE ON AN ORGANISATION?

According to Hill (1994: 5), globalisation refers to the shift toward a more integrated and interdependent world economy. It has two main components: the globalisation of markets and the globalisation of production.

According to Hill (1994: 5), globalisation of markets refers to the merging of historically distinct and separate markets into one huge global marketplace. The globalisation of production, on the other hand, refers to the tendency among firms to source goods and services from locations around the globe to take advantage of national differences in cost and quality of factors of production, such as labour, energy, land and capital.

Globalisation is changing the relationships between the major players on the world stage (International Development and Strategies: 2002).

• **International Organisations**

  International organisations are playing a key role in the identification and application of the new international rules of the game.

• **Governments**

  Governments are finding their role being redefined as they are at an international level of bi-lateral and multi-lateral agreements.
• **The Business Community**

The business community works within an increasingly complex global environment, creating new relations with the public and para-public sectors.

• **Civil Society**

Civil society, represented by non-government organisations and professional associations, also plays a leading role in these developments and holds one of the keys to success in these changing times.
2.11 EVALUATING THE EFFECTIVENESS OF OPERATIONS STRATEGY

An effective operations strategy should clarify the links between overall competitive strategy and the development of the company’s operation resources. Slack et al (1998: 799) suggest that an operations strategy more specifically should be as follows:

- **Appropriate**
  If the formulations process is to connect operations to the organisation’s concept of competitiveness then it must provide appropriate improvements. The strategy should guide the performance which best supports the company’s competitive strategy.

- **Comprehensive**
  An operations strategy cannot define every minor operational decision but it should indicate how all the parts of the operations function are expected to perform. No part of the operation function is without influence on performance, therefore no part should be left without guidance.

- **Coherent**
  Including all parts of the operation in the strategy is necessary but not sufficient condition for effectiveness. The policies recommended for each part of the function must all point roughly in the same direction, and potential conflicts between the various areas need to be addressed effectively.
• **Consistent over time**
  The lead-time of operations improvements means that consistency must be maintained over a reasonable time period. Failure to provide consistency creates an over-rigid strategy.

• **Credible**
  A strategy which is not regarded as achievable by the organisation will not be supported. Its subsequent failure could merely re-inforce the perceived futility of the whole process, therefore it is important that strategic change is seen as feasible.

Slack *et al* (1998: 817) explain that it is evident that an effective operations strategy helps organisations to compete more effectively. This is achieved through assisting policies in becoming more coherent, helping to prioritise conflict as well as to give structure to the internal debate on which direction to choose.
2.12 CONCLUSION

To compete in today’s demanding environment, companies must ensure that the business that they choose to manage can deliver the desired goods/services with the high-perceived quality and low delivered cost of world-class competitors. This can only be achieved if the whole system is carefully co-coordinated, according to Ketelhohn (1993: 36).

Executives will continually be facing increasingly complex challenges during the next decade (Kerzner 2001: 1). These challenges will be the result of high escalation factors for salaries and raw materials, increased union demands, pressure from stockholders, and the possibility of long term high inflation accompanied by a mild recession and a lack of borrowing power with financial institutions.

In this chapter the author enlightened the reader about the related topics of an operations strategy. The purpose of this chapter was to give the reader more insight into the background to operational strategies.

The following chapter will detail the process of the formulation of an operations strategy as well as discuss a few models/procedures deployed in organisations that would enhance strategy formulation.
CHAPTER 3

KEY MODELS / PROCEDURES FOR FORMULATING OPERATIONS STRATEGIES

3.1 INTRODUCTION

Strategy formulation, as defined by Buffa and Sarin (1987: 13), is “a process by which an organisation determines how it will compete in its industry.” Boyer (1998: 1) states that numerous companies have discovered, over the past two decades, that an effective operations strategy can lead to an enduring competitive advantage, which equips manufacturing organisations with a formidable weapon, as well as a method for gaining a competitive advantage.

Operations strategy is concerned less with individual processes and more with the total transformation process of the whole business. It concerns itself with how the competitive environment is changing and what the operation process needs to do in order to meet current and future challenges, providing the basis for a substantial advantage.

Strategic analysis is concerned with understanding the relationship between the different forces affecting the organisation and its choice of strategies (Johnson and Scholes, 1999: 96). It may be that the environment exercises severe constraints or yields potential opportunities, and these need to be understood. It may be that the firm has particular competences on which it can build, or that it needs to develop these. It may be that the expectations and objectives of stakeholders who influence
the organisation or the culture of the organisation play an important role in determining the strategy.

The process of formulating an operations strategy refers to the procedures that are, or can be used, to formulate these operations, which the organisation should adopt. There are several ways of achieving this, and in this chapter the following strategy models/procedures will be discussed:

- The Hill Methodology
- The Platts-Gregory procedure
- The Strategy Clock: Bowman’s Competitive Strategy Options
- Operations Strategy as “Fit”
- Generic Operations Strategies
3.2 THE HILL METHODOLOGY

Professor Terry Hill (Slack et al, 1998: 94), has devised one of the first and most influential approaches to operations strategy formulation. Hill’s model, commonly known as the “Hill methodology,” follows the well-tried approach of providing a connection between different levels of strategy making.

The “Hill methodology” is essentially a five-step procedure as shown in figure 3.

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
<th>Step 4</th>
<th>Step 5</th>
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</thead>
<tbody>
<tr>
<td>Corporate Objectives</td>
<td>Marketing Strategy</td>
<td>How do products or services win orders?</td>
<td>Operations Strategy</td>
<td>Infrastructure</td>
</tr>
<tr>
<td>• Growth rates</td>
<td>• Product/service markets and segments</td>
<td>• Price</td>
<td>• Process technology</td>
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<tr>
<td>• Profitability</td>
<td>• Range of products/services</td>
<td>• Quality</td>
<td>• Trade-offs embodied in process</td>
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<tr>
<td>• Return on net assets</td>
<td>• Mix of specifications</td>
<td>• Delivery speed</td>
<td>• Role of inventory</td>
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<tr>
<td>• Cash flow</td>
<td>• Volumes</td>
<td>• Delivery dependability</td>
<td>• Capacity, size, timing, location</td>
<td></td>
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<tr>
<td>• Financial “gearing”</td>
<td>• Standardisation or customisation</td>
<td>• Product/service range</td>
<td>• Process technology</td>
<td></td>
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<tr>
<td></td>
<td>• Rate of innovation</td>
<td>• Product/service design</td>
<td>• Trade-offs embodied in process</td>
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*Figure 3: The Hill methodology of operations formulation (Slack et al, 1998: 95)*

**Step One** involves understanding the long-term corporate objectives of the organisation so that the eventual operations strategy can be seen in terms of its contribution to these corporate objectives.
Step Two involves understanding how the marketing strategy of the organisation has been developed to achieve corporate objectives.

Step Three translates the marketing strategy into what is known as the earlier competitive factors. Hill divides the factors which win business into order-winners and qualifiers.

Step Four is what Hill calls “process choice”. Its purpose is to define a set of structural characteristics of the operation that are consistent with each other and appropriate for the way the company wishes to compete.

Step Five involves the infrastructural features of the organisation.

Hill’s methodology is not intended to imply a simple sequential movement from step one to step five: rather he sees the process as an iterative one. Here the operational managers cycle between the understanding of the long-term strategic requirements of the operation and the specific resource developments, which are required to support strategy.

