

AN INVESTIGATION INTO GLOBAL DISTRIBUTION SYSTEMS IN THE
CROP PROTECTION INDUSTRY AND THE DEVELOPMENT OF DISTRIBUTION
SYSTEM MANAGEMENT MODELS FOR PARTICULAR APPLICATION IN
SOUTH AFRICA AND AUSTRALIA

F.A. Schreuder



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DECLARATION

I, the undersigned, hereby declare that the work contained in this dissertation is my own original work and that I have not previously in its entirety or in part submitted it at any university for a degree.

Signature:

Date: *16 August 2001*

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OPSOMMING

Die tradisionele maniere waarop die vervaardigers van oesbeskermingsprodukte beheer kan uitoefen oor verspreidingsisteme is nie meer so suksesvol nie. Beheer was gebaseer op kwaliteit produkte, die mag van die handelsmerk, 'n gevestigde kliëntebasis en 'n wye produktereeks, bestaande uit gepatenteerde produkte.

Vervaardigers van oesbeskermingsprodukte moet die wyse waarop hierdie produkte bemark word, watter verspreidingsstelsel bestuursmodelle gebruik word en die belangrikheid wat geplaas word op die bestuur van die verspreidingsisteme in die totale bemarkingspoging in heroorweging neem.

Die primêre doelstelling van hierdie studie is: "Die ontwikkeling van toepaslike verspreidingsstelsel bestuursmodelle vir toepassing in Suid-Afrika en Australië. "Die sekondêre doelstelling is: "Die vasstelling van die sleutelfaktore wat die verhouding tussen vervaardigers (verskaffers) en verspreiders bepaal".

Die dominante ekonomiese kenmerke van die globale oesbeskermingsindustrie is 'n markwaarde in VSA \$ 28,090 miljoen, 'n stagnante mark in 'n agteruitgang fase, die drastiese konsolidasie van die industrie spelers, 'n toename in die aktiwiteite van die generiese produkvervaardigers en 'n algemene daling in die winsgewindheid van die vervaardigers.

In Suid-Afrika gebruik die vervaardigers van die oesbeskermingsprodukte ongeveer 46 onafhanklike verspreiders om die produkte op plaasvlak te bemark met behulp van 600 geaffilieerde kommissie agente. Die verspreiding van oesbeskermingsprodukte is baie meer gekonsentreerd in Australië. Verspreiding word in wese beheer deur vyf nasionale verspreiders en hulle spanne van verkoopsteenwoordigers wat 'n salaris verdien. In beide lande moet vervaardigers van oesbeskermingsprodukte staatmaak op onafhanklike instansies vir die bemarking van hul produkte op plaasvlak.

Die probleemstelling is dus die uitdaging om 'n verspreidingsstelsel bestuursmodel te ontwikkel wat: (i) 'n optimale balans sal gee tussen direkte verspreidingskoste en gekoppelde vlakke van beheer oor verspreiders; (ii) die waarskynlikheid dat 'n verspreider die betrokke produkreeks van die vervaardiger sal aankoop en aktief sal promoveer; (iii) dit kan bereik in 'n mark waar verspreiders talle bronne het van soortgelyke produkte teen kompeterende pryse.

Gebaseer op die sekondêre navorsing wat gedoen is wil dit blyk dat daar 'n algemene konsensus is dat daar 'n neiging weg is van transaksie spesifieke besigheidsverhoudings na besigheidsverhoudings gebaseer op vennootskap gebaseerde benaderings in die interaksie tussen vervaardigers (verskaffers) en verspreiders. Hierdie tipe besigheidsverhouding word gekenmerk deur hoë vlakke van onderlinge vertroue, wedersydse verbintenis, konflik hanteringsmeganismes en goeie wedersydse kommunikasie.

Primêre navorsing is in Suid-Afrika (253 respondente) en Australië (180 respondente) gedoen. Implikasies vir die konstruksie van verspreidingsstelsel bestuursmodelle wat voortvloei uit hierdie navorsing sluit in die belangrikheid dat 'n vervaardiger 'n wye en gesogte produkreeks het, die vereiste dat produkte beproefde effektiwiteit het, produkte kompetend geprys is, die vereiste vir hoë vlakke van verskaffer opvolgdiens en die vereiste vir goeie interpersoonlike verhouding tussen werknemers van beide die vervaardigers en die verspreiders. Hierdie elemente moet ondermeer gerugsteun word deur goeie kommunikasiesisteme.

Die "ideale" verspreidingsstelsel bestuursmodelle is vervolgens voorgestel vir beide Suid-Afrika en Australië, gebaseer op die bevindinge van ondermeer die sekondêre- en primêre navorsing. Hierdie modelle het ten doel om toepaslike strukture en besigheidsbenaderings vir vervaardigers daar te stel om hulle behulpsaam te wees om die geïdentifiseerde behoeftes van die verspreiders aan te spreek.

ABSTRACT

The traditional ways in which manufacturers of crop protection products exercised control over distribution systems have diminished in their impact. Control was based on quality products, the power of the brand, an installed customer base and a broad portfolio of mostly patented products. Manufacturers of crop protection products need to review the manner in which these products are marketed, which distribution system management models are to be used, and the importance that is placed on distribution system management in the marketing mix.

The primary aim of this study was defined as: "The development of appropriate distribution system management models for application in South Africa and Australia". The secondary aim was defined as: "Establishing the key factors which determine the relationship between manufacturers and distributors".

The dominant economic characteristics of the global crop protection industry are deemed to consist of a global market valued at US \$28,090 mio, a mature market in a decline phase, the rapid consolidation of industry players, increased generic product manufacturer activity and an overall decline in manufacturer profitability.

In South Africa crop protection product manufacturers use approximately 46 independent distributors to market products on farms through 600 affiliated commissioned sales agents. In Australia the distribution of crop protection products is much more concentrated. Distribution is essentially controlled by five national distributors and their coupled salaried representatives. Manufacturers therefore rely on third parties for the marketing of their products to farmers in both countries.

The applicable problem statement has been formulated to select a distribution system management model that will: (i) optimally balance direct distribution related cost and subsequent levels of control over distributors; (ii) maximise the probability that a distributor will buy and actively promote the complete product portfolio of a

for high levels of interpersonal relationship maintenance; and (vi) manufacturers have to instill the philosophy that distribution system management is part of a manufacturer's strategic business and marketing focus and not simply a task to be performed by a third party.

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LIST OF COMPANY NAMES

AgrEvo	Was formed as a joint venture between Schering and Hoechst.
American Home Products	The pharmaceutical company that owned Cyanamid Crop Protection.
Astra Zeneca	Was formed by merging Zeneca and Astra.
Aventis	Was formed by merging AgrEvo and Rhône-Poulenc.
BASF	Bought Cyanamid Crop Protection from American Home products in 2000. A German crop protection company which also has activities in industrial chemicals and pharmaceuticals.
Bayer	A German crop protection company with activities in industrial chemicals and pharmaceuticals.
Ciba	During the period 1995-1997 Ciba-Geigy traded as "Ciba".
Ciba-Geigy	Formed by the merger of Ciba and Geigy.
Cyanamid	The crop protection arm of American Home Products. Also traded as American Cyanamid.
Dow	An American chemical conglomerate. Their crop protection arm used to trade as "Dow" in the past but are presently trading as Dow Agrosiences.
Du Pont	An American chemical conglomerate.

F.M.C.	An American crop protection product manufacturer.
Griffin	A generic product manufacturer fully owned by Du Pont.
Hoechst	The German chemical conglomerate. Their crop protection division entered into a joint venture with Schering to form AgrEvo.
ICI	This British chemical company was split in two. ICI remained the trading name for the industrial chemicals activities. The pharmaceutical and crop protection divisions became Zeneca.
Makhteshim- Agan	An Israel based generic product manufacturer.
Monsanto	An American crop protection product manufacturer.
Novartis	The Novartis crop protection sector merged with Zeneca (Crop Protection) to form Syngenta at the end of 2000.
Nufarm	An Australian generic product manufacturer.
Pharmacia Upjohn	This pharmaceutical company merged with Monsanto to form Pharmacia Corporation. Monsanto is still the name used by the crop protection sector.
Rohm and Haas	An American crop protection product manufacturer.
Sanachem	A South African generic crop protection product manufacturer that was acquired by Sentrachem.

Sandoz	Merged with Ciba-Geigy to form Novartis.
Sentrachem	The South African chemical company bought by Dow.
Sumitomo	A Japanese crop protection product manufacturer.
Syngenta	Formed in October 2000 as a result of the merging of the crop protection divisions of Novartis and Astra Zeneca.
Zeneca	Formed when ICI "spun off" their crop protection and pharmaceutical divisions.

LIST OF ABBREVIATIONS

CGS	Cotton Growers Services
CRT	Combined Rural Traders
FBC	Fisons Boots Company
IHD	Independent Horticultural Distributors
ICI	Imperial Chemical Industries
UAP	United Agricultural Products

LIST OF APPENDICES

Appendix A: Questionnaire to identify the factors that determine the relationship between manufacturers and distributors of crop protection products in South Africa

Appendix B: Questionnaire to identify the factors that determine the relationship between manufacturers and distributors of crop protection products in Australia

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CHAPTER 1

INTRODUCTION AND BACKGROUND

1.1 INTRODUCTION

An overview of the global crop protection industry is presented in this chapter in order to set the context for (i) an analysis of distribution systems in the crop protection industry; (ii) establishing the key factors that determine the relationship between manufacturers and distributors; and (iii) the ultimate goal of developing appropriate distribution system management models.

Tracing the roots of the crop protection industry is followed by the quantification of the size of this industry. Subsequently, the role of the crop protection industry in feeding the global population requires mentioning, with a view to putting the global importance of this industry in its correct perspective. In an endeavour to highlight some of the most notable changes that have occurred in this industry over the last 40 years, a brief background description of the crop protection industry is provided. The presentation of these changes in the crop protection industry furthermore provides background information to support the contention that new distribution system management models for the crop protection industry need to be considered.

1.2 SELECTED INDUSTRY CHARACTERISTICS

In order to provide background of the crop protection industry a few selected industry characteristics are reviewed briefly.

It was about 100 years ago that the first synthetic insecticide was developed and introduced by the German company Bayer. A few years prior, the so-called Bordeaux mixture was developed in France to become the first recognised fungicide (Dias, 1993 : 1). The global crop protection chemicals market has since grown to a market presently valued at US\$ 28 090 mio *per annum* at distributor level (Agrow, 2000a : 18). The market for crop protection products in South Africa is estimated to be worth \$850 mio at distributor price level (*Impact*, 1999a : 2). In

Australia, the market for crop protection products is valued at Australian \$1 490 mio at distributor level (*Impact*, 2000a:2 and *Agrow*, 1999a : 17).

The size and future role of the crop protection industry need to be viewed against the background of the global population dynamics. The world population is growing at a rate of approximately 250 000 people per day. This represents an annual growth in the world population of 92 mio people (*Ciba*, 1996 : 10). Based on the current rate of increase, the world population is projected to double to more than 12 billion in less than 50 years. Currently, more than three billion humans worldwide are malnourished (Pimental and Pimental, 1999 : 417). An estimated figure of 800 mio chronically malnourished people in the world is quoted by Stip and Conway (2000:164). The provision of adequate food becomes an increasingly difficult problem. The crop protection industry has, and will have, an important role to play in efforts to provide the world's population with foodstuffs.

The importance of crop protection products becomes clear if firstly, the impact of insects, diseases and weeds is quantified, and secondly, if it is taken into account that agricultural land is a finite resource.

In a study conducted in the United States of America on the impact of the absence of crop protection products and fertilizers on food prices, it was concluded that lower yields would result in drastic rises in food prices. In the case of fruit and vegetables, a figure of 50 percent is quoted, whereas the applicable data for cereals is estimated to be 33 percent (*Ciba*, 1996 : 18). The impact of a 50 percent reduction in the usage of crop protection products on yield was addressed in research done by Knutsen (1993). The yield of potatoes was reduced by as much as 70 percent and that of tomatoes by 50 percent.

By producing more foodstuffs on the same land acreage, nature and wildlife areas can be protected. Increased yields on less, but highly productive, best suited agricultural land reduces or eliminates the need for destruction of forests, drying wetlands and cropping marginal and vulnerable agricultural areas.

Given the above background, it can be reasoned that crop protection solutions will play an ever-increasing role in the endeavour to feed a rapidly growing population with limited land resources.

1.3 CHANGES THAT HAVE OCCURRED IN THE CROP PROTECTION INDUSTRY

In an effort to describe some of the most significant changes that have taken place in the crop protection industry over the last 40 years, a distinction has been made between the 1960's – 1970's era and the situation in specifically the late 1990's. A comparison is presented in Table 1.1. The purpose of this comparison is to identify some of the more notable changes that have taken place in the crop protection industry and that are deemed to have a bearing on the development of the most appropriate distribution system management models for the crop protection industry.

Table 1.1: The changing face of the crop protection industry: A comparison between the 1960's-1970's era and the situation in the 1990's

The 1960's-1970's era	The 1990's
<ul style="list-style-type: none"> ◦ Growing market in value terms. 	<ul style="list-style-type: none"> ◦ Stagnant, ever declining market in value terms.
<ul style="list-style-type: none"> ◦ Introduction of numerous blockbuster products. 	<ul style="list-style-type: none"> ◦ Very limited number of new blockbuster products introduced.
<ul style="list-style-type: none"> ◦ Newly introduced chemistry vastly superior to old or replaced chemistry. 	<ul style="list-style-type: none"> ◦ New chemistry in most instances only marginally more effective. The "old" chemistry is still effective in many instances.
<ul style="list-style-type: none"> ◦ Relatively long product life cycles. 	<ul style="list-style-type: none"> ◦ Shorter product life cycles.
<ul style="list-style-type: none"> ◦ Low product development cost. 	<ul style="list-style-type: none"> ◦ High product development cost.
<ul style="list-style-type: none"> ◦ Rapidly increasing demand (seller's market). 	<ul style="list-style-type: none"> ◦ Stagnant demand (buyer's market).
<ul style="list-style-type: none"> ◦ Limited number of sources for a specific product or active ingredient. 	<ul style="list-style-type: none"> ◦ Numerous sources for a specific product or active ingredient in most cases.
<ul style="list-style-type: none"> ◦ Low profile of generic manufacturers (most of the key products were still patented). 	<ul style="list-style-type: none"> ◦ Emergence of aggressive, high profile generic manufacturers.

Source: Schreuder, 1998:2.

From Table 1.1 it is evident that the crop protection industry has changed significantly. The detailed discussion on the contents of Table 1.1 that follows, provides some insight into the relevance of these changes for the design of distribution system management models.

From a crop protection industry perspective the 1960's – 1970's can be described as

a period of rapid growth in the size of the market. On average, a 14 percent growth rate per annum was recorded (Agrow, 1997: 21). In contrast in the 1990's, and specifically the latter part of the 1990's period, the crop protection industry can be described as a mature market. This observation is supported by a decline in the global value of the crop protection market by 3,1 percent from 1998 to 1999 (Agrow, 2000a : 18).

The 1960's – 1970's period was dominated by the introduction of new blockbuster products. Blockbuster products are defined as products with a global turnover *per annum* of more than US\$ 300 mio. These products were patented, profitable and unique products which had a captive market. Product based differentiation has traditionally been the cornerstone of corporate competitiveness in the crop protection industry. This situation changed significantly in the 1990's. The industry as a whole, however, has been unsuccessful in introducing blockbuster products in the 1990's. Based on actual 1998 global sales, only one product introduced in the 1990's can be termed as being a blockbuster, this product being imidacloprid, marketed by Bayer (Impact, 2000b : 5). The inability of the crop protection industry, due to a low success rate in the discovery of novel products, to introduce blockbuster products is furthermore reflected by the situation that the leading 25 crop protection products globally, based on turnover, only contain six patented products (Impact, 2000b : 5). Whereas in the past, the typical manufacturer could rely on an essentially patented product portfolio that had products that “sold themselves”. These same manufacturers now find their high turnover products mostly in the post patent phase, with numerous generic product offers in aggressive competition.

This predicament, that faced the typical crop protection manufacturer in the 1990's, of having essentially a commodity product portfolio is also reflected in the relevant crop protection industry data. Based on 1995 sales data, sales of patented products accounted for approximately 50 percent of the world's crop protection product sales (Agrow, 1995 : 15). The value of the global market for commodity crop protection products is, however, expected to grow by 54 percent during the period 1998 to 2005 (Agrow, 1998 : 22). In reality, this means that by the year 2005 commodity (off patent) products will account for an estimated 69 percent of the global crop protection market, further increasing the competitive nature of this industry.

Developing and managing distribution management models, can be argued to be significantly more important at present, from a manufacturer's perspective, than was the case in the past, given the reality that manufacturers can now rely less on sought after, patented products in their portfolio, than used to be the case.

During the 1960's – 1970's period many of the newly introduced products were deemed to be vastly superior to the products on offer at the time. As an example, systemic fungicides were introduced as replacement products for much less effective contact fungicides. In the 1990's many newly introduced products could typically be classified to be only "marginal" improvements on the old chemistry. It should be noted, however, that there are exceptions to this tendency. The message, however, is that unique product attributes that create "automatic" demand from customers are no longer as evident as they used to be.

Declining product differentiation has implications on how, where, and why, people buy products. With product and brand dominance reduced, the balance of power in relationships dramatically shifts. Control of the channel, rather than control of the product becomes paramount (Wheeler and Hirsch, 1999 : 7). Although a product-based approach might have been appropriate in the past for the crop protection product manufacturer, it can now be summarised that a truly marketing orientated approach has become essential. Manufacturers need to pursue distribution system management models that would assist in addressing the weakened power base of the crop protection product manufacturer.

Typically during the 1960's – 1970's period, newly introduced products had relatively long life cycles, with ample time for manufacturers to recoup their investments, prior to competitors entering the fray. As a result of modern product development technology, competitors are in many cases able to rapidly introduce similar products in the same chemical class soon after the first introduction of a product in that specific chemical class. An example can be used to illustrate the changed situation in the 1990's. In 1995 BASF introduced a new class of fungicides, the strobilurins. Then only one year later, Zeneca managed to introduce a similar product in the same chemical class (Agrow, 2000b : 18).

The previous luxury of having enough time to gradually increase turnover and build market share with a new branded product has gone. The modern crop protection manufacturer requires a distribution system management model that can provide rapid market entry and deep market penetration prior to the introduction of similar chemistry by competitors.

The development cost of new active ingredients has drastically increased over the years. This is mainly due to the drastic increase in the associated toxicological studies that have become much more evolved and thorough. The significance is clear, manufacturers of crop protection products need to have access to global distribution systems that will ensure sufficient market penetration in order to register adequate sales volumes to recoup the initial product development cost and to generate an acceptable profit contribution. It can be reasoned that crop protection product manufacturers require dedicated and committed distributors to achieve this objective.

The 1960's – 1970's period can also be classified as a sellers market whereas the view is held that the 1990's and present period can be considered a predominantly buyers market. In reality, the crop protection product distributors only had one source, in most cases, for the leading products in the 1960's and 1970's. This has changed dramatically in the 1990's. At present, the biggest selling crop protection product in the world is glyphosate, with 56 producers globally (*Farm Chemicals*, 1999 : 40). The world's leading insecticide in the early 1990's had 15 generic companies manufacturing this product and aggressively selling it to distributors (*Agrow*, 1994 : 29). Having numerous sources of possible product supply is also reflected in the pricing of these products. The global average end-user price for glyphosate has fallen from US\$ 34/kg in 1991 to US\$ 20/kg in 1997 (Beer, 1999 : 22). India, being the world's largest generic crop protection product producer, has 65 major basic crop protection product manufacturers (*International Pest Control*, 1999 : 167). China is ranked globally as the second biggest producer of generic crop protection products. In 1998 alone, exports by China of generic crop protection products increased by 21,6 percent (*China Chemical Reporter*, 1999: 9). Competition from generic manufacturers will increase, thus providing more and more options for distributors when making purchasing decisions.

The message for manufacturers of crop protection products derived from the changes that have occurred in the crop protection industry seems to be clear. A manufacturer needs to “convince” distributors to buy from them rather than from other possible sources. The product offer can no longer consist only of the physical product offer alone, a radically augmented product offer is required. The product offer has to be substantially differentiated. The specific relationship a manufacturer has with a distributor can be a valuable differentiating tool. Distribution system management models should be an integral part of a manufacturer’s differentiating strategies, at a time when there are numerous sources of generic products available.

For the purpose of this study, the distributor is defined as the “customer” of the crop protection product manufacturers (suppliers). Although reference is made to the manufacturer/farmers as well as the distributor/farmers interface as it pertains to distribution system management models, these relationship interfaces fall outside the ambit of this study.

1.4 APPROACH TO MARKETING TAKEN BY CROP PROTECTION PRODUCT MANUFACTURERS

According to Pride and Ferrell (2000 : 11) the evolution of the marketing concept consists of three distinct phases, namely the production orientation phase, the sales orientation phase and the marketing orientation phase. The view is held that this evolutionary development is also applicable to the crop protection industry. The approach the manufacturers of crop protection products took towards the marketing of their products over the last 30 to 40 years can probably also be categorised into these three distinct phases.

Phase one can be described as a production phase. During this period, the focus was on the discovery and development of novel active ingredients. The products “sold themselves” given their unique attributes, so called Unique Selling Points (USP’s).

The second phase can be depicted as the period where crop protection product manufacturers also “had to do some marketing” in order to sell products. This coincides with the sales orientation phase described by Pride and Ferrell (2000 : 11). Generic product manufacturers typically had a bad image and operated in a relatively low-key fashion. In both phases one and two, distribution system management was considered to be of little importance – it was still predominantly a seller’s market.

The view is currently that the industry has now entered a third phase where the focus will have to shift towards a marketing orientation with a key focus on the management of distribution system models and meeting customer needs, from the perspective of the manufacturer, in order to secure the desired market share aspirations. Traditional sources of power for the manufacturer of crop protection products such as quality products, the pull of the brand, an installed customer base and a broad portfolio of mostly patented products, have diminished significantly in their impact.

A possible future development in the marketing of crop protection products would entail the use of e-commerce functionality. The direct selling of crop protection products via the Internet represents the ultimate theoretical removal of intermediaries in the independent crop protection product distribution network (Jarvis, 2000 : 21). The benefits of direct selling to the end-user (farmer) are expected to include reduced purchase cost, while the benefits to the manufacturer could include increased profit margins and increased market access. These benefits are, however, counterbalanced by additional costs for both the end-user and the manufacturer. The end-user would lose the local knowledge and technical expertise of the crop protection product distributor. This type of advice is essential and would need to be purchased from independent consultants, limiting the potential cost savings available to the end-user. Any manufacturer undertaking direct sales must establish both a physical product distribution network and customer contact services. Despite the potential cost savings made possible through internet based customer contact, the cost associated with the establishment of these networks and services may make direct selling prohibitively expensive for the manufacturer.

In summary of the marketing approach to marketing by crop protection product manufacturers, therefore, it would appear that the manufacturers of crop protection products need to review the manner in which these products are marketed, which distribution management models are used, and the importance that is placed on distribution management in the marketing mix. The dimension of scientific distribution management should be addressed in earnest as a key component in the marketing mix in a market where the scientific distribution system management models employed will, in future, determine in an ever-increasing way, what the subsequent level of market penetration will be.

Having the best product research and product development capabilities, coupled to excellence in product production, is just not sufficient any longer as a differentiating tool. This line of reasoning seems to be supported by Wheeler and Hirsh (1999 : 2): "Channel management offers the opportunity to deliver new combinations of product and services. In today's business world, it is the product and service bundle that provides differentiation and competitive advantages".

The keys to business success are to build a loyal customer base, ensure that the product or service offerings meet customer needs, have an ongoing competitive intelligence system, have effective and efficient product distribution channels and build new business around current customers (Hunter and Tietyen, 1997 : 5). This is indeed the challenge for crop protection manufacturers.

Lendrum (2000 : 76-77) postulates that the relationship between two businesses should be aimed at the formation of a partnership. In such a relationship there is a free exchange of ideas, people, resources, strategies and visions. Formal and informal links exist in both directions, taking a variety of forms: long-term commitment, equity participation, joint ventures, word-class innovation from product and service developments, joint operations and finally electronic link-ups of all kinds. Manufacturers of crop protection products have a formidable task at hand to progress manufacturer-distributor relationships to this level.

1.5 SUMMARY

The crop protection industry is of significant size with an important role to play in the endeavours to feed a growing global population. Changes that have occurred in this industry over the last 40 years call for a revision of the approach taken to marketing of crop protection products by crop protection product manufacturers, specifically with regards to the distribution system management models employed.

Against this background, Chapter 2 presents the aims of this study as well as the framework that will be used to ultimately develop and propose appropriate distribution system management models for crop protection product manufacturers in order to address the changes that have taken place, and will take place, in the relevant business environment.

Part I
Introduction, background, aims and framework of the study
Chapter 1
Introduction and background
Chapter 2
Aims and framework of the study

Part II
Industry and competitive analysis of the global crop protection industry

Part III
Crop protection distribution systems in selected countries

Part IV
Problem statement – management problems of crop protection distribution systems in South Africa and Australia

Part V
Research methodology - literature research and primary research regarding distribution system management

Part VI
Distribution system management models for the crop protection industry in South Africa and Australia

Part VII
Summary, conclusions and recommendations

CHAPTER 2

AIMS AND FRAMEWORK OF THE STUDY

2.1 INTRODUCTION

The background as presented in Chapter 1, serves to illustrate that, whereas in the past the typical manufacturer of crop protection products could rely heavily on unique, patented and sought after products to have a competitive advantage, market dynamics drastically changed this privileged position. The global crop protection industry is increasingly becoming more generic in nature, with numerous manufacturers supplying similar product offers. The traditional source of competitive value, product-based differentiation, is therefore diminishing in importance. It is reasoned that applicable distribution system management models can offer the manufacturers of crop protection products, an opportunity to differentiate their product offer and to create a competitive advantage.

Chapter 2 provides the framework for developing distribution system management models for the crop protection industry. In this chapter, the primary and secondary aims of this study are also presented. In order to provide a pathway to the reaching of the primary aim, a framework and a brief discussion on the overall approach will be presented (Figure 2.1). A more detailed framework of the study will furthermore be presented, stipulating the complete layout of the study (Figure 2.2). The rationale for this layout will also be provided.

2.2 ASPECTS TO CONSIDER IN THE DESIGN OF CROP PROTECTION DISTRIBUTION SYSTEM MANAGEMENT MODELS

The design of industry specific, customer focused, distribution system management models, requires attention being given to a number of aspects:

- It is essential to have an in-depth knowledge of the industry that the model is designed for. The ultimate model must fit the specific competitive environment.

- This requires that an applicable industry and competitive analysis be conducted.
- Information on specific manufacturers (i.e. suppliers) and countries also need to be considered as being vital input into the model building process.
 - Overall knowledge of the industry needs to be augmented with primary research that is both industry and problem specific. Data generated via primary research forms a vital component of knowledge in the model design phase.
 - Given the extensive research on distribution system management available in the literature, this secondary source of information should also be used as input in the model building process.
 - The construction of distribution system management models entails, in essence, a template of how to manage the interaction between manufacturers and distributors. The key factors which determine the relationship between manufacturers and distributors therefore needs to be identified and quantified as essential input into the process of building applicable models. These models must address the management of these factors in the relationship between manufacturers and distributors.
 - The final step involves integrating all the information and data generated by the preceding steps into the model development process. The outcome being an “ideal” distribution system management model providing a template for manufacturers and distributors to work together in an integrated and coordinated manner to the mutual benefit of both parties.

Based on the above six aspects, Figure 2.1 presents schematically how the data gathered will be used in this study to facilitate the distribution system management model building process and ultimately the proposed distribution management models. Figure 2.1 provides the broad framework of the study, whereas the detailed framework of the study will be presented in Figure 2.2.

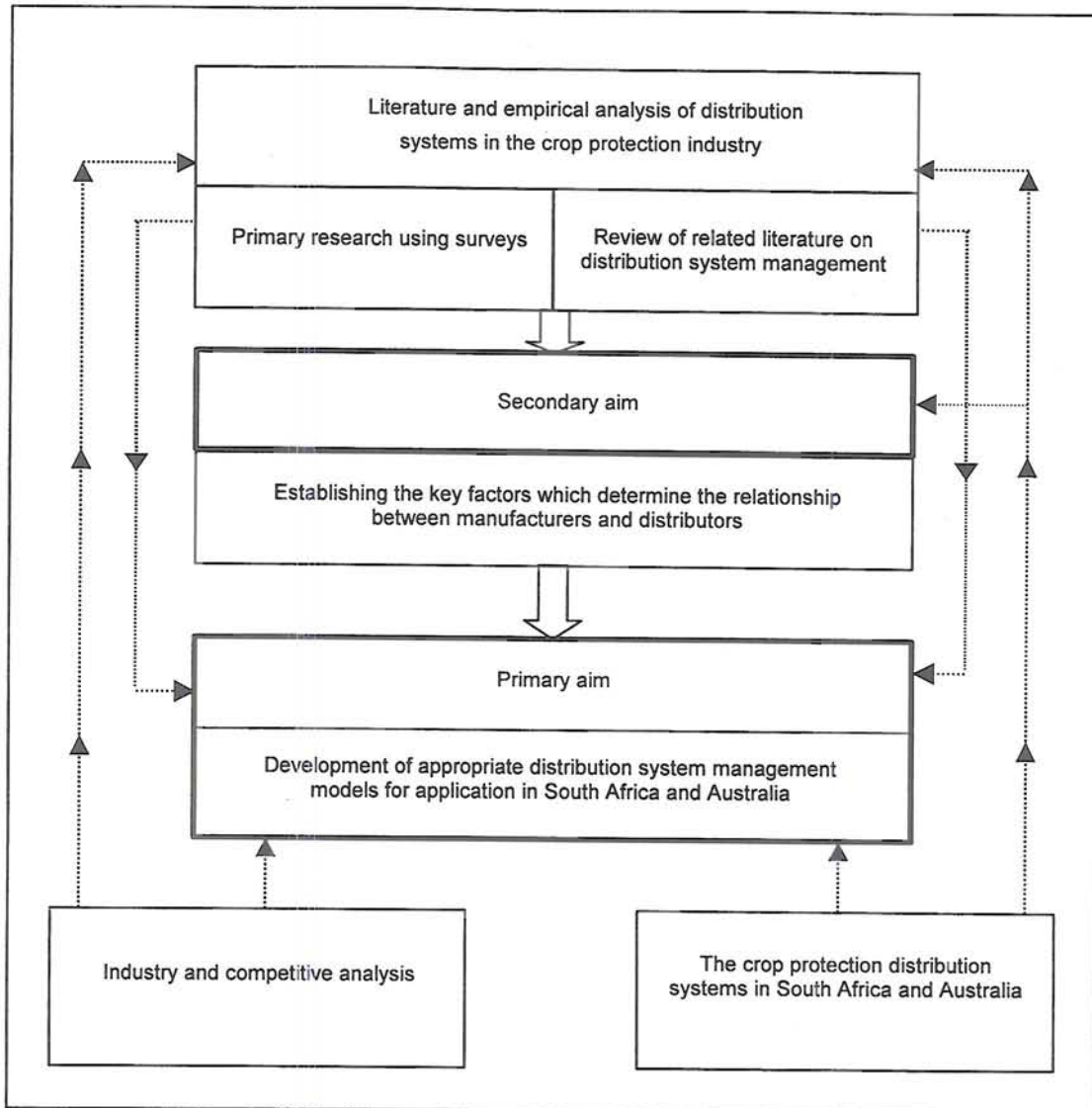


Figure 2.1: Aims of the study

From Figure 2.1, the primary aim of the study is evident, namely the development of appropriate distribution system management models for the crop protection industry in South Africa and Australia. In order to develop distribution system management models, the secondary aim of the study is identified as establishing the key factors which determine the relationship between manufacturers and distributors of crop protection products. Accomplishment of this secondary aim will assist manufacturers of crop protection products in developing strategies and action plans to improve and maintain effective relationships among the applicable distribution system members. Distribution system management models must provide guidelines on how to address these factors.

The determination of key factors which determine the relationship between manufacturers and distributors requires not only input from available literature (secondary data) on the subject, but also the generation of primary research data. In order to gather such information, this study will employ a research methodology that includes empirical research, by way of surveys, as well as a literature review.

To develop models that fit the realities of the crop protection industry in general, and specifically in South Africa and Australia, relevant industry and competitive analysis also forms an integral part of the whole process of building distribution management models, as is evident from Figure 2.1. This data is further augmented by the review of current crop protection distribution systems in South Africa and Australia.

This study does not endeavour to determine the farmers' requirements from suppliers (manufacturers) and/or distributors in detail. For the sake of completion, some references are, however, made to these interfaces.

2.3 FRAMEWORK OF THE STUDY

Figure 2.1 not only identifies the aims of the study, but also provides some insight into the approach taken in achieving these aims. In this regard, a comprehensive framework of the study is provided in Figure 2.2 stipulating the detailed structure of the study based on the overriding approach conveyed in Figure 2.1.

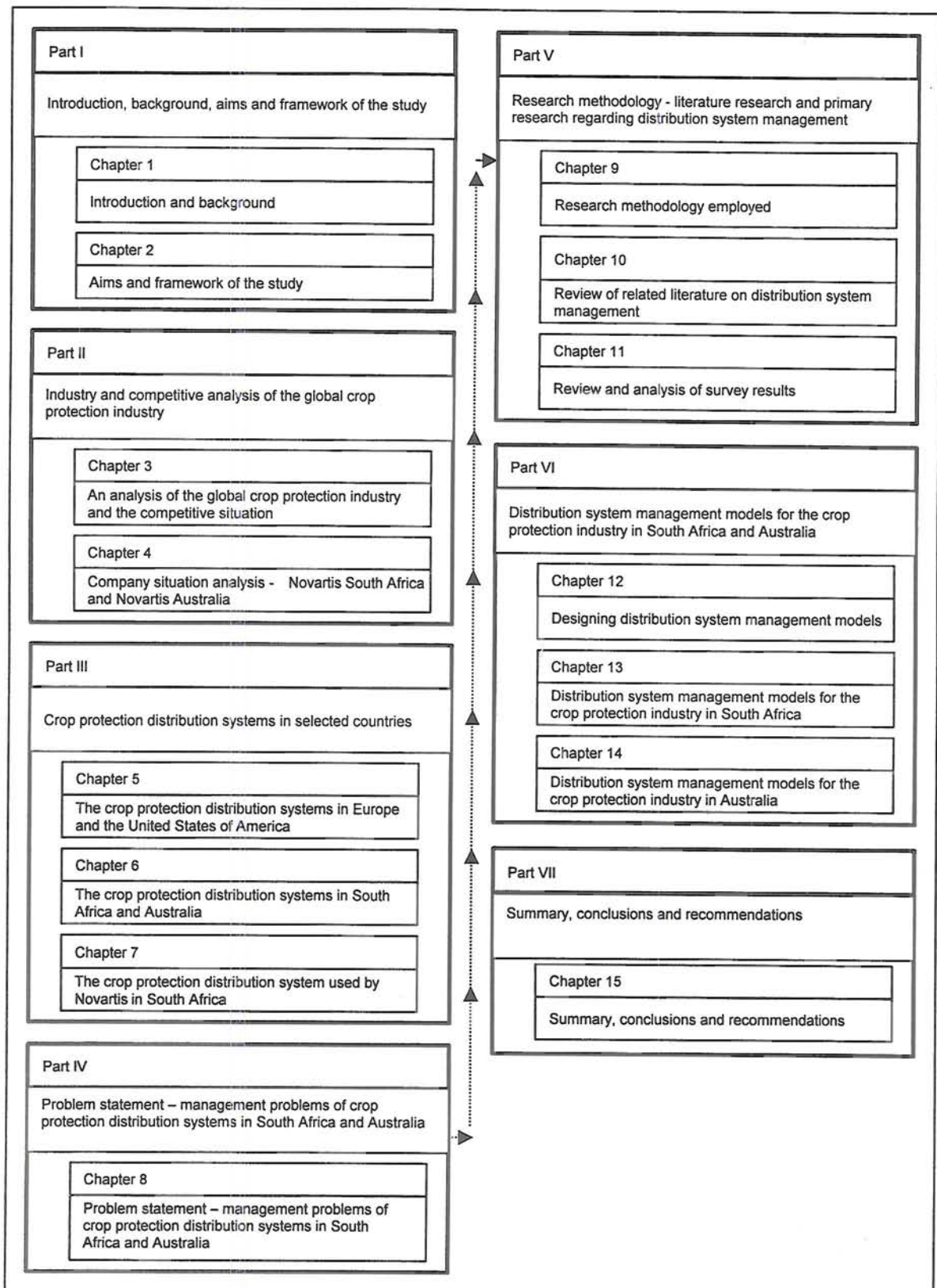


Figure 2.2: Framework of the study

Using Figure 2.2 as a framework, some elaboration is provided in the following paragraphs. The study has been divided into seven parts corresponding with the main building blocks as depicted in Figure 2.1.

Part One serves the purpose of providing the broad background pertaining to the study. This is covered in Chapter 1. Part One, furthermore, stipulates the aims and the framework of the study, see Chapter 2.

Part Two includes the crop protection industry analysis and competitive position. Chapter 3 initiates this process with an analysis of the global crop protection industry and the relevant competitive situation. Chapter 4 contains the company situation analysis for the manufacturer Novartis in South Africa and Novartis in Australia. Part Two can be viewed as the determination of major industry and company specific (Novartis) strategic issues and problems with particular relevance for the development of distribution system management models applicable to the two countries in question.

In Part Three the focus shifts to the review of crop protection distribution systems in operation in some selected countries. The purpose of this appraisal is to firstly, provide valuable background knowledge on distribution management systems in use presently, and secondly, to establish a sound understanding of the specific markets for which the models will be developed. Thus Chapter 5 takes a global perspective with a review of the distribution systems used in the USA and Europe. Chapter 6 is a review of the present distribution systems in both South Africa and Australia. Understandably, the present systems in these countries need to be well understood prior to developing models for distribution system management. Chapter 7 can be viewed as a case study. The specific distribution system management model used by Novartis South Africa is analysed in some detail in this chapter. As will be explained, this system is unique in the world and is believed to contain elements that should ultimately be incorporated into the distribution management models development process.

The problem statement is presented in Part Four, Chapter 8. Formulating the problem statement requires a significant amount of background information. This

pre-requisite explains the apparent deferment in introducing and formulating the problem statement.

As portrayed in Figure 2.1, and the discussion based on its content (see page 15), the secondary aim of the study is to identify the key factors that determine the relationship between manufacturers and distributors. Part Five is structured specifically to the achievement of this aim. Chapter 9 provides an overview of the research methodology employed. The secondary data generation is covered in Chapter 10, which contains a review of related literature on distribution system management. The review and analysis of the empirical research component is presented and discussed in Chapter 11. Part Five provides valuable input into the model building phase of the study. The identified “key factors” must be addressed in the construction of customer focused distribution management models aimed at optimising the relationships between manufacturers and distributors.

In Part Six distribution management models for application in South Africa and Australia are developed. Because the so-called Stern-model (Stern, El-Ansary and Coughlan, 1996: 189) for designing distribution system management models is considered to be particularly responsive to customer (distributor) needs, the decision was taken to use this as a template for the model-building process. This model is reviewed in Chapter 12. The linkage of this model with the rest of this study also receives attention in Chapter 12. In Chapters 13 and 14, distribution system management models for South Africa and Australia are suggested. The proposed “ideal” models are the end result of following the proposed steps in the Stern-model. Product portfolio strength is reasoned to be the most significant difference, of vital importance, in comparing manufacturers of crop protection products. Due to this view, a distinction was made between manufacturers based on portfolio strength. A classification of “limited portfolio”, “medium-sized portfolio” and “extensive portfolio” was used. Three different distribution system management models were developed for each country, based on the portfolio strength classification.

Part Seven of the study contains the summary, conclusions and recommendations (see Chapter 15).

2.4 SUMMARY

The aims of the study can be summarised as consisting of two components. Firstly, the primary aim being the development of distribution system management models for particular application in South Africa and Australia. Secondly, the secondary aim entails establishing the key factors which determine the relationship between manufacturers and distributors in the crop protection industry. In order to accomplish the above aims, a review of related literature as well as empirical research, using the survey method, provided relevant data. A detailed industry and competitive analysis furthermore served to ensure that the models developed fit the specific industry.

Using the framework of the study, as presented in Figure 2.2. Part Two of the study addresses the industry and competitive analysis.

Part I

Introduction, background, aims and framework of the study

Part II

Industry and competitive analysis of the global crop protection industry

Chapter 3

An analysis of the global crop protection industry and the competitive situation

Chapter 4

Company situation analysis - Novartis South Africa and Novartis Australia

Part III

Crop protection distribution systems in selected countries

Part IV

Problem statement – management problems of crop protection distribution systems in South Africa and Australia

Part V

Research methodology - literature research and primary research regarding distribution system management

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Distribution system management models for the crop protection industry in South Africa and Australia

Part VII

Summary, conclusions and recommendations

CHAPTER 3

AN ANALYSIS OF THE GLOBAL CROP PROTECTION INDUSTRY AND THE COMPETITIVE SITUATION

3.1 INTRODUCTION

In Part One (Chapters 1 and 2) the introduction, background, aims and framework of the study were addressed. Part Two contains two chapters. In Chapter 3, an analysis of the global crop protection industry and the competitive situation is done, whereas the focus in Chapter 4 will be on a company specific situation analysis.

The concept of a comprehensive situation analysis as a starting point for a detailed analysis of an industry, is supported by Thompson and Strickland (1999 : 68). They define the purpose of situation analysis as a process to draw out the features in a company's external and internal environments that most directly frame its window of strategic options and opportunities.

In business-level strategic analysis, the two biggest considerations are firstly, industry and competitive conditions, and secondly, a company's own internal situation and competitive position (Thompson and Strickland, 1999 : 68). The purpose of Chapter 3 therefore, is to analyse and map the external context in which distribution system management models are to be developed. It is considered that a strategic fit is required between the external environment, the relevant driving forces and competitive forces of the industry, and strategic decisions pertaining to distribution system management models.

After the completion of the investigation into the applicable external environment, the analysis of the internal environment is addressed in Chapter 4. In order to have a focused review of the internal environment, a company situation analysis applies Novartis as a case study to highlight the typical challenges and constraints facing a crop protection product manufacturing company in South Africa and in Australia.

This structure conforms to the approach of Thompson and Strickland (1999 : 68), when they define industry and competitive analysis as the analysis of a company's macro-environment (external environment) and the company's situation analysis as examining the narrower territory of a company's immediate micro-environment (internal environment).

The core of this chapter essentially covers three areas. Firstly, the dominant economic characteristics of the crop protection industry are addressed (Section 3.3). The following section identifies the relevant driving forces of the crop protection industry and endeavours specifically to identify those driving forces that have a direct linkage to distribution system management (Section 3.4). Thirdly, the competitive situation in the crop protection industry is reviewed in Section 3.5, based on the Five Forces Model of Porter (1979 : 137-145). Chapter 3 is concluded with a list of key success factors for a manufacturer of crop protection products that is derived from the preceding external industry analysis (Section 3.9).

To ensure that a clear profile is provided of the manufacturers active in the crop protection industry, Section 3.2 will focus on defining the crop protection industry and providing background to the relevant corporate structures of the manufacturers of crop protection products. The competitive structure of the crop protection industry is further elaborated on by the provision of a strategic group map plotting the market position of the major rival manufacturers in Section 3.7.

3.2 DEFINING THE CROP PROTECTION INDUSTRY

The word industry can be defined as a group of firms whose products have so many of the same attributes that they can compete for the same buyers (Thompson and Strickland, 1999 : 71). This definition is clear and easy to interpret. If, however, the companies in question in this study are listed, it is evident that these companies differ significantly in the manner they are structured.

In many instances reference is made to "Crop Protection Companies" when in actual fact some of these companies could be classified as "Pharmaceutical Companies" that have a primary focus in the lucrative pharmaceutical industry, but with a

business unit, or division, that operates in the crop protection industry. For the purposes of this study the linkage of the crop protection product manufacturers to the pharmaceutical companies needs to be put into perspective. The reason being that decisions taken in relevant companies, relating to strategic “pharmaceutical issues”, directly impact on the crop protection arm of such companies. A definition to be used in this study for a “crop protection product manufacturer”, also needs to be elaborated on.

Table 3.1 contains a listing of the top 15 crop protection product manufacturers in the world, based on actual 1998 turnover data. An indication is also provided on which of these companies are part of a company that has significant activity in the pharmaceutical industry.

Table 3.1: Ranking of the leading crop protection product manufacturing companies based on 1998 turnover of crop protection products indicating linkages to pharmaceutical companies

Rank	Company	Turnover (US\$ mio)	Parent company has significant pharmaceutical activity
1.	Novartis	4 152	Yes
2.	Monsanto	4 032	Yes
3.	Du Pont	3 156	Yes
4.	Zeneca	2 897	Yes
5.	AgrEvo (Hoechst plus Schering)	2 410	Yes
6.	Bayer	2 273	Yes
7.	Rhône-Poulenc	2 266	Yes
8.	Cyanamid (American Home Products)	2 194	Yes
9.	Dow AgroSciences	2 132	No
10.	BASF	1 945	Yes
11.	Makhteshim Agan	802	No
12.	Sumitomo	675	No
13.	FMC	648	No
14.	Rohm and Haas	505	No
15.	Nufarm	448	No

Source: Adapted from *Agrow*, 1999b : 3.

From Table 3.1 it can be deduced that nine of the global leading 15 crop protection manufacturers are part of a parent company with significant pharmaceutical activity.

“Significant pharmaceutical activity” is defined as being one of the 30 leading global pharmaceutical companies. This supports the notion that an insight into the changes that occurred, and are anticipated to occur, in the pharmaceutical industry, is required as background to an analysis of the changes that took place, and are anticipated, in the crop protection industry.

Table 3.2 provides a different perspective of the pharmaceutical companies. A list of the leading global pharmaceutical companies is provided in this presentation using their pharmaceutical specific sales as criteria.

Table 3.2: Ranking of the leading pharmaceutical companies based on 1999 turnover of pharmaceutical products

Rank	Company	Turnover (US\$ mio)
1.	AstraZeneca	11 341
2.	Merck	11 277
3.	Glaxo Wellcome	10 688
4.	Pfizer	10 198
5.	Novartis	10 191
6.	Bristol-Myers	10 059
7.	Johnson & Johnson	9 272
8.	American Home Products	7 782
9.	Roche	7 718
10.	Lilly	7 384
11.	Smithkline Beecham	7 235
12.	Warner-Lambert	6 895
13.	Abbott	6 315
14.	Schering Plough	6 155
15.	Hoechst	6 144
16.	Bayer	5 086
17.	Pharmacia Upjohn	4 496
18.	Rhône-Poulenc	4 381
19.	Boehringer Ingel	3 608
20.	Takeda	3 549

Source: *Novartis*, 2000a : 10.

A comparison between Tables 3.1 and 3.2 indicates that a number of the leading “crop protection product manufacturers” also feature in the listing of leading “pharmaceutical companies”, namely AstraZeneca, Novartis, American Home

Products (Cyanamid), Hoechst (AgrEvo), Bayer and Rhône-Poulenc. Some insight into the dynamic nature of the pharmaceutical industry is therefore required as background.

Since early 1998, no fewer than half of the world's leading 25 pharmaceutical companies have announced mergers (Pilling, 2000 : 17). In order to illustrate these dramatic changes in the pharmaceutical industry Table 3.3 is used as the point of reference.

Table 3.3: Scenario's for the possible changes in the pharmaceutical industry by 2000

Acquirors or mega merger of equals	Players resigned to intermediate strategies	Companies vulnerable to proposals	Companies vulnerable to takeovers
<u>Abbott</u>	Amgen	Alcon (Nestle)	Allergan
<u>American Home Products (Cyanamid)</u>	Astra	Ares-Serono	Alza
BMS	<u>Bayer</u>	Asta (Degussa)	Biogen
Eli Lilly	P&G	Boehringer	* <u>Schering</u>
Glaxo Wellcome	<u>Rhône-Poulenc</u>	Byk Gulden	Schwarz Pharma
HMR	<u>Schering-Plough</u>	Fournier	
J&J	<u>Zeneca</u>	Ipsen Beaufour	
Merck		Menarini	
<u>Monsanto</u>		Nono Nordisk	
<u>Novartis</u>		Pierre Fabre	
Pfizer		Sanofi	
Pharmacia & Upjohn		Servier	
Roche		Solvay	
SmithKline Beecham		Synthelabo	
Warner Lambert			

Source: Adapted from Tracy, 1998 : 14, and *Novartis*, 1998a : 5-10.

Notes:

- Schering and Hoechst have a crop protection joint venture trading as AgrEvo.
- "Crop protection companies" are underlined.
- This scenario was prepared in January 1998 by an industry analyst.
- "Pharmaceutical companies" with crop protection activities underlined.

Using Table 3.3 as a reference, some of the more significant structural changes that did in fact take place, with direct impact on the crop protection industry, are highlighted in the following paragraphs.

Abbott decided to divert from the crop protection industry in order to focus solely on pharmaceuticals. The Abbott crop protection business was sold to Sumitomo in late 1999 (*Agrow*, 2000c : 20).

American Home Products made an announcement in 1999 that it “might” sell its crop protection division that trades as Cyanamid (Michaels, 2000 : 15). This was confirmed in February 2000 (*Agrow*, 2000d : 3). In March 2000 it was announced that BASF would purchase Cyanamid (Petersen, 2000:2).

Merck sold its crop protection business to Novartis in 1998. Merck is now fully focused on pharmaceuticals.

Rhône-Poulenc and Hoechst merged in 1999 to form a new company trading as Aventis (*Agrow*, 1999c : 1). At that stage, Hoechst was represented in the crop protection industry via AgrEvo, which was a joint venture between Schering and Hoechst. At the time of the merger announcement, Aventis would have been the world’s leading pharmaceutical company based on turnover (*Observer*, 1999 : 2). Aventis officially started up on 15 December 1999 (*Agrow*, 2000e : 4). The merger announcement on 17 January 2000 between Glaxo Wellcome and SmithKline Beecham moved Aventis to the number two spot behind the new company named Glaxo SmithKline (Mcintosh, 2000 : 13).

The race for critical mass in the pharmaceutical industry is further illustrated by the announcement of a merger between Pfizer and Warner Lambert in February 2000. This new entity will be the second largest pharmaceutical concern in the world, second only to Glaxo SmithKline (*The Australian Financial Review*, 2000a : 13).

The above-mentioned structural changes in the industry understandably also force other pharmaceutical companies to critically review their strategic directions, with possible consequences for crop protection divisions of these specific companies as well.

Sandoz and Novartis merged in 1997 to form Novartis. At that stage Novartis was the biggest pharmaceutical company in the world. The latest spate of mergers result

in Novartis being downgraded to the number six spot on the pharmaceutical product turnover ranking (McIntosh, 2000 : 13). Novartis is classified as a life sciences company with activities in both pharmaceuticals and in crop protection.

In 1999 Zeneca and Astra concluded their merger to form AstraZeneca, also with a life science approach very similar to that of Novartis. From Table 3.2 it is evident that AstraZeneca was the number one pharmaceutical company, based on 1999 turnover.

In December 1999 Novartis and AstraZeneca management agreed that both companies intend to focus solely on pharmaceuticals and no longer saw crop protection as a future part of the respective companies (Hall, 1999 : 25). It was decided that the two crop protection divisions were to be spun off simultaneously from the “mother” companies to form a totally separate legal entity trading as Syngenta with activities in only agriculture. Effectively both Novartis and AstraZeneca decided to divest their crop protection businesses in order to focus on pharmaceuticals (Moore, 1999a : 6). As a follow up to this, a pharmaceutical merger between Novartis (pharmaceuticals only) and Roche is also being mooted as a possibility at the time of writing (McIntosh, 2000 : 13).

A proposed merger between Monsanto and Pharmacia Upjohn was announced in 1999 in order to strengthen the pharmaceutical arm of Monsanto, trading as Searle. Questions were immediately raised about the future of the agricultural arm of Monsanto and whether it should be part of the new company (Deogun and Langreth, 1999 : A3). The crop protection business will be a separate subsidiary of the merged entity (Agrow, 2000f : 2). The designated chief executive of the new company, Pharmacia Corporation, indicated that he is willing to sacrifice the company's expenditure on agricultural research in order to meet the overall financial targets and that the focus is on pharmaceuticals and not agriculture (Harris, 2000 : C1).

The examples discussed in the foregoing paragraphs serve to illustrate that decisions taken at corporate strategic level, based on pharmaceutical considerations, directly impact on the crop protection product manufacturers. This is captured in an article on the pharmaceutical industry that appeared in *The Observer* (1999 : 2):

“The drug firms’ traditional agrochemicals operations are in a cyclical downturn, yielding half the profit margins of pharmaceuticals and as a drag on growth, are prime candidates for disposal”.