The Hill methodology is based on the idea of making connections between different levels of strategy making: from corporate objectives through marketing strategy, operations objectives and structural and infrastructural decisions (Slack et al, 1998: 95).
3.3 THE PLATTS-GREGORY APPROACH

Ken Platts and Professor Mike Gregory have developed another influential process for developing an operations strategy (Slack and Lewis, 2002: 454). The framework consists of three distinct stages, as illustrated in figure 4.

![The Platts-Gregory procedure diagram](image)

Figure 4: The Platts-Gregory procedure (Slack and Lewis, 2002: 454)
Stage 1 involves developing an understanding of the market position of the organisation, by assessing the opportunities and threats within the competitive environment. It more specifically involves identifying the factors which are required by the market, and compares these to the level of achieved performance.

Stage 2 of the framework involves assessing the capabilities of the operation. Its purpose is to identify current operations practice and assess the extent to which it helps the organisation to achieve the type of performance which has been highlighted as being important in Stage 1.

Stage 3 is concerned with the development of new operations strategies. This stage involves reviewing the various options which are available to the organisation and selecting those which best satisfy the criteria identified in the previous two stages.

The Platts-Gregory procedure develops a “gap-based” model for driving improvement. In figure 5, the profile of a gap between the customer’s view of what is important and the way in which the operation actually performs is shown. This procedure uses the profiles of market requirements and achieved performance to show up the gaps which the operations strategy should address.
Selecting an appropriate process for the Formulating of an Operations Strategy for a Manufacturing Organisation

PRODUCT FAMILY

35 Delivery lead-time

Ex-stock
Short

Achieved performance

Not significant
Long

Reliability

Into stock point
Variable

Critical: Project delay
Good

Features

Fit for purpose

Many features/High absolute level

Few features

Many features

Features

Fit for purpose

Many features/High absolute level

Few features

Quality

Acceptable at price

Total reliability essential

Acceptable
High

Quality

Acceptable at price

Total reliability essential

Acceptable
High

Flexibility design

Standard range only

All designs customer specified

Standard only

All products customised

Volume

Stable market

Highly cyclic variable market

Little variation required

Volume variations high

Volume variations low

Price cost

Price competition dominant

Non-price competition dominant

Low

Price competition dominant

Non-price competition dominant

High

Figure 5: Uses of profiling in the Platts-Gregory procedure (Slack and Lewis, 2002: 455).
3.4 THE STRATEGY CLOCK

Bases of strategic choice for organisations can usefully be considered in the context of the overall competitive strategy, the basis on which a small business unit can achieve competitive advantage in its market.

This approach is based on the principle that organisations achieve competitive advantage by providing their customers with what they want, or need, better or more effectively than competitors and in ways which their competitors find difficult to imitate (Johnson and Scholes, 1999: 269).

Assuming that the products or services of different businesses are more or less equally available, customers may choose either because:

a) the price of the product or service is lower than a competitor’s or
b) the product or service is perceived by the customer to provide better “added value” than that available elsewhere.

Although these are broad generalisations, important implications that represent generic strategic options for achieving competitive advantage flow from them as shown in figure 6.
Selecting an appropriate process for the Formulating of an Operations Strategy for a Manufacturing Organisation

High     Differentiation
Focused
Hybrid

PERCEIVED
ADDED
VALUE

Low

Low

PRICE

High

4. Differentiation
   (a) Without Price Premium
   (b) With Price premium

5. Focused Differentiation

6. Increased Price/Standard Value

7. Increased Price/Low Value

8. Low Value/Standard Price

<table>
<thead>
<tr>
<th>Needs/Risks</th>
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<tr>
<td><strong>1. “No Frills”</strong></td>
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<tr>
<td><strong>2. Low Price</strong></td>
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<td><strong>3. Hybrid</strong></td>
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<tr>
<td><strong>4. Differentiation</strong></td>
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<tr>
<td><strong>(a) Without Price Premium</strong></td>
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<tr>
<td><strong>(b) With Price premium</strong></td>
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<tr>
<td><strong>5. Focused Differentiation</strong></td>
</tr>
<tr>
<td><strong>6. Increased Price/Standard Value</strong></td>
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<tr>
<td><strong>7. Increased Price/Low Value</strong></td>
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<tr>
<td><strong>8. Low Value/Standard Price</strong></td>
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**Figure 6:** The strategy clock: Bowman’s competitive strategy options (Johnson and Scholes, 1999: 272).
Johnson and Scholes (1999: 271) explain the different strategy options as follows:

**Route 1** is the “no frills strategy” which combines a low price, low perceived added value and a focus on a price-sensitive market segment. This can be a viable strategy since there could be a segment of the market, which, while recognising that the quality of the product or service might be low, cannot afford to, or chooses not to buy better quality goods.

**Route 2** is the “low price strategy” which seeks to achieve a lower price than competitors whilst trying to maintain similar value of product or service to that offered by competitors. The concern in this strategy is that it is likely to be imitated by competitors who can also reduce prices. The result is a reduction in margins in the industry as a whole and the inability to reinvest to develop the product or service for the long term.

**Route 3** is a “hybrid strategy” which seeks simultaneously to achieve differentiation and a price lower than that of competitors. The success of the strategy depends on the ability both to understand and to deliver enhanced value in terms of customer needs, while having a cost base that permits low prices and is sufficient for reinvestment to maintain and develop bases of differentiation.

**Route 4** is a broad “differentiation strategy” which seeks to provide products or services unique or different from those of competitors in terms of dimension widely valued by buyers. The aim is to achieve either higher market share than competitors by offering better products or services at the same price, or enhanced margins by pricing slightly higher.
**Route 5** is a “focused differentiation strategy” which seeks to provide high perceived value justifying a substantial price premium. However, if this strategy is followed, it is likely to mean that the business is competing in a particular market segment. Here it is offering a product with higher perceived value at a substantially higher price than its competitors. It is therefore trying to attract different sorts of customers, in a different market segment.

**Route 6** suggests increasing price without increasing value to the customer. This is the very strategy that monopoly organisations are accused of following. However, unless legislation, or high economic barriers to entry protect the organisation, competition is likely to erode market share.

**Route 7** is an even more disastrous extension of route 6, involving the reduction in value of a product or service, while increasing relative price.

**Route 8** is concerned with a reduction in value while maintaining price, which is equally dangerous though firms have tried to follow it. There is a high risk that competitors will increase their market share substantially.

**Route 6, 7 and 8** are strategies which are probably destined for failure.
3.5 OPERATIONS STRATEGY AS “FIT”

The concept of operations strategy is based upon the active process of reconciliation between operational resources and market requirements. This is essentially another way of describing the inherent challenges in achieving “fit” – the notion that a successful firm should again align itself with its external environment.

![Figure 7: In operations strategy “fit” is the alignment between market and operations capability (Slack and Lewis, 2002:435).](image)

Figure 7 illustrates the concept of fit. The vertical dimension represents the nature and level of market requirements either because they reflect the intrinsic need of customers or because their expectations have been shaped by the firm’s marketing activity.
This includes factors such as:

- strength of brand/reputation,
- degree of differentiation,
- extent of plausible market promises.

Movement along the vertical dimension indicates a broadly enhanced level of market performance or market capabilities.

The horizontal scale represents the level and nature of the firm’s operations resource and process capabilities. This includes items such as:

- the performance of the operation in terms of its ability to achieve competitive objectives,
- the efficiency with which it uses its resources, or the ability of the firm’s resources to underpin its business processes.

Here again movement along the horizontal dimension indicates a broadly enhanced level of operations performance and operations capabilities.

The purpose of “fit” is to achieve an approximate balance between “marketing performance” and “operations performance”. Therefore when a “fit” is achieved the firm’s customers do not need, or expect, levels of operations performance, which it is unable to supply (Slack and Lewis, 2002:435).
3.6 GENERIC OPERATIONS STRATEGIES

“Generic operations strategies” are common approaches to organising the operations function which have been observed to be adopted by different types of organisations. According to Slack et al (1998: 797), if the operations strategies of many different organisations were reviewed, it becomes evident that the strategies of the individual organisations can be clustered into groups within which the strategies are similar or possess common elements.

Professor Mike Sweeney of Cranfield University has developed a broader categorisation of the operations, which he has divided in two dimensions, according to Slack et al (1998:797), as illustrated in figure 8.

The first dimension concerns the approach the company takes to process design. Some organisations take the traditional approach to designing their processes, while others have developed a more enhanced approach to process design which includes innovations such as business process re-engineering, cellular manufacturing, just in time organisation, etcetera.

The second dimension relates to the approach which the organisation takes towards providing service to its customers. Some organisations provide a level of service which may be termed “basic” level while others have developed an “enhanced” level of service provision which develops the performance of the operation beyond its basic potential.
Strategic change involves enhancing the operation’s structure

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<th>Enhanced Marketeer</th>
<th>Innovator</th>
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<td>• New product/service development</td>
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<th>Customer service criteria</th>
<th>Enhanced Caretaker</th>
<th>Enhanced Reorganiser</th>
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</tbody>
</table>

The four-way classification as illustrated in figure 8 results in generic operations strategies which are termed caretaker, marketeer, reorganiser and innovator strategies.

- The caretaker strategy
This strategy is often employed where an organisation believes that there is little competitive advantage to be gained by differentiating itself from competitors. The operation function is expected to provide as efficient and reliable a service to the rest of the organisation as possible without much investment, change or disruption.
• **The marketeer strategy**
  Marketeer strategies are often used by organisations that experience increased competition and respond by enhancing or extending the level of customer service which they offer. No fundamental change has been made to the physical design and organisation of the operation itself, but it is expected to respond to marketing-led changes in competitive stance.

• **The reorganiser strategy**
  This strategy implies a change in the way an organisation designs and manages its processes. This could mean investment in new technology as well as changing its method for producing goods and services.

• **The innovation strategy**
  The innovation strategy is a combination of the marketeer and the reorganiser strategies. Not only has the organisation adopted an enhanced approach to designing its operations, but it also expects enhanced customer service from its operations function. This usually requires a high degree of integration between product or service design, operations and marketing in order to be flexible in the short term in response to competitive pressure as well as to introduce new products and services faster and more effectively than its competitors (Slack *et al*, 1998: 799).

Sweeny recommends that organisations move progressively over time towards innovator strategies. It is recommended that those organisations adopting either a caretaker or marketeer strategy should first enhance their operations structure to achieve a reorganiser strategy, after which they can undertake the more difficult infra-structural changes towards an innovator strategy (Slack *et al*, 1998: 799).
Parnell *et al* (2000: 3) explain that while strategic management helps organisations cope with uncertainty by shaping the competitive environment, the generic strategy selected by each organisation determines the means by which it intends to meet its competitive challenges successfully.
3.7 KEY ELEMENTS FOR OPERATIONS STRATEGY IMPLEMENTATION

Slack et al (1998: 816), explain that in several studies of operations strategy implementation, both successful and unsuccessful, a number of key elements recur regularly, either as important prerequisites of success or as omissions which seriously harmed implementation success.

- **Top management support**
  This is always important, especially at times of “breakthrough” improvement where the “champion” role requires top management to allocate and co-ordinate resources.

- **Business driven**
  All operations strategy change is only a means to an end – improved competitiveness. The organisation’s overall competitive imperatives must be clearly linked to every part of the operations strategy programme throughout its life.

- **Strategy drives technology**
  Competitiveness should drive operations strategy so, in turn, operations strategy determines the way technology is developed.

- **Change strategies are integrated**
  Successful operations strategy programmes involve change over several fronts, such as technological, organisational and cultural. Only considering one aspect is too limiting a view. Integrating improvement strategies so that they support each other smoothes out the strategy implementation process.
• **Invest in people as well as technology**
Organisations are sometimes reluctant to invest in their human resources. Changes in methods, organisation or technology must be supported by changes in attitude by all employees.

• **Manage technology as well as people**
Conversely organisations often seem reluctant to “manage” technology investment decisions made. Technology needs integrating into the operation on strictly managerial criteria.

• **Everybody on board**
Any effective operations strategy must be understood and supported throughout the organisation.

• **Clear, explicit objectives**
If staff know what is expected of them, it is easier to succeed. This is important since if an operations strategy involves cross-functional change, the need for explicit communication of overall purpose becomes vital.

• **Time-framed project management**
Keeping control is a prerequisite for maintaining support. Objective setting, schedules, resource planning and milestones are as important here as for any other project.
3.8 CONCLUSION

There are many different procedures which can be used by companies, consultancies and academics to formulate operational strategies. The ultimate challenge that faces operation managers is whether they can develop an operation which can successfully meet the challenges that lie ahead for an organisation.

The different strategies or procedures discussed in this chapter will require different generics from the operations function of any company that pursues them. From an operations strategy viewpoint, the interest in different types of competitive strategy helps an organisation to progress towards giving the operations function some guidance as to how they can contribute to supporting the requirements of the market. This is an important link in the translation process between market needs and operations objectives.

The following chapter will give a brief overview of the research methodology and questionnaire structure that was used, in an effort to establish the understanding and trends of operations strategies within Firestone.
CHAPTER 4

DESCRIPTION OF THE RESEARCH METHODOLOGY, THE STRUCTURE OF THE QUESTIONNAIRE AND ANALYSIS OF RESULTS

4.1 INTRODUCTION

Questionnaire design is one of the most important building blocks of market research (Hague, 1994: 11). In order to provide solutions to the problems listed in chapter one, a questionnaire was developed comprising of the relevant aspects identified in the literature survey in chapter two and in chapter three.

In this chapter the author describes the empirical approach that was used in the study, including the purpose and guidelines of questionnaires, as well as the various types of questions and layout that need to be considered when developing a questionnaire.

In summary to the chapter the author presents an analysis of the empirical study.
4.2 THE FOUR PURPOSES OF QUESTIONNAIRES

A questionnaire is a vehicle by means of which people are interviewed, (Hague, 1994: 1), since it provides a form onto which the respondent’s answers can be recorded.

A questionnaire, according to Hague (1994: 1), fulfils four purposes:

**Primarily,** the role of a questionnaire is to draw accurate information from the respondent.

**Secondly,** the questionnaire provides a structure to the interview so that it flows smoothly and orderly, and all the respondents are asked the same questions in exactly the same way.

**Thirdly,** the purpose of the questionnaire is to provide a standard format on which facts, comments and attitudes can be recorded.