Pilling and Michaels (1999 : 14) expressed the view that the mergers are driven by a genuine conviction that scale of operations in the pharmaceutical industry has finally become a vital competitive advantage. McIntosh (2000 : 13) see cost savings as the driver of consolidation in the pharmaceutical industry, not to boost earnings per share, but rather to generate more funds for marketing, research and development of new products. This view is also supported by Pilling (2000 : 17) when he suggests that the increasing cost of product development and marketing calls for cost savings on other fronts as well as attainment of critical mass.

It can therefore be realistically reasoned that not only have “pharmaceutical considerations” shaped the crop protection industry in the past, but that this will continue to be a reality in the crop protection industry in the future.

Crop protection companies are in some cases also part of “conglomerates” with other chemical activities. These relationships need also to be investigated in order to group the players in the crop protection industry.

In a review of the chemicals industry Hurwitz and Nechvatal (1999 : 84) group the players in the chemicals industry into five broad models. This grouping is presented in Table 3.4.

Table 3.4: Company models presently being used in the chemicals industry

Commodity chemicals companies	Commodity speciality hybrids	Specialty chemicals companies	Specialty/life science hybrids	Life science companies
<ul style="list-style-type: none"> • Petrochemical arms of oil majors • Huntsman • Equistar 	<ul style="list-style-type: none"> • Mega hybrids -BASF -DOW -Du Pont -Solway 	<ul style="list-style-type: none"> • Emerging -Clariant -Ciba Specialties -Rodia -ICI • Traditional -Rohm & Haas -Morton -Great Lakes 	<ul style="list-style-type: none"> • Bayer • Roche • Akzo-Nobel 	<ul style="list-style-type: none"> • Emerging -Zeneca -Novartis -Hoechst -Monsanto • Traditional -American Home Products -Merck

Source: Hurwitz and Nechvatal, 1999 : 84.

From Table 3.4 it would seem that the leading players in the crop protection industry can be classified as being “commodity speciality hybrids” (BASF, Dow, Du Pont), “specialty/life science hybrids” (Bayer) or “life science” companies (Zeneca, Novartis, Hoechst, Monsanto and American Home Products).

Typically, most of the present “life science” companies evolved from marketing commodity chemicals, speciality chemicals, crop protection products and pharmaceuticals. The first phase centred around discarding low value “commodity chemicals” but keeping chemicals where “value can be added”, i.e. “specialty chemicals”. This was followed by a phase where some of these companies decided only to focus on pharmaceuticals and crop protection, i.e. the “life science” concept. It seems, however, that the next distinct phase will be companies like Syngenta, only focusing on crop protection products. It is considered that this will be driven by “life science” companies that will, in essence, divest from crop protection to become “fully” focused pharmaceutical companies.

Questioning whether the life science concept was the way ahead, Arnum (1999 : 19) quoted analysts as expressing the opinion that pharmaceuticals are the dominant earnings contributor and the primary focus of investors in these companies. In contrast, much lower margins are evident in the crop protection market, coupled to an industry with slow, if any growth, and intense competition from similar products.

The chairman of Novartis and the AstraZeneca chief executive helped popularise the notion of “life sciences” by preaching the benefits of keeping pharmaceuticals and crop protection under one roof. With the announcement pertaining to the formation of Syngenta, the chairman of Novartis however indicated that the benefits of life sciences companies were marginal and that they were more than offset by greater focus on individual businesses (Moore, 1999a : 6). In contrast, the chief executive of the newly formed Aventis, responded to the change in the Novartis and AstraZeneca approach by saying that although more changes in the crop protection industry are imminent and that further rationalisation will occur in this industry, Aventis will stick to the life sciences model (Moore 1999b : 10). This statement was, however, contradicted in May 2000 when the chairman of the Aventis board indicated that Aventis will reconsider its life sciences strategy (*Les Echos*, 2000 : 16). In November 2000 Aventis announced that it will sell off its agricultural business by the end of 2001 (*The Economist*, 2000 : 89). It can therefore be suggested that it would appear that the so-called life sciences model, based on leveraging research and development across human health, animal health, crop protection and genetically modified foods, has to be questioned.

It would seem therefore that the formation of Syngenta can result in another category for the major players in the crop protection industry. This category will contain companies that are only active in the crop protection industry and have no pharmaceutical, specialty chemical or commodity chemical activities.

Due to the situation that most of the leading crop protection product manufacturing companies can be classified as “life sciences” companies at the time of writing, this study will define the “typical” research-based manufacturer of crop protection products as an entity that is part of a “life sciences” company.

The dominant economic characteristics of the crop protection industry will be addressed in the following section, based on the definition provided in the previous paragraph.

3.3 DOMINANT ECONOMIC CHARACTERISTICS OF THE CROP PROTECTION INDUSTRY

In Section 3.2 the crop protection industry and its relationship with the pharmaceutical industry was put into perspective. As a next step an overview of the crop protection industry's dominant economic characteristics will be done as a start to the process of conducting a competitive situation analysis.

3.3.1 MARKET SIZE

In 1999 the global market for crop protection products, at distributor price level, was valued at US\$ 28 090 mio (*Agrow*, 2000a : 18). It is therefore evident that the global crop protection market is sizeable.

The market for crop protection products in South Africa is valued at \$850 mio based on 1999 market data (*Impact*, 1999: 2). The corresponding market size figure for Australia is Australian \$1 490 mio (*Impact*, 2000a : 2).

Given the size of the global market it can be concluded that competitors will be attracted to this industry if barriers of entry can be overcome and if fundamental profit expectations are deemed to be within reach. In the context of both the economies of South Africa and Australia, these respective industries appear to be attractive from a potential turnover and profit perspective for investing in.

A significant level of competition can therefore be expected in an industry the size of the crop protection industry.

3.3.2 MARKET GROWTH RATE

Historically, the real market growth rate, based in value terms and adjusted for inflation, has been (*Novartis*, 1998b: 3): 1960's - 14 percent per annum; 1970's - 7 percent per annum; 1980's - 4 percent per annum; and 1990-1995 - 1 percent per annum.

In 1999 the global market for crop protection products, at distributor level, declined by 3.1 percent from a sales value of US\$ 28 995 mio in 1998 to US\$ 28 090 mio in 1999 (*Agrow*, 2000a : 18). See Table 3.5 for more detail. A further decline of 1,5 percent was predicted for 2000 with an average growth rate of 0,9 percent annually in real terms thereafter (*Mirasol*, 2000 : 4).

Table 3.5: World crop protection product sales for 1998 and 1999 per region

Region	US\$ mio 1998	US\$ mio 1999	Percentage change
North American	9 020	8 570	-5.0
Western Europe	6 955	6 570	-5.5
East Asia	5 890	6 355	+7.9
Latin America	4 880	4 515	-7.5
Rest of World	2 250	2 080	-7.6
Total	28 995	28 090	-3.1

Source: *Agrow*, 2000a : 18.

From Table 3.5 it appears that, with the exception of East Asia, the industry contracted in 1999. In real terms this figure represents a decline of 5.7 percent, excluding the effects of currency translations (*Agrow*, 2000a : 18). The USA, as the single biggest crop protection market in the world, represents approximately 30 percent of the global crop protection market. This market declined by 8.2 percent from 1998 to 1999 (*Agrow*, 2000g : 12).

The market for crop protection products in South Africa increased from R780 mio in 1996 (*Novartis*, 1997a : 21) to R850 mio in 1999 (*Impact*, 1999a : 2). In US\$ terms however, this reflects a decrease from US\$ 181 mio in 1996 to US\$ 139 mio in 1999, using average actual exchange rates for the particular years. It can be expected that multi-national crop protection manufacturers operating in South Africa must reduce their respective cost blocks and grow market share if hard currency financial targets are to be met, based on historical hard currency targets.

The market for crop protection products in Australia grew by 16.8 percent from 1997 to 1998 (*Agrow*, 1999a : 17). The market grew by a further 6 percent from 1998 to 1999 and was estimated at Australian \$ 1 490 mio in 1999 (*Impact*, 2000b : 2). Using

market size as a criteria, Australia ranks 11th globally if individual countries are compared.

The current size of the Australian market, the growth in market potential, the relative strength of the Australian dollar coupled to a low inflation environment makes Australia an attractive market from the perspective of crop protection product manufacturers. From the viewpoint of generic product manufacturers, a further addition to the market attractiveness is the relative ease of market entry based on ease of gaining generic product registrations. This is evident in the number of additional products, 221, registered in Australia only in 1998 (*Agrow*, 1999a : 17). The result being more manufacturers offering a wider choice of products to distributors, specifically generic products.

3.3.3 NUMBER OF COMPANIES IN THE INDUSTRY

The leading 20 crop protection manufacturers recorded sales of US\$ 300 mio and more in 1998 (*Agrow*, 1999b :3). Based on 1998 sales, the turnover, market share and classification of the leading 25 crop protection manufacturers are presented in Table 3.6. A distinction is made between “research-based manufacturers” and “generic product manufacturers”. A research-based manufacturer is defined as a manufacturer that invests in research and development in order to discover innovative new crop protection products, whereas a generic product manufacturer is defined as a company that copies existing molecules in the post-patent phase.

It should be noted that trading takes place between manufacturers that can result in “double counting” when all the respective turnover figures are collated. The sum of all the respective turnovers will therefore add up to a turnover figure that would indicate an inflated global market-size figure.

Table 3.6: Global ranking and classification of the leading 25 crop protection product manufacturers based on 1998 sales indicating company status as research-based or generic

Rank	Company	Turnover US\$ mio	Market share (percentage)	Research-based (R) or generic (G)
1.	Novartis	4 152	13,5	R
2.	Monsanto	4 032	13,1	R
3.	Du Pont	3 156	10,2	R
4.	Zeneca	2 897	9,3	R
5.	AgrEvo	2 410	7,8	R
6.	Bayer	2 273	7,3	R
7.	Rhône-Poulenc	2 266	7,3	R
8.	Cyanamid	2 194	7,1	R
9.	Dow AgroSciences	2 132	6,9	R
10.	BASF	1 945	6,3	R
11.	Makteshim-Agan	801	2,6	G
12.	Sumitomo	675	2,1	R
13.	FMC	648	2,1	R
14.	Rohm and Haas	505	1,6	R
15.	Nufarm	448	1,4	G
16.	Uniroyal	348	0,1	R
17.	Kumiai Chemical	346	0,1	R
18.	Cheminova	306	<0,1	G
19.	Sankyo	302	<0,1	R
20.	Griffin	300	<0,1	G
21.	Nihon Nohyaku	287	<0,1	R
22.	Takeda Chemical	264	<0,1	R
23.	Hokko Chemical	262	<0,1	R
24.	Nissan Chemical	252	<0,1	R
25.	Elf Atochem	250	<0,1	G

Source: Adapted from *Agrow*, 1999b : 3 and *Agrow*, 1999d : 3.

Note: Sales for 1998 were used as a reference point in this study, given the numerous changes that occurred in 1999 and 2000 due to mergers and acquisitions.

From Table 3.6 it is evident that the research-based manufacturers dominate the crop protection industry. Based solely on Table 3.6, it may be suggested that the generic manufacturers do not seem to pose a significant threat to the well-established research-based multi-nationals. This is true in the sense that in most major markets the market share of generic product manufacturers is relatively small. The most significant impact of these generic product manufacturers, however, has

been to drastically lower the prices of the applicable commodity products in the post-patent phases. The research-based manufacturers have, in most cases, been successful in defending their respective molecule market shares, but this in turn resulted in significantly lower sales price realisation per unit.

The merger of AgrEvo (Hoechst and Schering joint venture) with Rhône-Poulenc would give the new company, Aventis, an approximate 15 percent market share in 2000 (*Agrow*, 2000e : 4). The intended merger of Novartis with Zeneca to form Syngenta will catapult this company to a global market share of close to 23 percent (Daniel, 1999 : 25). The take-over of Cyanamid by BASF will result in BASF moving to the number three or number four spot behind Syngenta, Aventis and probably Monsanto in 2001.

The further consolidation on the level of research-based manufacturers will therefore lead to manufacturers, like Aventis and Syngenta, with increased product portfolio strength, the critical mass to invest more heavily in research and an increased market presence in the major markets. It is expected that companies like Du Pont, Bayer and Dow AgroSciences will consider mergers or acquisitions to strengthen their relative positions versus Aventis and Syngenta.

Table 3.7 indicates the respective market shares of the major crop protection manufacturers in South Africa based on 1999 turnover.

Table 3.7: Market shares of the major crop protection product manufacturers in South Africa in 1999

Rank	Company	Turnover Rand mio	Market share (percentage)	Research-based (R) or generic (G)
1.	Novartis	217	25,5	R
2.	Dow AgroSciences	141	16,6	G/R
3.	Zeneca	82	9,6	R
4.	Bayer	69	8,1	R
5.	Monsanto	68	8,1	R
6.	DuPont	59	6,9	R
7.	Rhône-Poulenc	66	7,8	R
8.	AgrEvo	35	4,1	R
9.	Cyanamid	29	3,4	R
10.	Other	84	9,9	G/R

Source: *Impact*, 2000c:3.

Comparing Table 3.7 to Table 3.6, clearly indicates that all the major research-based crop protection manufacturers are active in South Africa. The strong position of Sanachem needs to be highlighted. As part of the Sentrachem group, Sanachem used to play a dominant role in the South African market with an impressive range of generic products. In 1997 Sanachem was incorporated into Dow AgroSciences with Dow buying the Sentrachem group.

Table 3.8 indicates the respective market shares of the major crop protection manufacturers in Australia based on 1999 turnover.

Table 3.8: Market shares of the major crop protection product manufacturers in Australia in 1999

Rank	Company	Turnover Australian \$ mio	Market share (percentage)	Research-based (R) or generic (G)
1.	Aventis	220	16,2	R
2.	Crop Care	199	14,6	G/R
3.	Nufarm	196	14,5	G
4.	Novartis	149	10,9	R
5.	Dow AgroSciences	118	8,7	R
6.	Monsanto	104	7,6	G
7.	Bayer	87	6,4	R
8.	Farmoz	70	5,2	G
9.	Cyanamid	47	3,5	R
10.	Du Pont	46	3,4	R
11.	Artfern	40	2,9	G
12.	Davison	32	2,4	G
13.	4 Farmers	20	1,4	G
14.	Sipcam	5	0,4	G
15.	Rotam	3	0,2	G
	Other	24	1,8	G/R
	Total	1 360		

Source: Adapted from *Nielsen*, 2000 : 3.

Note: Sales for 1999 of Rhône-Poulenc and AgrEvo grouped together under Aventis. The Nielsen survey does not cover all markets and therefore the total of Australian \$1 360 mio is less than the total market size figure of Australian \$1 490 mio.

It is transparent from Table 3.8 that generic product manufacturers play a very important role in the Australian market. Nufarm, an Australian listed company, has a 14,5 percent market share. Crop Care, also an Australian company, acts as a distributor (or “wholesaler”) for primarily two research-based manufacturers namely Zeneca and FMC. Crop Care however, also has a wide portfolio of generic products that it markets to distributors in Australia. Farmoz, Davison and Artfern are also Australian generic product manufacturers.

It can be stated that generic product manufacturers have an approximately 30 percent share in the Australian market (Zeneca and FMC sales through Crop Care have been excluded).

From the perspective of a research-based manufacturer, selling a predominantly commodity type portfolio, the reality of intense competition from the generic product manufacturers needs to be taken into consideration in the development of distribution system management models.

3.3.4 PRODUCT CHARACTERISTICS

Section 3.3.3 served to illustrate that research-based companies seem to dominate the global crop protection industry, if turnover is used as a criteria. In this section the emphasis shifts to the specific products being sold globally as well as in South Africa and Australia.

Table 3.9 provides a list of the 20 leading active ingredients sold globally as well as an indication of the patent situation of these active ingredients. For the purpose of this study, all products with the same active ingredient are grouped together. Numerous manufacturers can use the same commodity active ingredient to formulate differently branded products.

Table 3.9: Leading 20 crop protection products globally, based on 1998 sales

Rank	Product (active ingredient)	Turnover per annum US\$ mio	Patented
1.	Glyphosate	1 644	No
2.	Metolachlor	680	No
3.	Imidacloprid	425	Yes
4.	Acetochlor	359	No
5.	Atrazine	315	No
6.	Imazetaphyr	311	No
7.	Chlorpyrifos	283	No
8.	Metalaxyl	277	No
9.	Dicamba	264	No
10.	Mancozeb	252	No
11.	Nicosulfuron	249	Yes
12.	Paraquat	233	No
13.	2,4-D	220	No
14.	Chlorothalonil	207	No
15.	Propiconazole	204	No
16.	Kresoxim-Methyl	204	Yes
17.	Fenoxaprop	198	Yes
18.	Azoxystrobin	195	Yes
19.	Tebuconazole	195	Yes
20.	Pendimethalin	189	No

Source: *Impact*, 2000b : 5.

From Table 3.9 it appears that commodity products play a dominant role in the global crop protection industry. Crop protection manufacturers need to have the capability to compete in a market where commodity products play a very significant role.

Approximately 60 percent of the total global industry sales is derived from 85 products (*Novartis*, 1998b : 18). In total there are approximately 450 commercial molecules being marketed in the crop protection industry. A significant share of the crop protection market is still held by “ancient” molecules. Products registered before 1965 have an approximate 22 percent share in the herbicide market, 29 percent share in the fungicide market and a 20 percent share in the insecticide market. The same calculation for the products introduced after 1980 indicates a corresponding percentage of 28 percent for herbicides, 21 percent for fungicides and 17 percent for insecticides (*Novartis*, 1998b : 18).

The message is therefore clear, namely that a crop protection research-based manufacturer must invest in the development of new technology, but should never

lose track of the importance attributed to the old established product portfolio in the mature stage of a product's life cycle. Furthermore, it can be said that all crop protection manufacturers, both research-based and generic, require distribution system management models that would enable them to effectively market a commodity-based product portfolio to distributors.

Table 3.10 provides a list of the 20 leading active ingredients sold in South Africa. From this table the deduction can be made that the South African market is also dominated by commodity products.

Table 3.10: Leading 20 crop protection products in South Africa, based on 1999 sales

Rank	Product (active ingredient)	Turnover per annum Rand mio	Patented
1.	Glyphosate	46	No
2.	Imidacloprid	30	Yes
3.	Atr./Terb.	25	No
4.	Aldicarb	24	No
5.	Mancozeb	23	No
6.	Hexazinone	21	No
7.	Metalaxyl	18	No
8.	Paraquat	15	No
9.	Chlorpyrifos	15	No
10.	EDB	13	No
11.	EPTC	13	No
12.	Atr./Terb./Met.	12	No
13.	Fenamiphos	12	No
14.	Monocrotophos	12	No
15.	Bromoxynil	12	No
16.	Azinphos-methyl	11	No
17.	Metolachlor	11	No
18.	Chlorothalonil	11	No
19.	Diclofop-methyl	10	No
20.	Tebuconazole	10	Yes

Source: *Impact*, 2000c : 5.

From the perspective of distribution system management, the assumption can be made that products, as the only tool to secure distributor support, would be deemed not to be sufficient, given the reality that most products can be sourced from a number of different suppliers.

In Australia a similar situation to that in South Africa is evident. Table 3.11 provides a list of the 20 leading active ingredients sold in Australia. Given the availability of statistics on the number of registrations held per active ingredient in Australia, this information has been included as well. Similar statistics are not available for South Africa.

Table 3.11: Leading 20 crop protection products in Australia, based on 1999 sales

Rank	Product (active ingredient)	Number of registrations	Turnover per annum Australian \$ mio	Patented
1.	Glyphosate	15	140	No
2.	Paraquat and diquat	2	41	No
3.	Chlorpyrifos	13	37	No
4.	Triasulfuron	1	30	Yes
5.	Atrazine	10	30	No
6.	Simazine	10	30	No
7.	Trifluralin	4	25	No
8.	Profenofos	3	22	No
9.	Tralkoxydim	1	22	Yes
10.	Bifenthrin	1	19	Yes
11.	Endosulfan	5	19	No
12.	Diflufenican	2	18	No
13.	Amitraz	2	18	No
14.	Beta-cyfluthrin	1	18	Yes
15.	Diclofop-methyl	5	17	No
16.	Haloxifop	1	16	Yes
17.	Fluazifop	3	15	No
18.	Picloran	4	15	No
19.	Deltamethrin	1	13	No
20.	Spinosad	1	11	Yes

Source: Adapted from *Nielsen Market Share Reports*, 2000 : 15-17 and *NRA*, 1999 : 1-41.

From Table 3.11 the role of commodity products in the Australian market can clearly be determined. Even the six patented products can be easily replaced with similar chemistry performing more or less the same role in a spray programme. Distributors in Australia have, in most instances, a number of possible sources for products. The product classification, as reflected in Table 3.11, should also be considered in conjunction with the strong position generic product manufacturers have in the Australian market, as previously indicated in Section 3.3.3. The implication is that

high levels of competition are to be expected.

3.3.5 INDUSTRY PROFITABILITY

In Table 3.6 the market shares of the leading global crop protection manufacturers have been compared. Table 3.12 provides a matrix of profitability, expressed as the percentage of operating profit divided by sales, and market share.

Table 3.12: Comparing the major crop protection companies, based on a matrix of profitability and market share

Profitability (operational profit/sales)	>20%		American Cyanamid	Monsanto	Novartis
	15-20%		DowElanco	Du Pont Bayer	
	10-15%	Makhteshim	Rhône Poulenc	Zeneca	
	<10%	BASF		AgrEvo	
		<6%	6-8%	8-12%	12-15%
		Market Share			

Source: *Novartis*, 1998b: 42.

From Table 3.12 it is evident that the crop industry can be considered as fundamentally attractive from a profit intensity perspective, if compared to many other industries.

Country specific profitability data for crop protection companies operating in South Africa and Australia is not available. From the perspective of designing distribution management models, the profitability of distributors is deemed to be of significance. None of the crop protection product distributors in South Africa are listed companies, making it impossible to obtain data on profitability. Personal experience however indicates that a net profit before tax, in the order of 3 to 4 percent, appears to be an

accurate benchmark figure for a properly managed distributor operating in South Africa.

In Australia, the biggest distributor of crop protection products is IAMA. With a turnover of Australian \$1 056 mio in the 1999 financial year, a profit of Australian \$13.3 mio after tax, was generated (1,25% profit after tax as a percentage of sales). The turnover of IAMA consists of a host of agricultural inputs. It is not possible to isolate the profit generated specifically from crop protection products (IAMA, 1999 : 3).

The deduction that can be made is that a company like IAMA would be interested, in principle, to investigate alternative distribution system management models that could lead to an improvement in their profitability. Ultimately, rationalisation can be expected, given the low levels of profitability. Profitability data for other distributors in Australia is not available.

3.3.6 TECHNOLOGY AND INNOVATION

The cost of research and development in the crop protection industry is increasing rapidly due to more stringent registration regulations as well as the need to re-register certain established products. On an industry-wide basis, research and development cost increased from 8.6 percent of sales in 1985 to 9,7 percent in 1995 (Novartis, 1998b : 3). Crop protection product manufacturers may have to test up to 60 000 compounds to find one new active ingredient, compared to less than 4 000 in the 1960's (Agrow Reports, 1999 : 2). Currently, the investment made by individual companies may have brought incremental benefits but, on the whole, the view is held that the total research and development bill for the industry has not been recouped over this period. This is based on the estimated calculation that the crop protection industry as a whole, has invested about US\$ 25 billion over the 10 years preceding 1977. The return on this investment is estimated to be US\$ 15 billion (Novartis, 1998b : 30).

Table 3.13 provides detail on the research and development investments of the major research-based crop protection product manufacturing companies. From this

table it is evident that large sums of money are invested in the industry in an effort to discover new patented crop protection active ingredients.

Table 3.13: Expenditure on research and development by the major crop protection product manufacturing companies in 1999

Company	US\$ mio
Syngenta (Novartis plus Astra Zeneca)	785
Monsanto	695
Aventis (AgrEvo plus Rhône-Poulenc)	465
DuPont	435
Bayer	280
Dow AgroSciences	255
BASF	200
Cyanamid (American Home Products)	195

Source: *Syngenta*, 2000 : 3.

If reference is made to Table 3.9 in Section 3.3.4, the crop protection industry only managed to introduce four active ingredients after 1990 that are presently listed as products in the 20 leading global active ingredients listing, based on turnover. These active ingredients are imidachlorprid (Bayer), nicosulfuron (Du Pont), kresoxim-methyl (BASF) and azoxystrobin (Zeneca). The research-based crop protection product manufacturers have not been very successful in introducing innovative new products to replace “old” chemistry.

3.3.7 EASE OF ENTRY AND EXIT

A discussion on the relative ease of entering the crop protection industry as a new player needs to make a distinction between entering the industry as a “research-based manufacturer” or as a “generic product manufacturer”.

Ease of entry into the crop protection market can therefore be viewed in different contexts. If ease of entry refers to entry into the business on a global basis as a research-based company with a global presence, it stands to reason that this is extremely difficult, given the huge investments required. It can be deduced from

Table 3.13 in Section 3.3.6, that a new entrant in the crop protection industry, on the level of the research-based companies, should be willing to make huge investments in research, given an eight to ten year product development and introduction cycle. If, on the other hand, market entry for potential generic product manufacturers is considered, it is relatively easy. A company that is active in the broad chemical field can very easily add one or two generic products to its product portfolio. In practice, this happens frequently. If the third dimension of ease of market entry is considered in the sense of new patented products or additional generic products that become available for the distribution trade in countries like South Africa or Australia, the process is considered easy. This is in sharp contrast to the situation in Europe and the USA where extremely stringent guidelines exist for product registrations. Of notable significance in the context of distribution planning is that the number of products (both patented and generic) is much less in the USA and Europe, than in countries like South Africa or Australia. This has a drastic impact on the channel power of a distributor in, for example, the USA, compared to a distributor in South Africa or Australia. This point is critical and can be easily overlooked when comparisons are made between marketing and distribution strategies in the USA and Europe, and in countries like South Africa and Australia.

The ease of registering active ingredients in Australia resulted in a situation where most of the major global generic product producers are active in the local market. From a planning perspective the assumption needs to be made that a generic look-alike will be on the market soon after patent expiry, normally within one year. Manufacturers need to be pro-active in devising post-patent strategies well in advance of losing patent protection. Ways to tie in distributors in the post-patent era of products must also be addressed in distribution planning “locked-in” strategies.

The situation is much the same in South Africa as it is in Australia. Products are easy to register making it an attractive proposition for generic product manufacturing companies to enter the market.

3.3.8 DEGREE OF VERTICAL INTEGRATION

In most instances the major global companies are backwards integrated pertaining to

the manufacturing of active ingredients. This is done primarily to maintain strategic control over active ingredients.

None of the research-based multi-national crop protection manufacturers synthesise products in Australia. Most of these companies, however, have local formulation facilities where the imported active ingredients are transferred in ready-to-use formulations (products).

The situation in South Africa is virtually the same with the exception of Dow AgroSciences that do synthesise a few products in South Africa, an example being the fungicide mancozeb. A significant number of the research-based multi-nationals do have local formulation facilities as well. In both South Africa and Australia there is a surplus capacity of formulation facilities.

3.3.9 PRODUCT ACTIVE INGREDIENTS

Legally all crop protection products need to indicate the specific active ingredient. Although branding is important, knowledgeable customers can identify and compare products based on active ingredient composition without any problem.

In Australia the approximately 1 660 salespeople in the crop protection industry will typically know most of the active ingredients of the different branded products and in many cases will recommend an active ingredient rather than a brand. Depending on which brand the distributor stocks that brand will be supplied.

The situation is the same in South Africa. The farmer will in most cases use the brand the salesperson recommends.

It should be noted that in both Australia and in South Africa many farmers are brand loyal and it would be considered an over simplification to discard branding. More appropriate would be to make the suggestion that brands cannot carry a significant premium over commodity products, but it is generally noted in conversations with distributors in both South Africa and Australia, that farmers are prepared to pay a “reasonable” premium for a well known branded product.

3.3.10 CUSTOMERS

Traditionally both research-based and generic-based manufacturers of crop protection products reach the ultimate customer, the farmer, via third party distributors.

In Part Three of this study, this aspect will be dealt with in detail with a review of crop protection distribution systems in selected countries.

3.3.11 SUMMARY OF THE DOMINANT ECONOMIC CHARACTERISTICS OF THE CROP PROTECTION INDUSTRY

The crop protection industry represents a large market that is in a decline phase. The industry is dominated by 10 research-based manufacturers having a combined market share approaching 90 percent. Further consolidation on the level of the research-based manufacturers is expected to occur. An analysis of leading crop protection products indicates an industry categorised by commodity crop protection products. In both South Africa and Australia, strong competition from generic product manufacturers is evident. Significant scope exists for generic manufacturers to enter, specifically markets like South Africa and Australia, due to low entry barriers and a low level of product differentiation.

Implications are that the consolidation of research-based manufacturers will continue and that the pressure from generic product manufacturers will increase.

Against the background of the dominant economic characteristics of the crop protection industry, the driving forces of the industry will be reviewed in the following section.

3.4 DRIVING FORCES OF THE CROP PROTECTION INDUSTRY

The economic characteristic of the crop protection industry, as discussed in Section 3.3, describes the basic nature of the crop protection industry. The following review of the driving forces of the crop protection industry tries to identify those trends and

new developments that will result, or may result in changes in the industry that will require a response on a strategic level from manufacturers in the industry.

Industry conditions change because there are forces in motion that create incentives and pressures for change. These forces are classified as driving forces (Thompson and Strickland, 1999 : 85). The analysis of driving forces consists of two steps: firstly, the identification of the specific, applicable driving forces and secondly, the evaluation of their impact on the industry (Thompson and Strickland, 1999 : 89).

Although many “forces” of change may be at work in a given industry, not more than three or four are likely to qualify as “driving forces” in the sense that they will act as the major determinants of how the industry evolves and operates (Thompson and Strickland, 1999:89).

The most significant driving forces of the crop protection industry are deemed to be:

- change in the long-term industry growth rate,
- entry and exit of manufacturers,
- the impact of biotechnology on the industry,
- governmental regulatory influences on the industry, and
- the role of new product technology in the industry.

The following sections address each one of these driving forces and the anticipated impact these driving forces will have, as drivers for change, in the crop protection industry.

3.4.1 CHANGES IN THE LONG-TERM INDUSTRY GROWTH RATE

In Section 3.3.2, the analysis of the dominant economic characteristics of the crop protection industry reflected on the growth rate of the industry. The data presented indicates that the industry is in a decline phase. The influence of the “pharmaceutical companies” in shaping the crop protection industries, was discussed in detail in Section 3.2. It can be argued that an important reason resulting in “pharmaceutical

companies" divesting from the crop protection industry, centres around the limited prospects these companies see in a declining industry, like the crop protection industry, versus the rapidly expanding pharmaceutical industry, with significantly higher profit potential.

From a strategic perspective it can be expected that the market size contraction will result in increased levels of competitive rivalry between manufacturers. In order for manufacturers to maintain profitability levels productivity needs to be improved and manufacturers must endeavour to increase market share, in a profitable manner, in a shrinking market. It appears that more cost efficient distribution system management models, that would lead to improved market penetration, have a major role to play in addressing the situation.

It stands to reason that changes on a global level have a spin-off on the crop protection industry in both South Africa and Australia.

In hard currency terms, the South African market contracted, as is evident from Section 3.3.2. The added constraint in South Africa is the influx of generic products resulting in both market share position and gross margins being put under pressure. The Australian market has, however, grown in hard currency terms, due to a strengthening of the Australian dollar in 1999 as well as an expansion in agriculture. In the course of 2000 the Australian dollar, however, lost ground against the USA dollar.

The Australian crop protection industry has become, in relative terms, more attractive than it was two to three years ago. The ease of generic product registration is an added bonus from the perspective of generic manufacturers.

In summary, it can be expected that manufacturers in South Africa will, and are, forced to review the possible scaling down of their operations. The opposite is true for Australia, where manufacturers, both research-based and generic, can be viewed as being committed to strengthening their position with additional resources.

A shrinking market often causes firms to exit the specific industry (Thompson and

Strickland, 1999 : 85). The consequences of the shrinking market are discussed in the following section from the perspective of manufacturers divesting from the crop protection industry.

3.4.2 ENTRY AND EXIT OF MANUFACTURERS

A declining market, margin erosion and increased generic product pressure, can be expected to have an impact on the number of manufacturers active in the industry.

The crop protection industry has undergone major change over the last 30 years. Table 3.14 reflects this position in comparing the number of crop protection product manufacturers that constituted an estimated 80 percent of the global crop protection market in 1970. There were a total of 25 companies in 1970, in comparison to the nine companies that were responsible for approximately 80 percent of global crop protection product sales in 1996. A projection is also made as to the possible scenario at the end of 2001.

Table 3.14: Crop protection product manufacturers that accounted for approximately 80 percent of the global business in crop protection products from 1970 to 1996 and a projection for the year 2001

Rank	1970 25 Companies	1990 13 Companies	1996 9 Companies	2001 6 Companies
1.	Bayer	Ciba-Geigy	Novartis	Syngenta
2.	Ciba-Geigy	ICI	Monsanto	Aventis
3.	Shell	Bayer	Zeneca	BASF
4.	Monsanto	Rhône-Poulenc	Du Pont	Monsanto
5.	Dow	Du Pont	AgrEvo	Du Pont
6.	Du Pont	Dow Elanco	Bayer	Bayer
7.	ICI	Monsanto	Rhône-Poulenc	
8.	BASF	Hoechst	DowElanco	
9.	Rhône-Poulenc	BASF	American Home Products	
10.	Elanco	Shell		
11.	Stauffer	Schering		
12.	American Cyanamid	American Cyanamid		
13.	Hoechst	Sandoz		
14.	Roussel Uclaf			
↓				
↓				
25.				

Source: Adapted and amended from *Novartis*, 1997b : 15.

From Table 3.14 it is evident that a drastic consolidation process changed the nature of the crop protection industry. A small number of research-based manufacturers are foreseen to dominate the market in future.

A declining market, a general inability to develop new “blockbuster” type products, margin erosion due to increased generic competition and increased research funding for new product development, are some of the most important reasons for the industry consolidation that occurred.

The continued decline of the crop protection industry, a further strengthening of generic competition (in most countries) and as a consequence, a continued reduction in profitability, will impact on the industry in future, and probably lead to an even further consolidation.

The present depressed state of the crop protection industry is reflected in the number of major crop protection companies that restructured their operations in 1999 in order to reduce their cost blocks. AstraZeneca announced a major restructuring in August 1999, prior to the Novartis and AstraZeneca merger announcement (Agrow, 1999e : 1), and Cyanamid (American Home Products) reduced their global workforce by 13 percent (Agrow, 1999f : 1). Du Pont reduced the size of their workforce by 15 percent (Agrow, 1999g : 1). Dow AgroSciences reduced its 6500 strong workforce by 11 percent (Agrow, 1999h : 1). These rationalisation projects will in some cases be precursors to strategic decisions to exit the market.

The impact of research-based manufacturers that exit the crop protection industry must however be interpreted in the correct context. These companies merge with other crop protection manufacturers or are acquired by these entities. The result is not only that the applicable products stay in the market, but also that the newly formed companies have a bigger market share, more resources available and an increased portfolio strength.

In Section 3.3.7 it was shown that it would be unlikely for completely new competitors to enter the crop protection industry as “research-based manufacturers”, due to the huge investments required in research and development. From Section 3.3.4,

however, it is evident that most of the major crop protection products globally, as well as in South Africa and Australia, are in the post-patent phase.

From a strategic planning perspective, it is considered that not only will more generic players enter the crop protection industry, but also that current players will become a bigger threat for the research-based manufacturers. This contention can partially be supported by statistics on the manufacturers in the two leading generic product producing countries. India has approximately 400 crop protection product formulators and 65 major basic crop protection product manufacturers (*International Pest Control*, 1999 : 167). During 1998 exports of generic crop protection products from India were valued at US\$ 215 mio (*Asia-Pacific Chemicals*, 1999 : 25). This is expected to increase. Currently, China has the capacity to produce 750 000 tons of crop protection products annually, with an actual output per annum, on average, of 400 000 tons (*China Daily*, 1995 : 5). In 1998 more than 100 000 tons of generic crop protection products, valued at US\$ 320 mio, were exported from China (*Agrow*, 2000h : 20 and *China Chemical Reporter*, 1999 : 9).

The wide range of commodity products with big turnovers used in the crop protection industry makes it attractive for generic product manufacturers to enter the industry. The ease of market entry in specific countries will, however, be determined by local product registration policies, which differ widely from country to country. The result, in most countries, would however be that crop protection product distributors will have more sources of supply for their commodity product requirements. These distributors are therefore placed in a relatively more favourable bargaining position with their traditional suppliers, typically research-based manufacturers. This is of specific consequence in South Africa and in Australia.

The typical manufacturer of crop protection products can therefore not only expect increased competition from more formidable research-based manufacturers, due to mergers and acquisitions in the future, but also higher levels of competition from generic product manufacturers, some of which may be new players. Both these threats need to be addressed in the construction of distribution system management models, specifically in South Africa and Australia.

3.4.3 THE IMPACT OF BIOTECHNOLOGY ON THE INDUSTRY

Enhancing crops has long been the goal of plant breeders. For example, cereal grain harvests have more than doubled over the past 40 years, largely as a result of improved crop varieties and agricultural practices (Riechmann, Zhang and Broun, 1999 : 12). However, efforts to increase yields and productivity are turning from classical plant breeding techniques to biotechnology. The first genetically modified (transgenic) crops produced by the plant biotechnology industry were engineered for simple input traits, such as herbicide and insect resistance.

Crops with genetically enhanced herbicide and insect tolerance were first introduced in the USA in 1996 (Barshay, 1999 : 1). In 1999 nearly one-third of the USA maize and cotton crops were genetically modified to express *Bacillus thuringiensis* toxins for insect control. (Agrow, 1999 : 16). The global plantings of genetically modified crops have increased more than 20-fold since 1996, with more than 70 percent of genetically modified crops being grown in the USA (Agrow, 1999j : 20).

The impact of genetically modified crops on the crop protection industry is best illustrated by using the soybean market as an example. In 1999 approximately 50 percent of the USA soybean production, 14 mio hectares, was planted with glyphosate tolerant Roundup Ready soybeans (Agrow, 1999k : 15). Roundup is a broad-spectrum, non-selective herbicide, that will kill non-glyphosate tolerant soybeans. Roundup will, however, not harm soybeans that have been genetically modified to be specifically non-susceptible to Roundup. The manufacturer of Roundup, Monsanto, used to be excluded from the soybean market, given their product portfolio that lacked selective soybean herbicides that could be sprayed over the top of non-genetically engineered soybeans, without harming the crop. Biotechnology enabled Monsanto, in this example, to become the leading player in the soybean market in the USA. This success is partially reflected in a 19,7 percent increase in Roundup sales in 1999, on top of a 20 percent increase in 1998 (Agrow, 2000i : 10).

Traditionally, Cyanamid (American Home Products) was the dominant manufacturer supplying selective soybean herbicides. The Monsanto solution has however

appeared to be much more cost effective from the perspective of farmers. The end result is evident, in a decrease in the Cyanamid turnover by 56,9 percent in the third quarter of 1999 (*Agrow*, 1999i : 5).

From the preceding paragraphs, it can be stated that biotechnology will clearly impact on the future of the crop protection industry. Scott (1999 : 24) predicts that the global market for chemical crop protection products, based on value, will shrink by 0,5 percent per year through to 2003. This will be due to competition from crop protection products developed in conjunction with genetically modified crops, enabling farmers to use, for example, cheaper non-selective herbicides instead of more expensive selective herbicides, as is the case with soybeans.

The first generation of genetically modified crops, expressing input traits, have produced little, if any, benefits to consumers. This is deemed to be one of the reasons why a backlash has been seen towards biotechnology, specifically in Europe (Wrong, 1999 : 4). Why should consumers take a perceived risk if there is no benefit in it for them? The rush to get genetically modified food products on the market has resulted in mistakes, misunderstandings and calls to ban the technology (Poulter, 2000 : 13). Investor analysts are at odds over the future of genetically modified foods (Pollock, 2000 : 11).

Genetically modified crops projected for introduction over the next five years is predicted to offer at least 20 new input traits and an equal number of output traits, such as increased yield and nutritional quality (*Agrow*, 1999j : 20). The question still remains whether consumers will ultimately accept biotechnology.

Biotechnology has already impacted significantly on the fortunes of some crop protection manufacturers, resulting in a change in the competitive positions of crop protection product manufacturers. Although the future of biotechnology in agriculture remains shrouded in controversy, the opinion is held that given the compelling advantage biotechnology brings to agriculture, the technology will ultimately be accepted. Furthermore, the view is held that crop protection product manufacturers have to be geared to be players in the biotechnology arena. From interaction with distributors, the message can be conveyed that distributors want to be linked to

manufacturers that can ultimately give them access to specifically biotechnology engineered seeds to include in their product offer.

3.4.4 GOVERNMENTAL REGULATORY INFLUENCES ON THE INDUSTRY

For crop protection products to be used by farmers, these products have to be registered for use by the applicable government authority in the specific country. The respective product registration policy followed by these authorities determines which products are available for use by farmers.

With the general move to safer, more environmentally sound products, a number of "old" products have been de-registered in numerous countries. These actions can create opportunities for manufacturers that market modern, and in most cases, patented products.

In the UK 38 active ingredients are under review by the registration authorities. Many of these products will be de-registered (*Agrow*, 2000 j : 7). A similar process is being followed in the USA, with a review of all active ingredients registered in the USA prior to 1995 (*Agrow*, 2000 k : 10). In the Netherlands 23 active ingredients were banned in 1999 (*Agrow*, 1999 m : 11). The European Commission, responsible in future for product registrations in the European Union, announced in 1999 that all crop protection product manufacturers will have to submit complete toxicological dossiers on all existing active ingredients used in crop protection products by 2003, or face the withdrawal of products from use in the European Union (*Agrow*, 1999n : 7). The impact of this European Union directive in practice is reflected in an announcement by Bayer of plans to drop approximately 40 registrations, of the approximately 60 active ingredients they have in Europe, rather than incur the costs of re-registration of the active ingredients (*Agrow*, 2000 l : 1).

The de-registration of crop protection products therefore, not only creates opportunities for research-based manufacturers that can introduce new products to fill the voids left, but will also result in generic product manufacturers being denied access to these markets with some of their products, due to de-registration of some of the older chemistry. Furthermore, the cost of doing business in specifically the

USA and Europe will increase even further for generic manufacturers. These companies need to support their product registration applications with comprehensive toxicological support dossiers.

In countries like South Africa and Australia, the ease of product registration results in a glut of generic product registrations. Generic manufacturers are not required to submit their own toxicological dossiers, but can simply refer to the dossier submitted by the manufacturer that originally registered the specific product. The barrier of entry is significantly lower than what is the case in the USA and Europe. The South African and Australian authorities have also not been as active as their counterparts in the USA and Europe to phase out old chemistry.

The inevitable result is that in South Africa and in Australia distributors have a wider overall portfolio of products available in the industry, but also more manufacturers from which these products can be sourced. Strategic planning needs to assume that generic product pressure will increase in future, based on current regulatory policies.

3.4.5 THE ROLE OF NEW PRODUCT TECHNOLOGY IN THE INDUSTRY

Although the global market for crop protection products is declining and the market share of generic products is on the increase, manufacturers with innovative new products are still able to increase sales and market penetration significantly. In the crop protection industry, opportunities remain attractive for manufacturers that manage to develop new products that are more effective than the older chemistry.

BASF posted a 18,4 percent increase in sales in 1998 on the back of two novel patented fungicides (*Chemical Market Reporter*, 1999 : 16). A new class of fungicides captured a 33 percent share of the sizeable UK cereal fungicide market in 1999 (*Agrow*, 1999o : 14). Bayer has seen a remarkable improvement in their business performance, based on one new active ingredient, introduced in the mid 1990's (*Chemical Market Reporter*, 1999 : 16).

Crop protection product distributors see novel patented products as an opportunity for them to differentiate their portfolio offer to farmers from that of their competitors

who might not have access to the specific products. Unique, patented, sought-after products can be seen to strengthen the bargaining power of manufacturers when they interface with distributors. Manufacturers should also consider bundling sought-after, innovative products with commodity products, in order to leverage distributor support for the full product range of the manufacturer.

3.4.6 SUMMARY OF DRIVING FORCES IN THE CROP PROTECTION INDUSTRY

The decline in the size of the crop protection industry puts pressure on manufacturers to maintain historic levels of profitability and calls for increased productivity and deeper market penetration in order to maintain previous levels of profitability.

The number of research-based manufacturers has declined rapidly over the course of the last 20-30 years. The remaining research-based manufacturers however are formidable competitors with strong market share positions, extensive product portfolios and the required critical mass to spend heavily on research and development. Over the same period, the levels of generic product pressure increased drastically, given the rapid entry into the industry of generic product manufacturers. These manufacturers are expected to increase their market position in future at the expense of the research-based companies.

The introduction of biotechnology into the crop protection industry resulted in drastic changes to the industry, specifically the product use patterns. Although the acceptance of biotechnology engineered foodstuff still remains a debated subject, manufacturers and distributors in the crop protection industry need to plan their future strategies on the assumption that this technology will ultimately be accepted by consumers.

The role of governmental regulatory authorities is to determine which active ingredients (products) can be marketed in a specific country. From the perspective of a research-based manufacturer, this relates primarily to the ease of market access for generic product manufacturers. In countries like South Africa and Australia, the

present regulatory policies resulted in a rapid increase in generic product registrations. This is expected to increase further in future.

Despite the seemingly numerous negative forces impacting on the fortunes of research-based manufacturers, there is still a captive market for new innovative products that can address unmet farmer needs. Manufacturers that are successful in developing these products will be able to significantly improve their distribution channel power base.

In the following section, the five forces model of Porter (1980 : 22-23) will be used to analyse the competitive situation in the crop protection industry.

3.5 THE COMPETITIVE SITUATION IN THE CROP PROTECTION INDUSTRY

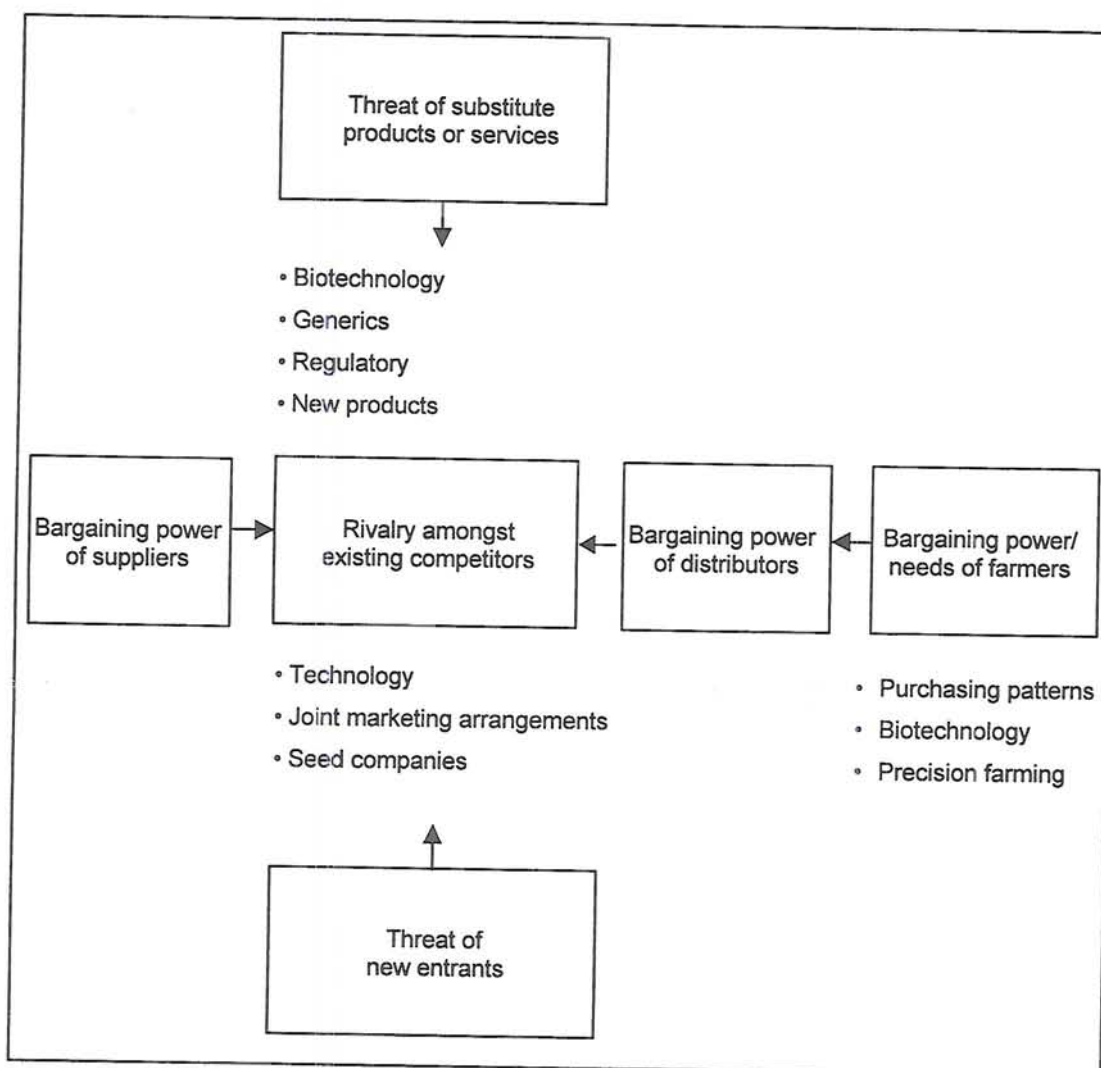
In Section 3.4 the driving forces of the crop protection industry and their impact on the industry, were discussed. These forces are deemed to be the forces, or trends, that will result in structural change in the industry over time.

Porter (1980 : 22-23) identified five forces that determine the intrinsic, or fundamental, long-run profit attractiveness of an industry. The Five Forces Model is used to systematically diagnose the principal competitive pressures in an industry, in order to gain an insight into the industry's unique set of competitive characteristics (Thompson and Strickland, 1999 : 73).

3.5.1 MODEL FOR THE ANALYSIS OF COMPETITIVE FORCES

The Porter-model (1980) will be used as the basis for the analysis of the competitive forces in the crop protection industry. This model was adapted by Porter for a presentation to Novartis management (Porter, 1998 : 8). Table 3.15 depicts the competitive situation in the crop protection industry.

Table 3.15: The competitive situation in the crop protection industry, based on the Five Forces Model



Source: Adapted from Porter, 1998 : 8.

3.5.1.1 THREAT OF SUBSTITUTE PRODUCTS

The substitution of the present product portfolio used in the crop protection industry can come from several sources.

In Section 3.4.3 biotechnology was discussed as a driving force in the crop protection industry. Genetically modified plants producing toxins with insecticidal properties can lead to farmers not having to use the same number of insecticide

sprays. Traditional insecticides can be rendered obsolete, resulting in a decline in market value from the perspective of a crop protection product manufacturer. As was described in Section 3.4.3, the introduction of Roundup Ready crops reduced the profitability of manufacturers that sold selective herbicides into the specific crops. Genetically modified plants can therefore in effect reduce the size of the crop protection industry.

The introduction of generic products to compete head-on with the products from the originator, normally soon after patent expiry, results in price competition that can drastically impact on the profitability of the company that sold the initially patented product. Once again, value is abstracted from the crop protection industry.

The role of regulatory authorities received attention in Section 3.4.4. Current developments in international regulatory procedures (an example being the Food and Health Organisation's Prior Informed Consent) will lead to increasing regulatory measures addressing active substances and specific formulations with risks to human health and the environment. The impact of this on the industry in general is that some of the "older" products that are perceived to be hazardous to the environment and humans will systemically be de-registered. This has a twofold impact. The first being that the banning of products opens up new opportunities for new chemistry, but at the same time limits the scope for generic companies. This is already evident in the USA and Europe, where the generic companies have relatively small market share positions due to the strict regulatory environment compared to third world countries.

New substitute products can also have a drastic impact on the profitability of a manufacturer, or even the value that can be extracted from a specific sub-market. One of two recent examples is the product from Bayer (Gaucho) that changed the chemical seed treatment drastically due to the radical improvement in efficacy obtained from seed treatment insecticides. From Table 3.9 it is evident that Bayer generated US\$ 425 mio revenue from Gaucho (imidachlorprid) in 1998. The second example was the new class of fungicide chemistry from BASF (Strobi) that captured a 40 percent market share in the German cereal fungicide market in the first year of introduction.