**Finally,** the questionnaire facilitates data processing.
### 4.3 THE DIFFERENT TYPES OF QUESTIONS

Hague (1994: 29) illustrates in table B how structured and semi-structured questionnaires are made up of three different types of questions, depending on the type of information that needs to be collected:

<table>
<thead>
<tr>
<th>Type of question</th>
<th>Information sought</th>
<th>Type of surveys where used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioural</td>
<td>Factual information on what the respondent is, does or owns. Also the frequency with which certain actions are carried out. Where people live</td>
<td>Surveys to find out market size, market shares, awareness, usage rates.</td>
</tr>
<tr>
<td>Classification</td>
<td>Information that can be used to group respondents to see how they differ one from another – such as age, gender, social class, location of household, type of house, family composition.</td>
<td>All surveys.</td>
</tr>
</tbody>
</table>

Table B: Classification of Questions (Hague, 1994: 29).

As tabulated in table B, questions can be classified into three distinct categories, namely:

- **“Behavioural”** type questions seek to establish what people or companies do, while
- **“Attitudinal”** type questions seek to establish the attitudes or opinions which people have about the products they buy and the companies they deal with.
- **“Classification”** type questions are used to classify the information once it has been collected (Hague, 1994:30).
4.4 GUIDELINES TO BE CONSIDERED WHEN DEVELOPING A QUESTIONNAIRE

Leedy and Ormrod (2001: 202) raise the concern that although questionnaires seem easy to develop, they can be tricky to construct and difficult to administer. One false step can lead to un-interpretable data or an abysmally low return rate.

Twelve guide points have been listed, as suggested by Leedy and Ormrod (2001: 202), that should be considered when developing a questionnaire.

- Keep it short.
- Use simple, clear, unambiguous language.
- Check for unwarranted assumptions implicit in the questions.
- Word the questions in ways that do not give preferred or more desirable responses.
- Check for consistency.
- Determine in advance how you would code the response
- Keep the respondents’ task simple.
- Provide clear instructions.
- Give a rationale for any items whose purpose may be unclear.
- Make the questionnaire attractive and professional-looking
- Conduct a pilot test.
- Scrutinise the almost final product carefully to ensure it addresses your intended needs.

Most importantly, as emphasised by Leedy and Ormond (2001: 203), is the need to ensure that every question is essential in addressing the research problem or concern at hand.
4.5 THE LAYOUT OF A QUESTIONNAIRE

A questionnaire is a working document. It presents the questions as well as the place and space to record the answers. To enable it to work, thought needs to be given to ensure that the layout of the questions and the questionnaire as a whole is correct. Hague (1994: 83) suggests that the following points should be considered when designing the layout of a questionnaire:

- **Formalities of every questionnaire**
  Every questionnaire should have a title that enables it to be readily identified and provision should be made for recording the name and address of the respondent, the date of the interview and the name of the interviewer, if required.

- **Making the layout suitable for the field**
  Space is a premium in a questionnaire and should therefore be used wisely. There should be sufficient space for the interviewer to record the answers and this is especially important in the case of open-ended questions.

- **Layout for data processing**
  A questionnaire which is part of a large sample will require data processing and it will be necessary to consider how to record the answers to save time and costs at the analysis stage. It is advisable to include the data processing staff during this stage.
• **Subject flow**

The importance of “flow” in the questionnaire is extremely important, since achieving good flow means moving in a logical sequence from one subject to another, from broad issues to narrower ones and from open-ended questions to prompted questioning.

• **Completing the questionnaire**

A questionnaire should be ended in a courteous and professional manner, therefore it is appropriate to state the promise of confidentiality or to give assurance of the fact that the interview was for market research purposes only.
4.6 THE USE OF STATISTICS TO ANALYSE A QUESTIONNAIRE

Statistics as described by Fitz-Gibbon and Morris (1991: 9) is an area of mathematics seeking to make order out of collections of diverse facts or data. It is a tool used to transform large amounts of data into a form of usable information.

According to Singleton, Straits and Straits (1993: 429), three statistical properties should be examined to determine the distribution of a set of data. These properties are central tendency, distribution and shape.

The measures of central tendency include the mean, median and mode. Singleton et al (1993: 429) explains that the “**mean**” is the arithmetical average calculated by adding up all the responses and dividing by the total number of respondents. The “**median**” is the midpoint in a distribution, which is the value of the middle response. The “**mode**” is the value or category with the highest frequency of occurrences.

The objective of statistics is to find those numbers that most accurately communicate the nature of attitudes, achievements, processes and events that need to be described. Statistics tends to condense opinions, performances and comparisons among them into summary numbers that can be easily understood.
4.7 DESIGN, LAYOUT AND ANALYSIS OF THE QUESTIONNAIRE

4.7.1 Design of questionnaire

The questionnaire was designed to gain information on the respondents’ opinions of or feelings about the related concerns. To achieve this an “attitudinal” type of question was formulated to gain the understanding of the respondent’s knowledge of operations strategies. Key statements were phrased in a balanced and neutral way, to eliminate ambiguity and any biasing to the respondent.

A range of answers or options was provided to each question, which, firstly would assist in clarifying the question and secondly, facilitate the respondent’s task of analysing the questionnaire.

4.7.2 Layout of the questionnaire

The layout of the questionnaire is an integral part of its success, as Gillham (2000: 37) states, “the visual packaging of your product may put people off or invite them into it, but it also needs to lead people into correct or appropriate use.”

The questionnaire comprises of three sections, namely:

- Section One: Operations Strategy,
- Section Two: Market and Operating Environment, and
- Section Three: Strategy Formulation.
A definition of the title of each section was given, and all questions were arranged in a manner promoting a logical sequence from question to question, as well as from subject to subject. At the end of the questionnaire, space was made available to encourage the respondents to comment or communicate on any other general information or concerns. The questionnaire was concluded by reassuring the respondents that all information gained was strictly confidential and would only be used for research purposes.

4.7.3 Analysis of questionnaire

(a) Operations Strategy

In section one of the questionnaire the respondents were asked to give his/her opinion on their understanding of and insight into operations strategies. The respondents were instructed to answer the questions by indicating their preferred choice to the options available to each question.

As shown in figure 9, 59.6% of the respondents regard an operations strategy to be “exceptionally important,” to a manufacturing organisation, 38.3% regard it to be “very important” and 2.1% regard it to be “important.”
In *figure 10*, 6.4% of the respondents are “fully informed” of the operations strategy deployed in Firestone, 8.5% are “very informed,” 38.3% “informed” and another 38.3% “moderately informed” while 8.5% of the respondents are “not informed.”

In *figure 11*, 17.0% of the respondents had “high input,” in the development/formulation of the operations strategy deployed within Firestone while 19.1% had “average input,” 27.7% had “minimal input,” and 36.2% of the respondents had “no input.”
In **figure 12**, 2.1% of the respondents agree that the operations strategy deployed within Firestone is “exceptionally appropriate,” while 19.2% regard it to be “very appropriate,” 40.4% regard it to be “appropriate,” and 38.3% regard it to be “moderately appropriate.”

In **figure 13**, 4.3% of the respondents indicate that the operations strategy deployed within Firestone is “very effective” while 27.7% find it to be “effective,” 59.5% are in the opinion of it being “moderately effective” and 8.5% of the respondents find it to be “not effective.”
The objective of section one in the questionnaire was to establish the respondents’ understanding of operations strategies and the level of involvement they had in the development/formulation of the operations strategies deployed within Firestone.

(b) Market Environment

Section two of the questionnaire concentrated on the market and operating environment. In this section key statements were given and the respondents were asked to indicate in the options provided, the extent to which they agree or disagree with them.

In figure 14, 46.8% and 51.1% of the respondents, respectively, “strongly agree” and “agree” that all the stakeholders of Firestone should be concerned about the changes that take place in the market environment while 2.1% of the respondents “disagree.”
In figure 23, 25.5% of the respondents “strongly agree” and 55.4% “agree” that the organisational structures of organisations will change from the traditional pyramid form with many levels, to a flatter structure with fewer levels, while 8.5% are “unsure,” and another 8.5% of the respondents “disagree” with 2.1% “strongly disagreeing” with the change.

The objective of section two in the questionnaire was firstly, to gain understanding of the respondents’ knowledge of the market and operating environment and secondly, to gain insight into how the respondents perceive these environments will evolve.

(d) Strategy Formulation

In section three, the respondents were instructed to rate Firestone on its “level of performance,” as well as on the “level of importance” on the related items. A rating scale of 1 to 5 was used to establish the level of performance and level of importance within Firestone.

When the respondents evaluated the “level of performance” of Firestone, a rating of 1 indicated “very poor” performance while a rating of 5 would
indicate a “very good” performance. When the respondents evaluated the “level of importance” to the related items, a rating of 1 indicated “not important” while a rating of 5 indicated “exceptionally important.”

**Figure 24:** COMPARISON OF THE “MEAN LEVEL OF PERFORMANCE” TO THE “MEAN LEVEL OF IMPORTANCE”.

<table>
<thead>
<tr>
<th>Categories</th>
<th>Level of Performance</th>
<th>Level of Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pros</td>
<td>4.3</td>
<td>4.6</td>
</tr>
<tr>
<td>Quality</td>
<td>4.0</td>
<td>4.2</td>
</tr>
<tr>
<td>Delivery Speed</td>
<td>3.8</td>
<td>3.9</td>
</tr>
<tr>
<td>Dependability</td>
<td>2.9</td>
<td>4.1</td>
</tr>
<tr>
<td>Product Range</td>
<td>3.3</td>
<td>3.7</td>
</tr>
<tr>
<td>Product Design</td>
<td>4.4</td>
<td>4.0</td>
</tr>
<tr>
<td>Brand Image</td>
<td>4.7</td>
<td>4.1</td>
</tr>
<tr>
<td>Process Flexibility</td>
<td>4.3</td>
<td>3.7</td>
</tr>
<tr>
<td>Research &amp; Development</td>
<td>4.7</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**Table C:** Questionnaire analysis of the “mean level of performance” and “mean level of importance” on the related items.

<table>
<thead>
<tr>
<th>ITEM No.</th>
<th>MEASURE</th>
<th>PERFORMANCE</th>
<th>IMPORTANCE</th>
<th>VARIANCE</th>
<th>RANKING OF IMPORTANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Customer Satisfaction</td>
<td>3.7</td>
<td>4.7</td>
<td>-1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Quality</td>
<td>3.6</td>
<td>4.6</td>
<td>-1</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>Brand Image</td>
<td>4.1</td>
<td>4.4</td>
<td>-0.3</td>
<td>3</td>
</tr>
<tr>
<td>1</td>
<td>Price</td>
<td>3.7</td>
<td>4.3</td>
<td>-0.6</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>Delivery Dependability</td>
<td>3.4</td>
<td>4.2</td>
<td>-0.8</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>Delivery Speed</td>
<td>3.3</td>
<td>4.0</td>
<td>-0.7</td>
<td>6</td>
</tr>
<tr>
<td>9</td>
<td>Research &amp; Development</td>
<td>3.7</td>
<td>4.0</td>
<td>-0.3</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>Product Design</td>
<td>3.9</td>
<td>4.0</td>
<td>-1.1</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>Product Range</td>
<td>3.9</td>
<td>3.8</td>
<td>+0.1</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>Process Flexibility</td>
<td>3.3</td>
<td>3.7</td>
<td>-0.4</td>
<td>8</td>
</tr>
</tbody>
</table>
From the analysis of the completed questionnaires, the related items of the respondents’ perceptions of the “level of importance” and “level of performance” of each concern were tabulated in Table C.

The respondents ranked “customer satisfaction” as being the most important measure of concern, followed by “quality,” “brand image,” “price” and “delivery dependability.” The sixth most important items collectively were “delivery speed,” “research and development” and “product design,” while “product range” was prioritised in position seven and “process flexibility” placed in position eight.

In Table C, a variance column was included to indicate the extent of the gap between the “level of performance” and the “level of importance” on the related items concerning Firestone. The variance was calculated by subtracting the respondents rating on the “level of importance” from the respondents’ rating on the “level of performance.” A “-” symbol indicates a performance below the rated “level of importance” and a “+” symbol indicates a performance exceeding the rated “level of importance,” according to the respondents’ rating of the relevant measures.

The objective of section three was to establish the respondents’ opinions of how Firestone is performing in relation to the related items, and more importantly to establish the respondents’ perception of the “level of importance” of the related concerns.
4.9 CONCLUSION

Leedy and Ormrod (2001: 4) define research as the systematic process of collecting and analysing information with the objective of increasing our understanding of the subject with which we are concerned or in which we are interested.

In this chapter the author described the empirical approach that was used in the study, including research design, the development and structure of the questionnaire and the analysis of the results.

In the following chapter the author will further discuss the results of this chapter as well as present a summary of the most important findings from the literature survey and empirical study.
CHAPTER 5

SUMMARY, RECOMMENDATIONS AND CONCLUSION

5.1 INTRODUCTION

Operations strategy is increasingly attracting attention from researchers and practitioners within the operations management area. The need for manufacturing decisions to be made in a strategic context has been recognised for many years (Voss, 1992:1) and he further explains that the first development in the area that is known as “manufacturing strategy” took place in the 1950’s at the Harvard Business School, where it was found that a wide variety of policies was being followed in an industry.

In this chapter, the author will summarise the findings from the literature and the empirical study. It will include recommendations on operations activities for Firestone, and in conclusion a summary will be given.
5.2 REASON FOR THE RESEARCH

5.2.1 The main problem
The main problem was to assist the management of Firestone, in selecting an appropriate process for the formulation of an operations strategy, to enable them to successfully compete in the local and global market place.

5.2.2 The Sub-Problem
The following sub-problems as highlighted and identified in chapter one were researched as follows:

(a) How has the market environment changed and how does this change affect Firestone?

This problem was researched by the author through an extensive literature review, which was conducted on both national and international material. A questionnaire was developed which was then circulated to all key personnel within Firestone, Port Elizabeth plant. These staff members are regarded to be well informed on the key issues involved. In section two of the questionnaire key statements were given and the respondents were requested to indicate the extent to which they “agree” or “disagree” with these statements.

The objective of this section in the questionnaire was to gain insight into the respondents’ perceptions and understanding of the changes that are taking place in the market environment, what impact these changes have on Firestone as well as how these challenges can be overcome.
Together, the findings from the literature survey and the respondents’ responses from the empirical study were analysed to indicate similarities and/or differences.