Although new substitute product introductions can have a marked impact on industry profitability levels, new competitors entering the market also need to be debated as a force that can impact on profitability. This receives attention in the following section.

3.5.1.2 THREAT OF NEW ENTRANTS

In the review of the driving forces of the crop protection industry, it was postulated that it is unlikely that additional “research-based” crop protection product manufacturers will enter the industry, due to the huge research and development investment that would be required (Section 3.4.2). It can therefore be surmised that it is unlikely that the entry of new research-based manufacturers will impact on the overall profitability in the crop protection industry. Additional competition from this source, putting margins under pressure, is therefore not foreseen.

The discussion on the generic companies in the industry (Section 3.4.2) clearly reflects the view that these manufacturers have the ability to subtract significant value from the crop protection industry, by introducing generic products that are aggressively priced in order to gain market penetration.

As discussed in Section 3.4.3, seed companies selling seed with “built-in insecticides” can be seen as non-traditional players in the crop protection industry, indirectly becoming “crop protection entities” and subtracting value from the crop protection industry.

3.5.1.3 BARGAINING POWER OF THE CROP PROTECTION PRODUCT DISTRIBUTORS

Biotechnology will trigger changes in the composition of distribution channels. Conflict can be expected to develop with seed distributors now entering the field of the crop protection chemical product distributors by offering seeds that also offer resistance to insects for example. In other words, they have an “inbuilt insecticide”.

Distributors will place increased pressure on the crop protection industry. On the one

hand distributors are engaged in cut-throat competition and trying to maintain their profit margins, whilst crop protection product manufacturers are offering increased margins and segmentation offers in an effort to retain or gain market share.

The reduction in the number of sought after products in the patented period in the portfolio of the typical crop protection product manufacturer, results in a shift of power in favour of the distributors. A logical consequence is that pricing issues become more evident, with manufacturers having to compete on price with generic product manufacturers and the end result being a decrease in the profitability of manufacturers.

3.5.1.4 BARGAINING POWER OF THE FARMER

The bargaining power of the farmer will increase, due to the situation that more sources of information are available, leading to more scientific-based purchase decisions. Farmers are also generally growing in size, leading to an increase in purchasing power and negotiation power. Once again these are forces that impact negatively on industry profitability.

The first parameter for the farmer's choice will remain the technical differences between products. The perception of technical differences among products will, however, become narrower, leading to product selection being based to a greater extent on factors like price, convenience, service, environmental safety and company reputation.

The introduction of biotechnology and precision farming is resulting in changing farmer needs and requirements.

3.5.1.5 BARGAINING POWER OF SUPPLIERS

The drastic consolidation that has occurred in the crop protection industry over approximately the last 20-30 years, as depicted in Section 3.4.2, has drastically weakened the bargaining power of the companies that supply the crop protection product manufacturers with inputs in the product production process. Given good

management practices, manufacturers should have been able to decrease product cost.

3.5.1.6 RIVALRY AMONGST EXISTING COMPETITORS

Thompson and Strickland (1999:76-77) provides a number of factors that they deem indicate the extent of rivalry among competing “sellers”:

“Rivalry intensifies as the number of competitors increases and as competitors become more equal in size and capability”.

- The number of specifically generic product manufacturers are increasing, leading to an increase in the level of rivalry.

“Rivalry is usually stronger when demand for the product is growing slowly”.

- As indicated, the market for crop protection products is declining, leading to an expected increase in the level of rivalry.

“Rivalry is more intense when industry conditions tempt competitors to use price cuts or other competitive weapons to boost unit volume”.

- Aggressive pricing is a common measure used in the crop protection industry to stimulate volume sales growth.

“Rivalry is stronger when customer’s cost to switch brands are low”.

- Both distributors and farmers incur no switching cost when a product from one manufacturer is replaced by that of another manufacturer.

Based on the comparison between the reality in the crop protection industry and the factors for the measurement of the levels of rivalry, the conclusion may be reached that the crop protection industry has high levels of rivalry.

3.5.2 SUMMARY OF COMPETITIVE FORCES

Product substitution emanates from different sources being generic product substitution, new biotechnology solutions and the introduction of novel chemistry. These substitutions impact on industry profitability. The impact of substitute products is deemed to be “high”.

Major new research-based manufacturers entering the market is unlikely, but the continued entry of new players offering generic products will continue to erode industry profitability. The impact of new research-based manufacturers entering the market is deemed to be “low”.

The above competitive forces and the previously discussed driving forces, result in an increase in the bargaining power of crop protection product distributors, placing further pressure on manufacturers to maintain historic product margins. The bargaining power of distributors is classified as “medium” to “high”.

With farmers getting increasingly bigger and having more purchasing power they are also seen as a competitive force placing pressure on margins. This force can be classified as being “medium”.

The bargaining power of suppliers to manufacturers is perceived to have decreased, enabling manufacturers to decrease product cost, due to more competitively priced inputs. A classification of “weak” is appropriate.

Rivalry is believed to have increased due to less, although more formidable, research-based companies and an increased number of generic product manufacturers competing in a declining industry. Rivalry, as an identified force, is considered to be “high”.

Against the background of the dominant economic characteristics, the driving forces and the competitive forces of the crop protection industry, the attractiveness and prospects for the crop protection industry are discussed in Section 3.6.

3.6 ATTRACTIVENESS AND PROSPECTS FOR THE CROP PROTECTION INDUSTRY

According to Thompson and Strickland (1999 : 84) the competitive structure of an industry is clearly “unattractive” from a profit-making standpoint, if rivalry amongst sellers (manufacturers) is strong, entry barriers are low, competition from substitutes is strong, and both suppliers and customers (distributors) are able to exercise considerable bargaining leverage.

In the analysis of the crop protection industry, rivalry amongst manufacturers was considered to be high. Entry barriers for new research-based manufacturers are considered to be very high, but entry barriers for generic manufacturers are deemed to be weak in countries like South Africa and Australia. Specifically, pressure from generic product manufacturer sources results in a high level of competition from substitute products. Finally, the bargaining power of distributors is considerable and apparently increasing.

The situation of the crop protection industry is therefore summarised as not being attractive, given the strength of the above-mentioned competitive forces. The future profitability prospects derived from the crop protection industry are considered to be in a declining phase, given an anticipated strengthening of the competitive forces as assessed in Section 3.5. The competitive position of the major manufacturers will subsequently be reviewed in Section 3.7.

3.7 COMPETITIVE POSITION OF MAJOR MANUFACTURERS

One way of examining the competitive structure of an industry is to study the market position of major rival manufacturers. Strategic group mapping can be used for this purpose (Thompson and Strickland, 1999:90-93).

From the preceding sections aspects such as turnover, market share, portfolio width, new product technology, biotechnology and seed as the “carrier” of biotechnology have been discussed. In Figure 3.1 a group map is presented in an endeavour to plot the major 13 global manufacturers of crop protection products. The underlining

approach has been that a company with a strong market share, a wide product portfolio, an attractive pipeline of new products (“chemical products”), a strong position in seeds and a significant investment in biotechnology research is the best positioned from a competitive perspective to meet the challenges of the future.

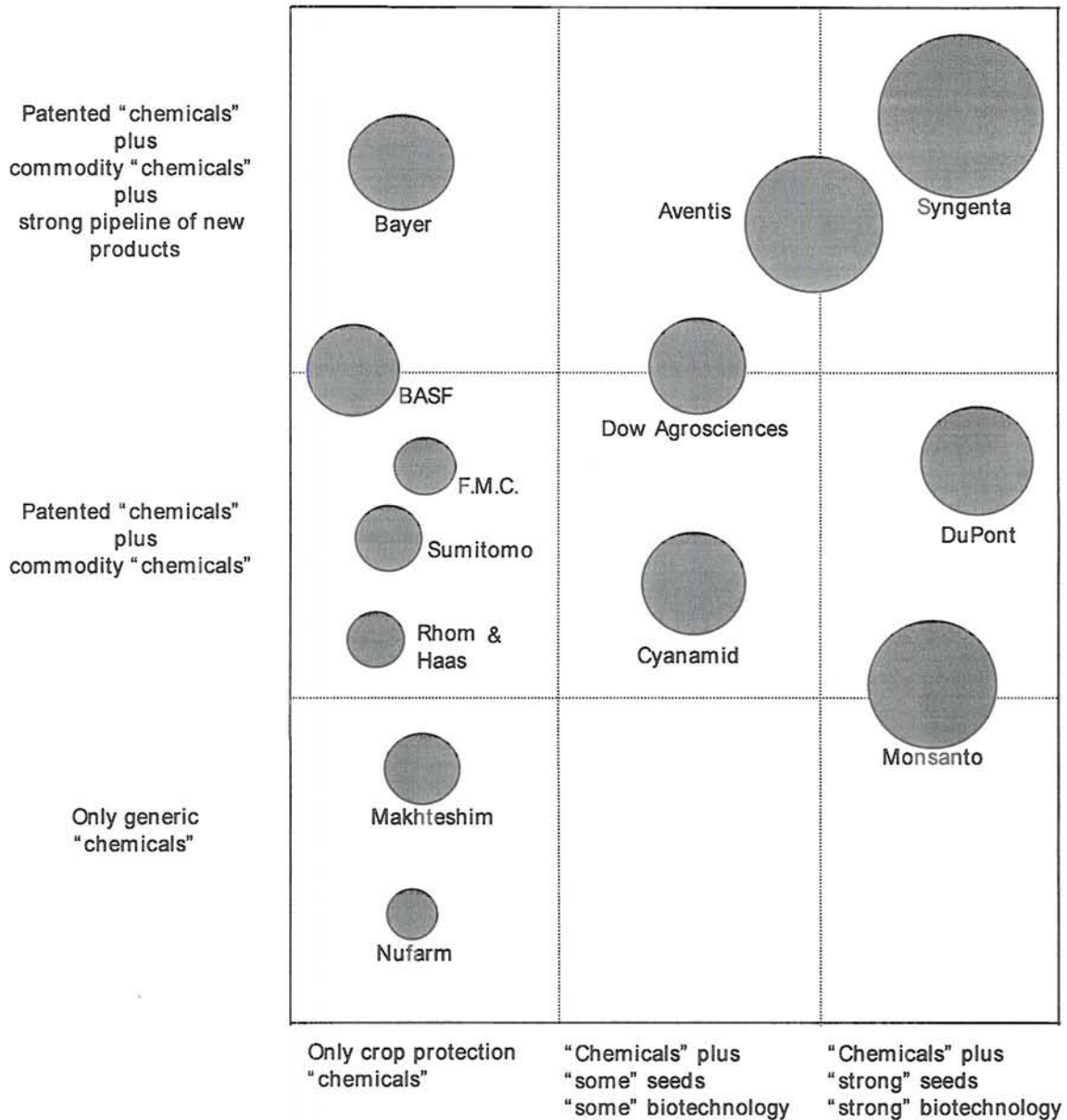


Figure 3.1: Strategic group map of manufacturing competitors in the crop protection industry

From Figure 3.1 a clear distinction is evident between those companies that (i) only focus on crop protection products (“chemicals”); (ii) are generic product producing companies, being Makhteshim and Nufarm; and (iii) are on the other extreme of the

grid with activities in crop protection products, seeds and biotechnology.

3.8 EXPECTED COMPETITOR MOVES

Using specifically Sections 3.4.2 and 3.7 as reference, expected competitor moves can be listed as follows:

- The merger of AgrEvo and Rhône-Poulenc catapulted the new company, Aventis, to the number one spot with the formation of Aventis in January 2000.
- The merger of Novartis and Zeneca by the end of 2000 to form Syngenta is seen as a strategic move by Novartis to regain the number one spot from Aventis.
- Monsanto is faced with the predicament that the backlash against biotechnology and their heavy investment in biotechnology resulted in the company unable to recoup the investment they made in biotechnology over the short-term. They have a product portfolio of commodity products without any significant pipeline of “chemical” products. Monsanto is vulnerable to a takeover bid from the likes of Bayer and Dow AgroSciences.
- The formation of Aventis and Syngenta forced BASF, Bayer, Dow AgroSciences and DuPont to investigate ways to “catch up”.
- The purchase of Cyanamid (American Home Products) by BASF illustrates the strategy to maintain critical mass. BASF, Bayer and Dow AgroSciences competed in a bidding war to purchase Cyanamid (Petersen, 2000:2).
- It is expected that Bayer, DuPont and Dow AgroSciences will continue to look at possible acquisitions, or mergers, to improve their critical mass in relation to Aventis, BASF and Syngenta. See Table 3.6.
- A number of “small” research-based manufacturers like Sumitomo, F.M.C., Uniroyal and Rohm and Haas have turnovers that will constitute less than 10 percent of that of Syngenta. These companies will be expected to follow niche strategies or ultimately be sold to the bigger players.

It is therefore foreseen that competitive moves will be focused on the maintenance of critical mass in order to have sufficient resources available to sustain a product research and development program that would hopefully result in a steady stream of

patented new technology.

3.9 KEY SUCCESS FACTORS FOR A RESEARCH-BASED MANUFACTURER OF CROP PROTECTION PRODUCTS

Key success factors are the major icons of financial and competitive success in a particular industry. Key success factors highlight the things all firms in the industry must pay close attention to as benchmarks. These are factors with specific outcomes crucial to success in the market place, and the functional skills with the most direct bearing on company profitability (Thompson and Strickland, 1999:96).

Firstly, research-based manufacturers will have to address their respective operating cost blocks, due to an increased competitive environment. Profitability is under threat and more productive ways need to be identified to conduct business.

Secondly, product portfolio strength is extremely important, due to the technical nature of farmer requirements. This entails heavy spending on research and development, in order to continuously add new patented products to the present portfolio. Given the present impact and anticipated future impact of biotechnology, investment in this area is required to ensure that product portfolios will fit the altered technology environment that calls for new product solutions. The ageing of the product portfolios of the research-based companies in general, requires effective post-patent strategies for applicable products, to counter the increasing threat of generic substitution that erodes both margins and market penetration positions.

Thirdly, a truly marketing orientated approach is required. Having "lost" the traditional power of strong, largely patented product portfolios, forces research-based product manufacturers to move rapidly from a production orientation to a sound marketing approach, given the increased competition from bigger, and more powerful, research-based competitors and an increased number of generic competitors.

Finally, distribution system management needs to be seen as a key factor to success. The channel power has shifted dramatically towards distributors that have a large number of potential sources for their product requirements. Research-based

product manufacturers have to gain a better understanding of the requirements and needs of distributors, in order to design and deliver augmented product and support packages that will lead to a clearly differentiated product offer. Creating demand at farmer level also requires attention, in order to dilute the power of the distributors.

3.10 SUMMARY

The crop protection industry is an approximately US\$ 28 000 mio industry, dominated by 10 multi-national research-based companies that evolved from a process of drastic consolidation in the industry over a number of years. The consolidation process is expected to continue.

Generic manufacturers of crop protection products are increasingly becoming a bigger threat for research-based companies, given a situation where most of the leading active ingredients (products) globally are in the post-patent era. This has created opportunities for the generic product manufacturers, specifically in countries with low barriers of entry for generic product copies, due to the ease of generic product registration. This is especially applicable to countries such as South Africa and Australia.

An analysis of the relevant driving forces of the crop protection industry, identifies the declining growth rate of the industry, the impact of biotechnology, regulatory influences, entry and exit of competitors and new product technology, as important drivers.

The review of the competitive forces of the industry points to an industry with an increasingly competitive nature, with the resulting negative impact on fundamental profitability for most of the industry players.

Success for the research-based product manufacturers hinge on the ability to continuously augment product portfolios with new products (new technology) and to have effective post-patent strategies in place, as a defence against generic pressure.

The level of “channel power” of distributors has increased, mainly as a result of

numerous sources of potential product supply. This calls for a critical analysis by research-based product manufacturers of present distribution system models.

In the following chapter, Chapter 4, a company situation analysis will be done of Novartis in South Africa and Novartis in Australia. Whereas Chapter 3 focused on the assessment of the company's external environment (macro-environment), Chapter 4 examines the company's internal environment (micro-environment).

Part I
Introduction, background, aims and framework of the study

Part II
Industry and competitive analysis of the global crop protection industry
Chapter 3
An analysis of the global crop protection industry and the competitive situation
Chapter 4
Company situation analysis – Novartis South Africa and Novartis Australia

Part III
Crop protection distribution systems in selected countries

Part IV
Problem statement – management problems of crop protection distribution systems in South Africa and Australia.

Part V
Research methodology - literature research and primary research regarding distribution system management

Part VI
Distribution system management models for the crop protection industry in South Africa and Australia

Part VII
Summary, conclusions and recommendations

CHAPTER 4

COMPANY SITUATION ANALYSIS – NOVARTIS SOUTH AFRICA AND NOVARTIS AUSTRALIA

4.1 INTRODUCTION

In Chapter 3 an industry and competitive analysis assessed the fundamental attractiveness of the external environment of crop protection product manufacturers. The purpose of Chapter 4 is to evaluate the company situation analysis for Novartis South Africa and Novartis Australia as typical research-based product manufacturers. A company situation analysis examines the internal situation, or internal environment, of the entity in question as it stands in relation to its external environment.

A company situation analysis revolves around five questions (Thompson and Strickland, 1999 : 103):

- How well is the present strategy working?
- What are the company's strengths, weaknesses, opportunities and threats?
- Is the company competitive on cost?
- How strong is the company's competitive position?
- What strategic issues does the company face?

These questions will be addressed for the Novartis organisations operating in both South Africa and in Australia. In Section 4.2 Novartis South Africa will be analysed, whereas Novartis Australia will be the focus in Section 4.3.

4.2 COMPANY SITUATION ANALYSIS FOR NOVARTIS SOUTH AFRICA

The company situation analysis for Novartis South Africa will be performed using a strategic performance indicator analysis, a SWOT analysis, a competitive strength assessment and ultimately the identification of strategic issues.

4.2.1 STRATEGIC PERFORMANCE INDICATORS

Table 4.1 provides a summary of the most important strategic performance indicators for Novartis South Africa that are relevant to a company situation analysis.

Table 4.1: Performance measurement statistics for Novartis South Africa

Performance measurements (figures in Rand mio)	1998	1999	2000
Sales (Rand)	217	216	221
Sales growth (percentage) on previous year	8	-1	2
Market size	850	850	890
Growth in market size (percentage)	0,5	0,0	0,5
Market share	25,5	25,5	25
Exchange rate (South African Rand to Swiss Franc)	0,25	0,25	0,21
Sales (Swiss Franc)	54,8	53,5	46,4
Function costs:	27,0	27,8	27,4
• Research and development	7,1	7,6	7,2
• Marketing and distribution	16,1	14,9	15,5
• Administration	3,8	5,3	4,7
Function cost to sales (percentage)	12,4	12,8	12,4
Operating interest	23,5	28,7	20,5
Months inventory cover	5,1	6,1	4,9
Average receivables	84,8	97,0	89,2
Headcount	102	102	101
Sales per employee	2,12	2,12	2,16

From Table 4.1 some of the most important indicators will be addressed in the following paragraphs as well as the reasons for these trends.

The sales of Novartis South Africa increased rapidly over the last number of years, from R130 mio in 1995 to R201 mio in 1997. The sales of R216 mio in 1999 reflects stagnation, if compared to the actual 1998 figure of R217 mio. The increase in turnover during the last five years can be attributed to a number of new product

introductions and the support enjoyed from affiliated distributors. The apparent stagnation at present, needs to be viewed against the background of a very strong market share position of 25 percent, making further growth difficult. The Novartis South Africa market share is substantial and well above the global market share of Novartis of 13.5 percent. Apart from being a reflection of the good fit the Novartis portfolio has in South Africa, it also serves as an indicator of high levels of distributor backing in promoting the Novartis range.

The Rand versus Swiss Franc exchange rate is presented in Table 4.1. Novartis, being a Swiss company requires that all financial data be consolidated in Swiss Francs. Over the last ten years the value of the Rand has depreciated by 60 percent against the Swiss Franc. It stands to reason that this trend places tremendous pressure on management to maintain Swiss Franc based profit contributions. Although the Rand remained stable over the 1998-1999 period, Table 4.1 reflects a further decline in 2000. The impact of exchange rate developments is partially illustrated with the Swiss Franc turnover figures presented in Table 4.1.

The only way to maintain Swiss Franc based profit contributions calls for rapid turnover growth, at constant resource allocations, or a decrease in the cost block. Table 4.1 indicates a reduction in the cost block for 2000.

Efforts to increase profitability levels by focussing on the management of current assets is evident if the 2000 figures are analysed. The average level of receivables deteriorated from 1998 to 1999 as a reflection of better trading arrangements granted to distributors.

Gross profit margins have not been provided in Table 4.1 due to the confidentiality thereof. Gross margins have however declined, mainly due to generic product competition that called for more aggressive pricing policies. A further decline is catered for in the 2001 budget.

In summary, therefore, the analysis of the performance measurement statistics for Novartis South Africa indicates an excellent market share position but stagnant growth and a reduction in Swiss Franc profit contribution. Actions to reduce the cost

block are evident from the 2000 results, as are measures to reduce working capital.

Due to the importance of a crop protection product manufacturer having a strong product portfolio, this aspect is deemed to be an import component of a competitive analysis of Novartis South Africa. To some extent, it can be argued that the performance measurement statistics are a reflection of the relevant company's portfolio strength in the crop protection industry. Table 4.2 provides a ranking of the top 20 products in the Novartis South Africa product portfolio.

Table 4.2: Ranking of Novartis South Africa's product portfolio, based on profit contribution

Rank	Active ingredient(s)	Product name	Patented
1.	Metolachlor	Dual	No
2.	Metalaxyl	Ridomil	No
3.	Clodinafop	Topik	Yes
4.	atrazine, terbuthylazine and metolachlor	Gardomil	No
5.	metolachlor and flumetsulam	Bateleaur	Yes
6.	Difenoconazole	Score	Yes
7.	Penconazole	Topaz	Yes
8.	Propiconazole	Tilt	No
9.	atrazine and terbuthylazine	Gesaprim S	No
10.	Profenofos	Curacron	No
11.	Halosulfuron	Servian	Yes
12.	atrazine and metolachlor	Primagram	No
13.	Pyrifenox	Dorado	Yes
14.	Atrazine	Gesaprim	No
15.	Cyromazine	Patron	No
16.	high-cis-cypermethrin	Fenom	No
17.	Q-grade profenofos	Selecron	No
18.	Ametryn	Gesapax	No
19.	Bromopropylate	Acarol	No
20.	Cyproconazole	Alto	Yes

Source: *Impact*. 1999a : 5.

The 20 active ingredients (products) listed in Table 4.2 represent 87 percent of the gross margin generated by Novartis South Africa. Having seven patented active ingredients in this portfolio puts Novartis South Africa in a relatively favourable position to muster distributor support. The other perspective, however, is that there

are also a significant number of active ingredients that will attract generic manufacturer attention.

Using the performance measurement statistics in this section as a background, the following section addresses the SWOT analysis of Novartis South Africa.

4.2.2 SWOT ANALYSIS

According to Thompson and Strickland (1999 : 105), a SWOT analysis provides a good overview of whether a company's business position is fundamentally healthy or unhealthy. A SWOT analysis is grounded in the basic principle that strategy-making efforts must aim at producing a good fit between a company's resource capability and external position. A SWOT analysis for Novartis South Africa is presented in Table 4.3.

Table 4.3: SWOT analysis for Novartis South Africa

Strengths	Weaknesses
<ul style="list-style-type: none"> • Broad portfolio • Range of pipeline products • Strong field sales force • Strong product development capability • Excellent company reputation • Low cost base • Good quality products • Well branded products • Good levels of distribution channel control • Good contact with leading farmers 	<ul style="list-style-type: none"> • Dependence on commodity products • Post patent strategies • Market information inadequate • Receivables too high • Average stock holding too high • Budgeting of product volume requirement not accurate enough
Opportunities	Threats
<ul style="list-style-type: none"> • Pipeline product introduction • Seed treatment market • Even closer linkages with aligned distributors • Strategic alliances with generic product supplier companies • Close cooperation with agricultural produce exporting bodies 	<ul style="list-style-type: none"> • Increased generic pressure • Loss of control over Novartis affiliated distributors • Reduction in value of the Rand versus the Swiss Franc • Ease of generic product registration • Sanachem (Dow AgroSciences) as an aggressive generic product supplier • Loss of farmer buying power due to less government support to agriculture

Using Table 4.3 as background, a number of important implications can be listed.

Potential strategic actions, based on the SWOT analysis, can be identified as follows:

Strength and opportunity strategies:

- The broad portfolio and introduction of a range of new products, creates opportunities for growth.
- Product portfolio strength, present and future, provides a strong platform for closer linkages with distributors.
- The strong field sales force and excellent company reputation, further enhances opportunities for securing distribution linkages.
- A strong market share position, coupled to the strong portfolio, can be used to leverage arrangements with generic product manufacturers to maintain market stability.

Strengths and threats analysis:

- Portfolio strength, market share strength, new products being developed, and strong field sales force support, should be leveraged to develop strategies aimed at ensuring that the present level of distribution channel control is maintained, or even increased.
- The strong position of Novartis at present, should be used to investigate ways to change the way business is being conducted in order to reduce exposure to exchange rate fluctuations by using distribution management systems with reduced fixed cost elements, if possible and feasible.

Weaknesses and threats:

- Loss of control over the Novartis affiliated distributors, will result in significant loss of market share, specifically for the range of commodity products in the Novartis portfolio.

Weakness and opportunity strategies:

- The introduction of new products should result in a lessening of the dependence on commodity products.
- Post patent strategies for active ingredients (products) should address the possibility of entering into alliances with generic manufacturers with a view to limiting generic product growth.

The SWOT analysis highlights the strong position of Novartis South Africa. The challenge is to secure distribution channels and to limit the impact of generic manufacturers. The identified strengths of Novartis South Africa, provides the company with the means to address the challenges, as indicated.

The competitive strength assessment of Novartis South Africa is the focus of the following section.

4.2.3 COMPETITIVE STRENGTH ASSESSMENT OF NOVARTIS SOUTH AFRICA

The most telling way to determine how strongly a company holds its competitive position, is to quantitatively assess whether the company is stronger or weaker than close rivals, on each of the industry's key success factors, each being a pertinent indicator of competitive capability and potential competitive advantage (Thompson and Strickland, 1999 : 127).

The competitive strength assessment of Novartis South Africa is presented in Table 4.4. The identified key success factors are based on factors identified in Section 3.9 (page 69). The manufacturers used for the comparison are taken from Table 3.7, (page 37) in which the leading ten manufacturers of crop protection products in South Africa were ranked. Weights have been assigned to each of the key success factors to indicate their relative importance. Weighted strength ratings are calculated by multiplying the rating on each strength by the assigned weight. The scale used to rate each key success factor was an allocation of one point for "very weak" and ten points for "very strong".

Table 4.4: Competitive strength assessment of major crop protection product manufacturers in South Africa

	Key Success factors	Weight	Novartis	Aventis	Bayer	Dow AgroSciences	Zeneca	DuPont	Monsanto	Cyanamid	BASF	Makteshim
1	Low operating cost block	10	60	50	50	40	60	90	80	70	100	100
2	Spending on research for new patented products	20	160	200	120	100	120	120	80	80	100	40
3	Distribution channel power	10	100	70	80	80	70	60	50	30	30	30
4	Width of product portfolio	15	105	120	120	150	90	60	45	60	45	75
5	Patented products in current portfolio	10	100	80	80	50	70	50	30	40	30	10
6	Marketing orientated manufacturer	10	100	80	100	60	80	60	60	50	40	30
7	Field sales force size and effectiveness	20	180	160	200	180	140	120	120	80	40	20
8	Creating farmer pull action	5	50	45	50	20	35	30	25	10	5	5
	Total	100	855	805	800	680	665	590	490	420	390	310

Table 4.4 provides a competitive strength assessment of the leading manufacturers in South Africa. Novartis South Africa received the highest rating. This is in essence a result based on a well-balanced portfolio, a dedicated distribution alliance with distributors, a strong field sales force and a strong marketing philosophy in the company. Using Table 4.4 as a reference, the relative strong position of Bayer and Aventis indicates formidable competition from these research-based companies. The Dow AgroSciences group includes the generic company Sanachem, providing Dow AgroSciences with an impressive product portfolio with a significant number of generic product registrations covering most of the major commodity products of the research-based manufacturers listed in Table 4.4.

Based on the competitive strength assessment (Table 4.4) and the turnover, coupled with market share data for the major manufacturers in South Africa (Table 3.7, page 37), a group map for the major manufacturers in South Africa is provided in Figure 4.1.

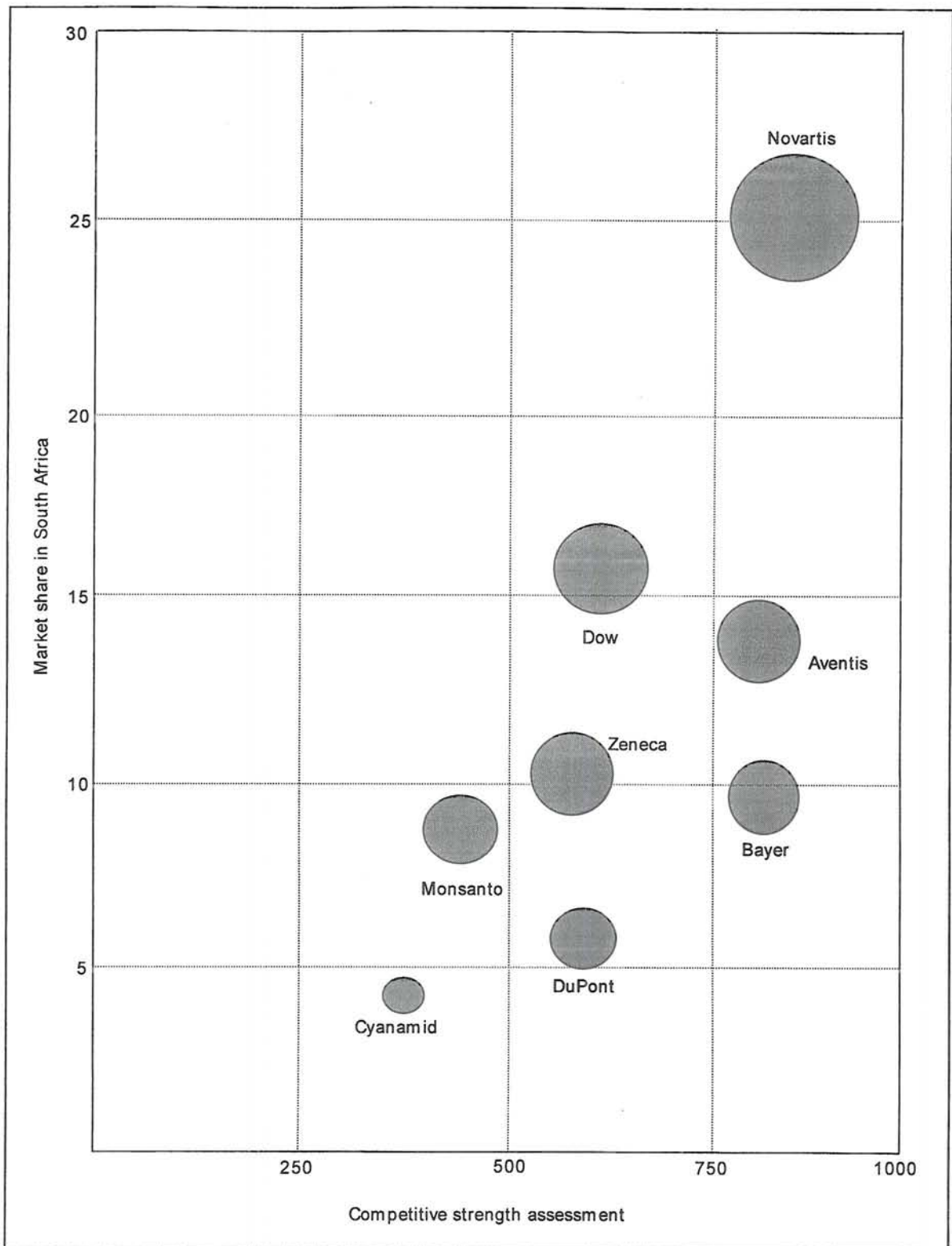


Figure 4.1: Group map of major manufacturing competitors in South Africa

From Figure 4.1 the relative competitive position of the major crop protection product manufacturers is evident.

4.2.4 CONCLUSIONS CONCERNING THE COMPETITIVE POSITION OF NOVARTIS SOUTH AFRICA

Novartis South Africa is in a very favourable competitive position in relation to major competitors. The level of control currently enjoyed by Novartis South Africa over the affiliated distributors is deemed to be the backbone of the success enjoyed by Novartis in South Africa.

The merger of Rhône-Poulenc and AgrEvo to create Aventis, resulted in a formidable new opponent for Novartis in South Africa. Likewise, the purchase of Cyanamid by BASF results in a significant strengthening of BASF that will have impact on the market from 2001. The formation of Syngenta by combining Novartis and Zeneca in South Africa will occur in 2001.

The challenge for Novartis South Africa is to address the question of what must be done in order to maintain the strong competitive position. Using this approach, the major strategic issues facing Novartis South Africa are addressed in the following section. An issue is defined as a condition, tension or burning question, internal or external, real or perceived, which will have a significant positive or negative effect on the future performance of Novartis.

4.2.5 MAJOR STRATEGIC ISSUES AND PROBLEMS FACING NOVARTIS SOUTH AFRICA

The major issue Novartis South Africa has to address is what strategies should be designed in order to maintain the strong level of control of affiliated distributors.

Competitors can entice distributors to convert to supporting them if they have a perceived better product portfolio compared to others. The first issue Novartis should address, is to ensure that the Novartis product portfolio is the most sought after. Novartis, arguably, has the best patented range of products in South Africa. The overall portfolio is, however, not as broad as that of Dow AgroSciences, Bayer and Aventis. The challenge would be to devise a way to address this over the medium

and long-term. Novartis requires a strategy to expand the product portfolio offered to distributors.

As a second issue, Novartis South Africa has to endeavour to have a low cost base, but at the same time to not channel too many resources away from product development activities and marketing programmes. Novartis therefore needs to have strategies in place for a low fixed cost distribution system management model to be developed.

The size, composition and working patterns of the field sales force, coupled with the support activities from head office present the third issue for Novartis and requires review in order to ensure that these resources are optimally targeted at ensuring continued support and commitment from distributors. Actions are therefore necessary to ensure optimal productivity is derived at from limited resources to gain maximum distributor support.

The following section provides a summary of the company situation analysis for Novartis South Africa.

4.2.6 SUMMARY AND RECOMMENDATIONS FOR NOVARTIS SOUTH AFRICA

Novartis South Africa has a strong position in the South African market with a 25 percent market share. A period of rapid turnover growth seems to have ended with a stagnant phase being experienced against the background of a further expected deterioration in the value of the Rand against the Swiss Franc. Pressure is brought to bear on the cost block in order to endeavour to maintain Swiss Franc-based profitability in absolute terms. Proactive actions to reduce the fixed cost component of the Novartis South Africa operation are called for.

Generic product competition from Dow AgroSciences and Makteshim results in a further decrease in gross margins being forecast. Novartis should endeavour to be less dependent on commodity products by rapidly introducing new patented products.

The core strength of Novartis South Africa is a good product portfolio with promising pipeline products. The width of the product portfolio, however, is not of the same magnitude as that of Dow AgroSciences, Bayer and Aventis. Novartis should consider strategic alliances, or arrangements, to augment the current portfolio in order to improve the width of the total product portfolio offer.

Novartis South Africa enjoys good support from the linked distributors. This strength, however, could become the biggest threat, should control be lost. Actions should be earmarked to ensure that these distributors support Novartis, in the same manner as now, well into the future. The work patterns of the Novartis sales force need to be reviewed in an attempt to ensure that distributors' needs are met.

4.3 COMPANY SITUATION ANALYSIS FOR NOVARTIS AUSTRALIA

The company situation analysis for Novartis Australia will be done using the same format as that for the analysis of Novartis South Africa.

4.3.1 STRATEGIC PERFORMANCE INDICATORS

Table 4.5 provides a summary of the most important performance indicators for Novartis Australia that are relevant to a company situation analysis.

Table 4.5: Performance measurement statistics for Novartis Australia

Performance measurements (figures in Australian \$ mio)	1998	1999	2000
Sales (Australian \$)	163	199	198
Sales growth (percentage) on previous year	10	22	-
Market size	1 330	1 490	1 520
Growth in market size (percentage)	2	12	2
Market share	12,2	13,4	13,0
Exchange rate (Australian \$ to Swiss Franc)	0,91	0,96	0,97
Sales (Swiss Franc)	148	191	192
Function costs:	22,7	24,4	25,1
• Research and development	4,7	4,8	5,2
• Marketing and distribution	13,9	15,2	15,4
• Administration	4,1	4,5	4,5
Function cost to sales (percentage)	13,9	12,3	12,7
Operating interest	3,6	3,9	4,4
Months inventory cover	6	5,6	5,5
Average receivables	27,3	54,3	57,1
Headcount	130	130	130
Sales per employee	1,25	1,53	1,52

Note: Novartis sales indicated in Table 4.5 refers to invoiced sales. In Table 3.8 (page 38) a figure of Australian \$149 mio was quoted. This figure refers to sales to only distributors whereas the data in Table 4.5 includes so-called trade sales of commodity active ingredients to generic product manufacturers.

A review of the data presented in Table 4.5 is subsequently discussed.

Sales have shown a steady growth pattern over the 1997 to 1999 period, but stagnated during 2000. Reasons for this performance include good agricultural product production years, due to favourable climatic conditions, and a more aggressive marketing approach by Novartis. In 1999, a concerted effort was made to secure the commodity active ingredient business of some of the selected local generic formulators with competitive pricing against generic active ingredient suppliers. Low insect pressure in cotton resulted in Novartis cotton insecticide sales contracting significantly in 2000.

In 1999, growth in sales outstripped the industry average. This was primarily the result of a good portfolio fit in the growing cotton and canola markets. Rapid expansion occurred of the area planted with these two crops.

An analysis of gross profit margins, on a product per product level, reflects the policy of a more aggressive stance on pricing in order to secure commodity product business. This downward trend in profitability is budgeted to continue in 2001 (data on these margins is not provided). This trend reflects the level of competition encountered in a market with numerous product substitutes.

From Table 4.5 the increase in function costs is notable. The increase in product development costs, underlines an exerted effort to fast-track the development of new patented products to strengthen the ageing portfolio.

The increase in marketing and direct sales related expenses results from more resources being earmarked for promotional activities at distributor level, as well as the creation of pull action at farmer level, with farmer focused marketing campaigns.

Operating interest and average receivables show a disturbing trend from 1999 to 2000. This is a reflection of increased distributor pressure to negotiate for longer payment terms. The end result is increased financing costs for Novartis.

From the discussion based on Table 4.5, and the subsequent analysis, the deduction can be made that Novartis managed to grow turnover and market share from 1999 to 2000 but stagnated from 1999 to 2000. Furthermore, the cost block is under upward pressure.

Given the importance of a manufacturing company's product portfolio in determining the company's competitive position and the appropriate marketing approach, Table 4.6 provides a ranking of the products in the Novartis Australia product portfolio based on gross profit contribution.

Table 4.6: Ranking of Novartis Australia's product portfolio, based on profit contribution

Rank	Active ingredient(s)	Product name	Patented
1.	triasulfuron	Logran	Yes
2.	profenofos	Curacron	No
3.	clodinafop	Topik	Yes
4.	abamectin	Agrimec/Vertimec	No
5.	metolachlor	Dual	No
6.	atrazine	Gesaprim	No
7.	simazine	Gesatop	No
8.	metalaxyl	Ridomil	No
9.	difenoconazole	Score	Yes
10.	metalaxyl-m	Apron	Yes
11.	propiconazole	Tilt	No
12.	atrazine/metolachlor	Primextra	No
13.	methadithion	Ultracide	No
14.	thiabendazole	Tecto	No
15.	penconazole	Topaz	Yes
16.	Bt	Costar	No
17.	emamectin	Prodaim/Affirm	Yes
18.	dicamba	Cadence/Banvel	No
19.	fluometuron/prometryn	Cotogard	No
20.	propaquizafop	Shogun	Yes

Based on Table 4.6, Novartis Australia therefore has an ageing product portfolio that requires a continuous process of more aggressive marketing, reflected in a decline in gross margins, and an increase in marketing and sales related expenses. Against this background, a SWOT analysis provides a good overview of whether Novartis Australia's business position is fundamentally healthy or unhealthy.

4.3.2 SWOT ANALYSIS

A clear view of a company's resource capabilities and deficiencies, its market opportunities, and the external threats to the company's future well-being is essential (Thompson and Strickland, 1999 : 105). A SWOT analysis for Novartis Australia is presented in Table 4.7.

Table 4.7: SWOT analysis for Novartis Australia

Strengths	Weaknesses
<ul style="list-style-type: none"> • Broad portfolio • Range of pipeline products • Strong field sales force • Strong product development capability • Efficient local formulation plant • Effective farmer loyalty rewards scheme • Excellent company reputation • Relative low cost base • Good quality products • Well branded products 	<ul style="list-style-type: none"> • Dependence on commodity products • Post patent strategies • Losing active ingredient sales to generics • Management information systems • Market information inadequate • Little control over distribution • Receivables too high • Average stock holding too high • Lack of focus on leading products due to portfolio width
Opportunities	Threats
<ul style="list-style-type: none"> • Pipeline products – in new submarkets • Seed treatment products • Improved working relationships with distributors • Strategic arrangements with generic manufacturers • Marketing crop programmes ("solutions") instead of individual products • Improve system of creating "pull action" at farmer level • Distributors generally have low margins and are open to suggestions to improve profitability 	<ul style="list-style-type: none"> • Growing bargaining power of distributors • Generic competition for Logran (triasulfuron) • Losing market share due to generic company market penetration • Artfern (a generic product manufacturer coupled to the leading distributor IAMA) • Aventis as new market leader • Ease of generic product registration • Genetically engineered crops • Phase out of organophosphate chemistry

Using Table 4.7 as a basis, a number of important implications can be derived at. Potential strategic actions, based on the SWOT analysis and coupled implications, can be summarised as follows:

Strength and opportunity strategies:

- A rapid development process for the registration and market introduction of new products is required to rejuvenate the present portfolio.
- The width of the current portfolio should be used to offer product "packages" to local generic formulators in order to endeavour to block generic manufacturers, supplying these formulators with active ingredients, that cannot offer the same packages or range of active ingredients.
- An expansion of the successful farmer loyalty programmes to further increase farm level generated demand for Novartis products.

- Review feasibility of rewarding distributors that provide Novartis with support on both commodity and patented products, using a product bundling concept.
- Determine the exact needs and wants of distributors in order to identify value-added attributes to augment and improve the total Novartis product offer to distributors.

Strengths and threats strategies:

- Use favourable product cost base to be more aggressive in selected sub-markets against generic competition.
- Sign up distributors, using special arrangements, prior to Logran (triasulfuron) patent expiry in 2001 to lock in support during the post-patent phase.
- Strategies are required to counter balance increased bargaining power of distributors.

Weakness and threats strategies:

- Rationalise the current portfolio in order to address commodity products in the range with uncompetitive margins, high inventory levels and a lack of focus on leading products.

Weakness and opportunity strategies:

- The Novartis product portfolio is not sufficiently comprehensive to bargain optimally with distributors and should possibly be augmented through arrangement with another manufacturer in a joint marketing alliance.
- Use a “crop programme” approach to market the range of commodity products plus patented products in “solutions packages” in the specific sub-markets.
- Review procedures and systems to increase the level of market information with a view to being more responsive to changes in market dynamics.

The SWOT analysis highlights the importance of efforts to increase the attractiveness of the Novartis product portfolio. Strategies also need to be reviewed

to increase the level of “push action” at distributor level, as well as the “pull action” at farmer level. The effectiveness of distributor directed marketing and sales activities however requires a better understanding of distributor needs and wants.

4.3.3 COMPETITIVE STRENGTH ASSESSMENT OF NOVARTIS AUSTRALIA

A competitive strength assessment is presented in Table 4.8. The identified key success factors are based on the factors identified in Section 3.9 (page 69). The manufacturers used for comparison are taken from Table 3.8 (page 38), in which the leading 15 manufacturers of crop protection products in Australia were ranked. The rating scale used was the same as that for Novartis South Africa (see Section 4.2.3).

Table 4.8: Competitive strength assessment of major crop protection product manufacturers in Australia

	Key success factors	Weight	Aventis	Novartis	Crop Care	Nufarm	Dow AgroSciences	Bayer	Monsanto	DuPont	Cyanamid	Farmoz
1	Low operating cost block	10	30	40	30	30	40	50	40	30	30	30
2	Spending on research for new patented products	20	200	200	20	60	100	160	80	140	100	20
3	Distribution channel power	10	80	60	90	80	50	40	40	30	40	50
4	Width of product portfolio	15	105	80	150	135	75	60	60	45	60	75
5	Patented products in current portfolio	10	100	80	70	20	70	50	20	40	50	20
6	Marketing orientated manufacturer	10	90	90	100	80	60	50	70	50	50	50
7	Field sales force size and effectiveness	20	180	160	200	180	120	100	120	80	80	100
8	Creating farmer pull action	5	35	50	20	20	35	25	40	20	20	15
	TOTAL	100	820	760	680	605	550	525	470	435	430	380

Table 4.8 reflects the strong competitive position of the leading manufacturers in Australia. It is however significant that the analysis reflects a low level of competitive strength for the generic product manufacturers: Farmoz, Artfern, Davison, 4 Farmers, Sipcam and Rotam. These companies rely extensively on extremely aggressive pricing policies to secure product orders from distributors at national head office level.

Based on the competitive strength assessment (Table 4.5) and the turnover, coupled with market share data for the major manufacturers in Australia (Table 3.8, page 38) a group map for the major manufacturers in Australia is provided in Figure 4.2.

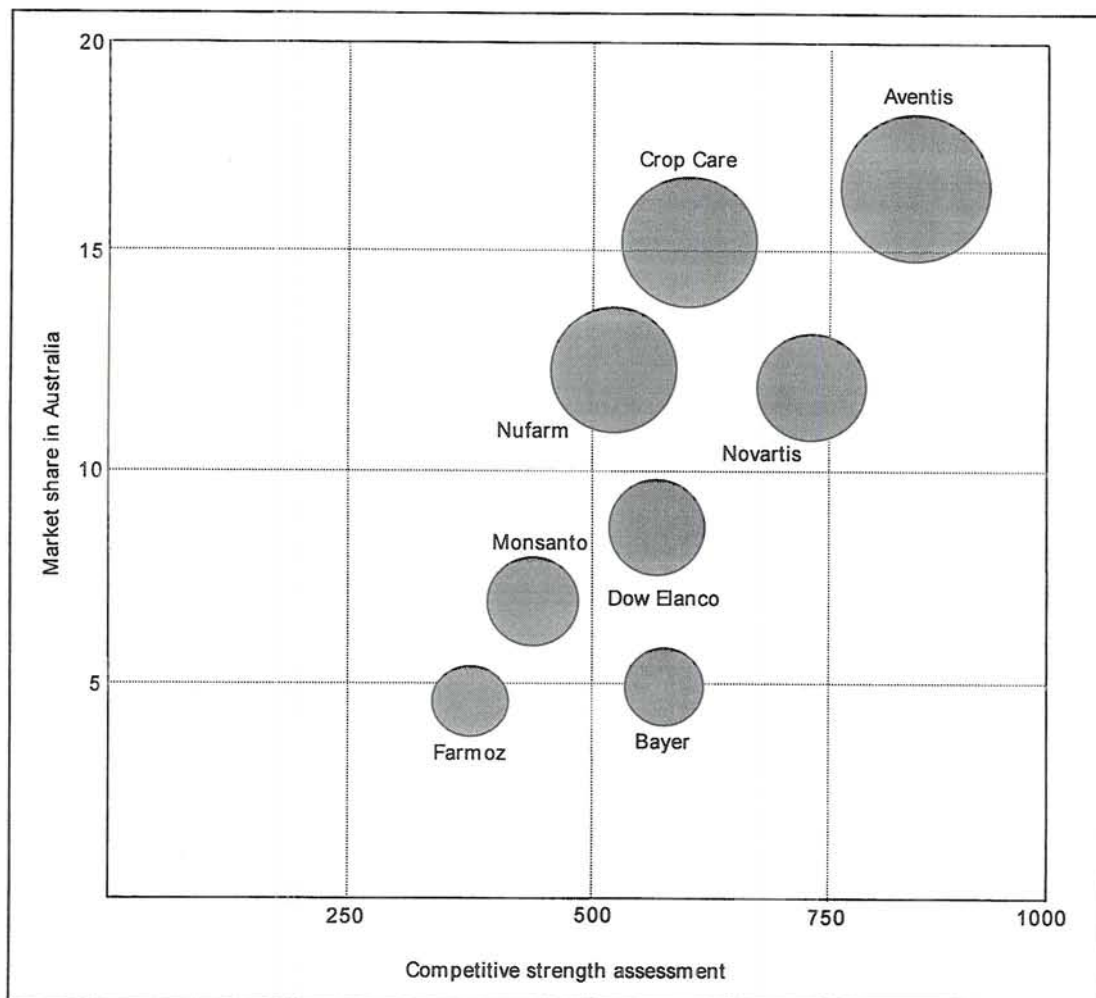


Figure 4.2: Group map of major manufacturing competitors in Australia

From Figure 4.2 the strong position of Aventis is evident. Of note, however, is the position of Nufarm as the second biggest global generic product manufacturer.

4.3.4 CONCLUSIONS CONCERNING THE COMPETITIVE POSITION OF NOVARTIS AUSTRALIA

The competitive position of Novartis Australia is not optimal if compared to major rivals. From Table 4.8 it can be concluded that Novartis Australia is lagging at the level of distribution channel power if compared to its leading rivals. The width of the Novartis product portfolio is significantly less than that of the three market leaders, namely Aventis, Crop Care and Nufarm. The size and the effectiveness of the Novartis sales force is also rated lower than that of the leading manufacturers. Novartis however has strengths in creating farmer demand through effective farmer loyalty programmes and the in-bedded marketing culture of the company. Novartis is investing heavily in new product development projects, although the success of these investments is not evident in the major products currently in the Novartis portfolio.

The major strategic issues facing Novartis Australia are addressed in the following section.

4.3.5 MAJOR STRATEGIC ISSUES AND PROBLEMS FACING NOVARTIS AUSTRALIA

The analysis of the industry competitive analysis based on the Porter model in Table 3.15 (page 60) and the competitive strength assessment of Novartis Australia indicates a shift in channel power towards distributors as well as a weakness on this issue from a Novartis perspective. Novartis Australia needs to address strategies to strengthen its level of channel power.

The size, composition and work patterns of the Novartis Australia sales force will have to be scrutinised, in light of a decrease in inherent product portfolio strength and an identified weakness on this aspect, compared to the leading manufacturers, as was evident from Table 4.8.

The width of the Novartis product portfolio is significantly smaller than that of companies like Aventis, Crop Care and Nufarm. The importance of a wide product

portfolio needs to be assessed at distributor level, after which Novartis Australia would need to address this perceived shortcoming.

Although Novartis Australia invests heavily in research and product development, this process needs to be reviewed in order to ensure a rapid rejuvenation of the ageing product portfolio. Patented and sought after products will assist in strengthening the negotiating power with distributors.

Novartis Australia needs to effectively counter the seemingly increasing threat of generic manufacturers operating in Australia. Effective product post patent strategies are called for, plus strategies to ensure continued distributor support of Novartis commodity products.

A summary of the company situational analysis of Novartis Australia is addressed in the next section.

4.3.6 SUMMARY AND RECOMMENDATIONS FOR NOVARTIS AUSTRALIA

The loss of patent protection of leading Novartis Australia products, has resulted in Novartis Australia having to progressively compete more aggressively with generic manufacturers in order to secure the business of distributors. The Novartis Australia cost structure, specifically research and development related costs, prevents Novartis Australia from competing head-on with generic competitors.

Novartis Australia requires increased levels of support and commitment from distributors. The challenge for Novartis Australia therefore, is to identify what actions and strategies are required to make it the manufacturer (supplier) of choice for the distributors in Australia. The strategic issue this raises is whether a policy of providing the best augmented product offer is the answer, or whether a form of forward integration into distribution should be considered, as a means to improving the level of channel control.

4.4 SUMMARY OF THE COMPANY SITUATION ANALYSIS PLUS RECOMMENDATIONS FOR NOVARTIS SOUTH AFRICA AND NOVARTIS AUSTRALIA

The company situation analysis for the two companies highlighted a situation where Novartis South Africa is in a much better competitive strategic position than Novartis in Australia.

It is of strategic importance, particularly for Novartis Australia, to strengthen its present product portfolio, due to significant dependence on products in the post-patent phase, making Novartis a direct target for the well-established generic manufacturers operating in Australia. In relevant terms, Novartis South Africa has a more sought-after product portfolio.