(b) What operations strategies does the literature reveal will address the changed market environment?

To enable the author to gain insight into operations strategies available to Firestone, an extensive literature review was embarked on. To broaden the scope of the research, both national and international literature was reviewed.

It was the intention of the researcher to gain a complete understanding of the various operations strategies and procedures available to a manufacturing organisation, in an attempt to apply or modify them in order, to successfully assist the management of Firestone.

(c) What operational strategy do the staff and management of Firestone believe will address the changed market environment?

In section one of the questionnaire the researcher interviewed the respondents to gain insight and understanding of their knowledge on operations strategies. The respondents were requested to indicate their opinions or their preferred choice to the options available to each question.

Substantial focus was given by the researcher to understand the respondents’ perceptions of how the environment will evolve, in
anticipation of taking these changes into consideration when formulating an operation strategy appropriate for Firestone.

In section three of the questionnaire the respondents were instructed to rate Firestone on its “level of performance” on the related concerns. The objective of this section of the questionnaire was to establish the level at which Firestone is currently performing. To enable the researcher to establish at what level Firestone should be performing, the respondents were once again instructed to rate these concerns as to their “level of importance” to the organisation.

(d) How can the above two be integrated to formulate an operations strategy for Firestone in the changing market environment?

Together, the findings from the literature review and the respondents’ responses to the questionnaire were analysed and compared to indicate any similarities and differences.

Where a variance existed, the researcher investigated the concern to gain understanding of the concern and, where possible, recommendations will be made to address it.
5.3 SUMMARY OF THE FINDINGS FROM THE LITERATURE SURVEY AND EMPIRICAL STUDY

5.3.1 Findings from the literature survey

There are many different procedures, as discussed in chapter three, which can be used by manufacturing organisations to formulate an operations strategy. The author selectively focussed on the following strategies to be considered when formulating an operations strategy for Firestone:

- **The “Hill methodology”**
  This strategy is based on the idea of making connections between different levels of strategy making, from the corporate objectives through marketing strategy, operations objectives and structural and infra-structural decisions.

- **The “Platts-Gregory” procedure**
  This procedure is based on identifying gaps between what the market requires from an operation and how the operation is performing against market requirements.

- **The Strategy Clock: Bowman’s Competitive Strategy Options**
  This procedure can be seen as a market-based model of generic strategy options focusing on what is of value in the product/service to the customer. This is used as a means of developing a generic strategy.

- **Operations Strategy as “Fit”**
  This procedure involves the matching of an operation’s capabilities with the requirements of its market. An organisation’s operations resources are therefore aligned with its external environment.
• **Generic Operations Strategies**

This procedure involves the reviewing of the operations strategy of many different organisations. It may become evident that the strategies of the individual organisations can be clustered into groups of which the strategies are similar, or possess similar elements.

5.3.2 **Findings from the Empirical Study**

From the empirical part of the study, the following information was gained:

In section one of the questionnaire, which concentrated on “operations strategy”, the following points were highlighted, with reference to:

- **Figure 9:** The author finds it reassuring that the respondents realise how important an operations strategy is to a manufacturing organisation.

- **Figure 10:** 8.5% of the respondents are not aware of the operations strategy deployed in the organisation although the questionnaires were circulated to key employees within Firestone.

- **Figure 11:** An alarmingly high percentage of the respondents had “no input” into the development/formulation of the operations strategies deployed in Firestone. The analysis of the above concern also clarifies that no single individual is solely responsible for the operations strategy deployed in Firestone.

- **Figure 12:** The researcher find it reassuring that the strategy Firestone uses is, according to the respondents, “appropriate.”
Figure 13: An alarming 59.5% of the respondents are of the opinion that the operations strategy deployed within Firestone is “moderately effective,” even though 40.4% of the respondents had considered it to be appropriate.

In the author’s opinion, it is evident that although everyone understands the importance of an operations strategy to an organisation, it is surprising that some key employees are not fully aware of the operations strategy of Firestone. Another concern is that only a few employees had some input in the formulation of the strategy deployed in Firestone. There is also a high percentage of agreement among the respondents that the strategy deployed within Firestone is appropriate, yet an alarmingly high percentage believe it to be ineffective.

In the first part of section two of the questionnaire, which concentrated on the “market environment,” the following points were highlighted, with reference to:

- Figure 14: 97.9% of the respondents share the opinion that changes that take place in the market environment need to be recognised.

- Figure 15: 89.4% of the respondents share the opinion that the changes which take place in the market environment directly affect Firestone.

- Figure 16: It is the opinion of 83.0% of the respondents that current markets are characterised by difference and change.
Figure 17: In effect, all the respondents agree that executives of Firestone will be faced with increasingly complex challenges.

Figure 18: 91.5% of the respondents collectively understand the pressure of global competition and the transformation power it exercises onto organisations.

In the second part of section two of the questionnaire, which concentrated on the “operating environment”, the following points were highlighted, with reference to:

Figure 19: A high percentage of the respondents indicate that, in their opinion, competition within organisations in the group will increase.

Figure 20: 97.8% of the respondents are in the opinion that customers are becoming increasingly more demanding which adversely pressurises organisations into meeting their requests.

Figure 21: All the respondents agree that strategy needs to be flexible and accommodating of the changes which take place in the market environment.

Figure 22: A sum of 89.4% of the respondents anticipate that non-core processes will be outsourced.
Figure 23: 80.9% of the respondents agree that the structure of an organisation will change, from the traditional pyramid structure with many levels, to a more flatter structure with fewer levels.

The author is pleased to acknowledge that the respondents are well aware of the changes that are taking place in the market environment and they understand the impact these have on Firestone. It is also comforting to notice that the challenges that lie ahead of Firestone have been anticipated by the respondents.

In section three of the questionnaire, which concentrated on “strategy formulation”, with reference to figure 24 and Table C, the author indicated that a variance of 0.51 points or more between the “level of performance” and “the level of importance” categories, should be highlighted as a area of concern to Firestone.

In table C, the following measures, namely, “customer satisfaction”, “quality”, “price”, “delivery dependability” and “delivery speed” have a variance of 0.51 points and more. These statistics indicate, according to the respondents, that Firestone is under-performing in relation to the importance of the certain measures.
Selecting an appropriate process for the Formulating of an Operations Strategy for a Manufacturing Organisation

Figure 25: The use of Platt-Gregory’s procedure to identify a gap between the “level of performance” and the “level of importance” on the related concerns at Firestone.

Figure 25 was introduced as a means of illustrating the need for a strategic review of manufacturing by graphically identifying the differences between the market requirements and manufacturing performance.
From *figure 25*, the areas where Firestone is performing at its worst can be clearly identified graphically. The largest gaps, evident between the “*level of performance*” and the “*level of importance*”, reveal that Firestone needs to address the following top five measures speedily, namely: “*customer satisfaction*”, “*quality*”, “*delivery dependability*”, “*delivery speed*” and “*price*” of the product.

The objective of *figure 25* was to obtain on one sheet of paper a sufficiently detailed picture of the respondents’ perceptions of how Firestone is performing compared to how Firestone should be performing. A distinct gap has been identified between the organisation’s performance and the required levels of performance, and therefore the operations strategy recommended to Firestone should address closing or reducing these gaps.
5.4 RECOMMENDATIONS

- Everyone in the organisation needs to pull together to ensure that the strategy deployed in Firestone works. For this to be achieved, the management of Firestone needs to continually remind its employees of its strategy to ensure that everyone in the organisation is working towards a common goal and therefore reducing the probability of strategy drift occurring.