Novartis South Africa faces the challenge of designing distribution system management that will ensure a continued level of dedication and support from the presently affiliated distributors. In Australia, Novartis has to drastically review the present distribution channel policies in order to design new innovative distribution management systems, that would result in good levels of distributor support to provide Novartis with a platform to grow its market share.

In both countries, the interface between Novartis field sales forces and distributors is seen as a vital component of soliciting distributor support. This interface can however, only be managed effectively if Novartis knows exactly what these distributors require from Novartis. The needs and wants of these distributors therefore have to be established, before new, or altered, distribution system management models can be developed.

In Part Three of this study the crop protection distribution systems in a number of selected countries will be analysed, in order to provide background information of the *status quo* in this regard.

Part I
Introduction, background, aims and framework of the study

Part II
Industry and competitive analysis of the global crop protection industry

Part III
Crop protection distribution systems in selected countries
Chapter 5
The crop protection distribution systems in Europe and the United States of America
Chapter 6
The crop protection distribution system in South Africa and Australia
Chapter 7
The crop protection distribution system used by Novartis in South Africa

Part IV
Problem statement – management problems of crop protection distribution systems in South Africa and Australia

Part V
Research methodology - literature research and primary research regarding distribution system management.

Part VI
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CHAPTER 5

THE CROP PROTECTION DISTRIBUTION SYSTEMS IN EUROPE AND THE UNITED STATES OF AMERICA

5.1 INTRODUCTION

In Part Two of this study an industry and competitive analysis was done for the crop protection industry, resulting in the company situation analysis and the identification of business strategy implications for distribution system management in particular. In Part Three the focus shifts to a review of present crop protection distribution systems in a number of selected countries. Chapter 5 provides detail of distribution systems in a number of European countries and in the USA and endeavours to provide an overview that can serve as background to the systems used in South Africa and Australia, as discussed in detail in Chapter 6. Chapter 7 comprises of an in-depth review of the unique distribution system management model used by Novartis in South Africa. This can be viewed as a case study.

5.2 EUROPE

The distribution systems used in Germany, France, Italy, Netherlands, UK and Spain are discussed in the following sections.

5.2.1 GERMANY

Figure 5.1 provides a breakdown of the key components of the distribution system for crop protection products in Germany. In some parts of Germany, crop protection products are sold directly from wholesalers to farmers. In other areas retailers that form a link are in place between the wholesale trade and the farmers (Harden, 1994 : 44).

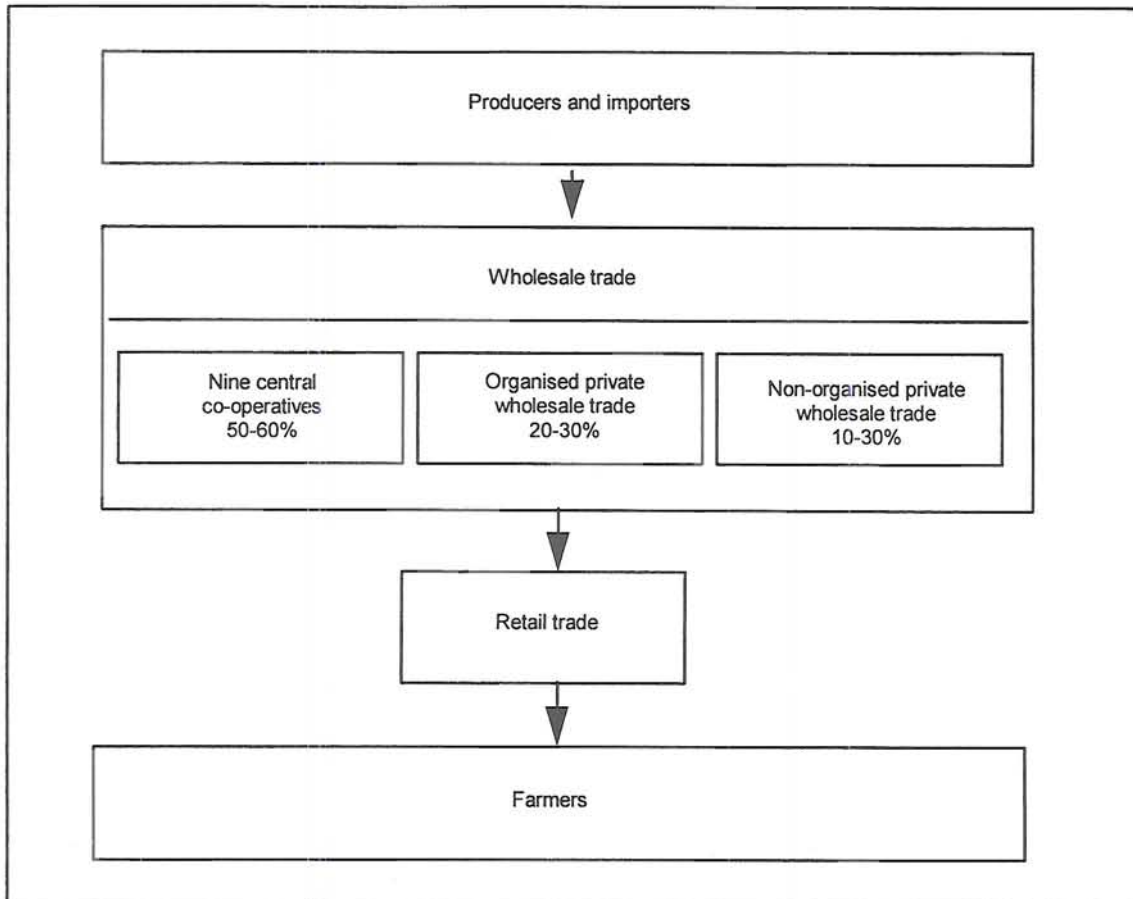


Figure 5.1: The distribution system for crop protection products in Germany

Source: Adapted and updated from Harden, 1994 : 43.

From Figure 5.1 a two level distribution system is evident, having a wholesale level and a retail level. A feature is the strong farmer cooperative movement, which collectively purchases products for cooperative members of the retail level that sell on to farmers. A well-structured wholesale group is evident, having a 20-30 percent market share. They typically sell products to independent retail outlets. The “non-organised” wholesale grouping can be classified as buying groups purchasing collectively on behalf of a number of independent retailers.

The majority of German farms are small with some farmers only working part-time. The farmers typically buy small quantities of crop protection products at a time (*Agrow Reports*, 1998a : 4). Four research-based crop protection manufacturers have a combined market share of approximately 70 percent (BASF, Novartis, Aventis and Bayer).

5.2.2 FRANCE

The market in France constitutes the largest single market in Europe, accounting for 32,6 percent of the total European market for crop protection products (*Agrow Reports*, 1998b : 50). The relevant distribution system for crop protection products is presented in Figure 5.2.

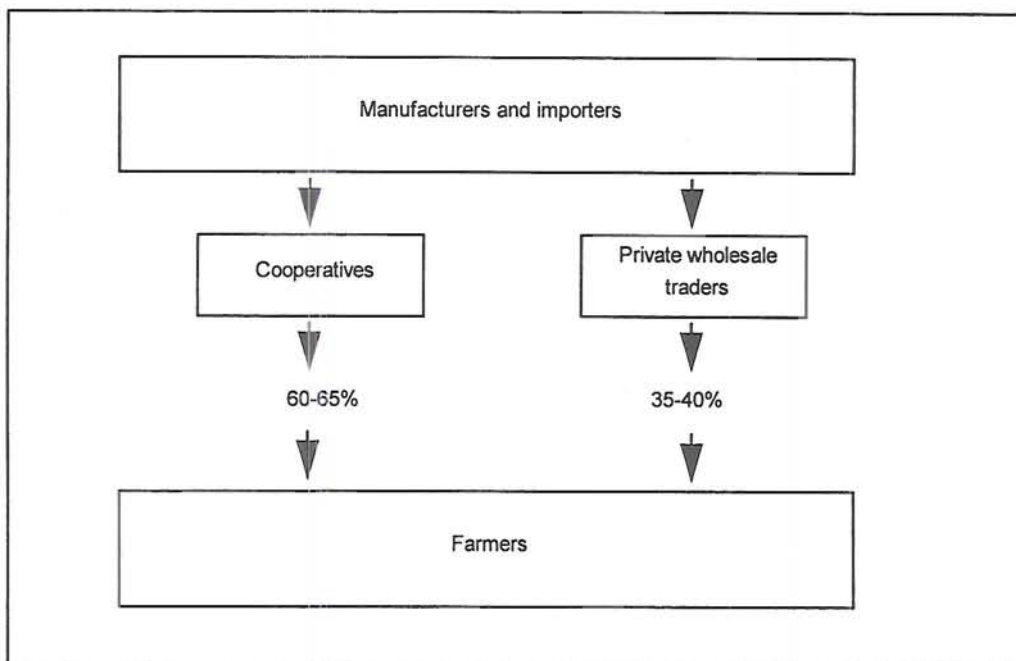


Figure 5.2: The distribution system for crop protection products in France
Source: Adapted and updated from Harden, 1994 : 45.

From Table 5.2, the dominant position of the cooperatives is noteworthy. The average farm size in France is only 35 hectares, resulting in a large number of farmers making low volume crop protection product purchases in “supermarket” style outlets. Eight research-based crop protection product manufacturers have a combined market share of approximately 85 percent (*Agrow Report*, 1998b : 50). A concentration of farmer cooperatives resulting in an increase in purchasing power, has put pressure on the margins of manufacturers supplying the French market over the last decade (*Novartis*, 2000b : 13).

5.2.3 ITALY

There are 70 companies operating in Italy that either manufacture or import crop protection products. Figure 5.3 provides an overview of the distribution system employed in Italy.

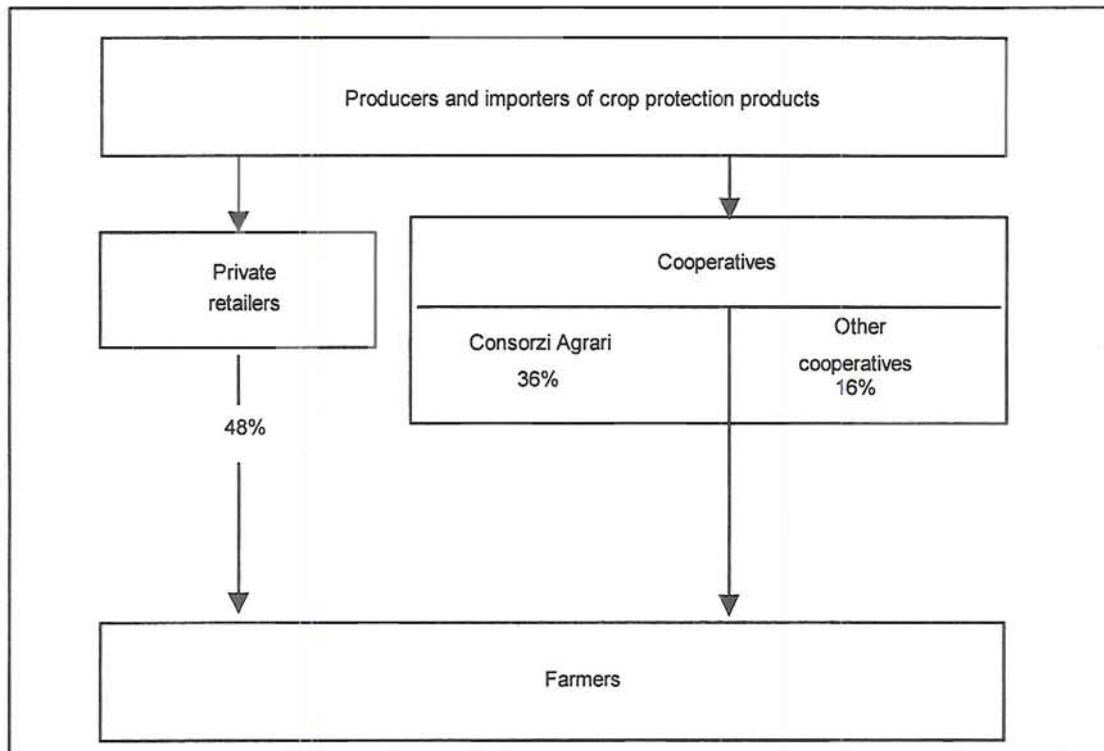


Figure 5.3: The distribution system for crop protection products in Italy

Source: Adapted and updated from Harden, 1994 : 46.

Once again, as was also the case in Germany and France, the important role of cooperatives is illustrated in Figure 5.3. A unique feature in Italy is the state controlled Consorzi Agrari cooperative. The Italian system is deemed to be fragmented, with a low service level (Novartis, 2000b : 14).

5.2.4 NETHERLANDS

There are approximately 20 producers and importers of crop protection products in the Netherlands. In total there are 350 outlets. Figure 5.4 provides background to the system for the distribution of crop protection products in the Netherlands.

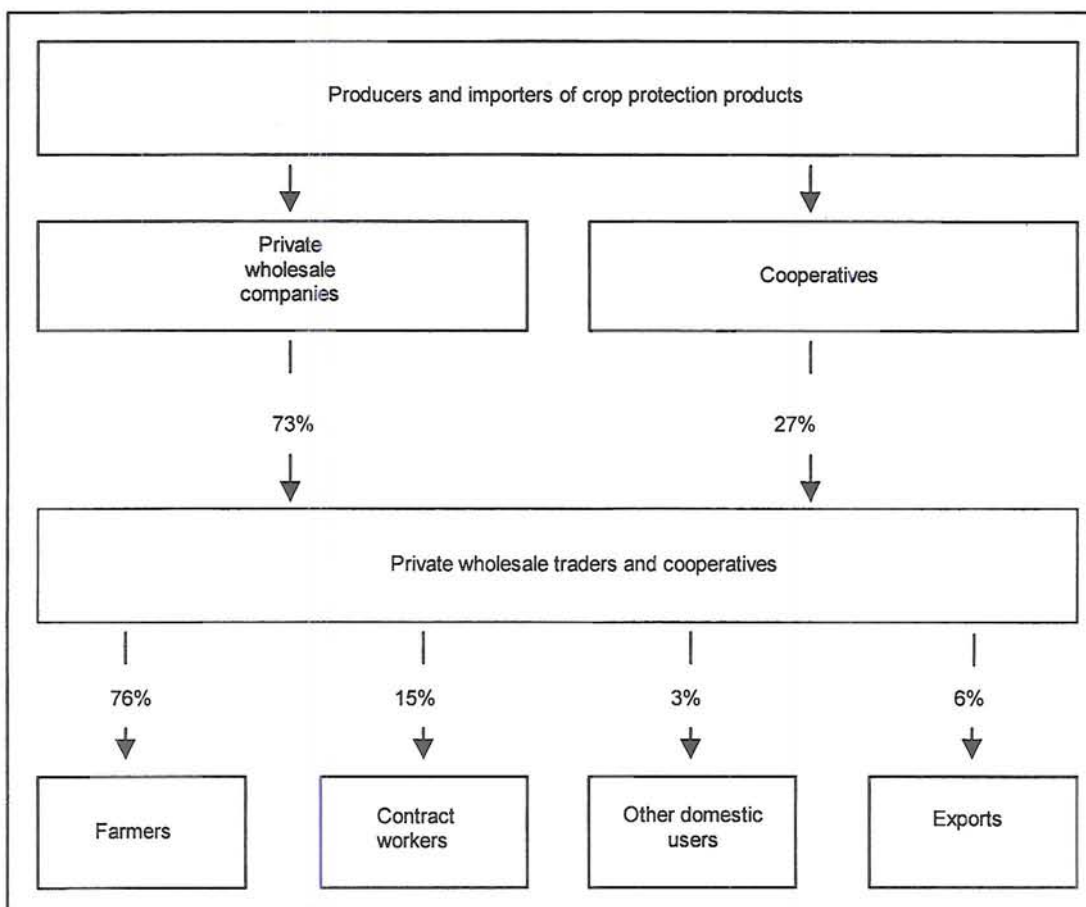


Figure 5.4: The distribution system for crop protection products in the Netherlands
Source: Adapted and updated from Harden, 1994 : 46.

From Figure 5.4 a trend similar to that of Germany for example, is seen with a clear distinction between wholesale and retail level. Of interest, is the role of contract crop protection product applicators offering farmers a service consisting of products plus the application thereof.

5.2.5 UNITED KINGDOM

The UK has approximately 40 crop protection product manufacturers. Figure 5.5 contains an analysis of the distribution system used in the UK.

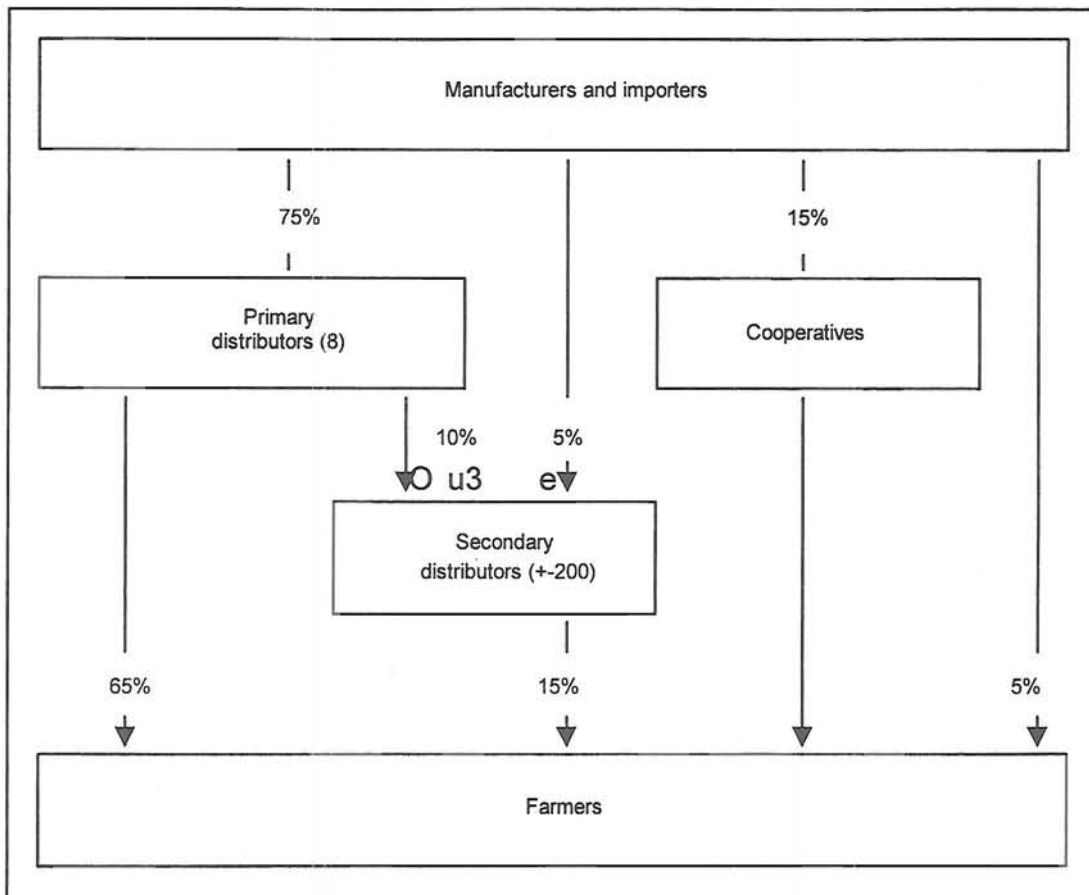


Figure 5.5: The distribution system for crop protection products in the UK

Source: Adapted and updated from Harden, 1994 : 46.

Rationalisation took place in the UK market at the level of the primary distributors, resulting in eight distributors controlling 75 percent of the market (*Agrow Reports*, 1998a : 20). Numerous small distributors are forced to consolidate with other entities in order to remain viable in a market where critical mass is of importance. Distribution strategies should also take cognisance of the potential problem that a manufacturer could lose a distributor due to a take-over by another distributor who may have other manufacturer affiliations. The top 10 research-based crop protection manufacturers have a combined market share exceeding 80 percent (*Agrow Reports* : 1998a : 24).

5.2.6 SPAIN

Figure 5.6 summarises the distribution system for crop protection products in Spain.

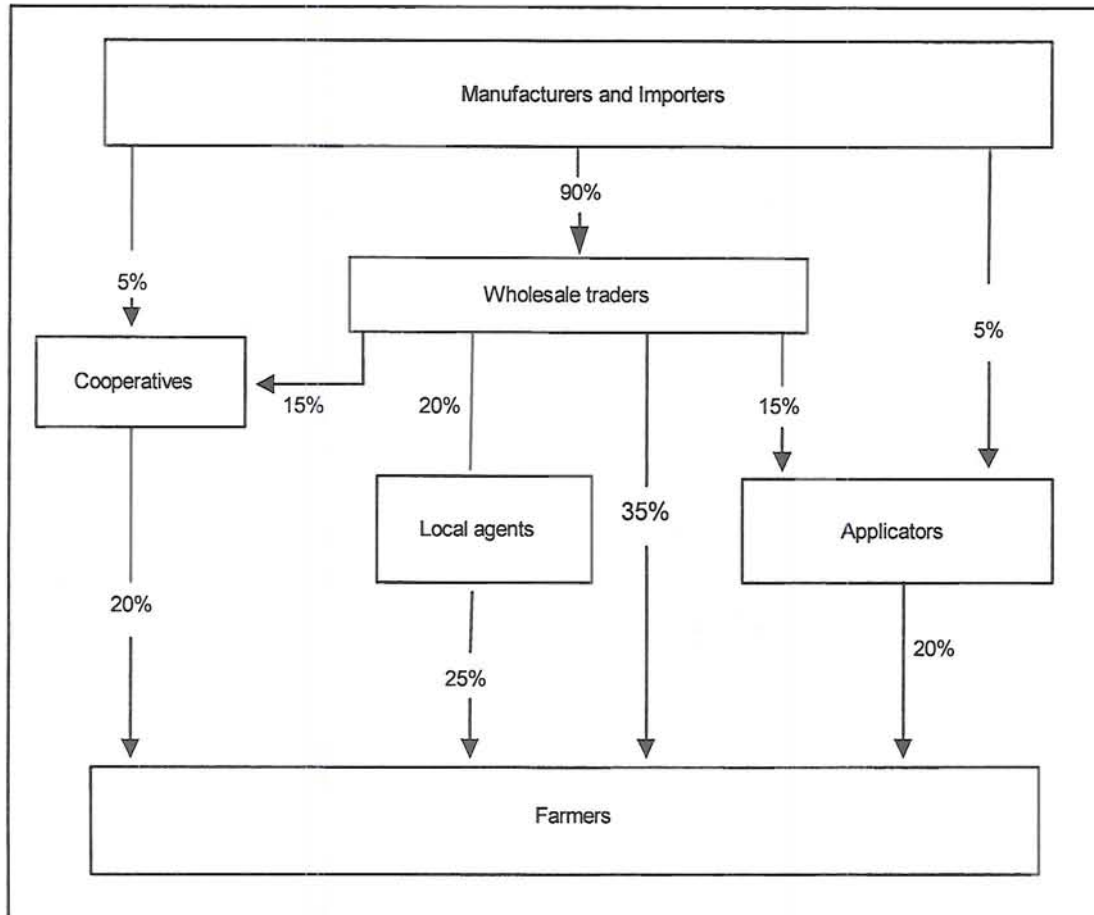


Figure 5.6: The distribution system for crop protection products in Spain

Source: Updated and adapted from Harden, 1994 : 50.

Only 10 percent of crop protection product active ingredients sold in Spain are manufactured locally. The number of retail outlets has decreased dramatically over the years from a peak of 30 000 outlets to 600 retail outlets (Harden, 1994 : 49). From Figure 5.6 it is evident that approximately 20 percent of crop protection product sales are made through registered applicators, who are hired by farmers to apply crop protection products. In most cases, exclusive trading arrangements exist between manufacturers and wholesalers with high levels of partnership-based interfaces and loyalty (Novartis, 2000b : 11). This is unique in the European context.

5.2.7 SUMMARY OF DISTRIBUTION SYSTEMS EMPLOYED IN EUROPE

The major overall findings derived from the analysis of the distribution systems employed in Europe can be summarised as follows:

- Farmer cooperatives play an important role in the distribution of crop protection products.
- In most cases, the distributors are not only selling crop protection products.
- In the UK and Spain, a dramatic consolidation took place at distributor level, reflecting the importance of critical mass in the distribution of crop protection products.

5.3 UNITED STATES OF AMERICA

5.3.1 INTRODUCTION

The USA constitutes the single largest market for crop protection products with a 41.7 percent share of the global crop protection business (*Agrow*, 1998 : 22). Of greater importance, however, is the situation that the USA has big farmers who are served at farm level by sales people. In this section the flow of products is briefly reviewed (Section 5.3.2) followed by a description of the key components of the distribution system (Section 5.3.3). In Section 5.3.4 some legal aspects influencing distribution are reviewed. A discussion follows on some of the most significant characteristics of distributors and dealers (Section 5.3.5).

A summary of the crop protection distribution systems in Europe and the United States of America is presented in Section 5.4.

5.3.2 FLOW OF PRODUCTS

Given the size of the farms in the USA, products are classified into two categories, the first group being bulk products. These products are shipped via container trucks

to bulk tanks at the dealer warehouses. From these warehouses, the products are transported in reusable semi-bulk tanks of 200 litres to the farms. The second category is the so-called packaged products that are typically sold in 5 to 25 litre pack sizes. See Figure 5.7 for the typical flow of these two product categories.

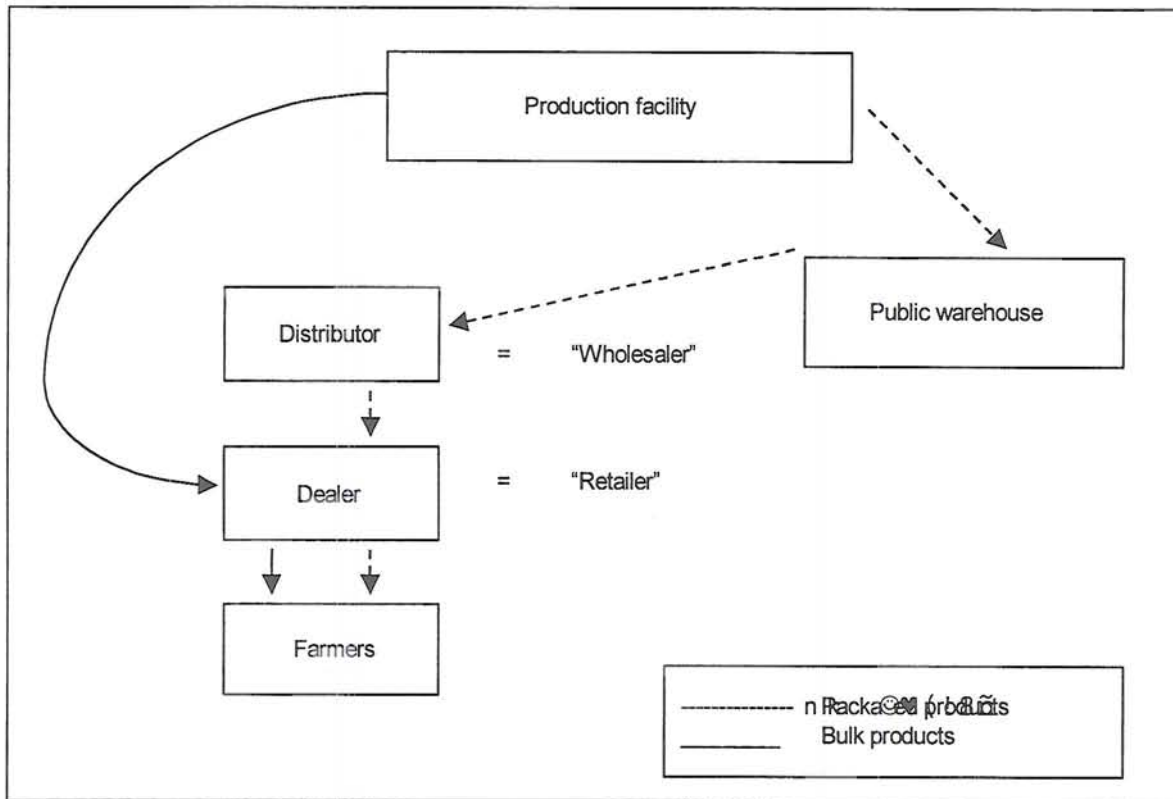


Figure 5.7: Flow of bulk and packaged crop protection products in the USA

Source: Schreuder, 1993 : 9.

From Figure 5.7 it is evident that packaged products are shipped directly to dealers, or to the "retail" level. In the case of bulk products, the distributors act as "wholesalers".

5.3.3 COMPONENTS OF THE DISTRIBUTION NETWORK

From the perspective of a manufacturing company, there are three potential customers, namely national distributors, regional or local suppliers and farmer cooperatives. These customer groupings will subsequently be discussed.

5.3.3.1 NATIONAL DISTRIBUTORS

National distributors are active in distribution across the USA. It is important to note that they not only act as crop protection product distributors, but other activities can include:

- basic manufacturing of fertilizers,
- marketing of fertilizers at farm level,
- formulation of crop protection products, and
- customer application of both fertilizers and crop protection products.

The nationals may also act as distributors (wholesalers). Some of them may sell products at dealership level as well as directly to farmers. See Figure 5.8.

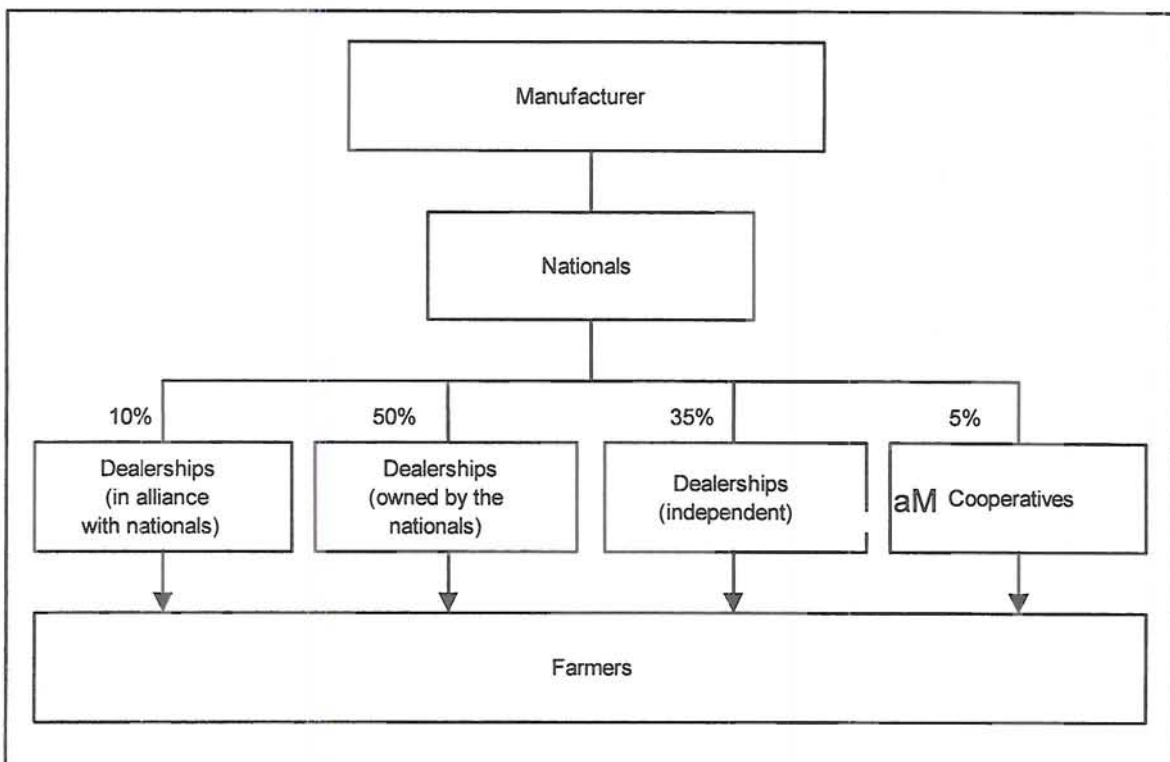


Figure 5.8: Channels of distribution used by the “Nationals” in the USA

Source: Adapted from Schreuder, 1993 : 11.

From Figure 5.8 it is evident that approximately 60 percent of the national distributors’ sales are channelled either through owned outlets or affiliated

dealerships, or localised distributors. The trend is for national distributors to expand through the acquisition of independent dealerships.

5.3.3.2 REGIONAL OR LOCAL DISTRIBUTORS

Regional or local distributors are defined as distributors with activities in only parts of the USA, typically for example, in one state. Figure 5.9 contains a schematic representation of this channel.

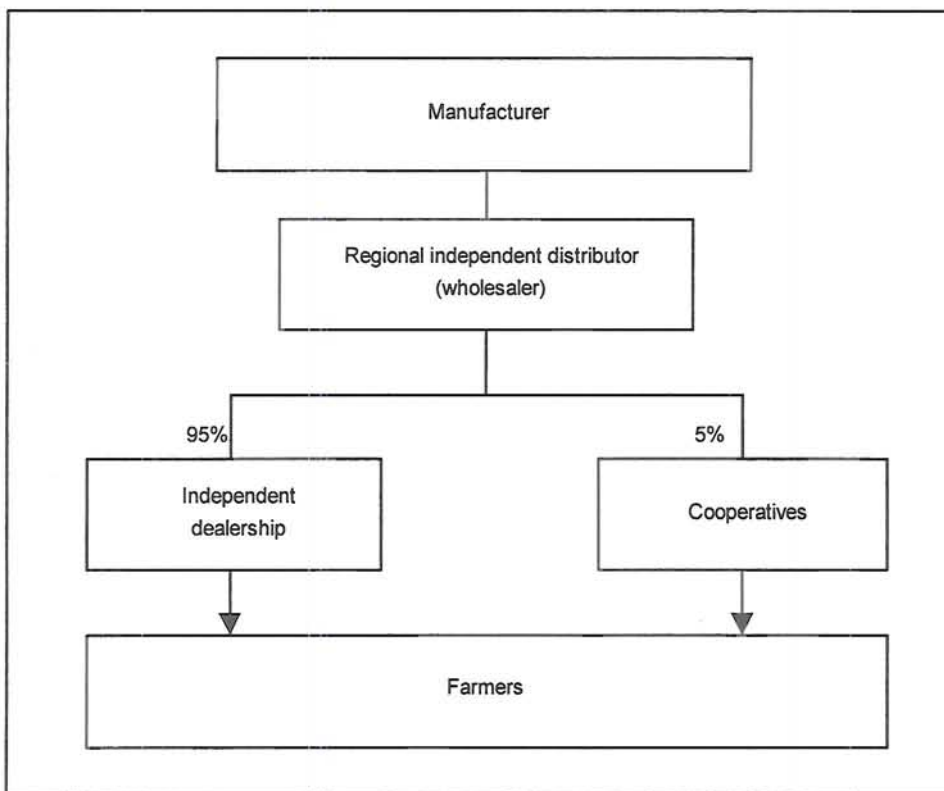


Figure 5.9: Channels of distribution used by the regional distributors in the USA

Source: Adapted from Schreuder, 1993 : 12.

From Figure 5.9 the clear distinction between the “wholesale” level and “retail” level can be identified as a significant difference, from the manner of operation of the national distributors (see Figure 5.8) that operate on both wholesale and retail or dealership level.

5.3.3.3 FARMER COOPERATIVES

The farmer cooperatives are a factor of note with 30 percent share in the USA market. Figure 5.10 provides some detail on the structure of the cooperative distribution system. The cooperative movement is strong in the USA although the national distributors are increasing market share at the expense of the cooperatives.

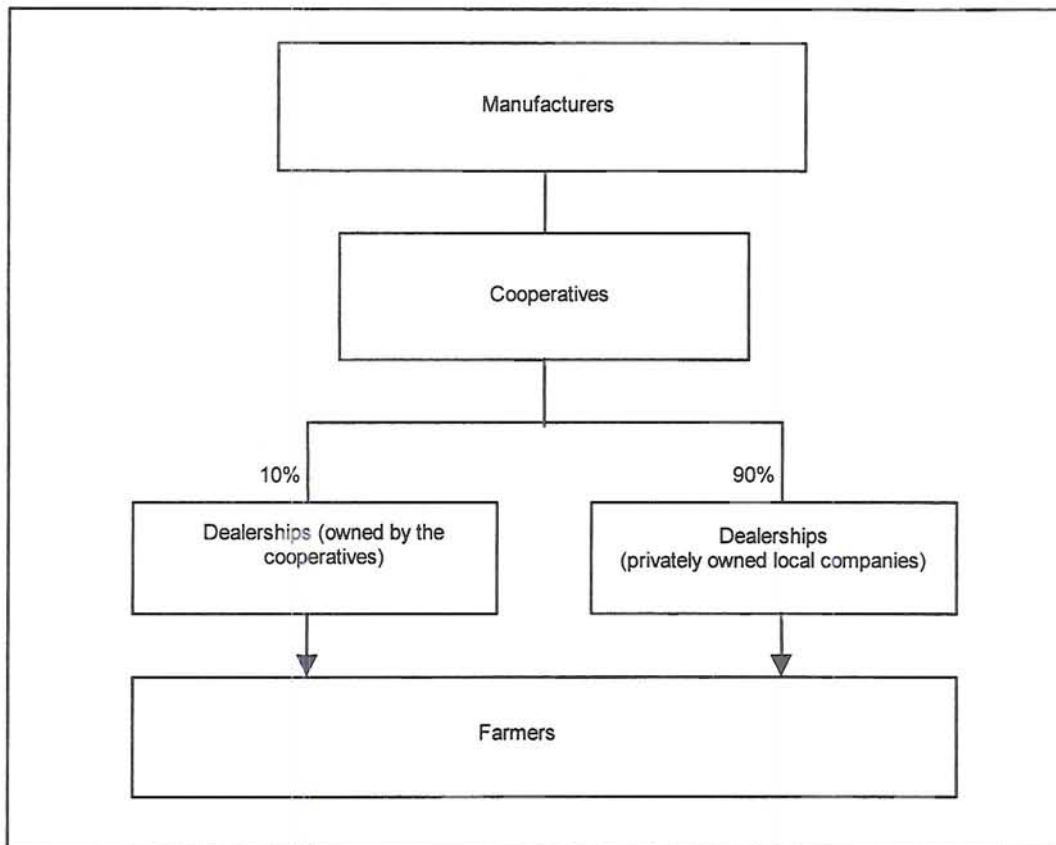


Figure 5.10: Channels of distribution used by the cooperatives in the USA

Source: Adapted from Schreuder, 1993 : 12.

The importance of relatively small, independent, privately owned dealerships is highlighted in Figure 5.10, representing 90 percent of the cooperatives sales. The trend once again is for the independent dealerships to be absorbed into the fold of national distributors, resulting in these national distributors increasing their buying power.

5.3.4 LEGAL ASPECTS INFLUENCING DISTRIBUTION

Some of the legal aspects influencing distribution system management policies in the USA are (Schreuder, 1993):

- According to the USA law (Robinson-Patman Act and Sherman Act) a manufacturer is not allowed to prevent a distributor from buying its products. The reasoning behind this is that by doing so, a manufacturer undermines the capability of those distributors competing in the market. The consequence of this is that a manufacturer cannot use the concept of exclusivity as a tool to foster distributor loyalty. In practice therefore, everyone has access to all products.
- Another extremely important aspect that is derived from the applicable competition laws addressing pricing, is that a manufacturer is forced by law to sell a product to all distributors at the same price. Note, however, that distributors (wholesalers in this context) may sell to dealers ("local" distributors in this context) at differential prices.
- Discussions with management of crop protection product manufacturing companies give the view that exclusivity is not a viable concept, even if this should be allowed (Schreuder 1993 : 5). This is a highly debated point and an issue that must be clarified on the part of the research conducted. Feedback further indicated that market share is related to technically sound products (read technically superior products) plus the belief that "every" farmer should be offered a specific company's products. The predicament is that it is becoming increasingly difficult, if not impossible, to always have technically superior products.
- The distribution network in the USA is characterised by what is called "programmes". All the leading manufacturing companies have programmes. This entails distributors receiving certain discounts (kickbacks) if they perform certain functions or reach certain targets, for example, do electronic ordering, sell certain pre-determined volumes and run certain promotional activities. The result of this is that a manufacturer's variable cost component can be extremely high due to these payouts based on targets being achieved, as these discounts are being paid to dealers in cash form.

Rolnicki (1997 : 189-211) provides comprehensive detail on the legalities in the USA impacting on the management of distribution systems.

5.3.5 CHARACTERISTICS OF DISTRIBUTORS AND DEALERS

Some of the characteristics of importance in the USA distribution system related to distributors and dealers are (Schreuder, 1993):

- Manufacturers have sales representatives who are salary-based and who are responsible for servicing distributors and dealers.
- With rare exceptions, distributors (dealers) do not only sell crop protection chemicals. These companies normally offer a mixture of crop protection products, fertilizers and application services. A rough average appears to be that 30-40 percent of a distributor's (dealer's) turnover is derived from crop protection products. In some cases, crop protection products might even be as low as five percent of turnover.
- Most distributors (dealers) sell a "package" to farmers comprising fertilizers, crop protection products and application services, on a cost per hectare basis.
- Most distributors (dealers) handle virtually all crop protection products available in the country.
- Distributors (dealers) use two key criteria to decide on which products to handle, namely the technical attributes of the product, as well as the expertise and calibre of the manufacturer's representative.
- The level of training of the distributor personnel in general, is deemed to be extremely high. The result being that these individuals are technically skilled to sell products on technical attributes and do not have to fall back on using pricing as the key element in the marketing mix. Distributors (dealers) sell crop protection "solutions" and not crop protection "products".

5.4 SUMMARY OF THE CROP PROTECTION DISTRIBUTION SYSTEMS IN EUROPE AND THE UNITED STATES OF AMERICA

The markets for crop protection products in Europe can be termed to be orientated towards a consumer-style market (large numbers of farmers, small farms and no significant on-site selling activities for crop protection products), versus the market in the USA, which can be classified as an industrial market (large farms, relatively few farmers, sales representatives conducting on-farm sales activities).

The strong farmer cooperative movements were highlighted in Germany, France and Italy. Farmer cooperatives are also active as distributors of crop protection products in the UK, Spain and the Netherlands, although to a far lesser extent. Farmer cooperatives in the USA are declining in importance as distributors, losing market share to national distribution entities.

In Europe, as a general rule, farmers will purchase their crop protection product requirements from "supermarket" style outlets. In the USA, distributor sales representatives typically sell crop protection solutions to farmers at farm level, encompassing technical advice and physical application of crop protection products in many instances.

The distribution systems used for crop protection products in both South Africa and Australia will be addressed in Chapter 6.

Part I
Introduction, background, aims and framework of the study

Part II
Industry and competitive analysis of the global crop protection industry

Part III
Crop protection distribution systems in selected countries
Chapter 5
The crop protection distribution systems in Europe and the United States of America
Chapter 6
The crop protection distribution systems in South Africa and Australia
Chapter 7
The crop protection distribution system used by Novartis in South Africa

Part IV
Problem statement – management problems of crop protection distribution systems in South Africa and Australia

Part V
Research methodology - literature research and primary research regarding distribution system management

Part VI
Distribution system management models for the crop protection industry in South Africa and Australia

Part VII
Summary, conclusions and recommendations

CHAPTER 6

THE CROP PROTECTION DISTRIBUTION SYSTEMS IN SOUTH AFRICA AND AUSTRALIA

6.1 INTRODUCTION

In Chapter 5 a broad overview was given of the distribution systems in European countries and in the USA. In Chapter 6 the focus shifts to distribution systems used in South Africa and in Australia. Section 6.2 addresses the South African system and Section 6.3 addresses the crop protection distribution system in Australia.

6.2 THE CROP PROTECTION DISTRIBUTION SYSTEM USED IN SOUTH AFRICA

The distribution of crop protection products in South Africa is characterised by the radical changes that have taken place over the period of the last three decades. This, coupled to further expected changes, highlights the need for crop protection product manufacturers to grasp this intricate system with a view to taking the correct distribution related strategic decisions.

6.2.1 A HISTORICAL PERSPECTIVE ON DISTRIBUTION SYSTEMS USED IN SOUTH AFRICA

For the sake of simplification, the historical changes that took place in the distribution system in South Africa can be divided into three periods, the 1970's, the 1980's and the 1990's.

6.2.1.1. HISTORICAL PERSPECTIVE 1970's

Distributors active in South Africa in the 1970's can be classified into five categories namely, cooperatives, privately owned independent regional distributors, fertilizer companies, a listed national distributor and research-based multi-national manufacturers.

a) Cooperatives

The cooperative, Vetsak, was a distributor active on a national basis. The closing down of the Vetsak distribution activities in 1987 effectively signalled the end of significant distribution of crop protection products in South Africa by farmer cooperatives on a national scale.

b) Privately owned independent regional distributors

Four significant privately owned distribution companies were active in the 1970's. In Natal, Farmer's Organisation, had a dominant share in the market. In the northern parts of South Africa, Agritek, as an independent distributor, handled distribution for a number of manufacturers. In the maize producing areas of South Africa a third independent distributor was active, namely Panorama, whereas Plant Chem operated as another regionally bound independent distributor in the Western Cape.

c) Fertilizer companies

Triomf, although a fertilizer company, was also active in the market as a distributor of crop protection products, in conjunction with fertilizers. The venture of combining fertilizers and crop protection products through one distribution system proved unsuccessful, the result being that Triomf divested from crop protection products in the 1970's. It should be noted that Kynoch Fertilizers also attempted to combine the distribution of fertilizers and crop protection products in the late 1980's, also without success. The inability to combine the different approaches required to market fertilizers and crop protection products probably resulted in the above-mentioned failures to combine these distribution systems.

d) A listed national distributor with product formulation facilities

Agricura, as a listed national distributor of crop protection products, was formed shortly after the Second World War. As part of the Sentrachem group, Agricura was one of the leading distributors, with the largest market share in the 1970's in South Africa.

Agricura is grouped separately because they (i) had product formulation facilities in the Sentrachem group for crop protection products which distinguished them from Panorama, Farmer's Organisation and Agritek, and (ii) had national coverage of South Africa.

e) Research-based multi-national crop protection product manufacturers

Schering, the German research-based multi-national crop protection product manufacturer, had Fisons Boots Company (F.B.C.) as a wholly-owned distribution company in South Africa. In the 1970's F.B.C. was considered to be one of the best distributors in South Africa, based on a high calibre salaried sales force, effective marketing campaigns and high levels of service provision.

Shell petrochemicals was a significant player in the crop protection industry in the 1970's. Shell had a strong distribution infrastructure in South Africa, with a team of salaried representatives.

The third multi-national that had a strong position as a distributor in South Africa was the German multi-national research-based crop protection product manufacturer, Bayer, with a national team of salaried representatives. In the 1970's period Bayer was one of the leading players in the South African market, based on turnover and market share.

f) The distribution challenge facing manufacturers in the 1970's in South Africa

It can be concluded from the brief analysis of the situation in the 1970's that divergent distribution systems were to be found. It should be noted that all these entities used systems of salaried representatives. The challenge for manufacturers of crop protection products was to utilise the distribution channel options reviewed effectively to reach the ultimate customer, the farmer.

If the distribution of crop protection products is viewed from the perspective of a manufacturing company that did not wish to invest in the distribution structures required to serve the South African farmers, the situation was problematical. The

many changes and varied successes of using a specific channel, created numerous problems.

Ciba-Geigy, as a typical research-based multi-national crop protection company, can be used to illustrate the problem facing these companies (Ciba-Geigy and Sandoz merged to form Novartis in 1997). Although Ciba-Geigy was one of the world's leading research-based crop protection product manufacturers, and had an excellent product range, distribution is perceived to be the key factor that resulted in the inability of Ciba-Geigy to gain the desired market penetration. During this 1970's period, Ciba-Geigy only reflected a market share that fluctuated between 7 percent and 10 percent. In a report investigating this problem, it was stated: "Despite considerable and frequent system revisions, we showed only marginal real sales growth and were just able to maintain our market share over the last 10 years" (Nel, 1985 : 3).

Table 6.1 illustrates the numerous channel changes Ciba-Geigy effected in an endeavour to address the distribution predicament - without success. The view is held that Ciba-Geigy failed to build lasting long-term relations with distributors in order to form a focused and effective distribution partnership. Business was conducted solely on a transactional basis with both parties only being interested in short-term results.

Table 6.1: Distribution channels used by Ciba-Geigy

Year	Distributor									
	Vetsak	Panorama	Farmer's Organiz	Agritek	Triomf	Bayer	Agricura	Shell	FBC	Celachem
1972					X	X	X	X	X	X
1973	X		X	X	X	X	X	X	X	X
1974	X		X	X	X	X	X		X	
1975	X		X	X	X	X	X		X	
1976	X		X	X	X	X	X		X	
1977	X		X	X	X	X	X		X	
1978	X		X	X	X					
1979	X		X	X	X					
1980	X		X	X	X					
1981	X		X	X	X					
1982	X		X	X						
1983	X	X	X	X						
1984	X	X	X	X						
1985	X	X	X	X						

Source: Nel, 1985 : 2.

From Table 6.1 the numerous changes Ciba-Geigy made in an endeavour to improve market share via changing distribution channels is evident. These efforts were however unsuccessful in gaining deeper market penetration. The reason being the inability to gain distributor commitment based on manufacturer and distributor relationships reflecting a mutual partnership approach to conducting business.

6.2.1.2 HISTORICAL PERSPECTIVE 1980's

The 1980's were characterised by the extremely aggressive market entry of Imperial Chemical Industries (ICI), the British chemical giant. ICI had a market entry strategy that centred around the approach that they wanted to gain rapid market penetration, complete control over distribution and the willingness to invest huge sums of money to achieve these goals. ICI acquired the four leading privately owned independent regional distributors in South Africa, namely Farmer's Organisation, Panorama, Agritek and a small Cape independent distributor Plant Chem, to catapult them to become the largest "distributor" in South Africa. The classification of ICI South Africa as a distributor reflects the situation that they bought in products from numerous

other manufacturers to be re-sold, via their own salaried representatives, to farmers.

Due to Ciba-Geigy's inability to penetrate the market with independent distributors, a decision was taken in 1986 to appoint an own in-house sales force with salaried representatives.

The situation developed to the extent that five research-based multi-national crop protection product manufacturers, namely Bayer, Ciba-Geigy, ICI, Shell and Schering (F.B.C.) had own salaried sales forces (Schering and Hoechst formed AgrEvo in 1996). Multi-national research-based manufacturers therefore were also fully operational in the South African market as distributors. This situation was unique in the world. The positive aspect of this is that the manufacturers had control over their own distribution network right down to end-user (farmer) level. The disadvantage was the significant fixed cost component coupled to a salaried sales force covering a large country like South Africa. In 1989 Shell changed their policy from using salaried sales staff to using commissioned sales agents to market their products.

Agricura, although experiencing severe financial difficulties, remained a dominant force in the local distribution structure.

Another significant event in 1987 was when a breakaway group from Bayer formed an independent distributorship, Wenkem, with close ties to Rhône-Poulenc (Rhône-Poulenc and AgrEvo merged in 2000 to form Aventis). This can be considered to have been the start of the move away from salaried representatives to the commission-based system of remuneration of sales people. This was done at a stage when all the other mentioned companies remained entrenched with salaried representatives.

The distribution systems employed by the different manufacturers at the end of this period is tabulated in Table 6.2.

Table 6.2: Distribution systems employed by the different crop protection product manufacturing companies in the late 1980's

Company	Distribution system employed or company used	Comments
American Cyanamid	Agricura	
BASF	Bayer	
Bayer	Salaried representatives	
Ciba-Geigy	Salaried representatives plus ICI	
Du Pont	Agricura	
Hoechst	Various - Bayer, FBC, Wenkem, ICI	
ICI	Salaried sales force	
Monsanto	Agricura, Bayer, Wenkem	
Sanachem	Agricura plus all other available systems	At this stage 50 percent of Sanachem belonged to Sentrachem
Sentrachem	Agricura – salaried representatives	Agricura fully owned by Sentrachem
Schering	FBC - salaried representatives	FBC was fully owned by Schering
Shell	Commission agents	
Sumitomo	Agricura	
Rhône-Poulenc	Wenkem, ICI, Bayer	Wenkem is a national distributor

From Table 6.2 the deduction can be made that the research-based manufacturers not only used their own salaried sales forces to sell to farmers but that they also acted as distributors for other research-based manufacturers. This was done to ensure that a full range of products could be offered to farmers. With the exception of Shell and Wenkem a salaried system of sales force remuneration was used at this stage.

6.2.1.3 HISTORICAL PERSPECTIVE 1990'S

In the following section the drivers that have resulted in changes in the distribution system in South Africa in the 1990's will be identified followed by a review of the impact of these changes on the crop protection industry in South Africa.

a) Drivers for change in distribution in South Africa in the 1990's.

A number of factors can be identified that acted as drivers for change in the 1990's. These drivers can be listed as profitability, ease of product registration, import protection, export incentives, business philosophy of research-based manufacturers,

the success of Wenkem and low levels of productivity.

Profitability of the crop chemical industry came under severe pressure due to:

- A drastic reduction in the value of the Rand vs hard currencies, resulting in significant increases in the purchase price of imported crop protection products.
- Relatively high inflation rates, resulting in drastic increases in the cost of running systems of salaried representatives.
- The inability of companies to materialise product price increases to offset the negative impact of exchange rate deterioration as well as the negative effects of inflation on cost structures.

The ease-off of product registrations in South Africa has a two-pronged effect. Firstly, most multi-nationals use South Africa as an early, convenient test marketing market for new products. This results in a huge number of products that compete aggressively in the market-place. Secondly, it is extremely easy to register generic products. This leads to a market saturated with generic products.

The role of Sentrachem and Sanachem in reshaping the distribution system structure in South Africa in the 1990's should not be under-estimated. Sanachem, as part of the Sentrachem group, received two-fold government assistance. This being import protection and export incentives in the region of 19 percent, based on export value for crop protection products that were exported (initially tax free). Sentrachem subsidised the local distribution arm in the group, namely Agricura, which operated on a loss from year to year. The huge profits Sentrachem earned on the export market, led to a situation whereby they were seemingly unconcerned about making local losses in the distribution arm of their activities. Market forces were therefore totally distorted.

The multi-national companies apparently changed their business philosophy and became more focused on in-house products, cost-to-sales ratios and fixed cost burdens. The previous effort to "chase" turnover using third party products, made

way for a more focused approach to small, lean organisations trying to maximise profit and not turnover. It became evident that it was not profitable for multi-national crop protection manufacturers to also be involved in the distribution of crop protection products. The fixed overheads associated with having a national sales force of salaried representatives played havoc with the financial ratios of these multi-national companies.

The success of Wenkem as a national distributor in the 1990's was evident in the market-place. The fact that Wenkem had a commission-based remuneration system, whilst the other companies still used salaried representative systems, was significant. Top sales people from other companies were drawn to Wenkem due to high potential income possibilities.

Productivity of the run-of-the-mill salaried representative was definitely not acceptable. Calculations in the early 1990's indicated that the industry supported approximately 650 salaried representatives. This indicated an average turnover of only R600 000 per representative, which was not sustainable.

b) Changes that took place in the 1990's period

The two German multi-nationals, Hoechst and Schering, combined their crop protection activities globally, to form AgrEvo, a joint venture. F.B.C., the Schering distribution arm in South Africa was disbanded. What remains from the F.B.C. structure is a distributor in the Cape (Viking) and a distributor in the northern part of the country, trading as Unieko.

With the take-over of Shell Agrochemicals by American Cyanamid, the ex-Shell agents formed new localised distribution companies. Of note here are two distributors in the Free State, one trading under the name of Technichem, and the other as Orsmond Spuitdienste.

American Cyanamid continued using Agricura as a key distribution channel until this relationship was suspended in 1995.

Bayer was the company, seemingly, the most reluctant to change. Although Bayer converted their salaried representatives to commission agents already in the late 1980's, they still maintained their huge logistical infrastructure in the 1990's. They continued buying in all third party product requirements, which they could not meet, for their agents, and they still continued invoicing the farmers directly and carrying the farmer's accounts. In 1998 Bayer announced that they would in future also convert to a system of using localised independent distributors by the grouping of Bayer affiliated commission agents. Distributors of note in this new structure are Laeveld Agrochem in the Northern Province, and Surechem and Witzenberg Verspreiders in the Western Cape.

Du Pont has traditionally been heavily dependent on Agricura as a semi-exclusive distributor. Due to the Agricura problems, pertaining to profitability, and the Du Pont view that Agricura afforded them insufficient market penetration, Du Pont withdrew their complete range from Agricura in 1996. Du Pont embarked on a strategy to open up distribution and to use more than one distribution channel. Monsanto and Du Pont were instrumental in setting up an Agricura breakaway group as a distributor that serviced the maize areas of South Africa and tried to establish a presence in the Western Cape region.

Due to conflict of interests with Sanachem on leading Monsanto products, Monsanto withdrew their product range from Agricura. As stated in the previous paragraph, the Monsanto approach was then to entice ex-Agricura personnel to form their own company. Monsanto continued using Bayer and Wenkem as core distributors. It is anticipated that as the Bayer linked distributors become established, Monsanto will sell directly to these groupings.

Traditionally Rhône-Poulenc had used Bayer as a distributor. With the breakaway group that left Bayer in 1987 to form Wenkem, Rhône-Poulenc decided to use Wenkem as an exclusive national distributor. The relationship has since proven to be extremely successful from a Rhône-Poulenc perspective. Rhône-Poulenc continued to give full support to Wenkem in the 1990's and assisted Wenkem to grow their market presence during this period.

Due to continuous financial losses suffered by Agricura over a number of years, the board of Sentrachem decided on drastic measures that came into effect in May 1996. Agricura's salaried staff was reduced from 250 to approximately 23 individuals. The name Agricura disappeared. All the Agricura distribution functions were grouped under the umbrella of Sanachem. The ex-Agricura sales people were given the opportunity to form their own small independent distributor companies. Many of the top employees, however, left to join Ciba-Geigy (Novartis from January 1997) linked distributors and some joined the Monsanto and Du Pont-formed distributor (Qwemico). At the end of 1997, Dow Chemicals purchased the Sentrachem group resulting in their crop protection arm, Dow AgroSciences, taking control over the Sentrachem agricultural activities.

In the review of the 1980's period (see Section 6.2.1.2), it was mentioned that ICI had become a dominant player by virtue of their buying four independent dealerships (Plant Chem, Farmer's Organisation, Panorama and Agritek). The result was that ICI became the dominant distributor in South Africa in the late 1980's and in the early 1990's. It also resulted in ICI having a salaried personnel component of 250-300 people and having to cater for the infrastructure to source numerous third party products from other manufacturers. ICI was also a key distributor for Ciba-Geigy in the late 1980's. When Ciba-Geigy took the decision to embark on a system of using exclusive distributors, that were independent but firmly linked to Ciba-Geigy, many of the ICI agents left ICI to join these new agencies. This led to the demise of what used to be Panorama and Technichem. The Farmer's Organisation team resigned *en masse* in 1992 to form their own independent distribution company (Farmers Agricare), with no ties to ICI and now hold a dominant position in the Natal market.

During the course of 1997, Zeneca (ICI before the name change) sold off their Cape operation to a USA company trading as United Agricultural Products (UAP). This resulted in Zeneca becoming a company employing only 35 people and only marketing in-house products. It also heralded the entry of one of the largest distribution companies in the world into the South African market, namely UAP.

6.2.2 THE PRESENT DISTRIBUTION SYSTEM USED IN SOUTH AFRICA

The present distribution system used in South Africa is reflected in Table 6.3. The table contains a summary of the key distribution channels being employed by the various multi-national manufacturers in 2000.

Table 6.3: Distribution in South Africa - the situation in 2000

Manufacturing company	Distribution system employed / company used	Comments
AgrEvo	Dealers, Bayer	
American Cyanamid	Dealers	
BASF	Dealers, Bayer	
Bayer	Bayer Dealers	Bayer handles a range in excess of 300 products. This is to be rationalised.
Novartis	Dealers / Travon	Novartis franchise dealers.
Du Pont	Dealers	
Monsanto	Dealers, Bayer	
Rhône-Poulenc	Wenkem, Bayer	
Dow AgroSciences	Dealers	
Zeneca	UAP / Dealers	

Note: The term “dealers” is used in South Africa for distribution companies.

In comparing Table 6.3 to Table 6.2, it is clear that distribution has changed drastically. To make a broad comparison, the 1980's can be described as the period where the multi-national manufacturers had their own sales forces (for example Bayer, ICI [Zeneca], Ciba-Geigy [Novartis], Schering [AgrEvo/Aventis] and Shell [American Cyanamid]). The situation has been reached in 2001 where distribution is now firmly in the hands of independent distributors. These distributors, or dealers as referred to in South Africa, are in most cases “regional distributors”.

The starting point for any manufacturing company active in the local market can be summarised in Table 6.4. The key distributors (dealers) are listed.

Table 6.4: Crop protection product distributors in South Africa at present

	Distributor	Turnover (R mio)		Distributor	Turnover (R mio)		Distributor	Turnover (R mio)
1	Wenkem	140	16	Technichem	25	32	Bayer (Brits, L Trich)	10
2	Farmers Agricare	110	17	Pro Agric	25	33	Curagric	9
3	UAP Crop Care	95	18	Oosvaal	23	34	T Orsmond Spuitdienste	9
4	Agronova/Barcelo	83	19	Noordchem	22	35	Bayer E-FS	9
4	Qwemico	80	20	Dale Paul Trading	20	36	Spoodwel	8
5	Saadchem	70	21	Bayer E-Tvl	17	37	Ripchem	8
6	Laeveld Agro	55	22	Alpha Agrochem	17	38	A Landbou Chemies	8
7	Bayer Cape	50	23	Crop Care (G Borch)	17	39	Loskop	7
8	Viking	42	24	Agrispec/Delmas BB	16	40	Bayer W-FS	7
9	Agri-Wes	40	25	ECAC	15	41	Retouw	6
10	Protecta	38	26	Wilgechem	14	42	Driehoeksaad	6
11	Unieko	35	27	JanWurm	14	43	Zeneca E-FS	5
12	Farmers Org	35	28	Bayer W-Tvl	12	44	Keerkring	5
13	Suidchem	32	29	Agri-Oos	10	45	Weschem	4
14	Wes-Tvl PB	30	30	Piet Gif	10	46	Frankfort Chemicals	4
15	Agricura (P Durant)	27	31	L Fuller Chemicals	10			

Table 6.4 shows that there are 46 dealers serving the South African market. As explained, experience has proved that own in-house sales forces are not a successful approach for reasons as indicated. It is also evident that farmer cooperatives in South Africa have not been successful in becoming players in the distribution structures. The manufacturer of crop protection chemicals in 2001 therefore, has a grouping of approximately 46 dealers in place, to form the link in the distribution chain between manufacturers and the farmers. The challenge is to use this system to maximum benefit. In order to do this, further analysis of the dealership distribution set-up is imperative. The manufacturer must know what the dealer expectations and aspirations are.

From Table 6.4 the further deduction can be made that manufacturers of crop protection products use mostly area bound regional distributors, or dealers, as the distribution system for crop protection products in South Africa.

Table 6.4 also indicates the huge variation in turnover between dealers. Wenkem, as a national dealer, has a very strong market position. Of significance is the large number of small dealerships that developed from the changing distribution policies of especially Agricura and Bayer.

6.2.3 SUMMARY OF THE SOUTH AFRICAN DISTRIBUTION SYSTEM

Distribution systems for crop protection products in South Africa changed from cooperatives, fertilizer companies and strong regional privately owned independent distributor companies in the 1970's, to a distribution system in the 1980's where most of the research-based multi-national crop protection product manufacturers had their own salaried sales forces selling to farmers. The 1990's period was earmarked by the demise of Agricura and the research-based manufacturers converting their salaried sales forces to commissioned agents that ultimately grouped to form new dealers (distributors).

Given the background to all the changes that have taken place in the South African market for crop protection products over the last three decades, a situation has now been reached whereby the manufacturers have divested from direct distribution via in-house distribution sales forces. The end result is that approximately 46 independent dealers (distributors) are operating in the local market. It is expected that the number of independent dealers (distributors) will have to be consolidated due to the requirement for critical mass.

As far as a manufacturer of crop protection products is concerned, the route to the end-user (farmer) is via the dealers (distributors) as listed in Table 6.4. The marketing task from the perspective of a manufacturing company is therefore to convince these dealers (distributors) to buy from that specific manufacturer rather than from another manufacturer.

6.3 THE CROP PROTECTION DISTRIBUTION SYSTEM USED IN AUSTRALIA

The distribution of crop protection products in Australia is conducted through an entrenched distributor network. The distribution structures have essentially been unchanged for approximately the last 20 years with regards to the players active in this field and the composition of the specific systems used. In this regard, the leading distributor groupings are discussed in the following sections.

6.3.1. LEADING DISTRIBUTOR GROUPINGS IN AUSTRALIA

In Australia crop protection product outlets (resellers) are grouped, in most instances, into structures marketing products to farmers on a country wide basis.

In total, 1 400 registered crop protection outlets cover the crop production areas in Australia. It is estimated that there are 1 660 salespeople affiliated to these outlets that serve the farming community with products and technical advice. Table 6.5 provides a summary of the Australian distribution structure for the marketing of crop protection products.

Table 6.5: Leading distributor groupings in the Australian crop protection industry

Distributor	Market share (percentage)	Number of outlets	Number of salespeople
CGS	8	7	40
CRT	20	250	350
Elders	13	120	200
IAMA	30	350	700
IHD	14	16	150
Wesfarmers	10	150	220
Other	5	507	550
Total	100	1 400	1 660

The distributors listed in Table 6.5 can be classified and grouped along different lines. Some of the distributors operate on a national basis whilst others are area bound. Figure 6.1 endeavours to provide an applicable grouping of the relevant players.

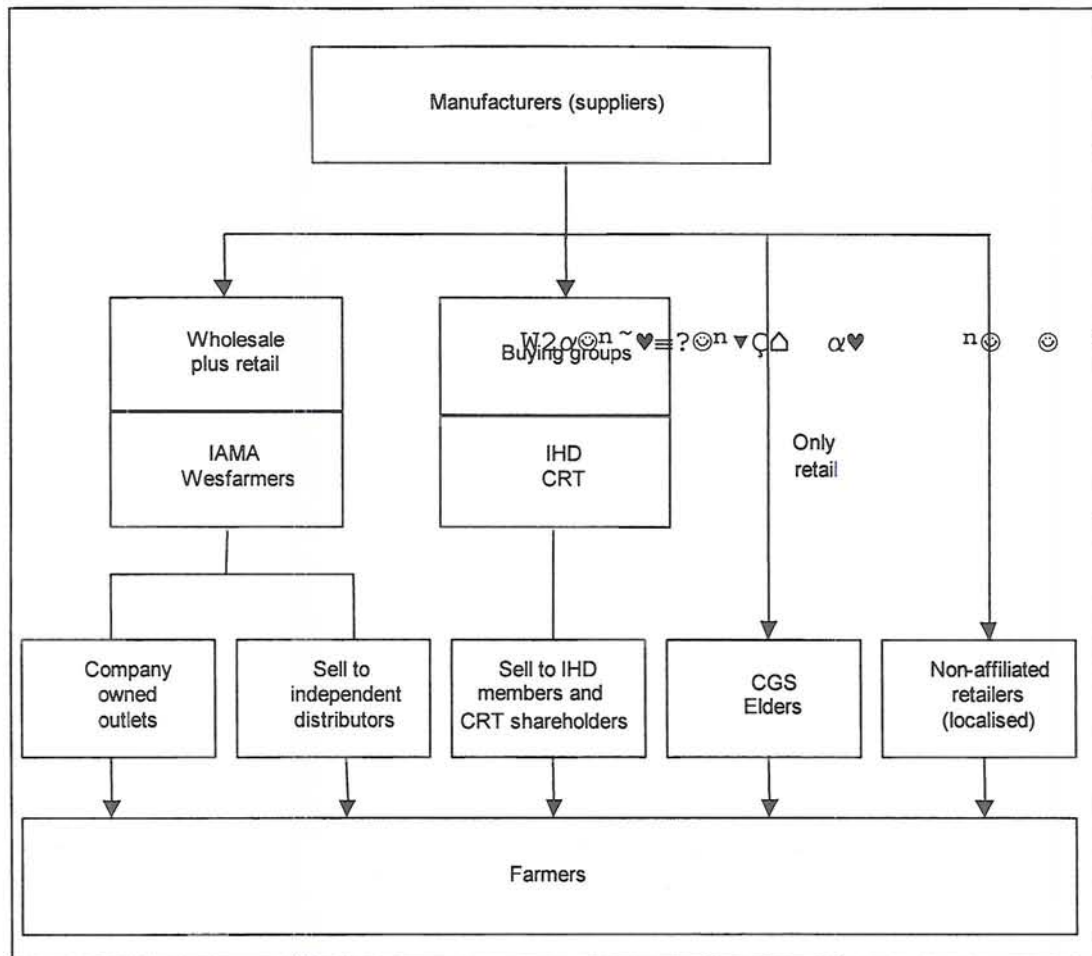


Figure 6.1 Product flow of crop protection products in Australia

IAMA and Wesfarmers can be classified as wholesalers and retailers. Typically, a company like IAMA will procure products from manufactures that will then either be re-sold to independent localised distributors (resellers), or sold on to farmers via IAMA owned outlets. A second classification is groupings of independent distributors in what could be termed well organised and structured buying groups. Examples are Independent Horticultural Distributors (IHD) and Combined Rural Traders (CRT) where, in essence, centralised product procurement systems are operational, in order to improve negotiation power and bargaining power. A third classification would be distribution companies with only a retail function. These companies will procure products from manufacturers and, in most instances, only sell to farmer clients via their self-owned outlets. Examples are Elders and Cotton Grower Services (CGS). The fourth category consists of independent, localised distributors or outlets.

6.3.1.1 COTTON GROWERS SERVICES (CGS)

Novartis and Aventis (AgrEvo and Rhône-Poulenc) jointly own CGS with each company having a 50 percent shareholding. CGS is only active in cotton growing areas and is therefore classified as a regional distributor. It has an 8 percent market share in the Australian market. In the cotton market CGS has a 32 percent market share.

CGS has seven outlets with 40 salespeople and has full access to the Novartis and Aventis product ranges. CGS does buy in products from companies other than Novartis and Aventis, provided they do not clash with products of the two shareholder companies.

6.3.1.2 COMBINED RURAL TRADERS (CRT)

CRT is a registered company with independent distributors that have shareholding in the company. CRT is not listed. Its 20 percent market share is derived from a member network consisting of 250 outlets with approximately 350 associated sales people. There are a large number of general stores that focus on hardware and general merchandise and cannot really be classified as crop protection product outlets.

All the crop protection product-purchasing activities are performed centrally at the CRT head office. Warehousing of products is also done centrally and members draw products from this warehousing facility. The CRT aligned distributors are allowed to place orders directly with suppliers. The suppliers however invoice CRT head office directly and are also paid directly by the CRT head office.

6.3.1.3 ELDERS

The activities of Elders cover the whole agricultural production area. Elders is listed as a public company with a market share of 13 percent. Although Elders operate nationally, the presence in the cotton market is of a limited nature.

Elders has 120 outlets that are all owned by the company, with approximately 200 sales people serving the farmers. Ordering is done centrally by the Elders head office, although products are routed directly to the relevant outlet.

The Elders outlets are much more centrally managed concerning pricing and product portfolio decisions than would be the case if compared to, for example, IAMA. The perception is that this leads to a better profit, cost block and inventory management profile.

6.3.1.4 IAMA

IAMA is a national distributor of crop protection products in Australia. The company is listed on the Australian stock exchange. With an estimated 30 percent market share in Australia, IAMA is the biggest crop protection product distribution entity in the Australian market.

The IAMA grouping sells products to farmers via 350 outlets covering all the important crop cultivation areas in Australia. These outlets can be separated into two distinct categories. Of the 350 outlets, 180 outlets are fully owned and staffed by IAMA salaried personnel. Privately owned outlets account for the additional 170 outlets. These outlets are independent companies selling under the IAMA umbrella. They are contractually bound to purchase all their requirements from IAMA. In the case of these independent entities IAMA therefore performs the role of a central buying organisation that uses the group's buying power to negotiate favourable trading terms. IAMA is extremely strong in the "buying" process in the company and also very good in the "selling" process (i.e. selling volume), but very weak in the cost management aspects of the operation and areas pertaining to productivity.

Ordering of product requirements is mostly done directly by the individual outlets who place orders with the suppliers using the centrally negotiated pricing structure. Suppliers however invoice IAMA centrally. Payment to suppliers is also conducted centrally by IAMA on behalf of the independent members.

In total the IAMA grouping has in the order of 700 sales people serving the farmers

within the total grouping. The IAMA owned outlets have salaried sales personnel who are in most instances well qualified agriculturally. The service provided by IAMA is believed to be the best in the industry, but IAMA has not managed to convert the service element into additional margin, resulting in an unacceptable net margin position.

6.3.1.5 INDEPENDENT HORTICULTURAL DISTRIBUTORS (IHD)

IHD can be classified as a buying group that makes use of its six privately owned distributors' buying power to negotiate favourable trading terms. IHD is mainly active in the horticultural market and is seen with IAMA as one of the key players in this market. IHD has a market share of 14 percent in the Australian market. The joining in 1998 of AgnVet as a new member might signal a broadening of their focus away from horticulture, given the AgnVet position in cotton and broadacre crops.

Members of IHD purchase products independently from manufacturers who invoice them directly. Accounts are also settled directly by the distributors with the relevant suppliers, without involvement centrally from IHD.

The six IHD members have a total of 16 outlets in operation with 150 salespeople promoting their product.

6.3.1.6 WESFARMERS

Although Wesfarmers are active in all the crop production areas, they are focused on the broadacre crops in Western Australia and have no significant representation in the big cotton market. Wesfarmers is a listed company with a market share of 10 percent in the Australian market.

Of the 150 outlets affiliated to the Wesfarmers grouping, only 15 are fully owned by the company. The 135 independent distributors have agency agreements with Wesfarmers, stipulating that all product requirements must be purchased through Wesfarmers.

6.3.1.7 OTHER DISTRIBUTORS

Small distributors and outlets that are not affiliated to the identified key grouping, number in the order of 500, with as many salespeople. These entities are in the most cases also active in other fields of agriculture and are not primarily focused on crop protection products. This group of outlets accounts for approximately five percent of the Australian crop protection market.

6.3.2 SUMMARY OF THE AUSTRALIAN DISTRIBUTION SYSTEM

The distribution of crop protection products in Australia is controlled by six key distributor groupings that control approximately 95 percent of the market. These distributors can be classified into categories consisting of those that can be deemed as wholesalers, those that are termed retailers and those that perform both a wholesale and retail function.

The farming community is served via approximately 1 400 registered crop protection product outlets with approximately 1 660 salespeople affiliated to these outlets.

Due to ease of generic product registrations and the presence of four significant generic product formulators in Australia, coupled to an oversupply of salespeople and distributor outlets, extensive pressure is brought to bear on profitability in the system.

With a few exceptions, there are no strategic linkages between manufacturers and distributors leading to a situation that business appears to be primarily price, rebate and margin driven. This is further emphasized by the situation that exclusive distribution arrangements are not common, resulting in the situation that distributors have access to most products on offer in Australia.

Opportunities appear to exist for distributors to become more focused on their core activities and for strategic alliances or partnerships to span the supplier and distributor divide.

6.4 MAJOR DIFFERENCES BETWEEN THE CROP PROTECTION DISTRIBUTION SYSTEMS IN SOUTH AFRICA AND AUSTRALIA

In comparing the distribution system in South Africa with the distribution system in Australia, a number of differences can be identified:

- The crop protection product distributors or dealers in South Africa, are highly focused on the distribution of crop protection products. In most instances this is all these companies do. A few exceptions are dealers that also sell seeds. The situation in Australia is the exact opposite. In most cases distributors have a huge portfolio of products and services they sell. In general, it can be said that the typical “crop protection product outlet” is a one-stop shop for most of the farmer’s requirements, ranging from seeds, fertilizer, farm equipment and even to insurance. The best example is probably the biggest crop protection product distributor in Australia namely IAMA. This company, with an annual turnover of more than AUD \$1 000 mio only derives about a third of its turnover from crop protection products, whilst the rest emanates from other farm inputs.
- It can be said that in most cases in South Africa, the farmer will purchase his crop protection products on the farm from an agent. The situation in Australia is that a much larger proportion of farmers will purchase their products in their local town at one of the crop protection product outlets there. Data to quantify the exact extent of this is not available.
- The concept of exclusive distribution of a product or range of products is common in South Africa. The general rule in Australia is that most distributors have access to virtually “everybody’s” products.
- Financial analysis of most crop protection distributors in South Africa indicates that these companies are relatively profitable. The general view in Australia is that many of these distributors are in financial dire straits, or at best, only marginally profitable. IAMA is an example where the results indicated a net profit of only 1,25 percent after tax (*IAMA*, 1999:3).
- The view, in both South Africa and in Australia, is that the farmers are “over-served”. In the case of South Africa, there are too many sales agents that are border cases due to low turnover figures, whilst the view in Australia is that there

are too many outlets in general that lead to fierce price competition and continuous pressure on suppliers to assist financially.

- The main thrust of selling in South Africa is the ability of an agent to build up a good working relationship and interpersonal relationship with a particular farmer and to provide him with good service and advice at farm level. In Australia, the emphasis seems to be more on the outlet in a specific rural town that has attractive offers, but the interpersonal relationship between the farmer and salespeople still plays an important role.
- In South Africa a distributor will buy a product at cost price and sell to farmers after a margin has been added. Manufacturers do not grant special rebates or “kickbacks” to distributors. The situation in Australia is that distributors will sell at cost, or even below cost in some instances. All the manufacturers in Australia however have rebate systems in place. Effectively, a distributor would therefore get a rebate paid out at the end of a particular marketing campaign, depending on the distributor performing certain functions and reaching certain goals.
- The view is held that the relationships in South Africa between manufacturers and distributors are, in general, much stronger than is the case in Australia. In Australia the main type of manufacturer “control” or preference occurs when a particular manufacturer can offer a bigger rebate than a competitor. Manufacturers tend to be more reactive (short-term) than pro-active (longer term) in their business relations with distributors.
- The salespeople responsible for the selling of crop protection products to farmers in Australia are predominantly salaried staff of the specific distributor. This contrasts sharply with the situation in South Africa where commissioned sales agents are the link between the distributor and the farmer.

Considering the major differences, as outlined in the foregoing paragraphs, it may be concluded that optimum approaches to distribution system management would have to be different in the South African and Australian markets. A specific distribution system management model might not be applicable in both countries.

6.5 SUMMARY OF THE CROP PROTECTION DISTRIBUTION SYSTEMS IN SOUTH AFRICA AND AUSTRALIA

The distributors in Australia are national diversified distributors of a large range of farm merchandise with crop protection products only being a part of their total product offer. These are well established companies that are well entrenched in the Australian Market.

Due to the drastic changes that took place in the distribution system in South Africa, there are at present a large number of, mostly small and relatively recently established dealers (distributors), any of which might lack the critical mass to survive leading to an expectation of rationalisation and a process of re-alignment in South Africa.

In Chapter 7 the distribution system used specifically by Novartis in South Africa will be analysed.

Part I
Introduction, background, aims and framework of the study

Part II
Industry and competitive analysis of the global crop protection industry

Part III
Crop protection distribution systems in selected countries
Chapter 5
Crop protection distribution systems in Europe and the USA
Chapter 6
The crop protection distribution systems in South Africa and Australia
Chapter 7
The crop protection distribution system used by Novartis in South Africa

Part IV
Problem statement – management problems of crop protection distribution systems in South Africa and Australia

Part V
Research methodology - literature research and primary research regarding distribution system management

Part VI
Distribution system management models for the crop protection industry in South Africa and Australia

Part VII
Summary, conclusions and recommendations

CHAPTER 7

THE CROP PROTECTION DISTRIBUTION SYSTEM USED BY NOVARTIS IN SOUTH AFRICA

7.1 INTRODUCTION

In Chapter 6 the manner in which crop protection products are distributed by manufacturers in South Africa and Australia received attention. In Chapter 7 the focus however will be on the specific distribution management system used by Novartis in South Africa. This system in South Africa is unique in many aspects and therefore provides valuable input into the process of developing distribution system management models. Chapter 7 can be viewed as a “case study”.

A review of the Novartis South Africa business approach (Section 7.2) will be done in order to set the stage for an analysis of the Novartis South Africa distribution system in Section 7.3. This system will be addressed with sections on the structure (Section 7.3.1) of the distribution system, strategic Novartis distribution system management decisions (Section 7.3.2), a flow diagram of distribution activities and aspects of the day to day management of the distribution system (Section 7.3.3). Key aspects to address in the management of the crop protection distribution system are presented in Section 7.3.4, followed by advantages and disadvantages of the Novartis distribution system in Section 7.3.5.

7.2 THE NOVARTIS SOUTH AFRICA BUSINESS APPROACH

7.1 Introduction	7.3.3 Management activities
	7.3.3.1 Product flow
7.2 Business approach	7.3.3.2 Margins
	7.3.3.3 Price wars
7.3 Present distribution system	7.3.3.4 Invoicing
7.3.1 Structure	7.3.3.5 Communications
7.3.1.1 Organogram	7.3.3.6 Information
7.3.1.2 Travon	7.3.3.7 Training
7.3.1.3 Distributors	7.3.3.8 Contracts
7.3.1.4 Regional managers	
	7.3.4 Key aspects of system management
7.3.2 Management decisions	
7.3.2.1 System options	7.3.5 Advantages and disadvantages
7.3.2.2 Product range	
7.3.2.3 Exclusivity	7.4 Summary

The Novartis South Africa business approach is based on the view that the company will be successful if, in essence, four policy areas are addressed effectively (Novartis, 1997a : 64). These areas are focused on a business policy to keep the cost structure low and to maintain business flexibility, an emphasis on effective product portfolio management addressing both new product introductions and post patent strategies, a truly marketing approach and an endeavour to have effective distribution management systems in operation.

The key success factors identified for the crop protection industry, in Section 3.9 (page 69), are essentially aligned with this business approach where aspects such as cost structures, portfolio management, a marketing orientation and distribution management were highlighted as key success factors in the crop protection industry, from the perspective of a manufacturer.

Against the background of this management approach, Novartis management uses a number of policies (coupled with the mentioned areas to address) that are deemed to be of critical importance in order to ensure success:

- Focus: The company strives to be a highly focused entity. This is applicable to the product range, for example. Only in-house products are sold. Novartis is not, and should not, be a distributor or a wholesaler for other manufacturers. Even as far as in-house products are concerned, products that do not conform to the set hurdle rates are discontinued without fuss. The concept of focus is also applicable with regard to distributors. The general philosophy is to focus on affiliated distributors and to serve them in an exceptional manner instead of just selling to everybody on an *ad hoc* basis and providing mediocre service and support to these entities.
- Marketing approach: The approach is to identify distributor needs, developing appropriate product solutions to meet these requirements and to market these solutions. Furthermore, only in-house solutions will be developed as a general rule. Customers are identified as the affiliated distributors as well as farmers.
- Distribution: Novartis' field of expertise is research and development of innovative new solutions for crop protection. Coupled to this, the marketing of these products is seen as another field of expertise. Novartis is, however, not a distributor. Distribution should be conducted by entities that specialise in distribution.
- Cost structure: Within the Novartis group, financial ratio analysis is perceived to be an extremely important measure of performance. Immense pressure is brought to bear on management to have, for example, as low as possible cost-to-sales ratio's. Given this policy, it stands to reason that non-core activities must be out-sourced in order to reduce fixed costs. Furthermore, a huge fixed and/or variable cost block associated with investments and "direct" involvement in distribution will be frowned upon. The underlying concept therefore is to "transfer" costs out of the company in the form of margins, i.e. "costs" that are not reflected on the financial statements.
- Personnel numbers: Another important policy addresses head count. Once again, the corporate message is clear: out-source activities and only employ people with strategic importance, as far as is possible.
- Flexibility: In a marketing environment where product range plays a vital role, it is important to realise that the fortunes of the company can vary over the medium term due to the lack of, for example, new product introductions. Such a phase

may be superseded by a sudden glut of attractive new products. What is required is flexibility. People cannot be hired and fired at will to take care of the cyclical nature of a crop protection product manufacturer's business. The goal is a low-cost base, coupled to a small employee complement, but structured in such a manner as to maintain flexibility.

- Product portfolio: The management of the product portfolio is seen as the foundation for success. Extensive attention is aimed at ensuring that new product development and post patent strategies receive adequate attention.

The above policies relating to the Novartis business approach are considered to be vital in the achievement of the Novartis financial goals. Based on the overall business approach, and coupled policies, the existing Novartis distribution management system evolved.

7.3 THE PRESENT NOVARTIS SOUTH AFRICA DISTRIBUTION SYSTEM

The Novartis South Africa business approach and related policies is reflected in the distribution system used by the company. The following aspects of the system will be discussed: structure (Section 7.3.1), management decisions (Section 7.3.2), management activities (Section 7.3.3), and the key aspects to address in the management of crop protection product distribution systems (Section 7.3.4) as well as advantages and disadvantages in Section 7.3.5.

7.3.1 STRUCTURE OF THE DISTRIBUTION SYSTEM

7.1	Introduction	7.3.3	Management activities
		7.3.3.1	Product flow
7.2	Business approach	7.3.3.2	Margins
		7.3.3.3	Price wars
7.3	Present distribution system	7.3.3.4	Invoicing
7.3.1	Structure	7.3.3.5	Communications
7.3.1.1	Organogram	7.3.3.6	Information
7.3.1.2	Travon	7.3.3.7	Training
7.3.1.3	Distributors	7.3.3.8	Contracts
7.3.1.4	Regional managers		
		7.3.4	Key aspects of system management
7.3.2	Management decisions		
7.3.2.1	System options	7.3.5	Advantages and disadvantages
7.3.2.2	Product range		
7.3.2.3	Exclusivity	7.4	Summary

In Figure 7.1 a schematic representation is provided of the most important components in the structure of the distribution system used by Novartis.

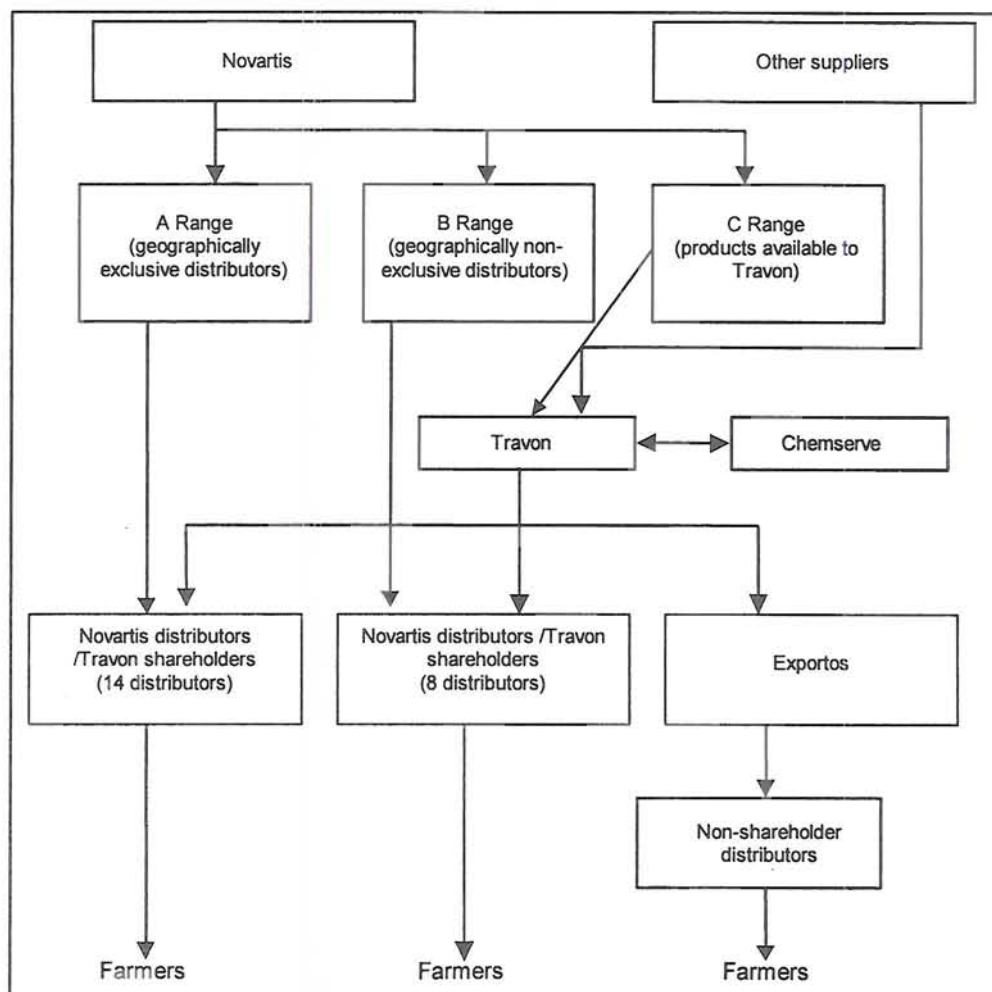


Figure 7.1: The structure of the distribution system used by Novartis South Africa

A brief discussion in this section, on the contents of Figure 7.1, provides an overview of how the different components relate to each other. More details will however be provided in following sections and can be related back to Figure 7.1.

Using Figure 7.1 as a reference the structure of the Novartis distribution system can be explained in the following manner:

- As mentioned in Section 7.2 Novartis only markets Novartis “in-house” products. The A Range, B Range and C Range reflected in Figure 7.1 refer to groupings of Novartis in-house products. Detail is provided on the product ranges in Section 7.3.2.2.
- Novartis affiliated distributors buy their products directly from Novartis. The distributors have commission agents affiliated to them who market products on farm level. The specific distributor will invoice the farmer and pay the agent a commission, once the farmer has settled his account. The “A Range” distributors consist of 14 distributors with exclusive distribution rights in demarcated geographical areas. More detail on the distributors are provided in Section 7.3.1.3.
- Travon is an independent company in which the Novartis affiliated distributors have equity. The primary role of Travon is to source products on behalf of the distributors to augment the Novartis product range, therefore to ensure that the distributors can offer an extensive range of products to farmers. Details of Travon , Exportos and Chemserve are provided in Section 7.3.1.2. Chemserve can be seen as the production arm of Travon whereas Exportos sells the Travon product range to distributors who are not Travon shareholders.

The distribution system structure as presented therefore, entails the grouping together of different entities within a structure to ensure co-operation between Novartis, distributors, sales agents, Travon, Exportos and Chemserve in a well co-ordinated manner.

7.3.1.1 THE NOVARTIS ORGANOGRAM AS IT RELATES TO DISTRIBUTION

The overall organogram for Novartis South Africa is presented in Figure 7.2. The marketing department and sales department organograms, as they relate to distribution, are presented in Figures 7.3 and 7.4 respectively.

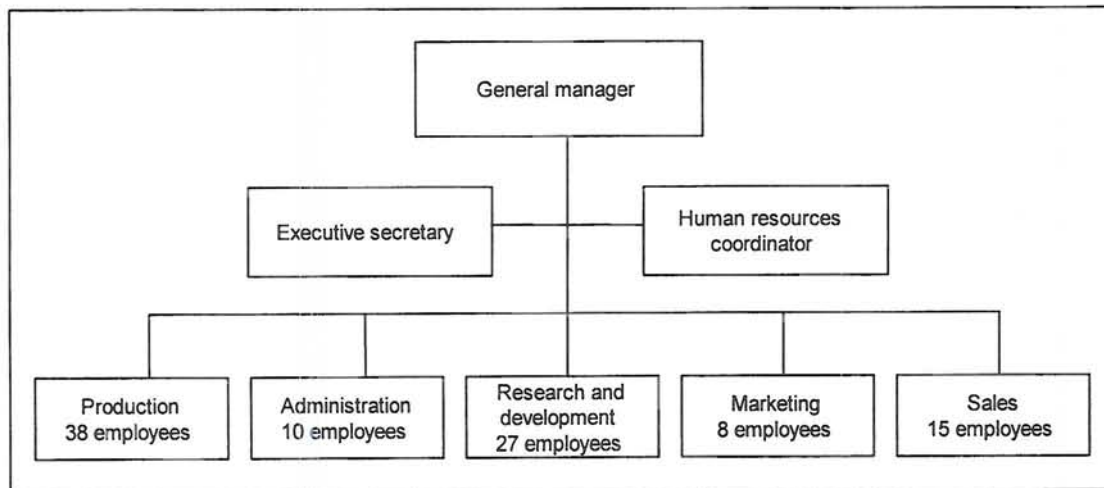


Figure 7.2: The overall structure of Novartis South Africa

Novartis South Africa employs 101 employees. In Figure 7.2 the strong research and development department, responsible for new product development, is a prominent feature of Novartis South Africa. This is a reflection of the importance placed on new product development. From Figure 7.2 it is also evident that the sales and marketing departments collectively employ 23 individuals.

Figure 7.3 provides details on the structure of the marketing department

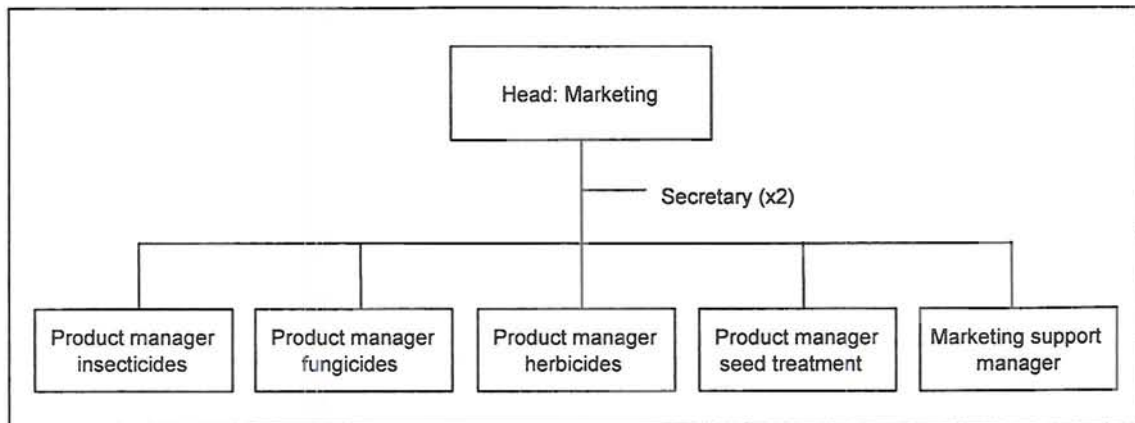


Figure 7.3: Structure of the Novartis South Africa marketing department

Product management is structured along product lines, as is evident from Figure 7.3, with each product manager managing his portfolio and using the assistance of product specific project teams with members from the product development group (research and development), sales force and distributor member participation. In Figure 7.4 the structure of the sales department is reflected.

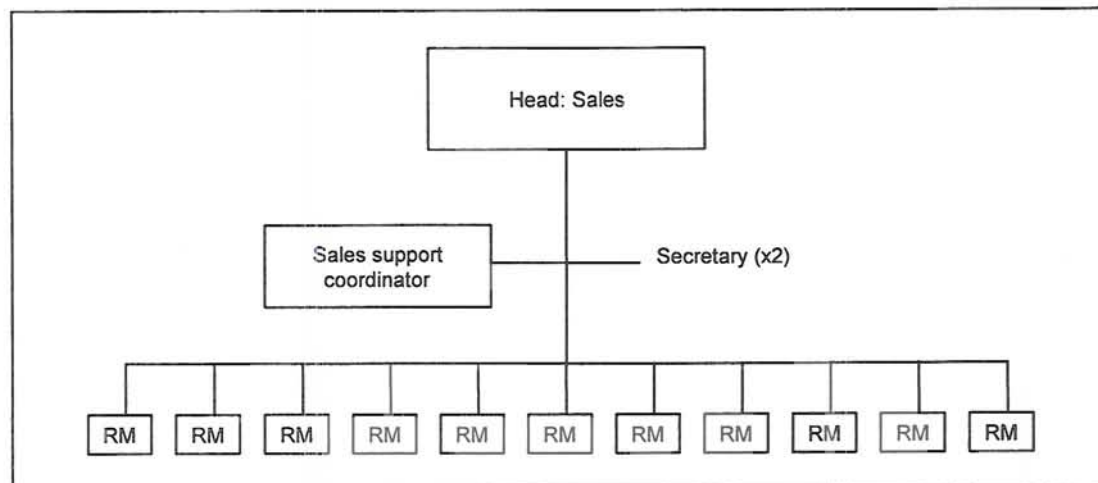


Figure 7.4: Structure of the Novartis South Africa sales department

Note: RM = Regional manager

Each regional manager has a specific geographical responsibility and is “allocated”, in most cases, to one specific distributor. The regional manager acts as the interface between the distributor personnel, their agents and the rest of the Novartis

organisation. The detailed role of the regional manager is discussed in Section 7.3.1.4.

The Novartis organogram, as it relates to distribution, endeavours to ensure a close linkage with the respective distributors via the regional managers who support them on a day to day basis. The regional managers spend most of their time supporting 14 core distributors that distribute the so-called "A Range" of products.

7.3.1.2 THE ROLE OF TRAVON IN THE NOVARTIS DISTRIBUTION SYSTEM

Travon was formed in 1997, under the guidance of Novartis, with the following mission statement: "To be a major supplier of crop protection products to distributors in South Africa as an extension of the Novartis South Africa distribution structure".

Due to the policy of Novartis to focus on in-house products only, a situation developed whereby Novartis could only supply the Novartis affiliated distributors with a limited product portfolio. The 22 distributors (14 "A Range" distributors and 8 "B Range" distributors) in this network therefore had to source products to complement the Novartis range on an individual basis. The Travon idea was developed from the needs of these 22 distributors to have a central purchasing organisation in order to coordinate their product requirements and to source the products on their behalf at competitive prices, using the bargaining clout of the group.

The key objectives of Travon can therefore be listed as follows:

- To have one company that can accommodate all the Novartis affiliated distributors.
- To have a dedicated formulation arm (Applied/Chemserve).
- To act as an additional distribution channel for some Novartis commodity products.
- To have the critical mass to negotiate product purchase prices effectively.
- To have in-house generic product registrations.

- To have a low fixed cost structure.
- To be in a position to secure patented products from multi-nationals.
- To put the Travon shareholders in a position to form the strongest distribution network in South Africa.
- To supply all the “Third Party” (“Non-Novartis” products) products of members.
- To be a key supplier of products to non-members via Exportos.

The different components of Travon are depicted in Figure 7.5. The purpose of Travon can be seen as the link between the different players in the Novartis distribution system, to form a cohesive network that can meet the requirements of the ultimate customer, the farmers, for a broad range of products.

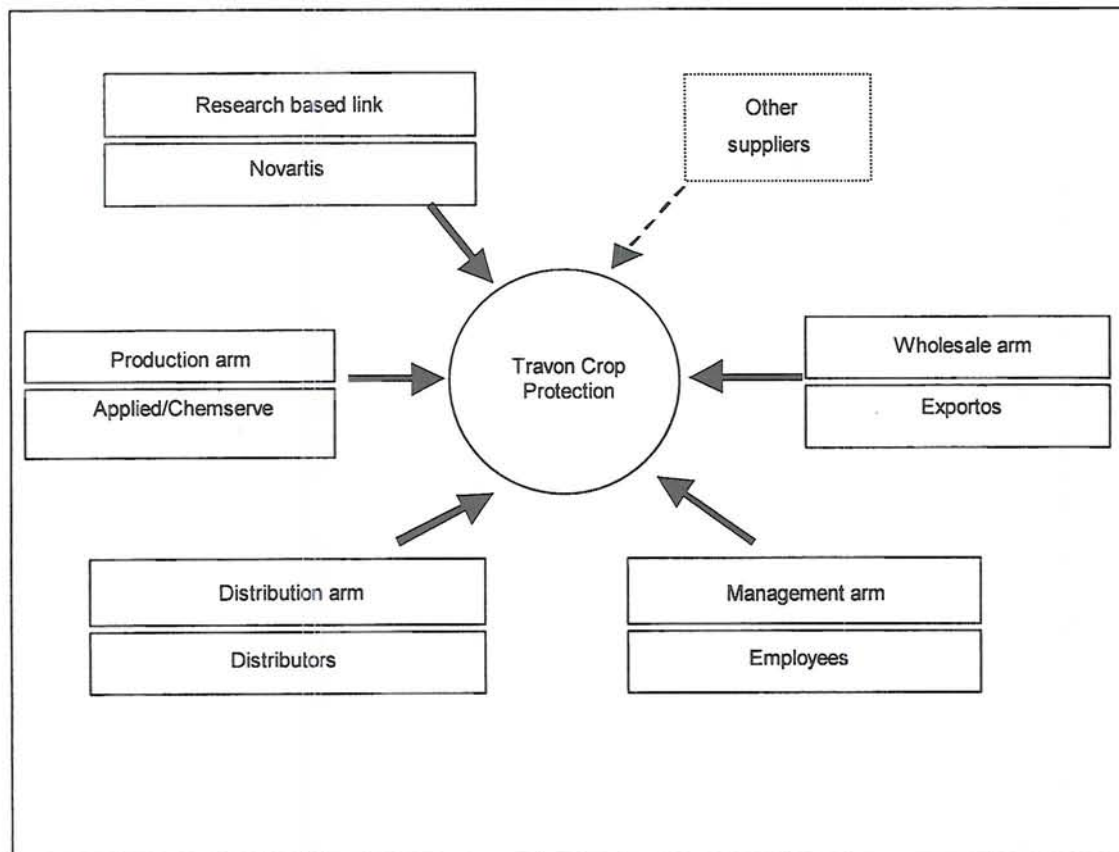


Figure 7.5: Components of Travon crop protection

The representation in Figure 7.5 reflects the position of Travon as a “hub” linking the components of the Novartis distribution structure.

Novartis sees Travon as an integral part of the Novartis distribution system, therefore the advantages that Travon provides are noteworthy (refer Section 7.3.1). The most important advantages can be classified as:

- Novartis has a contract with Travon and a seat on the board of directors, which gives them full transparency into the Third Party products (“non-Novartis” products) the Novartis distributors purchase.
- Novartis is in a unique position whereby it can offer a distributor a complete range of products, i.e. the Novartis range plus the Travon range. In negotiations with agents that are targeted to be incorporated into the Novartis distribution system, this fact has been of tremendous advantage.
- Due to Novartis having full insight into the finances and accounts of Travon, Novartis also has a better grasp of the financial position of the Novartis distributors.
- Travon assists Novartis in “keeping the opposition away from the Novartis distributors”.
- Novartis can use Travon as an additional channel for the Novartis fighting brands, using Exportos to sell commodity Novartis product to “non-Novartis aligned” distributors using fighting brands.

Travon also offers advantages for the distributors in the distribution network. These advantages, from the perspective of affiliated distributors, can be listed as:

- Buying power and bargaining power grouped together.
- Dedicated formulation facility (Chemserve/Applied).
- Distributors focusing on distribution not procurement because Travon does this on their behalf.
- Distributors staying independent but still having the benefit of central procurement.
- Generic registrations in place within the Travon structure, assisting in increasing bargaining power with potential suppliers.
- Good contacts to international manufacturers of generics.
- Increased profitability for distributors, due to lower purchase prices of products as

a result of collective purchasing.

7.3.1.3 THE DISTRIBUTORS IN THE NOVARTIS DISTRIBUTION SYSTEM

Table 7.1 provides a breakdown of a typical Novartis aligned distributor in South Africa. To this can be added:

- An average turnover of R20 mio to R30 mio per distributor.
- Turnover of a typical agent will be R1.5 mio to R2 mio per annum. Top agents can, however, realise turnover figures in the R5 mio to R6 mio range.
- Novartis has no shares in these distributors, but does have a member on the board of directors of the Novartis affiliated distributors (only the 14 "A Range" distributors).
- Normally, the distributor will have only one central depot and administrative structure. The agents will in many cases however, have their own sub-depots. The agents are responsible for the cost associated with their own depots, i.e. they only receive a commission payment from the distributor from which they must then pay their own associated operating cost in their particular region.
- On average, 60 percent of the typical distributor's turnover is derived from Novartis products.

Table 7.1: The structure of the typical Novartis affiliated distributor

Board of directors
• Managing director of distributor
• Financial manager of distributor
• Two agents representing agent shareholders
• Novartis employee
Distributor administrative setup
• One depot
• Managing director
• Financial manager
• Two administrative assistants
• Two storemen
Sales force (agents)
• In total of 15 commission agents on average
• The top 10 agents will also be shareholders in the company

From Table 7.1 it can be deduced that Novartis have substantial influence over the affiliated distributors due to representation on board level. This is however not backed up with equity and a situation can therefore develop that Novartis can lose this level of control if the distributor should decide to terminate the Novartis distribution contract.

Having the top agents as shareholders in the distributors ensures, to a large degree, that the distributors do not have a situation where agents would easily leave to join competing distributors.