- The “Platts-Gregory” procedure is a simple yet effective framework that should be used by the management of Firestone to enable them to get a “snap shot” view of the situation at Firestone. This procedure is a “gap based” model for driving improvement. The profile of the “gap” clearly shows the comparison between the actual performance at Firestone, compared to how it should be performing.

- The author therefore strongly suggests that the management of Firestone need to appoint an individual or a team of employees to drive and facilitate the operations strategy process within the organisation. It is senseless investing in a strategy where there is no commitment or no one is held responsible for ensuring its success. The intention with this recommendation is to achieve accountability.

- Developing an understanding of the markets is usually thought of as the function of the marketing department, whose specialists employ tools and techniques designed to access customer opinions and preferences. Slack and Lewis (2002: 16) explain that while the marketing process should include an appreciation of how products and services are created and delivered to customers, the marketing
orientation is primarily “market facing.” It needs to bring information about the markets from outside, into the organisation.

- At the heart of most marketing-based approaches is the segmenting, targeting, positioning (STP) concept (Slack and Lewis, 2002: 17). The idea is simple in the sense that, rather than competing for the business of every possible type customer, it sometimes would be more practical to identify the most attractive parts of the market that can be served effectively.

- Firestone currently manufactures 72 different types, sizes and styles of tyres. The management of Firestone should concentrate on becoming more market specific, which will enable them to reduce their tyre range and concentrate on effectively satisfying a select group of customers.

- Slack and Lewis (2002: 17) explain that understanding the market involves dividing it into distinct groups of customers with different needs (segmentation), measuring the attractiveness of each of these market groups and deciding which ones to engage with (targeting), and deciding on a viable competitive position to adopt in each target market (positioning).

- Market segmentation is primarily a way of trying to understand complex markets by subjecting them to multiple dimensions of classification. Market segmentation is central to the objective of achieving a fit between any organisation’s strengths and the requirements of its markets.
The precise nature of any “real” strategy will inevitably vary from organisation to organisation (Slack and Lewis, 2002: 429), but there are a number of issues that are common to many of them. It is important that the operations strategy of the organisation is linked to the market requirements. In essence, the first objective of an operations strategy is to achieve reconciliation between operations resource and market requirements.

According to figure 25 the measures that were highlighted as concerns that need to be addressed by the management of Firestone were: “customer satisfaction”, “quality”, “delivery dependability”, “delivery speed” and “price” of the product.

The author suggest that the management of Firestone should consider investing in the “total quality management” concept which, would effectively and appropriately address these highlighted concerns.

Total quality management as defined by Slack et al 1998: 761) is “an effective system for integrating the quality development, quality maintenance and quality improvement efforts of the various groups in an organisation so as to enable production and service at the most economical levels which allow for full customer satisfaction.”

Quality as defined by Slack et al (1998: 636) is the “consistent conformance to customers’ expectations,” therefore the operations view of quality is concerned with trying to meet the customers’ expectations. Modeling quality allows the development of a diagnostic tool which is based around the perception-expectation gap (Slack et al, 1998: 669).
Slack et al (1998: 669) mention that there are four main gaps that influence expectations and perceptions, namely:

- the gap between customers’ specification and the operation’s specification,
- the gap between the product or service concept and the way the organisation has specified it,
- the gap between the way quality has been specified and the actual delivered quality, and
- the gap between the actual delivered quality and the way the product or service has been described to the customer.

The performance objectives of quality as indicated by Slack et al, (1998: 69) are listed as follows:

- **“By doing things right”**, operations seek to influence the quality of the company’s goods and services. Externally, quality is an important aspect of customer satisfaction or dissatisfaction. Internally, quality operations both reduce costs and increase dependability.

- **“By doing things fast”**, operations seek to influence the speed with which goods and services are delivered. Externally, speed is an important aspect of customer service. Internally, speed both reduces inventories by decreasing internal throughput time and reduces risks by delaying the commitment of resources.

- **“By doing things on time”**, operations seek to influence the dependability of the delivery of goods and services. Externally, dependability is an important aspect of customer service. Internally, dependability increases operational reliability, thereby both saving the time and money that would otherwise be taken up in solving reliability problems and as well as providing stability to the operations.
• “By changing what they do”, operations seek to influence the flexibility with which the company produces goods and services. Externally flexibility produces new products and services; provides a wide range or mix of products or services; produces different quantities or volumes of products or services, and produces products or services at different times. Internally, flexibility can assist in speeding up response times, as well as saving time wasted in changeovers and maintaining dependability.

• “By doing things cheaply”, operations seek to influence the cost of the company’s goods and services. Externally, low costs allow the organisation to reduce its product price in order to gain higher volumes or alternatively increase its profitability on existing volume levels. Internally, cost performance is helped by good performance in other performance objectives.

Total quality management (TQM) represents a clear shift from the traditional approaches to quality, since it requires that the implications for the customer are considered at all stages in corporate decision-making and that decisions are made and systems created that will consistently attract customers.

Slack et al (1998: 787) explain the main difference between TQM and traditional quality management tools, which are as follows:

✓ TQM puts customers at the forefront of decision-making. Customers’ needs and expectations are always considered first in measuring achieved quality.
✓ TQM takes an organisation-wide perspective by emphasising that all the parts of an organisation have the potential to make a positive contribution to quality.
✓ TQM places considerable emphasis on the role and responsibilities of every member of staff within an organisation to influence quality. It often encourages the idea of empowering individuals to improve their own part of the operation.

✓ The implied costs of TQM are very different from those used in traditional approaches to quality. It argues that increasing the amount of cost and effort placed on prevention will give a more-than-equivalent reduction in other costs.

✓ Finally TQM places a major part of its emphasis on the idea of problem-solving and continuous improvement.

The management of Firestone needs to be clear about the relationship between resource deployment and the success of a strategy. This could involve ensuring that unique resources are protected, that the process of bringing together a variety of resources to create a product are improved, or that the organisation’s experience is properly exploited for competitive advantage (Johnson and Scholes, 1999: 483).

Demand is rarely stable therefore decisions need to be made as to how to change the organisation’s resources to match the changes in the market place over time. Decisions in this area usually involve significant changes in capacity, like the purchase of new equipment, the opening of new facilities or the closure of sites. Long-term capacity planning involves major investment decisions and the results of these decisions will define the scope of the operations capability.

It is particularly important to understand that any changes in strategy will require issues to be rethought and changed.
5.5 CONCLUSION

It is important to distinguish between the “intended strategy” of the management of Firestone – that which they say the organisation should follow – and the “realised strategy” of an organisation – that which it is actually following. Organisations that develop incrementally are likely, in the author’s opinion, to experience strategic drift.

In the past, manufacturing’s role has typically been perceived as attempting to support whatever request are made of it (Voss, 1992: 25). The implications for manufacturing to meet varying market needs have to be established and understood by all those responsible for strategic decisions.