The distribution system as presented therefore, entails the grouping together of different entities within a structure to ensure cooperation, but at the same time, to provide flexibility in serving the South African market.

7.3.1.4 THE ROLE OF THE NOVARTIS REGIONAL MANAGERS

The Novartis view is that a distribution system can only be successfully managed if back-up service of a high standard is provided. The regional manager is the critical link between the manufacturer and the distributor.

The key areas the regional managers need to address can be listed as follows:

- Gathering of market information.
- Monitoring opposition activities.
- Monitoring end-user price levels.
- Managing the launch campaigns of new product introductions.
- Keeping in regular contact with agents and assisting them in their selling activities as is required.
- Managing tender business in association with the distributor management (all tender business is channelled via the distributors).
- Implementing relevant action plans.
- Continuously monitoring distributor and individual agent's performances.
- Conducting market research studies.

- Spraying of farmer demonstration trials for new products.
- Budgeting of product requirements to be done on a monthly basis.
- Training of agents.
- Continuously being on the lookout for new marketing opportunities.
- Investigating complaints.
- Keeping contact with leading farmers.
- Being responsible for the execution of the promotional plan for a specific region.
- Visiting farmers with agents on a regular basis.

The role of the regional managers can be summarised as the link between the Novartis employees and the distributor management and its agents. Ensuring coordination and adequate communication flows is the core activity of this function.

7.3.2. NOVARTIS DISTRIBUTION SYSTEM MANAGEMENT DECISIONS

7.1 Introduction	7.3.3 Management activities
	7.3.3.1 Product flow
7.2 Business approach	7.3.3.2 Margins
	7.3.3.3 Price wars
7.3 Present distribution system	7.3.3.4 Invoicing
7.3.1 Structure	7.3.3.5 Communications
7.3.1.1 Organogram	7.3.3.6 Information
7.3.1.2 Travon	7.3.3.7 Training
7.3.1.3 Distributors	7.3.3.8 Contracts
7.3.1.4 Regional managers	
	7.3.4 Key aspects of system management
7.3.2 Management decisions	
7.3.2.1 System options	7.3.5 Advantages and disadvantages
7.3.2.2 Product range	
7.3.2.3 Exclusivity	7.4 Summary

In planning distribution channel management systems, management has to make strategic decisions on appropriate system options (Section 7.3.2.1), product range categories (Section 7.3.2.2) and product range distribution exclusivity (Section 7.3.2.3).

7.3.2.1 DISTRIBUTION SYSTEM OPTIONS

Novartis has a number of system options with regards to distribution. Figure 7.6 illustrates the alternative options available in order to reach the farmer, namely: own sales force, cooperatives, distributors, applicators, and farmer buying groups.

In practice, a combination of these options can also be considered. The Novartis policy is to use the distributor route exclusively. Possible sales to cooperatives, applicators and farmer buying groups are channelled via the affiliated distributors. The Novartis focus is therefore on the strategic partner, i.e. the distributor, and all effort and energy is channelled towards these entities.

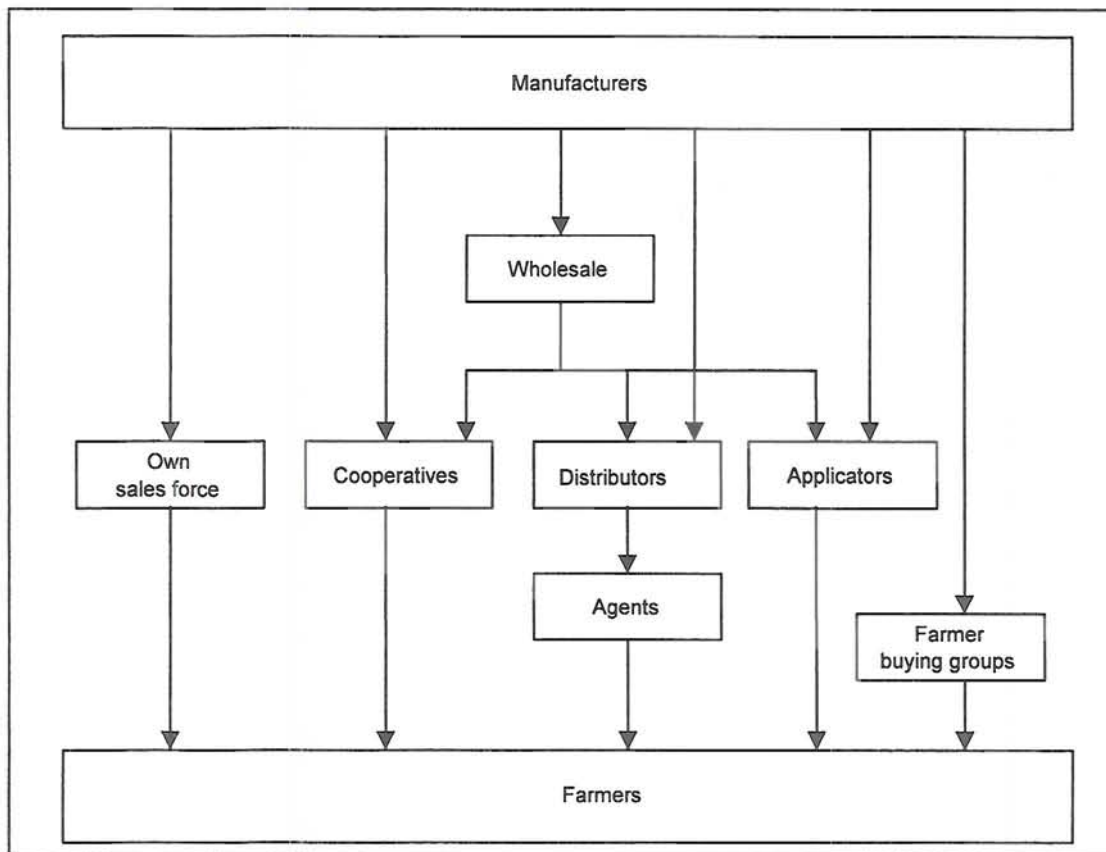


Figure 7.6: Potential distribution systems for crop protection products

Figure 7.6 reflects some of the possibilities that are available to manufacturers and are a reflection of the different systems discussed in Chapters 5 and 6. Novartis used to have an own sales force but this has proved to be problematic based on

reasons as depicted in Section 6.2.1.3 (page 118). Cooperatives in South Africa play an insignificant role in the distribution of crop protection products and are therefore not seen as an option for Novartis. The only entity that can be classified as a “wholesaler” in South Africa would be Travon. Novartis do sell some products to Travon (see Section 7.3.1.2). Applicators in South Africa have traditionally not bought crop protection products but only provided farmers with application services. Novartis do not sell directly to farmer buying groups because this will undermine the relationship Novartis has with its distributors if Novartis bypassed them. At present, no “Business to Business” (manufacturer to farmer) internet based structure is in place in South Africa to effectively market crop protection products directly to farmers.

7.3.2.2. PRODUCT RANGE CATEGORIES

The Novartis product range categories can be classified as consisting of patented products, products on the verge of patent expiry and non-patented products:

- Patented products: Typically the Novartis “A Range” distributors will have geographical exclusivity on these products. The Novartis “A Range” distributors are classified as the preferred distributors to which Novartis has granted exclusive distribution rights for the core range in a demarcated geographical area (see Figure 7.1).
- Products on the verge of patent expiry: One of the key elements of any post-patent strategy is to occupy all possible distribution systems that could be at the disposal of imitators, therefore endeavouring to lock out competitors. On the other hand, the Novartis South Africa view is that the Novartis affiliated distributors should still be given some form of exclusivity, even given the period after patent expiry.

In order to illustrate this policy a commodity active ingredient, metalaxyl (active ingredient of Ridomil, Fundi, and Expose) can be used as an example:

- Ridomil MZ stays an exclusive Novartis “A Range” distributor product.
- Company-specific trade names were registered for Bayer and Wenkem. Bayer have exclusivity on the trade name Expose MZ and Wenkem on the trade name Fundi MZ. Both companies are contractually forbidden to distribute generic metalaxyl in any form. These contracts are negotiated well in advance of the lapse of the patents in order to lock in distributors prior to patent expiry.
- Non-patented products: Non-patented products are classified as all those products that are in the post patent phase of the product life cycle. Typically distributors in South Africa would have a number of manufacturers making these products available in the local market. The Novartis policy is to offer access to these products to virtually all the distributors in South Africa. Once again Novartis South Africa endeavours to give the Novartis affiliated “A Range” distributors some advantages in the market. An example would be exclusivity on a well-branded trade name, or trade mark if applicable for a commodity active ingredient. The product ranges on offer to distributors are grouped into four classes:
 - Range A: The Novartis affiliated “A Range” distributors will have access to this product range. These products will be available to the distributors in question on an exclusive basis for an identified geographical region.
 - Range B: This product range will be made available to a selected group of distributors on a semi-exclusive basis. In most cases there will be two distributors having access to these products in a given geographical area.
 - Range C: Consists of a range of commodity active ingredients that will be sold in active ingredient form to local formulators and to Travon.
 - Range D: A small range of products on which distributors are granted national exclusivity.

7.3.2.3 PRODUCT RANGE DISTRIBUTION EXCLUSIVITY

The principle of exclusivity forms the foundation of the Novartis distribution policy. Three basic options exist for awarding distribution rights for individual products:

- National exclusivity: Products of which the sole distribution rights in South Africa are awarded to specific organisations. It could be a national distributor, e.g. Wenkem.
- Regional exclusivity: Sole distribution rights of certain products are awarded to specific distributors in a particular geographical area. This is the case with the Novartis affiliated “A Range” distributors.
- Unlimited distribution: Products of which distribution rights are not geographically limited. In cases where a product is out of patent but there is no generic competition, the policy is to keep these products exclusive to the Novartis affiliated distributors. Distribution is then possibly widened if market intelligence should indicate that generic equivalents are offered to other distribution channels. In the situation of a “true” commodity where there are numerous look-alikes on the market, the Novartis affiliated distributors have exclusive access to the Novartis brand name. Other distributors will be offered similar products under different brand names. Travon is also used for the marketing of Novartis commodity active ingredients. These Novartis active ingredients then enter the market without any indication that the products, or active ingredients, originate from Novartis. This provides flexibility in the creation of fighting brands.

7.3.3. FLOW DIAGRAM OF DISTRIBUTION MANAGEMENT ACTIVITIES

7.1 Introduction	7.3.3 Management activities
	7.3.3.1 Product flow
7.2 Business approach	7.3.3.2 Margins
	7.3.3.3 Price wars
7.3 Present distribution system	7.3.3.4 Invoicing
7.3.1 Structure	7.3.3.5 Communications
7.3.1.1 Organogram	7.3.3.6 Information
7.3.1.2 Travon	7.3.3.7 Training
7.3.1.3 Distributors	7.3.3.8 Contracts
7.3.1.4 Regional managers	
	7.3.4 Key aspects of system management
7.3.2 Management decisions	
7.3.2.1 System options	7.3.5 Advantages and disadvantages
7.3.2.2 Product range	
7.3.2.3 Exclusivity	7.4 Summary

Figure 7.7 provides a summary of the flow of management activities in the relationship between Novartis and the Novartis distributors. An aspect that needs to be highlighted is the multitude of coordination activities between the parties. One approach would be to “only” provide the physical product. The concept being employed by Novartis is, however, based on the value-added principle. Novartis endeavours to provide the distributor with a comprehensive package that not only includes the physical product, but also value-added items such as joint training and joint planning assistance. Coupled to this, Novartis is also prepared to show its commitment to the long-term prosperity of the Novartis distributors by assisting in general administrative systems implementation and even assistance, free-of-charge, for information technology and human resources management requirements. The underlying principle is that it is difficult for Novartis to solely differentiate the physical Novartis product offer from the products offered by the competition. By addressing the additional elements, as reflected in Figure 7.7, it becomes easier to differentiate Novartis from indicated opposition companies.

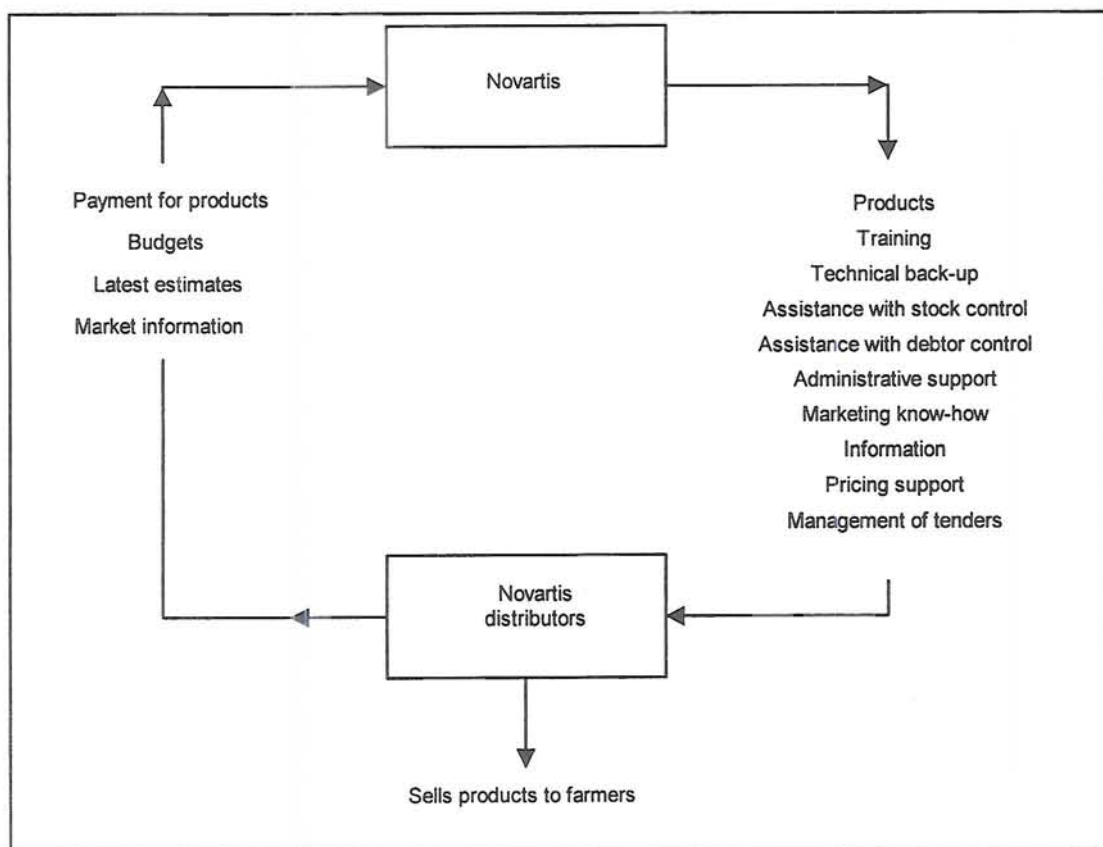


Figure 7.7: Flow diagram of the distribution management activities between Novartis and distributors

Based on Figure 7.7 the physical flow of product, margins, price wars and tender business, invoicing, communication, market information training and contracts will be discussed in detail in Sections 7.3.3.1. to 7.3.3.8.

7.3.3.1. PHYSICAL FLOW OF PRODUCTS

See Figure 7.8 for a flow diagram which highlights the physical flow of products within the Novartis system.

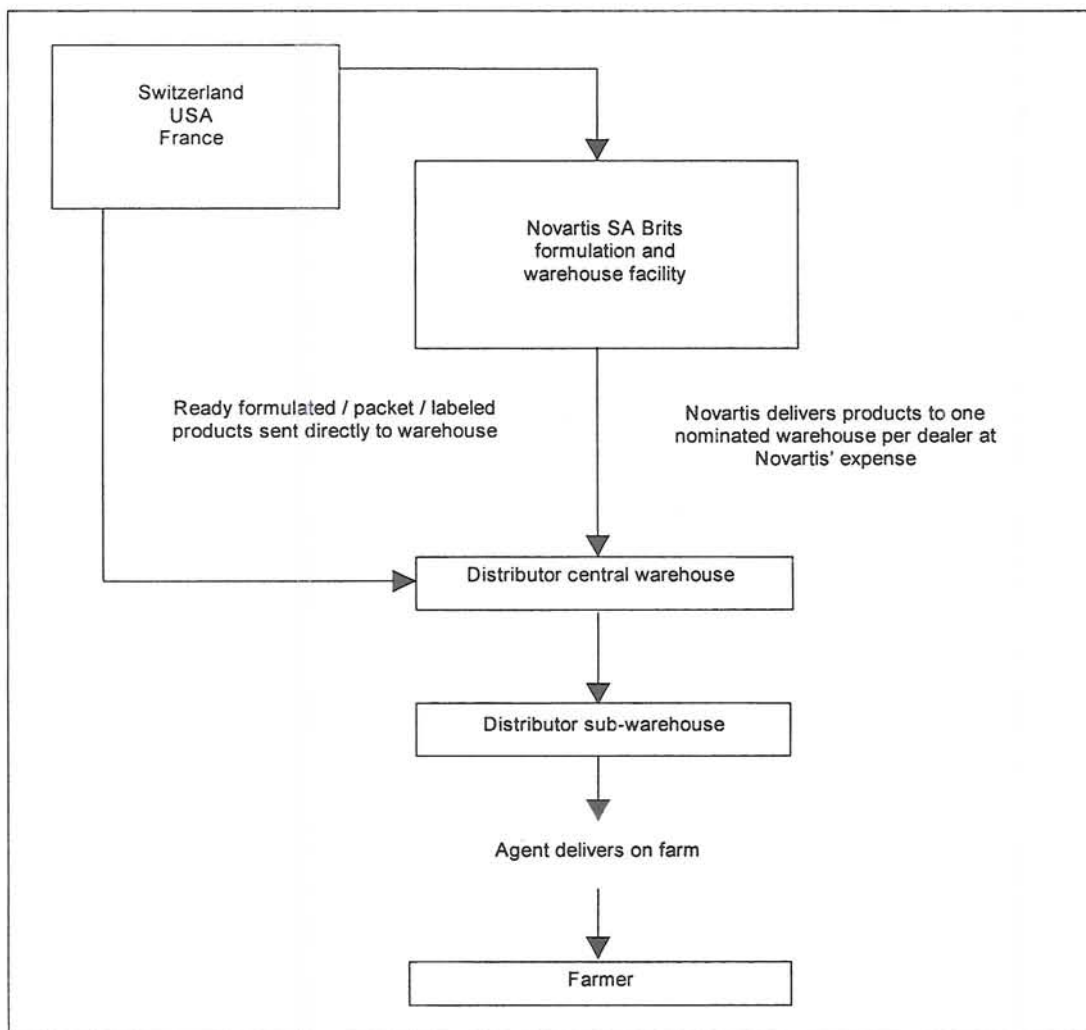


Figure 7.8: Physical flow of products in the Novartis distribution system

Based on Figure 7.8, the following observations can be made:

- Products are formulated at Brits. Active ingredients are brought to Brits from

active ingredient plants in the USA, France and Switzerland. In many instances products are imported ready to use in formulated form. Some of these products are sent directly to distributor warehouses. Novartis has only three locations where Novartis stock is kept. These are at the production facility Novartis has at Brits, and third party warehouses in both Potgietersrus and Paarl.

- Typically each distributor will have one central warehouse from which a number of distributor “sub-warehouses” will be supplied. Agents deliver products on farms.

7.3.3.2 MARGINS GRANTED BY MANUFACTURERS TO DISTRIBUTORS

Margins granted by manufacturers to distributors vary from 20 percent to as high as 40 percent. Margins are based on a recommended end-user (i.e. farmer) price. In many cases, companies inflate these recommended end-user prices artificially, resulting in a vast margin on paper e.g. 40 percent, but in reality a distributor would only achieve a 15-20 percent mark-up.

The Novartis policy is to have “realistic” end-user prices (farmer) and then to have a 20 percent margin in the case of patented products. Insofar as the Novartis commodity products are concerned, margins can be in the 25-30 percent range. The actual margins realised by distributors on commodity products are however lower than those of patented products due to price competition.

7.3.3.3 PRICE WARS AND TENDER BUSINESS

In the case of a price war, the Novartis regional manager allocated to the specific distributor will make recommendations to the national head of sales regarding ways to support the distributor. Assistance might centre around *inter alia* extended payment terms and purchase price discounts.

Novartis submits tenders directly. This action is coordinated by the regional manager with assistance from Novartis head office personnel. The tender document will state that the product will be delivered and invoiced by the Novartis distributor operating in that specific geographical area. Novartis never sells directly to tenders, i.e. under no

circumstances are the Novartis distributors circumvented. As part of the preparation of the tender document, decisions are taken at the outset about the adapted purchase price applicable to that specific tender for the distributor. In some cases the distributor might end up with only a 10 percent margin instead of the normal 20 percent.

7.3.3.4 INVOICING AND FLOW OF MONEY BETWEEN THE FARMER, DISTRIBUTOR AND NOVARTIS

Distributors are invoiced as products are dispatched to them from either Brits or one of the two third party regional warehouses.

Distributors have the following options namely, cash on delivery, 60 days after statement terms, 90 days after statement terms, and seasonal terms. Season accounts are in place for the range of maize products as well as the range of cereal products. In excess of 90 percent of this business is financed by the agricultural cooperatives. In the case of maize products, the farmer will start to draw products from the distributors in August. The farmer will use the cooperative for his /her production capital. The distributor will then be paid directly by the cooperative on behalf of the farmer at the end of November. The distributor, therefore, will never be in a position to pay Novartis at an earlier stage. For all practical purposes, Novartis is forced to adjust distributor credit terms to the cooperative payment conditions. Figure 7.9 provides a schematic summary of invoicing and the subsequent flow of money in cases where the cooperative provides the farmer with production credit.

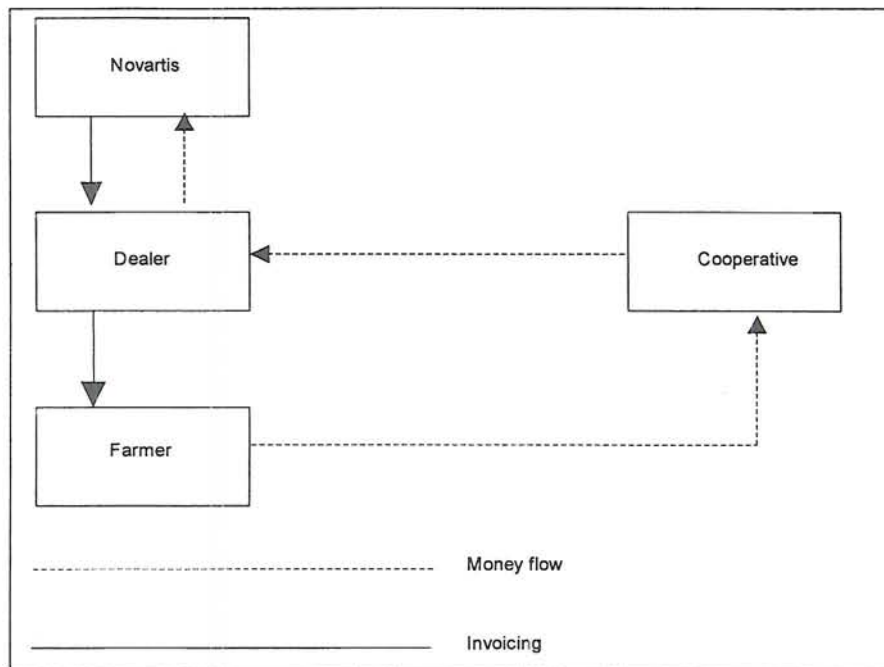


Figure 7.9: Flow of money between the farmer, the distributor, the cooperative and Novartis

With regards to Figure 7.9, the following observations may be made:

- The distributor invoices the farmer via the cooperative, i.e. the distributor obtains an order number from the cooperative.
- The farmer delivers his produce to the cooperative. The cooperative settles the farmers input accounts and pays the net proceeds for the production season to the farmers.
- In the case where the farmer has a direct account with the distributor, the farmer will settle the account directly with the distributor. The present tendency is for farmers to rely more and more on commercial banks for production financing. In the past, the Land Bank of South Africa provided the cooperatives with low interest money. In short, the cooperatives could give the farmers cheaper financing than was the case with the commercial banks.

7.3.3.5 COMMUNICATION

Good communication between all levels within Novartis and the distributor management as well as the affiliated agents is deemed to be of critical importance.

The following actions are taken in an endeavour for the required information flow to take place:

- Distributor managers participate actively in planning meetings that cover aspects such as:
 - advertising and promotional planning;
 - product positioning and re-positioning;
 - strategies for new product development;
 - review of product performance at the end of each spray season; and
 - distribution policies regarding specific products.
- The approach taken is for distributors to feel part and parcel of Novartis planning cycles because Novartis views the distributor as an extension of the Novartis family.
- The regional managers and distributor managers hold regular meetings to discuss strategies and problems that may arise.
- In most cases the Novartis regional manager has an office at the distributor premises. This is a tremendous help to ensure an open line of communication.
- The regional manager and Novartis head office staff attend the bi-monthly distributor meetings where the agents are also involved.
- In cases where there are key policy changes and important developments, the distributor management and agents are called together to inform them of relevant developments. This is important to prevent the spread of unfounded rumours that could be detrimental to the long-term relationship.
- All important developments within Novartis that have a direct bearing on the distributors are communicated directly to the individuals by posting information directly to the agents.

- A bi-monthly in-house newsletter (Novartis News) is circulated to all the distributors in the Novartis camp.
- A Novartis distributor's forum was established to which all the Novartis "A Range" distributors belong. Aspects of mutual concern for the distributors are discussed at these meetings. An example is products flowing freely from one distributor area to another in breach of the Novartis contract with the distributor.
- The regional manager spends a considerable part of his/her time visiting farmers with the different agents. This ensures that there is a link between Novartis and the end-user in order for the Novartis salaried personnel not to lose touch with reality at the forefront of the sales effort.

7.3.3.6 MARKET INFORMATION

Using a third party entity as a distributor can easily lead to a situation where the principal supplier company becomes isolated from the market-place. A situation can occur where the distributor only "feeds" the manufacturer (supplier) with information on a selective basis with a view to manipulate the manufacturer. In order to ensure a steady flow of accurate information the manufacturers need to have ears and eyes in the market-place. The role of the Novartis regional manager is therefore, to a large degree, to ensure that the correct information reaches Novartis head office personnel timeously in order for appropriate action to be taken.

7.3.3.7 TRAINING

Training is of critical importance to improve the viability of a distributor and to make the distributor more dependent on Novartis. Training covers areas as diverse as crop training, product specific training, debtor control training, logistics training, information technology related training and training in selling skills.

7.3.3.8 NOVARTIS CONTRACTS WITH DISTRIBUTORS

Figure 7.10 provides a break-down of the contracts that are in place to regulate the Novartis South Africa distribution policy. The relationship between the different entities in the Novartis distribution structure is governed by contracts as a measure

to ensure a disciplined way of interfacing with the different players.

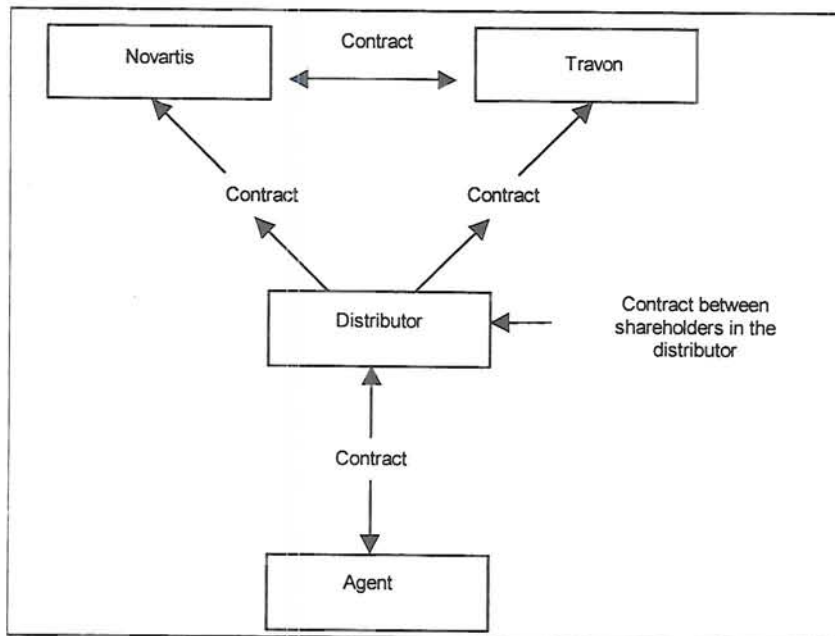


Figure 7.10: Contractual links in the Novartis distribution system

It is evident from Figure 7.10 that contracts act as an important linking mechanism in the distribution system.

7.3.4 KEY ASPECTS TO ADDRESS IN THE MANAGING OF CROP PROTECTION DISTRIBUTION SYSTEMS

7.1 Introduction	7.3.3 Management activities
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7.3 Present distribution system	7.3.3.4 Invoicing
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7.3.1.4 Regional managers	
	7.3.4 Key aspects of system management
7.3.2 Management decisions	
7.3.2.1 System options	7.3.5 Advantages and disadvantages
7.3.2.2 Product range	
7.3.2.3 Exclusivity	7.4 Summary

Novartis regards the following as the most important aspects to address in a distribution channel management system:

- Interpersonal relationships between employees of the manufacturing company and the distributor personnel are critical. Distribution in this context has been classified as a people's game.
- Product range is extremely important due to the technology-driven environment.
- Clear goals and objectives must be set for the distributors. They must know exactly what is expected of them.
- In order to reduce the financial risk of selling via a distributor, the manufacturer needs to ensure that the distributor has a sound financial management system in place.
- Policies presented by the manufacturer must be clear and consistent.
- A clear communication system needs to be in place. This must make provision for communication flow, in an orderly manner, from the manufacturer to the distributor. It must however also be ensured that relevant and timely information reaches the manufacturer from field level.
- The distributor must be viewed as an extension of the manufacturer. The idea is to have a close-knit grouping of a manufacturer and affiliated distributors in a cohesive network. A "partnership approach" is an apt term for the desired intercompany relationship.
- Actions implemented and anticipated by the manufacturer should be aimed at the creation of a long-term relationship. Actions should not centre around short-term, once-off, advantages.
- Planning activities should be done together as a team. Examples include the planning of a new product launch or the marketing campaign for a spraying season. The distributor members need to buy into these marketing programmes.
- The manufacturer should never be greedy in the sense that opportunistic sales might be generated in a once-off situation, but in such a manner that would harm the trust and relationship between the two parties. A typical case for example would be, if a distributor who is not a regular customer, is given a special discount for a large order, that would jeopardize the business of the loyal distributor.
- In all dealings, honesty is of prime importance.

- A high level of trust must exist between the parties in question. Without this, goal attainment becomes problematical.
- Training of the sales people in the specific product attributes can never be over-emphasized. This is key. An agent cannot sell a product effectively if he/she does not know all the intricacies of the product.
- It must always be borne in mind that agents will tend to follow the road of least resistance. This is especially true when they need to “replace” an old, well-known product with a new product or concept that they need to sell to the farmer. Pull action at farm level must be created in order to make the selling task easier for an agent, but also to create a situation where a farmer asks for information on a new product.
- In cases where manufacturers use third party intermediaries to do distribution on their behalf, it must be remembered that the distributors are in the middle between the manufacturer and the ultimate client, i.e. the farmer. Distributors can and do, act as filters of information. They will tell the supplier what he wants to hear. Messages that the distributor is losing market share or that a competitive product is gaining rapid market share does not always reach the manufacturer. The manufacturer must ensure that he is in direct contact with farmers. The manufacturer needs his own ears and eyes at farm level. The approach Novartis takes is to have regional managers allocated to each geographical region to ensure this.
- Product branding is of importance for two reasons. Firstly, a well-branded product is easier to sell, from the perspective of the sales agent. Secondly, due to bad experience with poor quality products, many farmers are prepared to pay a premium for a well-branded product that is perceived to be of superior quality.
- Quality should be the overriding goal in any company. Also, in the context of crop protection products, this concept is important. Quality includes aspects such as quality of formulation, packaging, labelling, as well as the quality of all processes and actions performed in the company.
- It is important for the manufacturing company to “sell” the company. Agents and farmers must know what you stand for, that you have staying power and that you should be the preferred partner for them from a business perspective.

Experience gained with the managing of the Novartis distribution system not only led to the preceding list of “what to do” items but also the composition of a list of “what not to do” items. Guidelines established and used by Novartis South Africa for pitfalls in the management of the Novartis distributor relationships include:

- Relationships are not allowed to deteriorate between Novartis and the distributor. Problems must be addressed proactively and resolved.
- The Novartis staff, and specifically the regional managers, need to be high calibre, competent individuals with a sound academic background and sufficient technical experience.
- All business must be conducted via the distributor. Under no circumstances will Novartis select a lucrative tender (example big farming enterprise) and sell directly without channelling the business via the affiliated distributor (“fishing behind the nets”).
- Communication must not break down. Once a perception is created of incoherency or uncertainty in distribution, system management policy problems can be expected.
- Frequent staff reorganisation can lead to a breakdown or deterioration in the relationship between Novartis and the distributor.

The pitfalls therefore, are seen to be general deterioration in the relationships between Novartis and the distributors, due to a breakdown in communications and short-term oriented actions from Novartis.

7.3.5 ADVANTAGES AND DISADVANTAGES OF THE DISTRIBUTION SYSTEM AS USED BY NOVARTIS SOUTH AFRICA

7.1 Introduction	7.3.3 Management activities
	7.3.3.1 Product flow
7.2 Business approach	7.3.3.2 Margins
	7.3.3.3 Price wars
7.3 Present distribution system	7.3.3.4 Invoicing
7.3.1 Structure	7.3.3.5 Communications
7.3.1.1 Organogram	7.3.3.6 Information
7.3.1.2 Travon	7.3.3.7 Training
7.3.1.3 Distributors	7.3.3.8 Contracts
7.3.1.4 Regional managers	
	7.3.4 Key aspects of system management
7.3.2 Management decisions	
7.3.2.1 System options	7.3.5 Advantages and disadvantages
7.3.2.2 Product range	
7.3.2.3 Exclusivity	7.4 Summary

Any distribution system employed will have advantages and disadvantages coupled to it. Given the present Novartis distribution system in South Africa, the advantages are deemed to be the following:

- Personnel numbers: Headcount is always an issue for a listed company. At the stage that Ciba (before the formation of Novartis by merging, Ciba and Sandoz) employed 50 salaried representatives, the total company personnel complement consisted of 260 employees. Keeping a salaried sales force in operation requires a significant investment in backup employees (storemen, delivery vehicle drivers, administrative staff, etc). At present Novartis has 220 agents promoting the Novartis range at farm level, but a personnel complement of 101. In other words, more feet on the ground, but less people on the payroll.
- Focus: The Novartis organisation can focus on key activities such as product development and marketing. Management time is not wasted on the day-to-day problems of a huge salaried sales force.
- Market coverage: Financial and management constraints restricted Ciba to the number of salaried employees who could be employed. Adding additional agents to the distribution structure does not add any additional cost. The end results

being that approximately four times as many agents visit the South African farmer as was the case when Ciba had 50 sales representatives calling on farmers. The market share results speak for themselves. Market share virtually doubled from 13 percent to 25 percent. The farmer buys at farm level from an agent. It stands to reason therefore, that market share is correlated to the number of sales agents affiliated to a company.

- Fixed cost and variable cost: A significant part of the cost block can be transferred out of the company in the form of “margins”. The cost-to-sales ratio of Novartis dropped from approximately 24-26 percent to 12.4 percent due to a change from the salaried sales force structure to a system of using distributors and their affiliated agents. This is due to the drastic reduction in fixed overheads coupled to salaried representatives, depots, product transportation, etc. The distributors now carry the costs. It should be noted that the increased market penetration and subsequent increase in market share also resulted in the more favourable ratio.
- Product portfolio: In order to keep salaried sales representatives competitive in the market-place, they need to be able to provide their customers with a complete product range. In practice, this means that should a manufacturing company want to use a system of salaried representatives, this company must buy in products from other manufacturers in order to complement the in-house product range and to fill any gaps in the in-house product portfolio. In the case of Ciba, this resulted in 160 additional products that had to be catered for. Once again the company had an additional current asset burden and lost focus. Time had to be spent on the management of this so-called “third party” product portfolio, instead of focusing on the core, profitable in-house products.
- Administrative workload: A comparison between the salaried representative system and the present Novartis distribution systems highlights the vast difference in administrative workload:
 - Products: 50 products at present versus 240 products (80 in-house and 160 third party).
 - Accounts: 30 accounts versus 4 000 accounts.
 - Employees: 101 versus 260 employees.

- Vehicle Fleet: 50 versus 150 in the old system.
- Warehousing: Using the salaried representative system, Ciba required 50 stocking points scattered around the country. The intricacy of managing such a system with 240 products speaks for itself. With the present system, Novartis has only one own warehouse, i.e. the Brits production facility. A third party warehouse facility is operated in Paarl and one in Potgietersrus, i.e. Novartis has 50 products in three locations.
- Price levels: In a scenario where a salaried representative gives discounts, the manufacturer is directly affected. In the present system, the commission agent acts as a buffer between the manufacturer and the farmer, i.e. he absorbs most, if not all, of the price-cutting. Contrary to earlier views, it is clear that a salaried representative would be more likely to give discounts than a commissioned agent. In the last instance, a price discount relates directly to a smaller commission, whereas this is not applicable for a salaried representative, where the prime goal traditionally has been to chase a turnover figure.
- Financial exposure: The financial exposure of bad debt, from the perspective of the manufacturer, is greatly reduced, because the usage of an independent distributor entails the distributor carrying the risk associated with farmers who cannot settle their accounts.

The distribution system used by Novartis however also has a number of disadvantages. The most important disadvantages of the Novartis distribution system revolves around the issues of control and financial risk:

- Novartis has much less control over agents than it had with salaried representatives.
- Distributors may break away from Novartis and start to sell opposition products.
- The financial position of a distributor needs to be closely monitored. If not, the distributor could be a financial risk. The fixed assets of the distributors are minimal. The result being that they only have their debtors to offer as security.

7.4 SUMMARY

7.1	Introduction	7.3.3	Management activities
		7.3.3.1	Product flow
7.2	Business approach	7.3.3.2	Margins
		7.3.3.3	Price wars
7.3	Present distribution system	7.3.3.4	Invoicing
7.3.1	Structure	7.3.3.5	Communications
7.3.1.1	Organogram	7.3.3.6	Information
7.3.1.2	Travon	7.3.3.7	Training
7.3.1.3	Distributors	7.3.3.8	Contracts
7.3.1.4	Regional managers		
		7.3.4	Key aspects of system management
7.3.2	Management decisions		
7.3.2.1	System options	7.3.5	Advantages and disadvantages
7.3.2.2	Product range		
7.3.2.3	Exclusivity	7.4	Summary

Due to financial pressure, Novartis had to change the system of distribution from a cost intensive (fixed cost and variable cost) system of using salaried representatives serving the farmers, to a system of using independent distributors. These distributors have taken away many of the distribution system functions that were previously done in-house by Novartis and are being compensated for doing these tasks via the distribution margins.

Managing independent distributors in a distribution system as intermediaries in order to reach the ultimate customer, calls for scientific system management. The South African experience has shown that aspects like product portfolio, good communication flow, activity coordination measures, training, clear transparent policies, etc. are of critical importance. All factors related to the relationship between the supplier (Novartis in this case) and the distributor, will impact on the ultimate success of the distribution system.

The Novartis system as employed, appears to have many advantages in the endeavours to attain the financial goals of the company, which is an important component of the Novartis South Africa business approach (as described in Section 7.2). The medium to long-term success of using independent third party distributors

however, hinges on the ability to keep these distributors within the network by using control measures to ensure a cohesive, well-functioning network. The key factors that will ensure this should be recognised and addressed in the relationship with the distributors.

Against the background of the analysis of the crop protection industry and the competitive situation (Chapter 3), the company specific situation analysis of Novartis in South Africa and Australia (Chapter 4) and the discussion on crop protection distribution systems in selected countries (Chapters 5, 6 and 7), the problem statement will be formulated in the next chapter (Chapter 8).

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Part II

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Part III

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Part IV

Problem statement – management problems of crop protection distribution systems in South Africa and Australia

Chapter 8

Problem statement – management problems of crop protection distribution systems in South Africa and Australia

Part V

Research methodology - literature research and primary research regarding distribution system management

Part VI

Distribution system management models for the crop protection industry in South Africa and Australia

Part VII

Summary, conclusions and recommendations

CHAPTER 8

PROBLEM STATEMENT – MANAGEMENT PROBLEMS OF CROP PROTECTION DISTRIBUTION SYSTEMS IN SOUTH AFRICA AND AUSTRALIA

8.1 INTRODUCTION

A review of the applicable industry driving forces (Section 8.2), as identified in the analysis of the global crop protection industry (Chapter 3), provides the starting point in the process of formulating the problem statement. Subsequently, a company situation analysis for Novartis in both South Africa and Australia (Chapter 4) serves to identify challenges pertaining specifically to the distribution system management issues for these research-based entities, as well as for similar research-based crop protection product manufacturers (Section 8.3). Finally, a brief review of the distribution systems currently in operation in South Africa and Australia (Section 8.4), as was discussed in Chapters 6 and 7, sets the scene for the formulation of the problem statement (Section 8.5).

8.2 DRIVING FORCES OF THE CROP PROTECTION INDUSTRY

Formulation of the problem statement requires highlighting the driving forces of the crop protection industry that impact on distribution system management models (Section 3.4, page 48). These forces emanate from changing trends and constitute aspects relating to the long-run attractiveness of the industry. Trends that create incentives and pressure for change, were identified as being:

- An industry that is in a decline phase, requiring manufacturers to reduce overheads and to increase market penetration to maintain current profitability levels.
- The entry of more generic product manufacturers as leading crop protection products lose patent protection resulting in margin erosion and the provision of alternative sources of supply for distributors.
- The rationalisation of the number of research-based product manufacturers

resulting in the remaining manufacturers being more formidable competitors with extensive product portfolios which have increased attractiveness for distributors.

- Crop protection product registration regulators making it extremely easy for generic product manufacturers to enter the crop protection markets in countries such as South Africa and Australia offering distributors a much wider choice of potential product suppliers.
- The inability, in general, of research-based crop protection product manufacturers to introduce new innovative patented “blockbuster” chemistry to prop up the generally ageing product portfolios leading to a gradual weakening of the manufacturer’s channel power based on inherent product portfolio strength.

The overall industry trends and conditions are therefore viewed as resulting in the relative weakening position of the typical research-based manufacturer (companies like Novartis) in their interaction with distributors, coupled with the relative strengthening of the overall bargaining position of distributors in their interaction with their product suppliers.

The long-run profit attractiveness of the crop protection industry was also highlighted in Chapter 3, using the Five Forces Model (Porter, 1980). The linkage of these forces, which may also be seen as acting as drivers of change in shaping the distribution system management models, with distribution system management models highlighting the following:

- The role of current product substitution based on generic product substitution and substitution resulting from new biotechnology solutions are seen as a significant force impacting negatively on the long run profit attractiveness of the industry.
- New entrants in the form of both generic product manufacturers and seed companies are giving rise to both market size contraction and margin erosion.
- Bargaining power of distributors (buyers) is increasing primarily due to the generic nature of the overall product portfolio offer and the number of sourcing possibilities is requiring manufacturers to follow more aggressive pricing regimes to secure distributor product orders.
- An increase exists in the buying power of the farmer, given a wider range of

products being available, more sources of information being accessible and increased purchasing power based on the growth in average farm size.

- The bargaining power of input suppliers to manufacturers was deemed to be weak, given the purchasing power of the leading crop protection product manufacturers.

Finally, the identification of the Industry Key Success Factors (Section 3.9, page 69) highlights the importance of research-based manufacturers to reduce their fixed cost structures, revitalises their product portfolios with new patented products, aggressively defends their off-patent products against the generic onslaught and develop, as well as implements distribution system management systems that will improve the current level of control over distribution channels.

8.3 COMPANY SITUATION ANALYSIS FOR SOUTH AFRICA AND AUSTRALIA

The company situation analysis in Chapter 4 addressed Novartis South Africa and Novartis Australia as examples of typical research-based multi-national crop protection product manufacturers operating in these two countries.

8.3.1 SOUTH AFRICA

Based on the company situation analysis the challenges for Novartis South Africa were deemed to be:

- Ways to reduce the current cost structure.
- Ways to reverse the negative trend in product gross margins resulting from increased generic product competition.
- Ensuring that current levels of control are maintained over affiliated distributors.
- Maintaining the current market share position.
- The identification and implementation of measures to increase the attractiveness of the current product offer and total backup support services offered to distributors.

The problem facing the management of Novartis South Africa is therefore what the most suitable distribution system management model would be to address the challenges of:

- (i) The cost structure.
- (ii) The deterioration in margins.
- (iii) The endeavour to ensure continued support from affiliated distributors.
- (iv) The task to develop ways to augment the total product offer as a differentiating tool from the product offers from specifically generic product supplier manufacturers.

8.3.2 AUSTRALIA

Based on the company situation analysis the challenges for Novartis Australia were deemed to be:

- Addressing the gross margin erosion of the off-patent product range.
- Increasing the current level of market penetration.
- Revitalising the ageing product portfolio.
- Drastically improving the level of commitment and support provided by distributors.
- Investigating and implementing measures to significantly increase the level of distribution channel control over distributors.

The problem facing the management of Novartis Australia is the development of a suitable distribution system management model that would be able to address the challenges of:

- i) Margin erosion due to generic product pressure.
- ii) How to increase market share.
- iii) Significantly increase the current level of commitment of distributors.
- iv) Assisting in increasing the current level of “channel power” and channel control.

8.4 CURRENT DISTRIBUTION SYSTEMS IN SOUTH AFRICA AND AUSTRALIA

In Chapter 6 the current distribution systems in South Africa and Australia were reviewed. The distribution system used by Novartis in South Africa was discussed in detail in Chapter 7. From these chapters, the relevant aspects pertaining to the formulation of the problem statement is summarised in Sections 8.4.1 and 8.4.2.

8.4.1 SOUTH AFRICA

In South Africa the system of using salaried sales representatives on the payroll of the crop protection product manufacturers to sell crop protection products directly to farmers in the 1970 – 1990 period ensured that the relevant manufacturers had full control over the distribution system. Today manufacturers have to rely on independent third party distributors to fulfil this distribution role. The primary customer of the manufacturer now becomes the distributor and its affiliated sales agents, and no longer the farmer, who can now be classified as the secondary customer. Figure 8.1 schematically illustrates this situation.

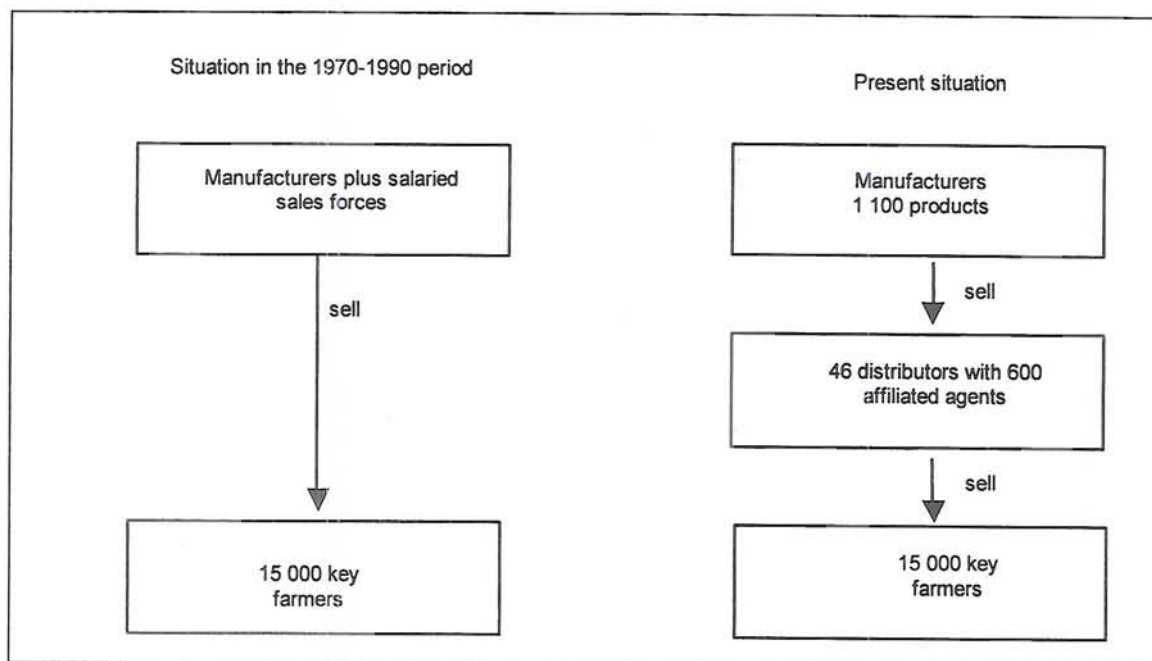


Figure 8.1: A schematic representation of the change in the distribution system in South Africa resulting in the distributors and affiliated agents becoming the primary customers of the crop protection product manufacturer

From Figure 8.1 it is evident that manufacturers had a captive sales force who had to sell a specific product portfolio. Manufacturers also had direct contact with farmers given their salaried sales forces.

The present situation reflects the system whereby manufacturers have to market their product portfolio to middlemen (distributors) who on their part resell products to farmers. Channel control was given in the “old” system. The present distribution system however forces manufacturers to “earn” channel control and to proactively implement distribution management strategies to endeavour to obtain the desired level of control.

8.4.2 AUSTRALIA

Distribution in Australia is controlled by five national distributors. In order to reach the farmer, manufacturers have to convince these distributors to take the specific manufacturer’s products on board.

The distributors in question in Australia distribute extensive ranges of products. Typically they will market the complete product portfolios of all the major manufacturers. The result is that distributor sales personnel tend to offer a farmer a number of options without “marketing” a specific branded product for a specific problem whilst manufacturers would like distributors to actively promote their specific brands. This ultimately leads to a situation whereby distributors decide on products primarily on the price and trading terms offered by a manufacturer.

The predicament facing the manufacturers in Australia is presented schematically in Figure 8.2. The ease of product registrations in Australia results in approximately 1 200 registered products that are offered to the distributors in Australia.

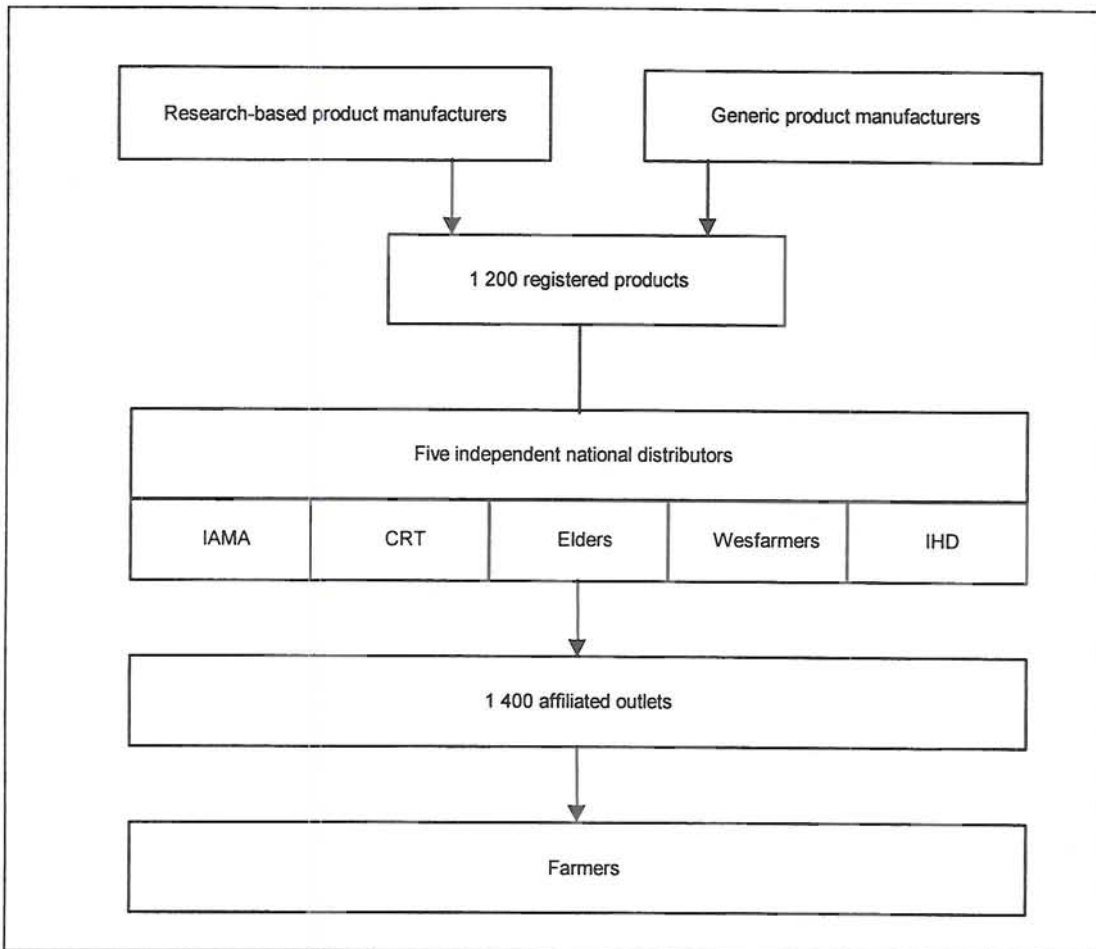


Figure 8.2: Distribution of crop protection products in Australia via the five leading distributors

Figure 8.2 serves to illustrate that the distributors have many product options. Manufacturers have to sell products to the five independent distributors as well as convince the sales representatives at the distributor outlets to actively promote a manufacturer's specific brands plus endeavour to create marketing "pull action" on farm level.

8.5 PROBLEM STATEMENT

According to Kress (1982 : 48) a "problem" is interpreted as being the condition that necessitates the research.

The paucity of information, and a sound knowledge base, with regards to the most appropriate distribution system management models to use in the crop protection

industry in order to address the issues, as reviewed in Sections 8.2 to 8.4 makes appropriate management decisions difficult.

The broad problem statement for manufacturers of crop protection products in both South Africa and Australia is the following: What distribution system management models to use (i) that will optimally balance direct distribution related costs and subsequent level of control over distributors; (ii) that will maximise the probability that a distributor will buy and actively promote the complete product portfolio of a manufacturer; (iii) in an environment where distributors have numerous sources of supply of similar products at competitive prices.

In order to address the stated problem, the following issues have to be considered:

- Identification of the factors that generally play a role in the relationship between manufacturers and distributors and the identification of factors that play a role in specific relationships between manufacturers and distributors in respectively South Africa and Australia.
- Can these industry specific factors, as identified, be ranked in order of importance with a view to provide manufacturers the opportunity to focus on the most important factors given resource limitations?
- According to which distribution system management model should the identified factors be managed in an endeavour to use the knowledge to increase the current levels of manufacturer channel control and distributor commitment?

The above will result in the establishment, and ranking, of the key factors which determine the relationship between manufacturers and distributors and has been identified as the secondary aim of this study (see Figure 2.1, page 15).

The achievement of this secondary aim will subsequently be used as an input to accomplish the primary aim of the study, i.e. the development of appropriate distribution system management models for application in South Africa and Australia (see Figure 2.1, page 15).

8.6 SUMMARY

The problem facing manufacturers of crop protection products is the development of distribution system management models that can be used to maximise the probability of independent distributors buying and promoting the specific manufacturer's product portfolio in an industry environment where distributors have numerous sources of supply for similar products.

Against the background of the problem statement, as presented, Part V of the study is next geared towards the generation of secondary data through a review of related literature on distribution system management and the sourcing of primary research data with surveys conducted in both South Africa and Australia.

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CHAPTER 9

RESEARCH METHODOLOGY EMPLOYED

9.1 INTRODUCTION

The industry and competitive analysis (Part II of the study) together with the review of the crop protection distribution systems used in selected countries (Part III of the study) resulted in the formulation of the problem statement as presented in Part IV (Chapter 8). The purpose of Part V is to generate secondary and primary research data in order to satisfy the requirements for meeting the secondary aim of this study, and thus subsequently to constitute a substantial source of input to development distribution management models, being the primary aim of this study. See Chapter 2 for a discussion of the aims of this study.

The review of related literature on distribution management (secondary research) is presented in Chapter 10. The results of the primary research conducted is presented in Chapter 11, whilst the research methodology employed in this latter regard is discussed in the remainder of this chapter.

9.2 PRIMARY DATA COLLECTION

The approach with the utilisation of the survey questionnaire to collect the primary research findings and the linkage thereof with the distribution management models development, is presented in Figure 9.1.

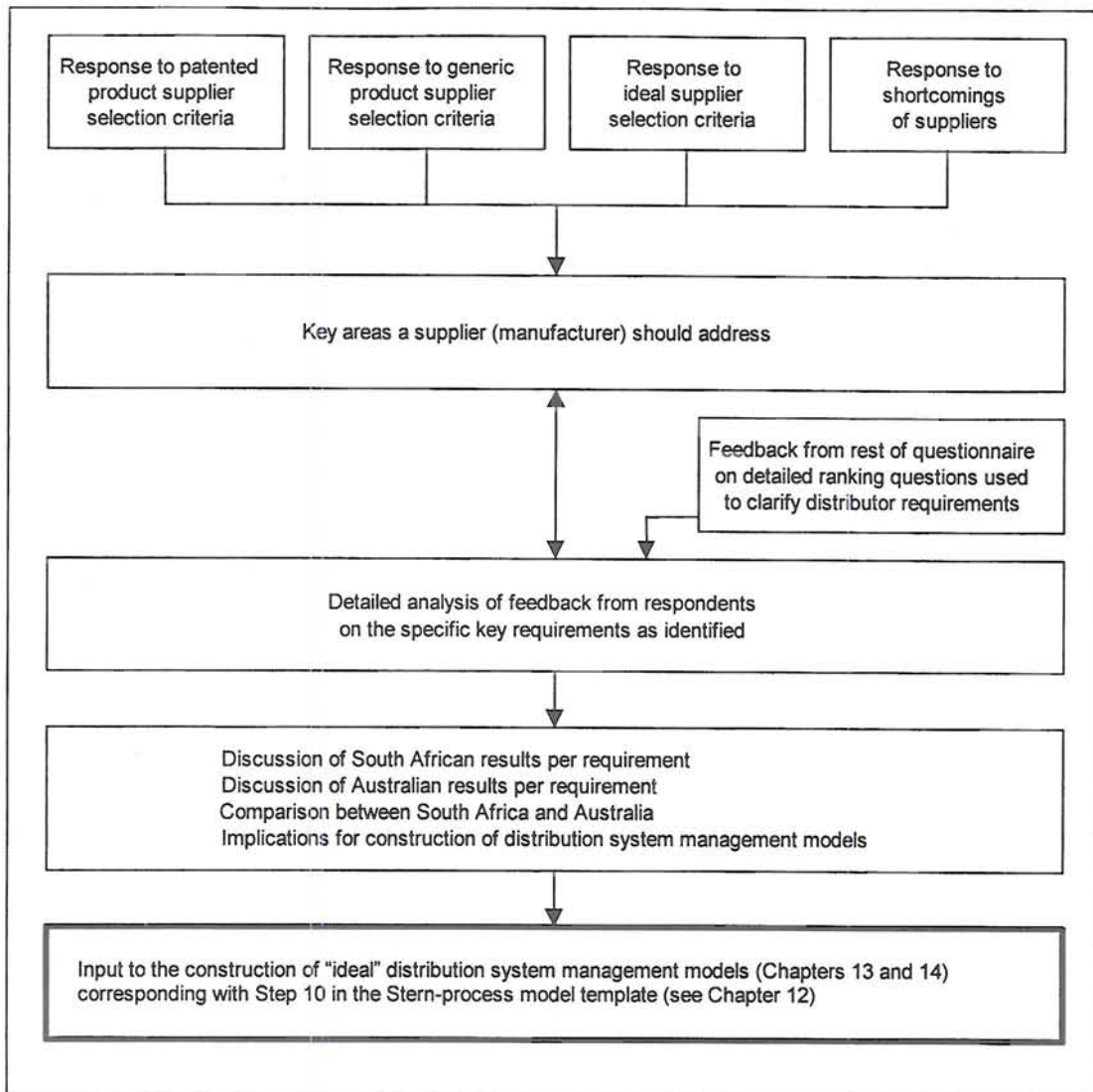


Figure 9.1: Structure of the survey feedback

Figure 9.1 should not be interpreted as suggesting that the survey results are the only input into the distribution system management model building process. As indicated in Figure 2.1 (page 15), the primary research is but only one source of input into this entire process.

The following aspects of the primary research process is subsequently discussed: research questionnaire (Section 9.2.1), sampling (Section 9.2.2) survey method (Section 9.2.3) and data processing (Section 9.3).

9.2.1 RESEARCH QUESTIONNAIRE

Structured questionnaires were chosen as the vehicles for primary research data generation in both South Africa and Australia.

9.2.1.1 PURPOSE OF THE QUESTIONNAIRE

The purpose of the questionnaire can be listed as follows:

- To quantify the specific requirements (needs and wants) of the commissioned sales agents (South Africa) and the salaried sales representatives (Australia).
- To prioritise and rank these identified requirements in priority lists in order to assist manufacturers (suppliers) of crop protection products in targeted resource allocation at key requirements.
- To endeavour to quantify the desired level of performance required by the sales agents (South Africa) and the salaried representatives (Australia) from manufacturers of crop protection products.
- To be able to group interlinked requirements together into key areas or key success factors that should receive special attention in the distribution management model building phase.

The main purpose of this questionnaire is therefore the identification of the requirements that a manufacturer of crop protection products (supplier) must address in its distribution system management model structure and resulting policies in order to improve customer service levels by addressing the identified “needs and wants” of distributors.

9.2.1.2 CONSTRUCTION OF THE QUESTIONNAIRE

The questionnaire has been constructed based on two input sources, namely existing survey research and a literature search.

In the construction phase there was a referral to studies conducted in the crop protection industry in the past. Of note here is the market research study conducted by Ciba in South Africa during 1995 (*Ciba*, 1995) and a similar study conducted by

Novartis in South Africa in 1997 (*Novartis*, 1997c), as well as a follow-up study also conducted in South Africa in 1998 (*Novartis*, 1998c). The supplier appraisal system used by one of the biggest crop protection distributors in the UK and in the USA, namely United Agricultural Products (UAP), also provided valuable reference material (*UAP*, 1998).

A second source of input was derived from the literature search as is reported in Chapter 10. Numerous questionnaires, as used in the comparable research studies referred to in Chapter 10, provided valuable input into the questionnaire construction phase.

9.2.1.3 VERIFICATION OF THE QUESTIONNAIRE

The South African questionnaire was first drawn up. Relevant Novartis employees in the South African marketing and sales departments were respondents in a pilot survey to evaluate the survey with regard to content, terminology and ease of understanding from the perspective of the target audience. A number of small adaptations resulted from this exercise.

It was deemed of importance to have similar questionnaires for both countries in order to be in a position to compare results. It was clear that although the questionnaire was suitable for Australia, minor changes had to be made. This was mainly due to different terminology usage. An example being the terms "sales agent" and "dealership" in South Africa versus the usage of the terms "sales representatives" and "distributors" in Australia. The Novartis Australia employees in the marketing and sales departments were also used as respondents in a pilot survey to ensure the suitability and understandability of the Australian specific questionnaire.

The questionnaire used in South Africa is attached as Appendix A and the Australian questionnaire as Appendix B.

9.2.1.4 STRUCTURE OF THE QUESTIONNAIRE

As indicated previously, input used to construct the questionnaire was survey research from previous studies on distribution channel management as well as the applicable literature search. From this input, a comprehensive potential list of requirements of salespeople (sales agents and sales representatives) could be constructed that was deemed to be applicable to the present study.

The secondary aim of the study is the establishment of the key factors which determine the relationship between manufacturers and distributors (see Figure 2.1, page 15)

It is, however, also applicable to determine what the relative importance of these requirements are. Manufacturers need guidance as to which areas to focus on, and those areas where limited resources should be targeted. The practicality of the market place renders it impossible for a manufacturer to address the comprehensive list of requirements in totality. Using a seven-point scale, the questions in the questionnaire were structured in such a manner, so as to endeavour to determine both the importance of a specific, postulated requirement which, at the same time, could determine the relevant importance of a specific requirement in relation to the other requirements.

A problem could however exist insofar as some important requirements might not have been incorporated into the listing of postulated requirements. As a check to ensure that all the relevant requirements had been identified, it was deemed appropriate to also include a number of open-ended questions where respondents were prompted to spontaneously list what they deemed to be key requirements.

Open-ended questions were used to gather data concerning the following key areas:

- What the sales agent or sales representative expects from his or her supplier (manufacturer).
- What requirements the respondent has of what he or she would see to be his or

her ideal supplier (manufacturer).

- What backup support is needed.
- What the present shortcomings of manufacturers are perceived to be.

In questions where respondents were requested to rank the importance of mentioned potential requirements, these requirements were grouped together in the construction phase of the questionnaire. Groupings used included:

- product brand importance ratings,
- product development ratings,
- pricing ratings,
- exclusivity importance ratings,
- technical support ratings,
- communication requirements ratings, and
- policy and support ratings.

In order to evaluate the present standard of support rendered by manufacturers in the crop protection industry, two groups of questions were included to determine this. Respondents were asked to evaluate their pertinent supplier (manufacturer) on 44 key areas deemed to be of importance in the manufacturer relationship with distributors.

Following from Chapter 3, where an overview of the industry was provided, a clear distinction was made between research-based manufacturers and generic product manufacturers (i.e. non-research-based). Although it can be deduced that the distinction between these groups will become less obvious as time passes, this distinction is still seen to be of significant importance. The construction of the questionnaire was thus done in such a fashion that ultimately, in the analysis phase, a clear distinction could be made between the requirements sales agents and sales representatives have from research-based manufacturers versus what they require

from generic product manufacturers.

Levels of service required by sales agents and sales representatives from manufacturers can vary, depending on the specific crop the distributor is active in. As an example to illustrate this concept, an export fruit farmer will be much more service intensive, from the perspective of the distributor, than would be the case with an extensive wheat farmer, who follows a relatively straightforward spray program in comparison to the export fruit farmer who constantly needs to adapt spray programmes, depending on changes in the weather, etc. It can be reasoned that these differences could translate into different requirements from a supplier, if a comparison is made between distributors operating in for example cereal production, compared to export fruit production. For this reason details concerning key crops and the geographical area of operation, have been catered for in the questionnaire construction.

Outside the direct delimitation of this study a question was also included to measure the perception of sales agents and sales representatives of the requirements that farmers have of them. Farmers are of course the ultimate customers of crop protection product manufacturers. The issue always arises as to what actions are required to create the necessary "pull action" at farm level. This justifies a study in it's own right, but it was considered that some input on this issue would be worthwhile in the context of this research.

9.2.2 SAMPLING

In Chapter 6, where a review of the distribution structures in South Africa is provided, details of the research population are included (see Table 6.4, page 124). These distributors were contacted directly and requested to provide particulars of sales agents affiliated to them in order to identify the elements the population is composed of. Small "one man show" operations were not included (judgemental sampling). In total, particulars of 547 sales agents (elements) were compiled. In many cases a sales agent will have what is termed sub-agents. This can be classified as "trainee agents" or in some cases "part-time agents". These individuals were not targeted as potential respondents for the survey and duly deleted from the target population

(judgemental sampling). An ultimate population size of 483 was established, based on the described process followed.

The 483 elements of the population were ranked alphabetically and numbered from 1 to 483. Simple random sampling (without replacement) was used to identify targeted respondents from the population of sales agents. A simple random sample is one that is selected in such a way that each time an element is selected from the population, all those available for selection have an equal chance of being selected (Daniel, 1984 : 10).

In selecting a simple random sample from a population, in order to ensure true randomness, an objective method must be used. One such procedure involves the use of a table of random numbers. Using such a table ensures that every observation in the sampled population has an equal and independent chance of being selected (Daniel, 1984 : 11).

The table of random numbers of the Rand Corporation (A Million Random Digits), as listed in Daniel (1984 : 407), was used to identify 270 respondents. The objective was to have approximately 250 respondents. Given that not all respondents could be reached, there were ultimately 253 questionnaires completed telephonically in South Africa, i.e. a response rate of 46,3 percent.

In Australia the key distributors, namely Cotton Growers Services (CGS), Combined Rural Traders (CRT), Elders, IAMA, Independent Horticultural Distributors (IHD) and Wesfarmers were approached to provide particulars of their sales representatives. These particulars were forthcoming from all the companies, with the exception of Wesfarmers, who have a long-standing policy of not allowing their employees to participate in any surveys.

A list of 642 sales representatives was compiled as the research population. This represents 38,7 percent of the estimated 1 660 sales representatives in Australia. Due to the inability to get access to the details of the 220 Wesfarmers sales representatives this group could not be included in the sample population. The approximately 500 sales representatives affiliated to small outlets or resellers who

are not primarily selling crop protection products and were not affiliated to the leading distributors (CRT, Elders, IAMA and IHD), were not included in the research population. In the case of CRT, there are a significant number of affiliated outlets with marginal activities in crop protection. The Novartis territory sales managers were used to identify these individuals and they were subsequently deleted from the list of potential respondents, reducing the target population by another 298 individuals (judgemental sampling). Ultimately therefore, a target population of 642 sales representatives was identified as the sample population for the primary research in Australia. The elements of the population were ranked alphabetically, numbered from 1 to 642, and simple random sampling (without replacement) was used to identify targeted respondents using exactly the same process as described for South Africa in preceding paragraphs. In total 200 respondents were identified and contacted telephonically in order to complete the questionnaire resulting in the completion of 180 questionnaires reflecting a 28,0 percent response rate (20 potential respondents could not be reached).

9.2.3 SURVEY METHOD

The South African leg of the survey was conducted telephonically by the market research company Objectivity, during the period 10 November 1998 to 10 December 1998.

In Australia, the telephonic survey was conducted by the Dynatron market research company during the period 05 April 1999 to 09 June 1999.

In both cases, respondents were not told who had commissioned the project and were assured of the confidentiality of their responses.

9.3 DATA PROCESSING

Respondents were requested to respond to the questions put to them either with spontaneous answers or as a response to a scaled question numbered along a Likert scale.

In the questions that required a rating to be made concerning the relevant importance of an attribute a seven point Likert scale was used. A score of one being “low or very poor” with seven being on the other extreme of the scale as “high or excellent”. Provision was also made for “non-applicable” or opt-out responses with the use of the zero option. For each question a mean was calculated as well as the standard deviation as a measure of dispersion.

In the case of spontaneous response questions where respondents could mention a number of requirements in sequence of importance, like meaning words and phrases were grouped together into meaningful categories. The following procedure was followed:

- The first attribute mentioned was allocated seven points, followed by six points for the second and five points for the third and so on.
- The total number of mentions of a requirement or attribute was tabled.
- A weight had been allocated to each attribute by the adding up of all the different points allocated to that attribute or requirement.
- An index value was calculated for each attribute or requirement by allocating 100 to the attribute or requirement with the highest weight and expressing the index figure of other attributes or requirements as a percentage of the attribute or requirement with the highest weight.
- A rating was calculated by division of the weight allocated to an attribute or requirement by the number of times that the specific attribute or requirement was mentioned by respondents.

The company Objectivity based in Johannesburg, South Africa, conducted data processing for both the South African and Australian surveys.

The South African results were presented in a set of three bound reports namely, an Executive Summary and two Research Reports (*Novartis*, 1998d).

The Australian results were compiled in the same manner (*Novartis*, 1999a).

A report on the combined results was also compiled (*Novartis*, 1999b).

The review and analysis of the survey results are presented in Chapter 11.

9.4 SUMMARY

Country specific questionnaires were constructed for South Africa and Australia using input from the literature search on distribution channel management (Chapter 10) and data gathered from existing survey research pertaining to the distribution of crop protection products.

The sales agents (South Africa) and sales representatives (Australia) were targeted as respondents and surveyed telephonically.

In the following chapter a review of related literature on distribution system management is presented, being the secondary research input into this study. Part V will be concluded with a review and analysis of the survey findings to provide the primary research input required for the construction of distribution system management models (Chapters 13 and 14).

Part I
Introduction, background, aims and framework of the study

Part II
Industry and competitive analysis of the global crop protection industry

Part III
Crop protection distribution systems in selected countries

Part IV
Problem statement – management problems of crop protection distribution systems in South Africa and Australia

Part V
Research methodology - literature research and primary research regarding distribution system management
Chapter 9
Research methodology employed
Chapter 10
Review of related literature on distribution system management
Chapter 11
Review and analysis of survey results

Part VI
Distribution system management models for the crop protection industry in South Africa and Australia

Part VII
Summary, conclusions and recommendations

CHAPTER 10

REVIEW OF RELATED LITERATURE ON DISTRIBUTION SYSTEM MANAGEMENT

10.1 INTRODUCTION

The focus in Chapter 10 is on a review of related literature regarding distribution system management. The findings portrayed in Chapter 10, as well as the primary research data generated, are important sources of information to be utilised in the process of developing appropriate distribution system management models for application in South Africa and Australia.

The following aspects are covered in this chapter:

- The definition of a distribution system (Section 10.2).
- The purpose of distribution system management (Section 10.3).
- The relationship between manufacturers and distributors in a distribution system (Section 10.4).
- Dependence and interdependence in a distribution system (Section 10.5).
- Trust and commitment in distribution system relationships (Section 10.6).
- Channel power in distribution systems (Section 10.7).
- Channel conflict in distribution systems (Section 10.8).
- Distributor satisfaction (Section 10.9).
- The role of communications in distribution system management (Section 10.10).
- The role of agreements in distribution system management (Section 10.11).
- The role of electronic commerce in the relationship between manufacturers and distributors (Section 10.12).
- Factors to be addressed by manufacturers in order to optimise the working relationship with distributors (Section 10.13).
- Customer relationship management (Section 10.14).

10.2 THE DEFINITION OF A DISTRIBUTION SYSTEM

10.1	Introduction	10.9	Distributor satisfaction
10.2	Definition of a distribution system	10.10	Communications
10.3	Purpose of system management	10.11	Agreements
10.4	Manufacturer and distributor relationship	10.12	Electronic commerce
10.5	Dependence and interdependence	10.13	Relationship factors to address
10.6	Trust and commitment	10.14	Customer relationship management
10.7	Channel power	10.15	Summary of the Chapter
10.8	Channel conflict		

The definition of a distribution systems can best be explained by analysing its components: an organised network (system), agencies and institutions, system functions, the linkage of manufacturers, distributors and end-users, as well as the marketing task (Berman, 1996 : 5-8). Firstly, an organised network in a distribution system refers to the need for distribution system participants to work together in an integrated and coordinated manner. Distribution system members need to share common objectives concerning customer (end-user) service and product image. Developing an integrated strategy is more difficult when distribution system members are independently owned. The second part of the definition of distribution systems relates to the agencies and institutions that are system participants. The third component of the definition refers to system member activities. The fourth part of the definition refers to the linkage of manufacturers, distributors and product or service users whereas the last part of the definition focuses on the accomplishment of the marketing tasks.

A distribution system is also viewed as a set of interdependent agencies (manufacturers and distributors) that, by the exchange of products and services, provides time, place and possession utilities to make that product or service available for final consumption to the end-user (Bradley, 1995 : 752). Distribution

systems have also been defined as “sets of interdependent organisations involved in the process of making a product or service available for use or consumption” (Stern and El-Ansary, 1988 : 3). It has been suggested that the concept of systems of distribution is one of the most fundamental, original and enduring concepts in the marketing literature (Stern, 1969 : 1).

It is required to clearly distinguish between the concept of “distribution systems” and the concept of “physical distribution”. A distribution system is defined as the vertical marketing system of forces, conditions and institutions associated with the sequential passage of a product or service through two or more markets, or sets of contractual relationships through which the exchange of goods or services is consummated (Bucklin and Stasch, 1970 : 131). The relationship among the various organisations providing distribution services has given rise to the concept of distribution systems as political economies (Stern and Reve, 1980 : 53).

Physical distribution, however, views distribution system management from an activity perspective. Physical distribution describes a concept or an approach to managing the finished goods inventory of the firm. It includes the transportation, warehousing, inventory and order processing functions of the firm (Berman, 1996 : 9). The development of distribution management models needs to address issues pertaining to both the management of “distribution systems” and aspects of the “physical distribution” of products.

Rosenbloom (1995 : 5) expresses the opinion that the marketing system is viewed as one of the key marketing decision areas that marketing management must address. In this context he defines a distribution system as: “The external contractual organisation that management operates to achieve its distribution objectives”. The term external means that the distribution system exists outside the firm. Management of the distribution system therefore involves the use of inter-organisational management rather than intra-organisational management. The term contractual organisation refers to those firms or parties who are involved in the process of a product or service moving from the manufacturer to the distributor and then to its ultimate user. The third term, operates, is meant to suggest involvement by management in the affairs of the distribution system (Rosenbloom, 1995 : 6).

Distribution systems therefore involve the organisational arrangements the manufacturer makes to deliver its products and services to the distributor or end-user. Distribution systems perform the function of accumulating products and services into assortments required by customers, distributors and end-users, and assuring that this assortment is delivered to the location desired at the time required and in the quantities demanded (Bradley, 1995 : 750). According to Stern, El-Ansary and Coughlan (1996 : 281) distribution systems can also be viewed as a super-organisation comprised of interdependent institutions and agencies involved in the task of making products and services available for consumption by end-users stressing the challenge of managing this “super-organisation”.

A clear distinction therefore exists between the management of a “distribution system” involving the interplay between different entities in the system and “physical distribution” as the process of managing the physical flow of products.

For the purpose of this study a distribution system is defined as independent entities, i.e. manufacturers and distributors, that are interdependent, and contractually bound, working closely together in a co-ordinated fashion using inter-organisational management models to endeavour to reach the common objectives of the participants with the ultimate goal to meet the end-user, i.e. farmer product and service requirements. Although “physical distribution” is deemed to be part of this definition, the physical distribution of products is not a focus area of this study and is not elaborated upon in detail in the rest of the literature review. This is because the problem facing manufacturers is not the “physical distribution” of products but the management aspects of distribution system management.

10.3 THE PURPOSE OF DISTRIBUTION SYSTEM MANAGEMENT

10.1	Introduction	10.9	Distributor satisfaction
10.2	Definition of a distribution system	10.10	Communications
10.3	Purpose of system management	10.11	Agreements
10.4	Manufacturer and distributor relationship	10.12	Electronic commerce
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10.7	Channel power	10.15	Summary of the Chapter
10.8	Channel conflict		

From a manufacturer's perspective, the purpose of distribution system management (Corey, Cespedes and Rangan, 1989 : 130) can be defined as:

- Achieving breadth of market access through widespread distribution.
- Ensuring product flow-through in fulfilment of end-user demand.
- Gaining distributor sales support for its product line with the distributor's customer base.
- Ensuring that its distributors devote their primary efforts to the manufacturer's lines as opposed to competing brands.
- Maintaining orderly end-market price conditions and thus safeguarding product line profits and avoiding price deterioration in the distribution system as a result of price wars.
- Enabling a manufacturer to make adaptive changes in the distribution system as product-market conditions evolve.

Manufacturers therefore require distribution system management models that ensure full commitment from the distributor partners to ensure that sufficient market penetration is achieved in a well planned and orderly fashion.

From a managerial perspective, the design and management of distribution systems, coupled to management of inter-firm relationships, has become a strategic decision variable in its own right (Heide, 1994 : 71). More and more firms consider their distribution systems as being strategic assets that can provide a sustainable edge over competitors who copy their product design, duplicate their quality and undersell them on price (Hardy and Magrath, 1988 : 65). The importance of distribution system management is evident, but it also highlights the situation that an insight is required into the factors that determine the relationship between a manufacturer and a distributor in a distribution system.

In response to increased complexity and dynamism in customer (both distributors and end-users) needs, selling tasks, technology and business-to-business marketing, the purpose of distribution system management for manufacturers is to forge alliances with distributors to cooperatively develop and maintain end-user relationships (Smith and Barclay, 1997 : 3). There is a consensus that the relationship between the manufacturer and its customers, i.e. distributors and end-users, is critical to the manufacturer's survival and success (Bendapudi and Berry, 1997 : 16). The purpose of the distribution system can therefore be seen as a way of safeguarding a manufacturer's future markets.

Today's environment is forcing manufacturers and distributors to re-evaluate relationships and to concentrate on joint objectives and mutual understanding (Kumar, Stern and Achrol, 1992 : 239 - 240). Typically, the number of manufacturers (suppliers) is being reduced by distributors, and bonds within remaining relationships are being strategically aligned to emphasize long-term mutual benefits (Webster, 1992). Manufacturers can view the purpose of distribution management systems as a way to become a distributor's supplier of choice. Rolnicki (1997 : 14) sees the role of manufacturers to achieve a disproportionate share of the resource commitment of distributors through the crafting of a business relationship that benefits both parties.

Manufacturers engage in relationships with distributors because such relationships are instrumental in achieving the manufacturer's objectives (Kumar, Stern and Achrol, 1992 : 239). Outsourcing complete or partial activities creates great opportunities but also new types of risks. Management's main strategic concerns are

the loss of critical skills or developing the wrong skills, loss of cross-functional skills, and loss of control (Quinn and Hilmer, 1994 : 52).

One of the fundamental aspects of distribution system relationships is that manufacturers and distributors involved in the relationship will attempt to influence the actions of another in order to achieve its goals (Cronin and Baker, 1993 : 84). Therefore, the challenge for manufacturers is to manage the distribution system in such a manner that objectives are met without sacrificing the desired level of control.

In both industrial and consumer goods markets, manufacturers want control of distribution systems for better execution of their marketing strategies (Butaney and Wortzel, 1988 : 52). Distributors, or middlemen, have been assumed to also want control of the distribution system to avoid being bound by strategies determined by the manufacturer. Many marketers reason that distribution system control is accomplished by the exercise of power, consequently the identifying of the determinants of system power has been an important research objective. Distribution system management has therefore once again the goal to ensure adequate levels of "control" for manufacturers over the distribution system.

Traditionally, manufacturers and distributors have relied on price and related mechanisms of intermediary markets to secure the required cooperation from other system members. According to Heide and John (1990 : 24), the nature of buyer-supplier relationships has been undergoing dramatic changes. It is maintained that ties are becoming "closer". Spekman (1988 : 76) refers to terms such as "alliances" to describe relationships while Johnson and Lawrence (1988 : 94) uses the term "partnership". This terminology is in stark contrast with the "arm's length" approach that used to prevail in many instances. The purpose of distribution system management should be to aspire to "partnership" type relationships due to benefits that can arise from these types of arrangements. Lendrum (2000:7) defines strategic partnering as: "The cooperative development of successful, long-term, strategic relationships, based on mutual trust, world-class and sustainable competitive advantage for all the partners in the relationship". Furthermore, strategic partnering is viewed as a process that fundamentally alters the way relationships between manufacturers (suppliers) and customers are managed (Lendrum, 2000:38).

The need for relationship marketing stems from the changing dynamics of the global market-place and the changing requirements for success. To be an effective competitor in today's global market-place, it requires one to be an effective cooperator in some network of organisations (Morgan and Hunt, 1994 :34).

Strategic partnering between manufacturers (suppliers) and distributors in both the retail and wholesale channels will be fundamental to the future market success of manufacturers (Clark, 2000:29). Distribution management systems should therefore provide guidelines and structures for manufacturers and distributors to cooperate effectively in the system with the view of building lasting relationships.

10.4 THE RELATIONSHIP BETWEEN MANUFACTURERS AND DISTRIBUTORS

10.1	Introduction	10.7	Channel power
10.2	Definition of a distribution system	10.8	Channel conflict
10.3	Purpose of system management	10.9	Distributor satisfaction
10.4	Manufacturer and distributor relationship	10.10	Communications
	10.4.1 Types of relationships		
	10.4.2 Transactional relationship	10.11	Agreements
	10.4.3 Relationship marketing		
	10.4.4 Relationship model	10.12	Electronic commerce
	10.4.5 Partnership alliances		
	10.4.6 Maintaining relationships	10.13	Relationship factors to address
	10.4.7 Summary		
		10.14	Customer relationship management
10.5	Dependence and interdependence	10.15	Summary of the Chapter
10.6	Trust and commitment		

Traditionally, the relationship between independent manufacturers and distributors in a distribution system has been viewed as a set of activities where each company bargains with the other about the extent and intensity of their individual efforts in completing a common marketing mission (Gardner, Joseph and Thach, 1993 : 2). The other extreme can be considered to be the partnership concept where

manufacturers and distributors combine resources to the mutual benefit of both parties. Johnson and Lawrence (1988 : 94) refer to the concept of “value-adding partnership” as a set of independent companies that work closely together to manage the flow of goods and services along the entire value-added chain of the distribution system.

The customer, being either the distributor or end-user, is fundamental to a marketing relationship. Marketing exists to make the satisfaction of customer needs, as well as those of the marketing organisation, efficient and possible (Sudharshan, 1995 : 145). In a situation where a manufacturer uses a distributor as a means of servicing the ultimate customer, i.e. the end-user, the manufacturer needs to have an excellent working relationship with the distributor.

Relationships can vary from a short-term transaction-specific relationship to a relationship built on the concepts of partnership. Proponents of the relationship marketing model argue that a firm cannot sustain long-term growth without a strong base of loyal customers (Berman, 1996 : 204). Managing a distribution system, from the perspective of a manufacturer, requires knowledge of the different types of relationship approaches as well as the management of inter-company relationships (Sections 10.4.1 – 10.4.6).

10.4.1 DIFFERENT TYPES OF RELATIONSHIPS

Joshi (1995 : 84-86) provides a comparison between different types of relationships possible in the manufacturer and distributor interface. This comparison is depicted in Table 10.1.

Table 10.1: Relationship marketing mechanism and their features

Features	Short-term relationship	Long-term relationship	Manufacturer – distributor partnership	Strategic alliance
Problem solving orientation	Adversarial	Adversarial	Joint planning	Joint administrative controls
Focus of exchange	Price	Price, Quality, Technical support	Prices, Quality, Continuous value creation	Price, Quality, Continuous value creation
Nature of interdependence	Low	Sequential	Reciprocal	Pooled

Source: Joshi, 1995 : 85.

Table 10.1 illustrates that manufacturer – distributor relationships can vary significantly from a short-term approach to a long-term strategic alliance linkage.

Traditionally, marketing exchange relationships have been of a discrete or repeated transaction nature. That is, buyers and sellers have transacted on a one-shot basis, or have transacted on an ongoing basis, but treating each transaction as separate from the previous transaction (Webster, 1992 : 6). This sentiment is shared by Buzzell and Ortmeyer (1995 :85): “Traditionally the relationship between distributors and manufacturers was, at best, arms’ length. The manufacturer’s objective was to move the greatest possible volume of goods at the highest price. The distributors’ goal was to negotiate the lowest price for those goods”.

Manufacturer-distributor partnerships differ from long-term relationships along three dimensions. Firstly, negotiation gives way to joint planning and proactive orientation. Secondly, efficiencies arise from effective coordination and that adds value to the relationships. Finally, in contrast to long-term relationships, manufacturer-distributor partnerships involve reciprocal interdependence as opposed to sequential interdependence (Webster, 1992 : 8). A partnership can be defined as meaning the sharing of loss as well as gain between a manufacturer and a distributor and the exploitation of opportunities for unilateral gain by the partners (Sinclair, Hunter and Beaumont, 1996 : 65).

Strategic alliances differ from manufacturer-distributor partnerships in two ways.

Joint planning in strategic alliances is institutionalised by the two organisations that pool their resources to create a separate entity that is managed by a jointly created bureaucracy and administrative controls. Secondly, value in strategic alliances is created through the pooling of resources by the exchange partners opposed to reciprocal interdependence in manufacturer-distributor relationships (Joshi, 1995 : 75).

Joshi (1995 : 86) summarises the differences as long-term relationships representing the initiation of manufacturer-distributor relationships, the development of partnerships representing the intensification of these relationships and the formation of strategic alliances represents the formalisation of these relationships.

Manufacturers and distributors have to make decisions where they would want to be positioned on this continuum of distributor relationships, ranging from transactional to partnership arrangements or strategic alliance models.

An approach of strategic alliances have clear benefits in terms of close cooperation and a long-term strategic approach to the conducting of business. Lendrum (2000:32) provides an extensive list of benefits from both the perspective of the manufacturer (supplier) and the distributor (customer) that can be derived from strategic alliances (strategic partnering).

Given the importance of the “short-term” and strategic or “long-term” approach to business relationships Section 10.4.2 explores the different approaches in more detail using the terminology of “transactional marketing” and “relationship marketing”.

10.4.2 A COMPARISON BETWEEN TRANSACTIONAL MARKETING AND RELATIONSHIP MARKETING

A manufacturer's relationships with its distributor clients can be described from the perspective of two contrasting models, namely transactional marketing and relationship marketing. Transactional marketing represents the traditional view of marketing.

In transactional marketing, a distributor uses multiple sources of supply, tends to switch frequently among manufacturers, and buys largely on the basis of price.

The focus of transactional marketing is on exchanges in single transactions. Transactional marketing is also adversarial by nature. Both manufacturers and distributors seek to maximise their short-term profitability. There is little trust or commitment between manufacturers and distributors (Berman, 1996 : 203). In contrast to transactional marketing, relationship marketing (partnering) is based on building and maintaining long-term relationships between manufacturers and distributors that are based on trust and commitment. Relationship marketing proponents argue that the elements that comprise relationships in marketing are similar to those in personal relationships: shared values, trust, mutual respect, mutual benefit, frequent communications, honest feedback, cooperation, flexibility, understanding and relationship commitment (Berman, 1996 : 204).

Discrete contracting, or transactional norms include an emphasis on individual goals, minimal investment in a partner, and formal communication. Conversely, relationship exchange is characterised by win-win negotiation philosophies, high levels of mutual trust, long-term investment and informal communications (Boyle and Dwyer, 1995 : 190).

Table 10.2 provides a comparison of discrete transactions to relational exchange based on the terminology of Dwyer, Schurr and Oh (1987 : 13) for transactional marketing and relationship marketing respectively. This comparison is still considered to be valid.

Garbarino and Johnson (1999 : 70), however, argue that a manufacturer may need to pursue both transactional marketing relations and relational marketing arrangements simultaneously because not all distributors want the same working relationship.

Table 10.2: Discrete transactions compared to relational exchange

Contractual elements	Discrete transactions	Relational exchange
Situational characteristics		
Timing of exchange (commencement, duration, and termination of exchange).	Distinct beginning, short duration, and sharp ending by performance.	Commencement traces to previous agreements; exchange is longer in duration, reflecting an ongoing process.
Number of parties (entities taking part in some aspect of the exchange process).	Two parties.	Often more than two parties involved in the process and governance of exchange.
Obligations (three aspects: sources of content, sources of obligation, and specificity).	Content comes from offers and simple claims, obligations come from beliefs and customs (external enforcement), standardised obligations.	Content and sources of obligations are promises made in the relation plus customs and laws; obligations are customised, detailed, and administered within the relationship.
Expectations for relations (especially concerned with conflicts of interest, the prospects of unity, and potential trouble).	Conflicts of interest (goals) and little unity are expected, but no future trouble is anticipated because cash payment upon instantaneous performance precludes future interdependence.	Anticipated conflicts of interest and future trouble are counterbalanced by trust and efforts at unity.
Process characteristics		
Primary personal relations (social interaction and communication).	Minimal personal relationships; ritual-like communications predominate.	Important personal, non-economic satisfactions derived; both formal and informal communications are used.
Contractual solidarity (regulation of exchange behaviour to ensure performance).	Governed by social norms, rules, etiquette, and prospects for self-gain.	Increased emphasis on legal and self-regulation; psychological satisfactions cause internal adjustments.
Transferability (the ability to transfer rights, obligations, and satisfactions to other parties).	Complete transferability; it matters not who fulfils contractual obligation.	Limited transferability; exchange is heavily dependent on the identity of the parties.
Cooperation (especially joint efforts at performance and planning).	No joint efforts.	Joint efforts related to both performance and planning over time; adjustment over time is endemic.
Planning (the process and mechanisms for coping with change and conflicts).	Primary focus on the substance of exchange; no future is anticipated.	Significant focus on the process of exchange; detailed planning for the future exchange within new environments and to satisfy changing goals; tacit and explicit assumptions abound.
Measurement and specificity (calculation and reckoning of exchange).	Little attention to measurement and specifications; performance is obvious.	Significant attention to measuring, specifying, and quantifying all aspects of performance, including psychic and future benefits.
Power (the ability to impose one's will on others).	Power, may be exercised when promises are made until promises are executed.	Increased interdependence increases the importance of judicious application of power in the exchange.
Division of benefits and burdens (the extent of sharing of benefits and burdens).	Sharp division of benefits and burdens into parcels; exclusive allocation to parties.	Likely to include some sharing of benefits and burdens and adjustments to both shared and parcelled benefits and burdens over time.

Source: Dwyer, Schurr and Oh, 1987 : 13.

Table 10.2 serves to illustrate the vast difference between the various approaches to the management of the manufacturer – distributor relationship interface.

Heide (1994 : 71) identifies a series of dimensions along which inter-firm relationships can be structured. The term governance is used in the model and is broadly defined as a “mode of organizing transactions”. Governance is also defined as a multi-dimensional phenomenon, encompassing the initiation, termination and ongoing relationship maintenance between a set of parties (Heide, 1994 : 72). See Table 10.3 for the dimensions and forms of inter-firm governance.

Table 10.3: Dimensions and forms of inter-firm governance

	Governance form	Market governance	Non-market governance	
			Unilateral and/or hierarchical	Bilateral
	Dimension			
1.	Relationship initiation	No particular initiation process	Selective entry; skill training	Selective entry; value training
2.	Relationship maintenance			
2.1	Role specification	Individual roles applied to individual transactions	Individual roles applied to entire relationship	Overlapping roles; joint activities and team responsibilities
2.2	Nature of planning	Non-existent or limited to individual transactions	Proactive/unilateral; binding contingency plans	Proactive/joint; plans subject to change
2.3	Nature of adjustments	Non-existent or giving rise to exit or immediate compensation	<i>Ex ante</i> /explicit mechanism for change	Bilateral/-predominantly negotiated changes through mutual adjustment
2.4	Monitoring procedures	External/reactive; measurement of output	External/reactive; measurement of output and behaviour	Internal/proactive; based on self-control
2.5	Incentive system	Short-term; tied to output	Short and long-term; tied to output and behaviour	Long-term; tied to display of system-relevant attitudes
2.6	Means of enforcement	External to the relationship; legal system/competition/-offsetting investments	Internal to the relationship; legitimate authority	Internal to the relationship; mutuality of interest
3.	Relationship termination	Completion of discrete transaction	Fixed relationship length, or explicit mechanism for termination	Open-ended relationship

Source : Heide, 1994 : 75.

In Table 10.3 a distinction is made between market and non-market governance. Market governance is viewed as synonymous with the concept of discrete exchange while non-market governance is defined on the basis of the criterion that a “relation” is created (Heide, 1994:74-75). As is evident from Table 10.3, a further distinction is also made between forms of non-market governance on the basis of the manner in which the relationship is established and maintained.

Relational exchange is elaborated upon along several key dimensions. Most important is that relational exchange transpires over time. Each transaction must be viewed in terms of its history and anticipated future. The basis for future collaboration may be supported by implicit and explicit assumptions, trust and planning. Relational exchange participants can be expected to derive complex, personal, non-economic satisfactions and engage in social exchange. Because duties and performance are relatively complex and occur over an extended time period, the parties may direct much effort toward carefully defining and measuring the items of exchange (Dwyer, *et. al.*, 1987 : 12).

Based on Table 10.3 the view is that both a manufacturer and a distributor have much to gain from a bilateral “non-market governance” arrangement between the parties. This leads to the concept of “relationship marketing” (Section 10.4.3) and the possible advantages it can have for members of a distribution system.

10.4.3 DEFINING RELATIONSHIP MARKETING

Based on the Heide (1994 : 71-85) research on inter-firm governance and the advantages evident from a non-governance approach, a definition for relationship marketing needs to be elaborated upon.

Researchers in marketing have taken an interest in the simple but powerful idea that good distribution system management requires the building of long-term relationships (Houston and Gassenheimer, 1987 : 5). It is important to focus on long-term relationships because of their implications for access to markets, generation of repeat purchases, creation of exit barriers and the view that they benefit all involved parties (Andaleeb, 1996 : 77).

According to Blois (1996 : 161) there is no clear definition of relationship marketing but it is clear that its basis tenets away from competition and conflict to mutual cooperation and choice independence to mutual interdependence.

Tzokas and Saren (1997 : 106) refer to a definition presented by Christopher, Payne and Ballantyre (1991 : 4) where they define relationship marketing as an

asymmetrical and personalised marketing process. This process takes place in the long run, results in some bilateral benefits and rests on in-depth understanding of customer (distributor and end-user) needs and characteristics.

Tzokas and Saren (1997 : 107) provide the following definition: "Relationship marketing is the process of planning, developing and nurturing a relationship climate that will provide a dialogue between a manufacturer and its customers (distributors and end-users) while aiming to develop an understanding, confidence and respect for each others capabilities and concerns when enacting their role in the market-place".

Morgan and Hunt (1994 : 22) use the following definition: "Relationship marketing refers to all marketing activities directed towards establishing, developing and maintaining successful relational exchanges". Buyer-seller relations involve analogues, benefits and costs. The former includes reduced uncertainty, managed dependence, exchange efficiency, and social satisfactions from the association. Foremost however, is the possibility of significant gains in joint payoffs as a result of effective communication and collaboration to attain goals (Dwyer, 1980 : 14).

Gardner, *et. al.*, (1993 : 6) quotes MacNiel who defines a relational contract as well as provides factors in order to distinguish relationship contracts from discrete or arms-length contracts. He defines a relational contract as a contract in which manufacturers and distributors form complex, extra-contractual relationships. The following factors are used to make the distinction:

- commencement, duration and termination provisions,
- measurement and specificity,
- planning,
- sharing versus dividing benefits and burdens,
- interdependence, future cooperation and solidarity,
- personal relations, and
- power (unilateral and bilateral).

Johnson and Black (1996 : 25) define relational exchange between manufacturers and distributors as a partnership orientation. The relationship should take on value that exceeds the benefits resulting from any transaction or set of transactions.

Harker (1999:16) defines relationship marketing as: "An organisation engaged in proactively creating, developing and maintaining committed, interactive and profitable exchanges with selected customers (partners) over time is engaged in relationship marketing".

For the purpose of this study, relationship marketing can be defined, based on prior definitions quoted, as a long-term partnership approach between a manufacturer and a distributor with an emphasis on mutual cooperation, planning and nurturing of the relationship by both parties, based on the understanding of the other party's needs and requirements, with the ultimate goal of bilateral benefits to flow from the relationship over an extended period of time.

Having defined relationship marketing, the obvious question to pose concerns the advantage relationship marketing can have for a manufacturer. In order to provide some clarity on possible advantages, a number of researchers can be quoted in this regard:

- Relationships between distribution system members should be a top priority for managers, particularly in situations of high interdependence. Achrol (1991 : 77-93) conveys the view that networks of functionally specialised organisations will emerge in which the manufacturer, or marketer, will only be one participant and that interactions among the relevant firms in these networks will be largely norm-driven and dominated by relational exchange.
- In a study of industrial equipment distributors, Johnson and Black (1996 : 42) found that relationism is a significant contributor to financial performance in distribution systems. Furthermore, they found that relational exchange in industrial distribution systems provides a fertile setting for joint and individual market development efforts with product growth as the result. They also express the view that it is worthwhile for a firm to expend resources and efforts in attempting to establish close working relationships with its various distribution system partners.

- Relational exchange results directly in enhanced economic reward for system partners and therefore it is indeed worthwhile to commit time and resources to developing and maintaining close working relationships with distribution system partners (Johnson and Black, 1996 : 41). These relational arrangements may even come to occupy a position of strategic importance in the firm's overall position (Webster, 1992 : 15).
- Relational exchange offers distribution system partners many advantages such as enhanced efficiency and streamlined interactions. In addition, partners in a relational exchange cooperate to enhance effectiveness and productivity in the distribution system (Frazier, Spekman and O'Neal, 1988 : 52-67).
- Relationship exchange in distribution systems provides a means of significantly enhancing the smoothness and efficiency of these exchange processes (Johnson and Black, 1996 : 28).
- For many multi-national companies, strategic alliances have become increasingly important tools for ensuring speed and flexibility in carrying out multi-national strategies (Lorange and Roos, 1991 : 25).
- The integrative and cooperative marketing alliance relationships can improve the long-term globally competitive market position of the participating firms (Yoon, Morash, Cooper and Clinton, 1996 : 7).
- The development of more collaborative relationships between manufacturers and distributors must be concerned with gaining competitive advantages over competitors (Sinclair, Hunter and Beaumont, 1996 : 59).
- Closer relations is a strategy aimed at increasing competitive advantages for both parties in the relationship (Sinclair, *et. al.*, 1996 : 59).
- The key assumption that is driving the adoption of relationship marketing is that it is an effective means by which to respond to environmental turbulence (Achrol, 1991 : 77-93).

The sources quoted indicate the possibility of significant advantages for manufacturers and distributors in the context of this study. Based on the literature, the following could be deemed to be advantages for manufacturers and distributors in the crop protection industry:

- Manufacturers and distributors are highly interdependent of each other but tend to act as adversaries rather than partners, leaving scope for mutual benefit in a relationship marketing environment.
- Pressure on cost containment and profitability can potentially be eased with increased exchange efficiencies and reduced uncertainty regarding, for example, turnover commitments.
- Joint marketing planning and product promotion efforts would clearly be to mutual benefit of manufacturers and distributors.
- Both parties would be able to increase their competitive position given the committed support from the other partner in the relationship.

It should also be borne in mind that negative spin-offs from this relationship marketing approach are also evident. A major implication of relationship marketing is that there are a limited number of relationship marketing exchanges that any supplier or buyer can maintain. The high opportunity cost associated with relationship marketing should force both buyers and sellers to be very careful in selecting their relationship partners (Berman, 1996 : 208). El-Ansary and El-Ansary (1996 : 21), however, concludes that partnerships are becoming an increasingly common feature of manufacturer and distributor relationships. It is consequently imperative to review a model in this regard, see Section 10.4.4.

10.4.4 A MODEL OF MANUFACTURER-DISTRIBUTOR RELATIONSHIPS

In a relationship marketing environment, the maintenance of distributor relations is a must. For this reason, a model of distributor and manufacturer relationships is provided in Figure 10.1. Central to this model is the premise that customer (distributor) satisfaction or delight is based on the gap between expectations and experiences with a manufacturer (supplier). The secondary aim of this study, namely to determine key factors which determine relationship between manufacturers and distributors, ties in with this concept.

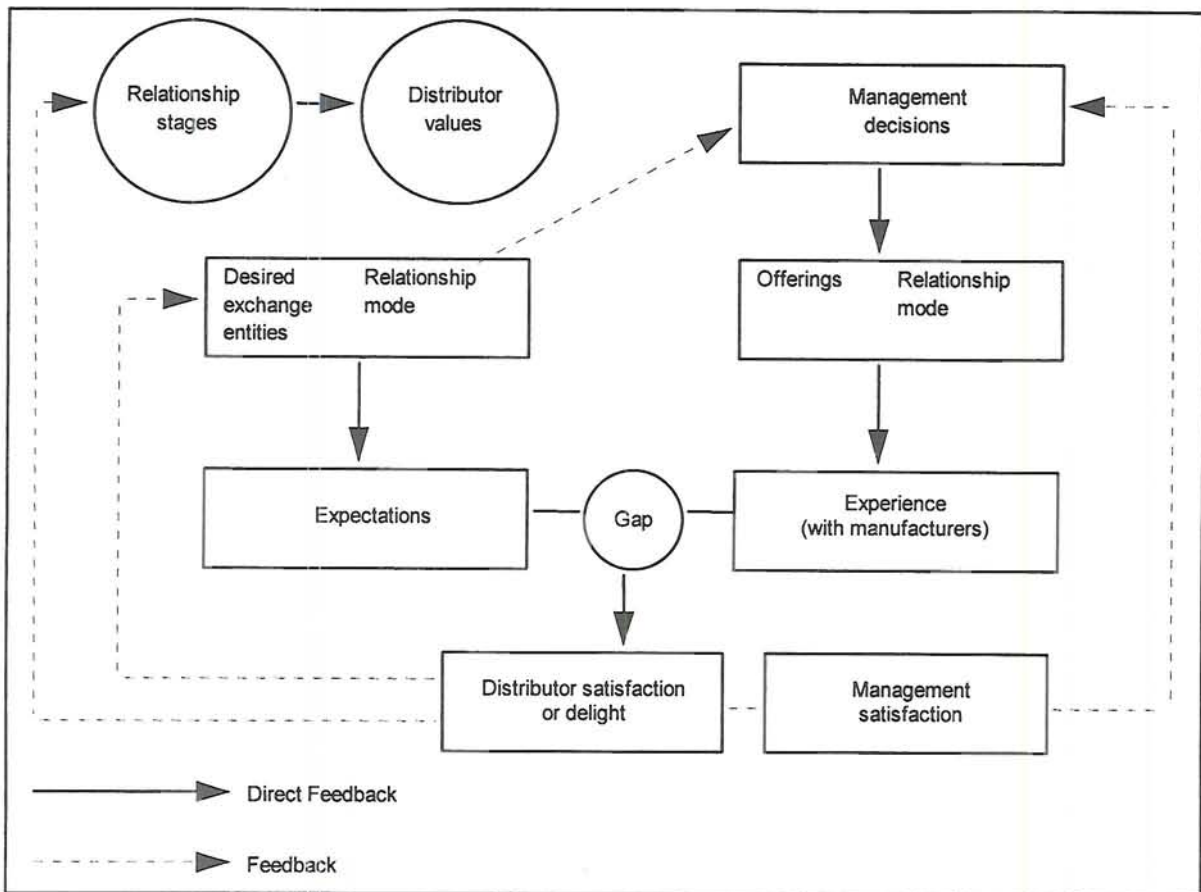


Figure 10.1: A general model of manufacturer-distributor relationships

Source: Adapted from Sudharshan, 1995 : 145.