According to Johnson and Scholes (1999: 392), strategies should be assessed against three criteria: suitability, acceptability and feasibility. Suitability is a broad assessment of whether a strategy addresses the circumstances in which the organisation is operating. The acceptability of a strategy relates to three issues: the expected return from a strategy, the level of risk and the likely reaction of stakeholders. Feasibility is concerned with whether an organisation has the resources and competences to deliver a strategy.

Finally, the author concludes that the ability to sense changes in the environment is important, since perceived changes in the environment signal the possible need for changes in strategy.
REFERENCES


Strategic Planning: Business Strategy. Available from:


24 October 2002

Dear Sir/Madam

RESEARCH QUESTIONNAIRE: OPERATIONS STRATEGY

I am currently compiling my thesis on the appropriate selection process for the formulation of an operations strategy that will enhance the abilities of Bridgestone/Firestone, Port Elizabeth plant to compete in the changed market environment.

The title of my thesis is as follows:

Selecting an appropriate process for the formulating of an operations strategy for Bridgestone/Firestone, Port Elizabeth plant, in a changed market environment.

The research is in partial fulfilment of the requirements for a Master’s Degree in Business Administration.

In order for me to do this, I respectfully request you to complete the attached questionnaire at your earliest convenience. The questionnaire will take approximately 10 minutes of your time.

All information received is strictly confidential and will be used for research purposes only.

Your participation would make an invaluable contribution to the successful completion of my thesis.

Thanking you kindly.

Yours faithfully

Umesh Jeena
ANNEXURE B

Bridgestone/Firestone: Port Elizabeth plant

QUESTIONNAIRE

Kindly complete the following questionnaire

The questionnaire is divided into the following three sections:

Section One: OPERATIONS STRATEGY
Section Two: MARKET AND OPERATING ENVIRONMENT
Section Three: STRATEGY FORMULATION
SECTION ONE: OPERATIONS STRATEGY

Please indicate your selection, by the means of a tick (✓) to the following questions related to an operations strategy.

**Operations Strategy** is the total pattern of decisions and actions which set the role, objectives and activities of the operation so that they contribute to and support the organisation’s business strategy.

1.1 How important do you regard the operations strategy to be to a manufacturing organisation?

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<thead>
<tr>
<th>Not Important</th>
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<th>Important</th>
<th>Very Important</th>
<th>Exceptionally Important</th>
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1.2 How informed are you of the operations strategy deployed within Bridgestone/Firestone, Port Elizabeth plant?

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<thead>
<tr>
<th>Not Informed</th>
<th>Moderately Informed</th>
<th>Informed</th>
<th>Very Informed</th>
<th>Fully Informed</th>
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1.3 What input did you have in the development/formulation of the operations strategy deployed within Bridgestone/Firestone, Port Elizabeth plant?

<table>
<thead>
<tr>
<th>No Input</th>
<th>Minimal Input</th>
<th>Average Input</th>
<th>High Input</th>
<th>Sole Responsibility</th>
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1.4 Do you consider the operations strategy deployed within Bridgestone /Firestone, Port Elizabeth plant to be appropriate?

<table>
<thead>
<tr>
<th>Not Appropriate</th>
<th>Moderately Appropriate</th>
<th>Appropriate</th>
<th>Very Appropriate</th>
<th>Exceptionally Appropriate</th>
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1.5 Do you consider the operations strategy deployed within Bridgestone /Firestone, Port Elizabeth plant to be effective?

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<thead>
<tr>
<th>Not Effective</th>
<th>Moderately Effective</th>
<th>Effective</th>
<th>Very Effective</th>
<th>Highly Effective</th>
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</table>
### SECTION TWO: MARKET AND OPERATING ENVIRONMENT

Please indicate by the means of a tick (✔) to what extent you agree with the following statements related to the market environment.

The **market environment** represents the national and global context of social, political, regulatory, economic and technological forces.

2.1 All the stakeholders of Bridgestone/Firestone, Port Elizabeth plant should be concerned about changes that take place in the market environment.

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<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly Agree</th>
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2.2 Any changes that take place in the market environment (whether positive or negative) directly affect Bridgestone/ Firestone, Port Elizabeth plant.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly Agree</th>
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2.3 Past markets were characterised by similarity and stability, while current markets are characterised by difference and change.

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<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly Agree</th>
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2.4 Executives will continually be facing increasingly complex challenges during the next decade.

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<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly Agree</th>
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2.5 Increased global competition will steer organisations into the strategy they should deploy for example; into a cost strategy, a quality strategy, a differentiation strategy, etc.

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<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly Agree</th>
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</table>
Please indicate by the means of a tick (✓) to what extent you agree with the following statements related to the operating environment.

The **operating environment** consists of the organisation in interaction with its customers, suppliers, competitors, unions, regulatory agencies, investors and bankers

2.6 Increased competition will not only exist between rival industries but also between organisations within the group.

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<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

2.7 Customer demands will continue to steadily increase.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly Agree</th>
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</table>

2.8 Strategy is something that is alive and needs to be regularly amended as the market environment changes.

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<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly Agree</th>
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</thead>
</table>

2.9 Outsourcing of non-core processes/operations will increase.

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<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly Agree</th>
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</table>

2.10 The traditional pyramid organisational structure with many levels will change towards the more flat organisation structure with fewer levels.

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<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly Agree</th>
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</table>
Please indicate on how you would rate Bridgestone/Firestone, Port Elizabeth plant, on its level of performance as well as on the level of importance on the related items.

The following section should be ranked according to the respective scales:

<table>
<thead>
<tr>
<th>Level of Performance</th>
<th>Rating Scale</th>
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<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Very Poor</td>
<td>Poor</td>
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</table>

<table>
<thead>
<tr>
<th>Level of Importance</th>
<th>Rating Scale</th>
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<tr>
<td>1</td>
<td>2</td>
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<tr>
<td>Not Important</td>
<td>Moderately Important</td>
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</table>

For example: **Price**

If it is believed, that the products manufactured by Firestone, is exceptionally well priced in comparison to other similar brands in its range, then a rating of 5 should be given on its **level of performance**. On the other hand, if it is believed that the products are expensive in comparison to other similar brands in its range, then a rating of 1 or 2 can be given, depending on the extent of its expensiveness.

If it is believed, that the price of the products, manufactured by Firestone, is not one of the main deciding factors to the customer, then a rating of 1 or 2 should be given in regard to the **level of importance** to price. On the other hand, if the price of the product is important to the customer, then a rating of 4 or 5 should be allocated to price, depending on how important it is perceived to be to the customer.
<table>
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<tr>
<th>No.</th>
<th>Item Description</th>
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<tr>
<td></td>
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<tr>
<td>3.1</td>
<td>Price</td>
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<td>3.2</td>
<td>Quality</td>
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<tr>
<td>3.3</td>
<td>Delivery Speed</td>
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<td>3.4</td>
<td>Delivery Dependability</td>
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<td>3.5</td>
<td>Product Range</td>
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<td>3.6</td>
<td>Product Design</td>
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<td>3.7</td>
<td>Brand Image</td>
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<td>3.8</td>
<td>Process Flexibility</td>
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<tr>
<td>3.9</td>
<td>Research &amp; Development</td>
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<tr>
<td>3.10</td>
<td>Customer Satisfaction</td>
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</table>

General Comments:

Thank you for completing the questionnaire. I once again would like to reassure you, that all information received is strictly confidential and will be used for research purposes only.