The cornerstone of distributor satisfaction is a thorough understanding of distributor commercial relationships, what their expectations are and what their experience of the manufacturer is.

The model presented in Figure 10.1 has practical implications for the management of the relationship between a manufacturer and a distributor with particular significance for this study:

- The cornerstone of the model is the expectations of the distributor. Manufacturers therefore have to know exactly what these expectations are, using appropriate means as market research and direct interface with distributors.
- In order to quantify the "gap", the distributor "experience" has to be ascertained. Once again *via* market research and feedback meetings.

- Narrowing the “gap” calls for a continuous process of sharing information, expectations and actual experience between a distributor and a manufacturer and resulting actions to address shortcomings from the perspective of a manufacturer wishing to narrow the “gap”.

“The sale merely consummates the courtship. Then the marriage begins. How good the marriage is depends on how well the relationship is managed” (Levitt, 1983 : 11).

Figure 10.1 illustrates the concept of manufacturers meeting distributor expectations in improving the working relationship. In Section 10.4.5, the development of a process towards the establishment of partnership alliances is reviewed.

10.4.5 THE PROCESS TOWARDS THE FORMATION OF PARTNERSHIP ALLIANCES

Due to terms like “partnerships”, “alliances” and “strategic alliances” being used often, it is important to grasp the process involved in the formation of partnership alliances between manufacturers and distributors.

The growing interdependencies between manufacturers and distributors are frequently discussed in terms of alliances of partnerships (Sinclair, *et. al.*, 1996 : 56).

Strategic alliances can be defined as those collaborations between manufacturers and distributors, both short and long-term, which can involve either partial or contractual ownership, and are developed for strategic reasons (Forrest, 1992 : 25).

Das and Teng (1997 : 49) defines strategic alliances as inter-firm cooperative arrangements aimed at pursuing mutual strategic goals. They further elaborate that strategic alliances have become a popular weapon in today’s business environment. Heide (1994 : 71) believes that inter-firm relationships are becoming a strategic decision variable in their own right. The nature of a firm’s external relationship could have a profound impact on the implementation of marketing programmes. Arndt (1979 : 70) notes the tendency of organisational exchange to be circumscribed by long-term associations, contractual relations, and even joint ownership indicates a

move towards strategic alliances. His argument is that within ongoing relationships, transactions are planned and administered instead of being conducted on an *ad hoc* basis.

Sinclair, *et. al.*, (1996 : 62) expresses the view that due to a variety of changes in the market, a widespread adoption of more collaborative-style relationships between manufacturers and distributors is developing. They put forward the notion that there is a process that will lead progressively towards the formation of an ultimate partnership alliance. This process is summarised in Table 10.4.

Table 10.4: The process towards the formation of true partnership alliances

Activity	Demands model	Audits model	Supplier development model	Partnership
Verification	Output and delivery specification: ex post through initial selection may use BS/ISO standards	Move to ex ante verification covering output from manufacturing and quality control processes	Move to verification of inputs to control processes: high rating required for performance measures	Reduced verification but monitoring, spot checks; may be market testing at intervals
Support activities	Basic information only	Extended information on future orders; loan of tools, dies; minor investment, limited training, learning visits possible	Sharing of systems expertise, diffusion of management techniques, e.g. SPC, TQM; training and visits intensified	More likely to be mutual, two-way, with resource support
Joint activities development	Nil	Exploring scope for extending product range, flexibility potential; limited problem solving on technical matters	Joint involvement in R&D; joint problem solving teams; new product development, process improvement	More emphasis on joint development, tackling problems of a more open-ended kind; increased information sharing, e.g. on costs
Bounded relationships	Closely defined contract for specific goods and time period	Limited assurance of continuing orders subject to performance prospect of expanded trade	Increased sense of flexibility, inter-dependence over defined range of activity; time horizon open	Expected time horizon unlimited; problem solving extended to joint learning; governance structure developed

Source: Sinclair, *et. al.*, 1996 : 66.

From Table 10.4 a number of guidelines are provided regarding the process to follow for a manufacturer that endeavours to develop a strategic alliance with distributors:

- Close cooperation on systems and procedures to govern the interface between the parties.
- An emphasis on joint planning, joint problem solving and information sharing.
- A long-term approach governing the partnership.

Lendrum (2000 : 186-187) provides a practical template for the collective use of manufacturers and distributors in the process of developing a strategic partnership alliance.

Fairness is also important in the process of developing distributor system relationships (Anderson and Weitz, 1992 : 28).

A distinction is made between distributive fairness and procedural fairness. Distributive fairness refers to the distributor's perception of fairness of earnings and other outcomes that it receives from its relationships with the supplier (Frazier, Spekman and O'Neal, 1988 : 60). Procedural fairness refers to the distributor's perception of the fairness of the supplier's procedures and processes in relation to its distributors. There are thought to be six key interrelated components of procedural fairness (Kumar, Scheer and Steenkamp, 1995a : 55):

- Bilateral communication (the willingness of the supplier to engage in two-way communication with its distributors).
- Impartiality (the consistency of the supplier's system policies across distributors).
- Refutability (the extent to which distributors can challenge the supplier's system policies).
- Explanations (the degree to which the supplier provides distributors with a coherent rationale for its system decisions and policies).
- Knowledgeability (the supplier's familiarity with the local conditions under which distributors operate).
- Courtesy (being polite and respectful).

Heide and John (1990 : 25) defined continuity as the perception of the bilateral expectation of future interaction. Whereas conventional relationships are discrete or short-term events, based on distinct points of entry and exit, closer relationships tend to be continuous or open-ended. MacNiel as quoted by Heide and John (1990 : 25) and Spekman (1988 : 77) have described continuity as a key aspect of the process towards closer purchasing relationships being established. Section 10.4.6 focuses on maintaining established relationships.

10.4.6 MAINTAINING MANUFACTURER RELATIONSHIPS WITH DISTRIBUTORS

In the preceding section, the process of developing manufacturer and distributor relationships has been highlighted, leading to the question how manufacturer relationships with distributors should be maintained. Prior to discussing relationship maintenance *per se*, however, input on relationship dynamics is required as background.

Relationships must be seen as dynamic interaction between manufacturers and distributors. For this reason, an understanding of these dynamics is required. Gardner, *et. al.*, (1993 : 9) provides a comprehensive model for relationship dynamics. See Figure 10.2. In this model, the main focus is on the source of the relationships, the triggers to re-evaluation of the relationships, considerations in evaluation of the relationships and the outcomes of the relationships.

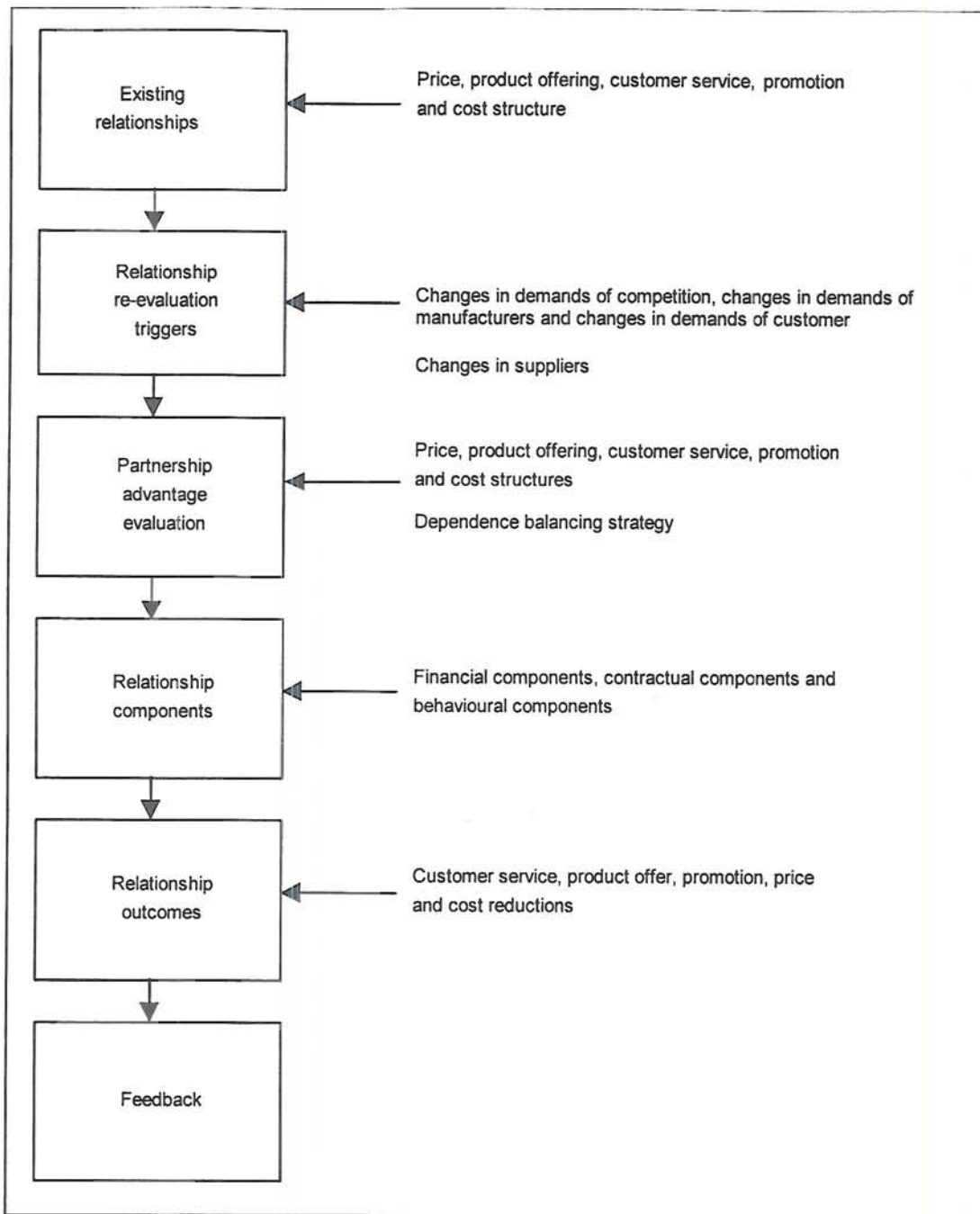


Figure 10.2: Relationship re-evaluation triggers and advantage evaluation

Source : Adapted from Gardner, *et. al.*, 1993:9.

Based on Figure 10.2 it can be deduced that this model is useful in the sense that it provides the framework for an audit of issues to be considered in building relationships and evaluating relationship styles in the interface between manufacturers and distributors. It can be viewed as a “checklist” of items to address in the endeavour to “manage” the relationship between a manufacturer and distributor.

From Figure 10.2 therefore, the following implications can be identified as relevant to manufacturers that wish to maintain, and improve, the relationship with distributors:

- Manufacturers need to be aware of the “relationship re-evaluation triggers” and monitor these aspects continuously in order to be in a position to act proactively.
- Manufacturers need to evaluate their total product, service, promotion and price proposition against that of competitors, based on the reality that this is exactly what distributors would be doing in order to evaluate the advantage of the specific partnership for them.

Dwyer, Schurr and Oh (1987 : 15) developed a model to use in the analysis of distribution system relationships in an effort to establish the relationship between a buyer's market, a seller's market and the relationship motivation of both manufacturers and distributors as they relate to these two market conditions. This approach is of significance for manufacturers operating in the crop protection industry and the characterisation thereof as a buyer's market . This model is presented as Figure 10.3.

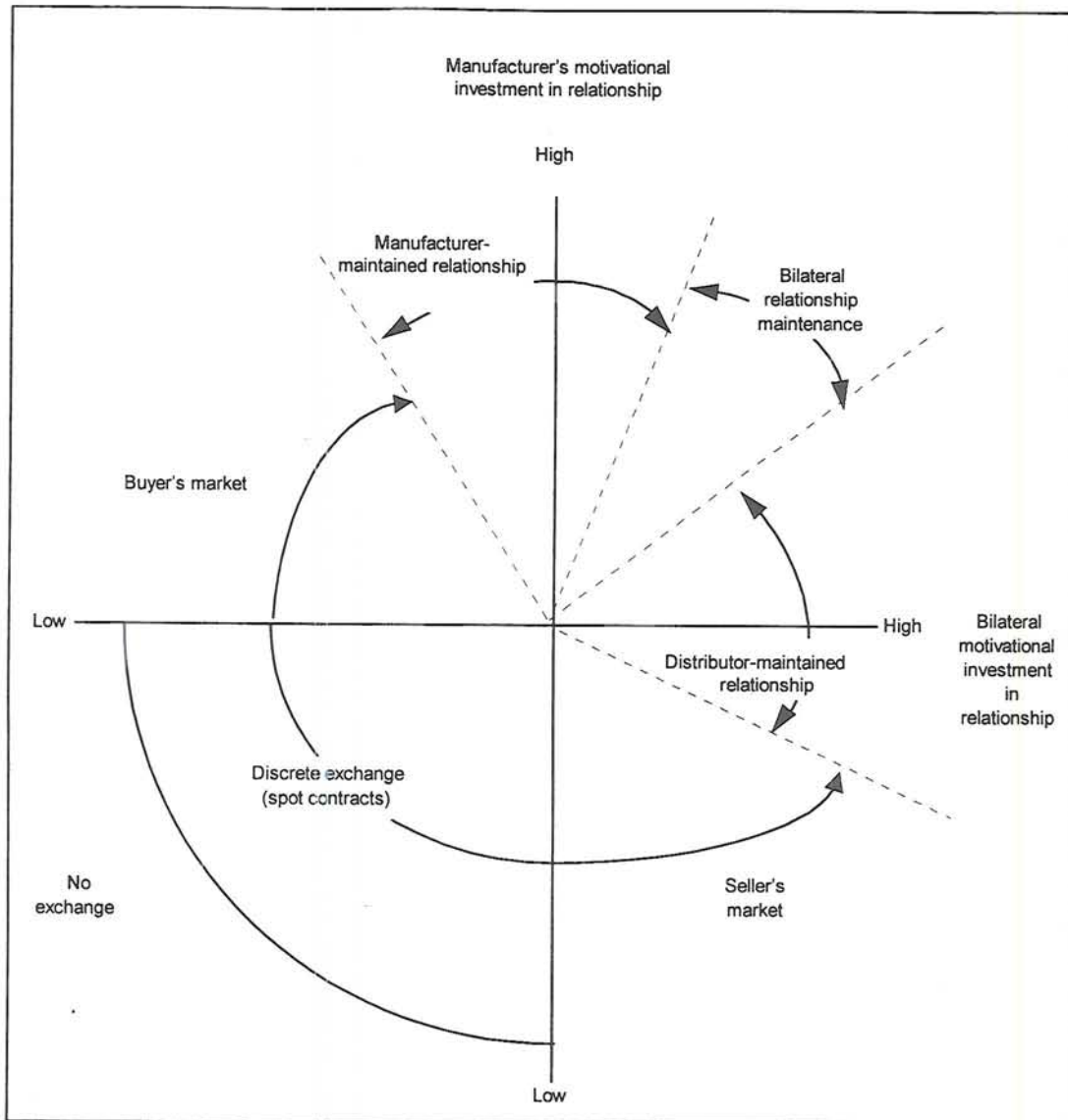


Figure 10.3: The realm of buyer-seller relationship

Source: Dwyer, Shurr and Oh, 1987 : 15.

Figure 10.3 serves the prime objective to illustrate that in a “buyer’s market”, an example being the crop protection industry where distributors have numerous sources for products, the manufacturer’s motivational investment in the relationship is high. The manufacturer and distributor relationship would be much more inclined to be a “manufacturer-maintained relationship” than a “distributor-maintained relationship”.

Bendapudi and Berry (1997 : 18-19) developed a conceptual framework of relationship maintenance which is presented in Figure 10.4. This framework depicts

the proposed antecedents, mediators, and consequences of dedication-based and constraint-based relationship maintenance from the customers' (distributors) perspective. The antecedents are grouped into four sets of variables, namely: environmental, partner (manufacturer), customer (distributor), and interaction. The effects of these antecedent variables on constraint-based relationship maintenance are mediated by dependence on the relationship partner. Dependence and trust in the relationship partner, mediate the antecedent variable effects on dedication-based relationship maintenance. These two motivations for relationship maintenance lead to different outcomes such as distributor interest in alternative partners, relationship identity and advocacy.

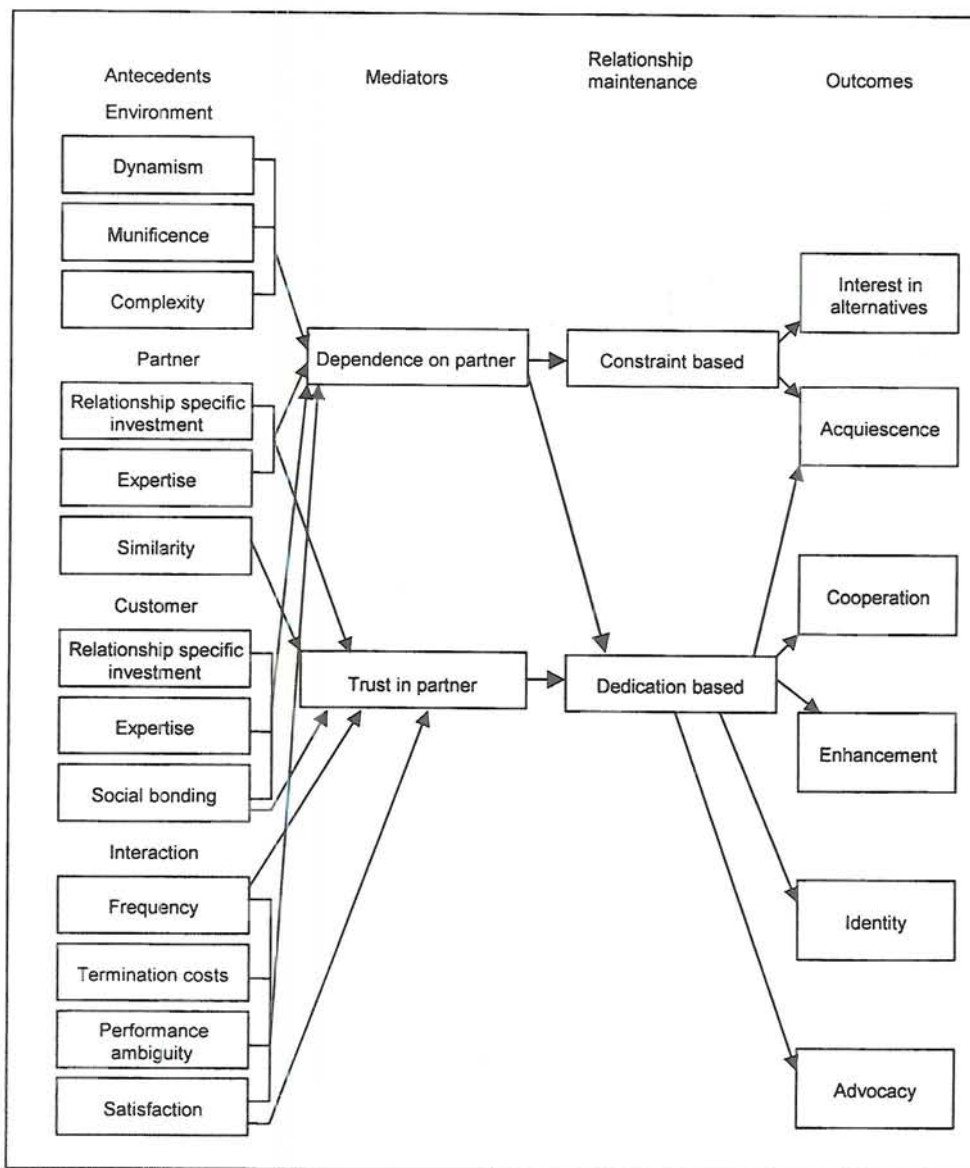


Figure 10.4: Model of relationship maintenance from the distributor's perspective

Source : Bendapudi and Berry, 1997 : 19.

From Figure 10.4 the central role of the mediators “dependence” and “trust” is highlighted. Dependence and interdependence are discussed in Section 10.5 whereas trust is addressed in Section 10.6. Based on the model presented by Bendapudi and Berry (1997 : 19) it is argued that the relationship between manufacturers and distributors should be directed towards the “dedication based” scenario.

A dedication-based relationship maintenance model however, requires both dependence (distributor dependent upon the manufacturer) and trust (distributor trusting the manufacturer). This leads to a list of favourable outcomes for the manufacturer and distributor partnership.

10.4.7 SUMMARY – THE RELATIONSHIP BETWEEN MANUFACTURERS AND DISTRIBUTORS

Channel partnerships have been hailed as the embodiment of a new philosophy for buyer-seller relations (Buzzell and Ortmeyer, 1995 : 85).

From the literature reviewed, it is obvious that there is a general move towards closer relationships between manufacturers and distributors embodied in the concepts of partnerships and strategic alliances.

The differences in approach, depending on the relationship style to be followed, emphasise different management approaches to distribution system management. Important concepts pertaining to a relational exchange type of association are communication, coordination, trust, joint planning as well as increased dependence and interdependence, which will be addressed in the next section.

10.5 DEPENDENCE AND INTERDEPENDENCE IN A DISTRIBUTION SYSTEM

10.1	Introduction	10.9	Distributor satisfaction
10.2	Definition of a distribution system	10.10	Communications
10.3	Purpose of system management	10.11	Agreements
10.4	Manufacturer and distributor relationship	10.12	Electronic commerce
10.5	Dependence and interdependence	10.13	Relationship factors to address
10.6	Trust and commitment	10.14	Customer relationship management
10.7	Channel power	10.15	Summary of the Chapter
10.8	Channel conflict		

Because distribution systems are sets of interdependent organisations involved in the process of ultimately making a product available to the end-user, dependence and interdependence are crucial concepts in a distribution system (Kumar, Scheer and Steenkamp, 1995b : 348). Creating total interdependence promotes higher trust, greater commitment and lower conflict (Kumar, *et. al.*, 1995b : 354). It can be reasoned therefore that manufacturers and distributors should strive for an increased level of interdependence in their relationships. As indicated, trust, commitment and conflict are linked to interdependence. The previous concept of trust and commitment in distribution system management is addressed in Section 10.6. In Section 10.8 channel conflict in distribution systems receives attention.

Dependence refers to an organisation's need to maintain an exchange relationship in order to achieve its desired goals (Frazier, 1983a : 69). Gundlach and Cadotte (1994 : 517) quote several sources with definitions for interdependence. Interdependence exists when one party does not entirely control all of the conditions necessary for the achievement of an action or for obtaining the desired outcome from the action (Pfeffer, 1978 : 40, as quoted by Gundlach and Cadotte, 1994 : 517). Interdependence also means two or more organisations must take each other into

account if they are to accomplish their goals (Cadotte and Stern, 1979 : 133, as quoted by Gundlach and Cadotte, 1994 : 517).

Etgar and Valency (1983 : 87) put forward the notion that distribution system interdependence is the extent to which distributors and manufacturers are committed to mutual exchanges.

For the purpose of this study dependence is defined as one party being dependent on another party in order to achieve set objectives. Interdependence is defined as the precursor to the formation of a partnership relationship reflecting high levels of mutual dependence of both partners. These definitions imply that organisations become interdependent as a result of engaging in economic exchange to obtain resources outside their control, but necessary to achieving their mutual goals.

High-magnitude relationships depict involved or established exchange associations. In these relationships, joint dependence mitigates or, at minimum, reduces tensions arising from increased functional interdependence. Each party's possession of power coupled to benefits obtained from the relationship fosters an atmosphere of cooperation (Gundlach and Cadotte, 1994 : 517).

Increased dependence on suppliers (manufacturers) generally increases the buyer's (distributor's) ability to attain objectives. The value of those suppliers' goods and their willingness to invest in specific programmes with the buyer, enables the buyer to win both customers and sales for the specific company. The willingness of the manufacturer to negotiate terms and to provide services needed to take advantage of market opportunities, enables distributors to generate profits for the company (Buchanan, 1992 : 73).

Relatively dependent organisations should work to increase their partner's dependence rather than strive for autonomy and reduce their own dependence. Increasing a firm's value to the partner increases the partner's dependence, moves the asymmetric relationship towards symmetry and concurrently raises the level of interdependence, thus enhancing cohesion (Kumar, *et. al.*, 1995 b: 354).

Based on the preceding paragraphs, a manufacturer and distributor will firstly develop a level of dependence on one another. Nurturing this dependence and subsequently moving more towards a collaborative relationship, a situation of interdependence develops reflected by the partners being committed to mutual exchange and achieving mutual goals.

Frazier (1983b : 159) provides a comprehensive model illustrating the development of dependence between for example a manufacturer and a distributor. This model is presented in Figure 10.5.

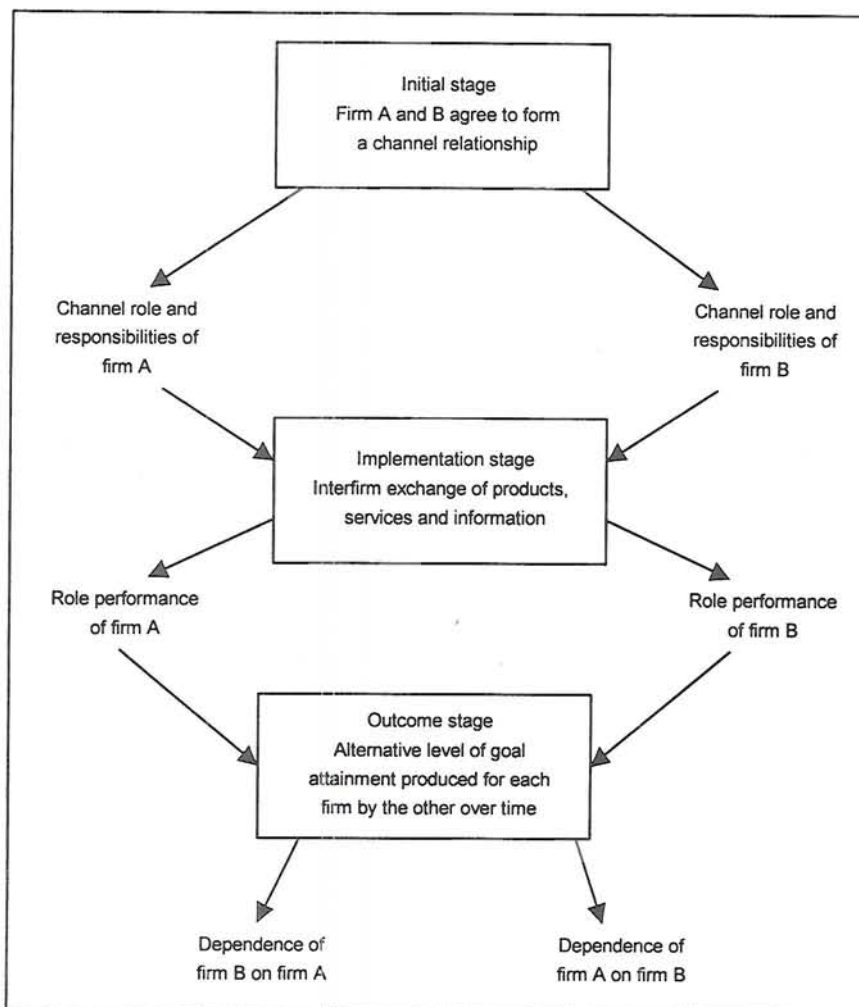


Figure 10.5: The development and maintenance of dependence in a dyadic distribution system relationship

Source: Frazier, 1983b : 159.

An important aspect that flows from research conducted by Frazier (1983b), based on the model depicted in Figure 10.5, is that distributors confirmed that the role performance of their supplier (manufacturer) at both the corporate and boundary personnel centres, in comparison with industry average performance, was central to determining the level of their dependence on their supplier (manufacturer) in the distribution system relationship.

In the context of this study this model indicates that dependence between a manufacturer and distributor evolves over time and is based on performance of the partners. Clear performance objectives therefore have to be determined collectively and performance needs to be evaluated frequently in order to set the stage for continuous improvements. Frazier (1983b : 159) also refers to the performance of a manufacturer in relation to that of competitors. It would therefore seem important that a manufacturer has performance benchmarking as a standard element in its distribution system management model.

The advantages of dependence and interdependence in a distribution system are coupled to trust, commitment, lower conflict, and higher levels of cooperation and cohesion would surely enhance the market position of both parties in the relationship. Manufacturers and distributors should, therefore, actively pursue avenues to mutually increase the respective level of dependence and interdependence.

Thus, due to the importance of trust and commitment in the establishment of sound relationships in distribution systems, these concepts need further clarification. See Section 10.6 to follow.

10.6 TRUST AND COMMITMENT IN DISTRIBUTION SYSTEM RELATIONSHIPS

10.1	Introduction	10.7	Channel power
10.2	Definition of a distribution system	10.8	Channel conflict
10.3	Purpose of system management	10.9	Distributor satisfaction
10.4	Manufacturer and distributor relationship	10.10	Communications
10.5	Dependence and interdependence	10.11	Agreements
10.6	Trust and commitment	10.12	Electronic commerce
10.6.1	Defining trust	10.13	Relationship factors to address
10.6.2	Building trust	10.14	Customer relationship management
10.6.3	Benefits of trust	10.15	Summary of the Chapter
10.6.4	Defining commitment		
10.6.5	Building commitment		
10.6.6	Linkage of commitment and trust		
10.6.7	Summary		

According to Stern, *et. al.*, (1996 : 302) the benefits of developing trust and relationship commitment in distribution system relationships are significant. Trust tends to decrease the uncertainty perceived by distribution system members and increase cooperation and “functional conflict”. Furthermore, relationship commitment also increases cooperation, satisfaction and acquiescence in a distribution system relationship and decreases each distribution system partner’s propensity to leave the relationship.

In this section a definition of “trust” is presented (Section 10.6.1) followed by input on the trust-building process in a relationship (Section 10.6.2) and the listing of some of the benefits derived from a relationship in which a high level of trust is evident (Section 10.6.3). The discussion on trust is followed by a definition of the term “commitment” (Section 10.6.4) and the commitment building process in a distribution system (System 10.6.5). Finally, the link between trust and commitment will be explored (Section 10.6.6).

10.6.1 DEFINING TRUST

Generally, trust is defined to be an attitude or feeling that the respondent has about the trading partner (Young and Wilkinson, 1989 : 115). Trust can also be defined as a willingness to rely on an exchange partner in whom one has confidence (Moorman, Zaltman and Deshpandé, 1992 : 315). Doney and Cannon (1997 : 36) define trust as the perceived credibility and benevolence of a target of trust. The first dimension of trust focuses on the objective credibility of an exchange partner, an expectancy that the partner's word or written statement can be relied on. The second dimension of trust, benevolence, is the extent to which one partner is genuinely interested in the other partner's welfare and motivation to seek joint gain. This definition of trust is relevant in an industrial buying context. A distributor facing some degree of risk in a purchase situation turns to a manufacturer that the distributor believes is able to perform effectively and reliably (credible) and is interested in the distributor's best interests (benevolent).

Considerable research in marketing views trust as a belief, confidence or expectation about an exchange partner's trustworthiness that results from the partner's expertise, reliability or intentionality (Dwyer and Oh, 1987 : 347-358; and Schurr and Ozanne, 1985 : 939-953). Trust has also been viewed as a behavioural intention or behaviour that reflects a reliance on a partner and involves vulnerability and uncertainty on the part of the truster (Griffen, 1967 : 104-120). According to Moorman, Deshpandé and Zaltman (1993 : 82) trust is unnecessary without vulnerability because outcomes are inconsequential for the truster. It is also suggested that uncertainty is critical to trust because trust is unnecessary if the truster can control an exchange partner's actions or has complete knowledge about those actions. Accordingly, a person who believes that a partner is trustworthy and yet is unwilling to rely on that partner, has only limited trust. Further reliance on a partner without a concomitant belief about that partner's trustworthiness may indicate power and control, more than it does trust.

Moorman, *et. al.*, (1993 : 82) argues that both belief and behavioural intention components must be present for trust to exist. According to Rolnicki (1997 : 101-102) channel trust exists when:

- Channel power is proportionately balanced between the manufacturer and distributor, thereby creating a level playing field for all channel members.
- All parties are equitably treated.
- Business goals are similar or identical, so the manufacturer and distributor move in the same business direction instead of constantly clashing.
- Reliable communication flows from the manufacturer to the distributor.

Using the quotations as guidance trust can be defined, in the context of this study, as the belief a manufacturer and distributor have that both can rely on the other party, in which they have confidence to willingly act in the best interest of both parties at all times.

10.6.2 THE TRUST-BUILDING PROCESS

Penetrating the distributor account is essentially a trust-building process, which involves establishing reliability as a manufacturer (supplier) and developing distributor loyalty through mutually rewarding investments in the relationship. All of this serves to increase the distributor's real and perceived switching cost and the manufacturer's opportunities to deliver higher profit value-added services (El-Ansary and El-Ansary, 1996 : 34). Trust between distribution system members can be increased through shared values, through increasing the value of distribution system outcomes and through communication, and can be decreased if one or both parties exhibit opportunistic behaviour (Stern, *et. al.*, 1996 : 302).

In order to enhance task performance and to increase the levels of trust, distribution system partners must demonstrate and reciprocate trusting behaviours by investing time and effort into partner relationships and by being open about their relationship, industry and clients (Smith and Barclay, 1997 : 17).

According to Doney and Cannon (1997 : 37) there are five trust-building processes, namely calculate process, prediction process, capability process, intentionality process, and transference process. These five processes are summarised in Table 10.5 and linked to specific trust-building processes. Distribution system

management needs to ensure that these trust-building processes are catered for in the manner in which distribution systems are managed.

Table 10.5: Trust-building processes, generic drivers, and factors that invoke each process

Trust-building process	Generic driver of the process	Factors that invoke the trust-building process
Calculative: Trustor calculates the costs and/or rewards of a target acting in an untrustworthy manner	Costs are higher when a target makes larger and/or relationship-specific investments	<ul style="list-style-type: none"> • Supplier firm reputation • Supplier firm size • Supplier firm willingness to customise • Supplier firm confidential information sharing • Length of relationship with supplier firm • Length of relationship with sales person
Prediction: Trustor develops confidence that target's behaviour can be predicted	Trustor learns more about the target through repeated and broader experience	<ul style="list-style-type: none"> • Length of relationship with supplier firm • Sales person likeability • Sales person similarity • Frequent social contact with sales person • Frequent business contact with sales person • Length of relationship with sales person
Capability: Trustor assesses the target's ability to fulfil its promises	Evidence of the target's ability to fulfil its promises	<ul style="list-style-type: none"> • Sales person expertise • Sales person power
Intentionality: Trustor evaluates the target's motivations	Target's words and/or behaviour indicates concern for the trustor	<ul style="list-style-type: none"> • Supplier firm willingness to customise • Supplier firm confidential information sharing • Sales person likeability • Sales person similarity • Frequent social contact with sales person
Transference: Trustor draws on "proof sources", from which trust is transferred to the target	Identification of trusted sources closely associated with the target	<ul style="list-style-type: none"> • Supplier firm reputation • Supplier firm size • Trust of supplier firm • Trust of sales person

Source: Doney and Cannon, 1997 : 38.

The trust-building processes depicted in Table 10.5 were compiled, based on the trust-building activities which an individual salesperson and the company he or she is employed by can embark upon. In industries, as the crop protection industry, where manufacturer salespeople interact directly with distributor staff members, the contents of Table 10.5 provides valuable pointers at important factors to address in the trust-building process.

In Figure 10.6, the relationship between the characteristics of the supplier organisation (manufacturer), its sales people and the characteristics of the intercompany relationships with the buying firm (distributor) is put into context in the trust-building process.

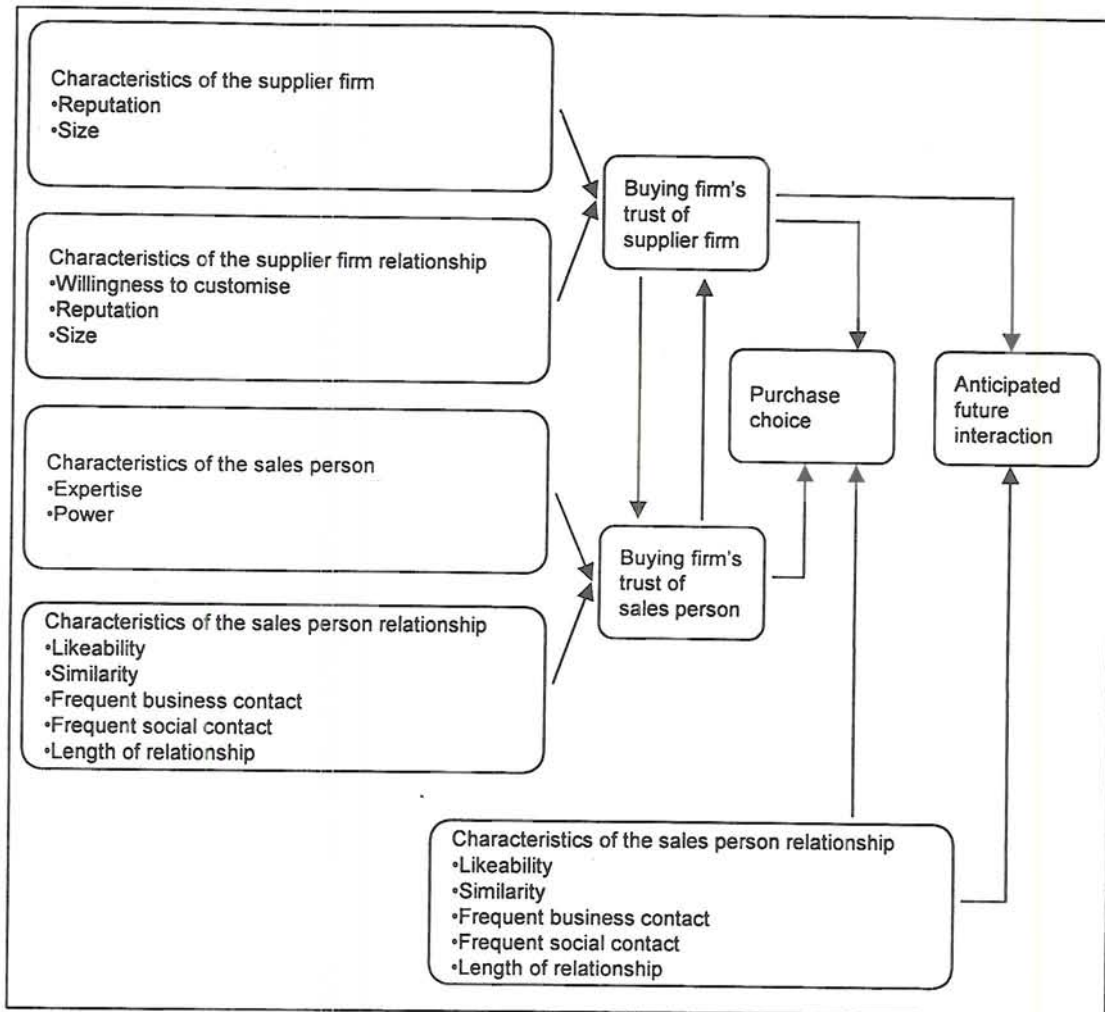


Figure 10.6: Antecedents and consequences of trust of a supplier firm and sales person

Source: Doney and Cannon, 1997 : 39.

Figure 10.6 serves to illustrate the important role a manufacturer's sales force has in the trust-building process between manufacturers and distributors. A lack of trust between an individual manufacturer's sales person and distributor employees can result in those specific distributor employees viewing the "whole" manufacturing company to be untrustworthy. The value of manufacturers employing high calibre, trustworthy, employees is highlighted by this figure.

10.6.3 THE BENEFITS OF TRUST IN A DISTRIBUTION SYSTEM

Based on market research studies by Kumar (1996 : 97) the following aspects can be listed as benefits of trust in a distribution system relationship between manufacturers and distributors:

- Distributors that trusted the manufacturer were generally more committed to the relationship, as measured by their intent to carry the manufacturer's products in the future.
- Distributors that trusted the manufacturer were also performing at a higher level for the manufacturer they trusted than for the manufacturer they did not trust. In one study Kumar (1996 : 97) showed that distributors with a high level of trust in the manufacturer generated 78 percent more sales than those with a low level of trust.
- Trust creates a reservoir of goodwill that helps preserve the relationship when one party engages in an act that its partner considers destructive.
- In situations of supply price discrepancy disputes to various distributors, trusting distributors tend to be understanding and blame competitive conditions, whereas distrustful distributors tend to hold the manufacturer personally responsible.
- Trusting distributors are less likely to drop or neglect the manufacturer's product lines than distrustful distributors are.
- Trust helps manufacturer-distributor relationships realise their full potential.
- When both sides trust each other, they are able to share confidential information, to invest in understanding each other's business, and to customise their information systems or dedicate people and resources to serve each other better.
- Trust allows a manufacturer or distributor to capture the hearts and minds of distribution system partners so that they will go the extra mile.

Reve, 1981, as quoted by Young and Wilkinson (1989 : 111), hypothesises that the higher the goal compatibility, domain consensus, and evaluation of accomplishments and the more trustful the norms of exchange are, the better the economic performance of the system will be. According to Smith and Barclay (1997 : 4) trust was identified as being the critical factor differentiating effective from ineffective

selling partner relationships.

The rapidly changing competitive environment is forcing manufacturers to review the manner in which they manage their distribution systems. Building collaborative relationships with distributors is one way of meeting the competitive challenge (Dertouzos, Lester and Solow, 1989, as quoted in Doney and Cannon, 1997 : 35). Such collaborative relationships rely on relational forms of exchange characterised by high levels of trust (Dwyer, Schurr and Oh, 1987 : 18; and Morgan and Hunt, 1994 : 20). The high levels of trust characteristic of relational exchange enables parties to focus on the long-term benefits of the relationship (Ganesan, 1994 : 1). This ultimately enhances competitiveness and reduces transaction cost (Noordewier, John and Nevin, 1990 : 91).

In a distribution system context, research has shown that a downstream system member that trusts his supplier exhibits higher levels of cooperation (Morgan and Hunt, 1994 : 23) and exerts more effort on behalf of a principal (Anderson, Lodish and Weitz, 1987 : 87). Trust in a supplier also reduces conflict and enhances system member satisfaction (Anderson and Narus, 1990 : 46).

A firm that trusts its supplier is also more committed to, and intends to stay in the relationship (Anderson and Weitz, 1989 : 310-323; and Morgan and Hunt, 1994 : 20-38). Sullivan and Peterson (1982 : 30) postulates that if parties have trust in one another, then there will always be ways by which the two parties can work out difficulties such as conflict and low profitability.

“The type of company customers are passionately loyal about doing business with is a company they can trust to always act in their best interest – without exception”. (Hart and Johnson, 1999 : 11).

The host of advantages coupled to trust being present in a manufacturer relationship with distributors underlines the importance of striving towards a relationship based on trust.

Commitment in a relationship is one of the pre-cursors to the development of trust.

Sections 10.6.4 – 10.6.6 will be devoted to the concept of commitment in distribution system relationships.

10.6.4 DEFINING COMMITMENT

Kim and Frazier (1997 : 139) defines commitment as the strength of a manufacturer's and distributor's business ties with its distribution system members. They elaborate by stating that without strong business ties, the motivation necessary for members of a distribution system relationship to work closely together is unlikely to be present. Strong commitment may be necessary before other aspects of close relationships between distribution system members, such as working partnership or trust can develop. The crucial role of commitment for successful relationships is also highlighted by Gundlach, Achrol and Mentzer (1995 : 78).

The construct of commitment is particularly important in research on manufacturer and exchange relationships because of its apparent implications for distribution system management (Morgan and Hunt, 1994 : 22). Commitment is an essential ingredient for successful long-term relationships. Commitment implies a willingness to make short-term sacrifices to realise longer-term benefits (Dwyer, *et. al.*, 1987 : 19).

A distinction can be made between different types of distribution system commitment (Stern, *et. al.*, 1996 : 302): Effective commitment (maintaining a relationship because one wants to) produces more positive results than moral commitment (maintaining the relationship because one feels one should do so), whereas calculate commitment (maintaining the relationship because one has to) has a strong negative impact on a distribution system member's desire to invest in and stay in the relationship.

Commitment has been defined in a variety of ways:

- A desire to continue the relationship (Anderson and Weitz, 1992 : 19; Gundlach, Achrol and Mentzer, 1995 : 78; Kumar, Scheer and Steenkamp, 1995a; and Scheer and Stern, 1992 : 131).

- A willingness to invest in the relationship (Kumar, *et. al.*, 1995a : 350).
- A sense of identification, effect, family and care (Brown, Lusch and Nicholson, 1995 : 366. and Morgan and Hunt, 1994 : 20).
- Confidence in the stability of the relationship (Anderson and Weitz, 1992 : 19).
- Importance of the relationship (Morgan and Hunt, 1994 : 34).
- Investment over time (Gundlach, *et. al.*, 1995 : 89).
- Internalisation of the partners' firms and norms as well as values (Brown, *et. al.*, 1995 : 366).
- An explicit or implicit pledge of relationship continuity between partners (Dwyer, *et. al.*, 1987 : 19).

Kim and Frazier (1997 : 139) make the observation that we still do not have a clear understanding of exactly what commitment in a system relationship entails. They go ahead by providing their definition of commitment as the extent of a distributor's business ties with its focal supplier.

Commitment represents the highest stage of relational bonding and has been defined clearly in terms of three measurable dimensions: inputs, durability and consistency and can be applied with great versatility to the study of inter-firm and distributor relations (Dwyer, *et. al.*, 1987 : 23).

For the purpose of this study on the manufacturer and distributor interface commitment can be defined, based on quoted sources, as the willingness of both manufacturers and distributors to invest resources in building a stable inter-company relationship over time that is deemed of importance to both the partners.

The commitment building process is addressed in Section 10.6.5.

10.6.5 THE COMMITMENT BUILDING PROCESS

The commitment building process requires both manufacturer and distributors to make "pledges" to each other as input into the process.

Anderson and Weitz (1992 : 19) present a model of the building process of mutual commitment in which each member's commitment to the relationship is based on its perception of the other party's commitment. See Figure 10.7.

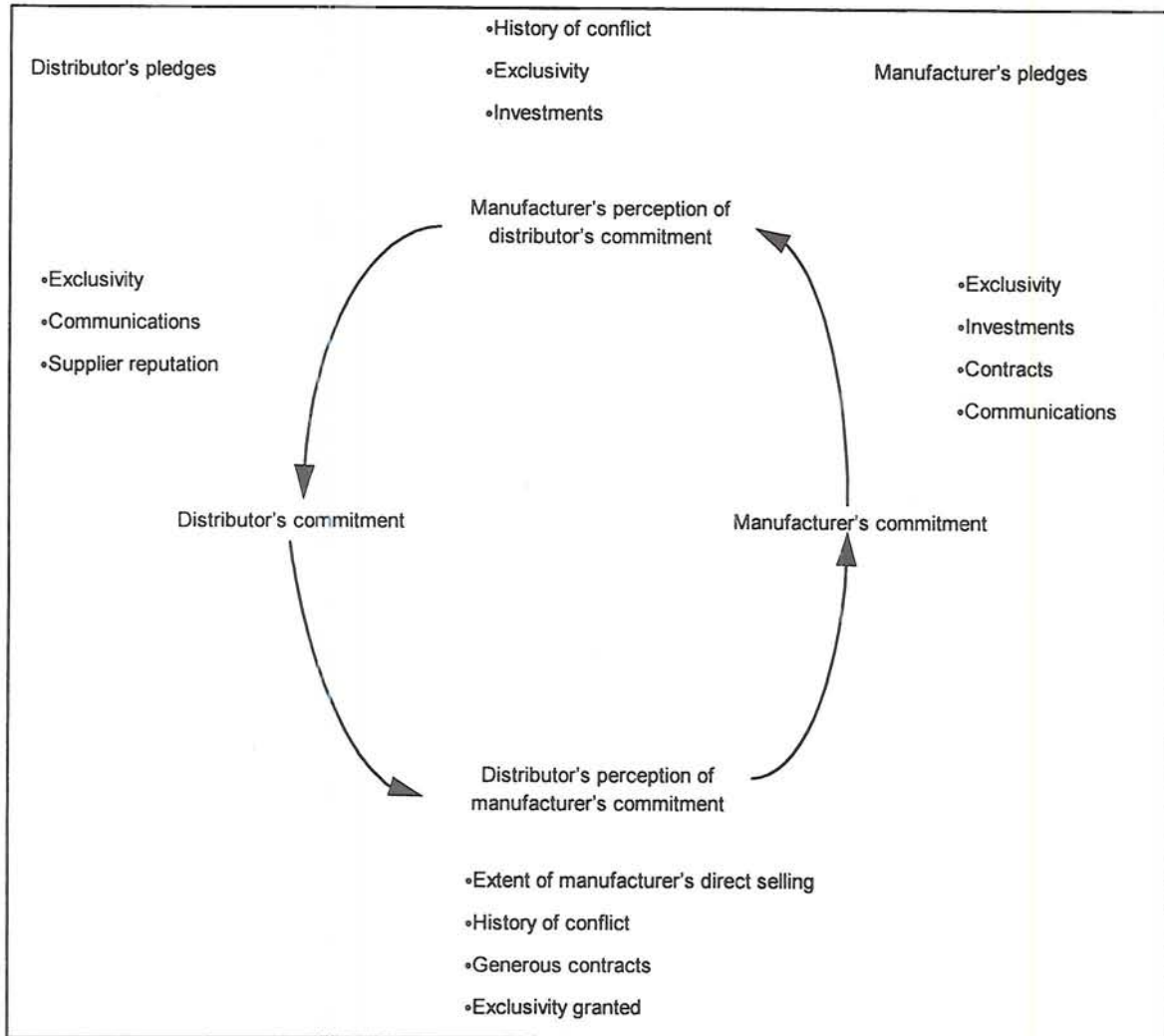


Figure 10.7: A model of building commitment between manufacturers and distributors

Source: Anderson and Weitz, 1992 : 19.

From Table 10.7 the commitment building process can be described as a process in which both the distributor and the manufacturer have to “make commitments” i.e. provide pledges to the other party. Both parties will also evaluate the level of perceived commitment of the other party based on the actions of both parties. Commitment has to be “earned”. Having defined both trust and commitment, the linkage thereof is discussed in Section 10.6.6.

10.6.6 THE LINKAGE OF COMMITMENT AND TRUST IN A DISTRIBUTION SYSTEM

In Sections 10.6.2 and 10.6.3 aspects of the concept of trust were discussed whereas in Sections 10.6.4 and 10.6.5 the focus was on commitment. In Section 10.6.6 the linkage between commitment and trust in the distribution system is reviewed.

Morgan and Hunt (1994 : 22) define relationship marketing as all activities directed towards establishing, developing and maintaining successful relational exchanges between manufacturers and distributors. They admit that there are many contextual factors that contribute to the success or failure of specific relationship marketing efforts, but hold the view that commitment and trust are central to these relationships. They believe that commitment and trust are important because these aspects encourage marketers to work at preserving relationship investments by cooperating with exchange partners. Secondly, this leads to marketers resisting attractive short-term alternatives in favour of the expected long-term benefits of staying with existing partners. Thirdly, marketers view potentially high-risk actions as being prudent because of the belief that their partners will not act opportunistically. Therefore, when both commitment and trust - not just one or the other - are present, they produce outcomes that promote efficiency, productivity and effectiveness. Commitment and trust lead directly to cooperative behaviours that are conducive to relationship marketing. The question is raised, however, how commitment and trust are linked. Figure 10.8 provides a schematic model to illustrate the linkage between commitment and trust, as well as key mediating variables in a distribution system.

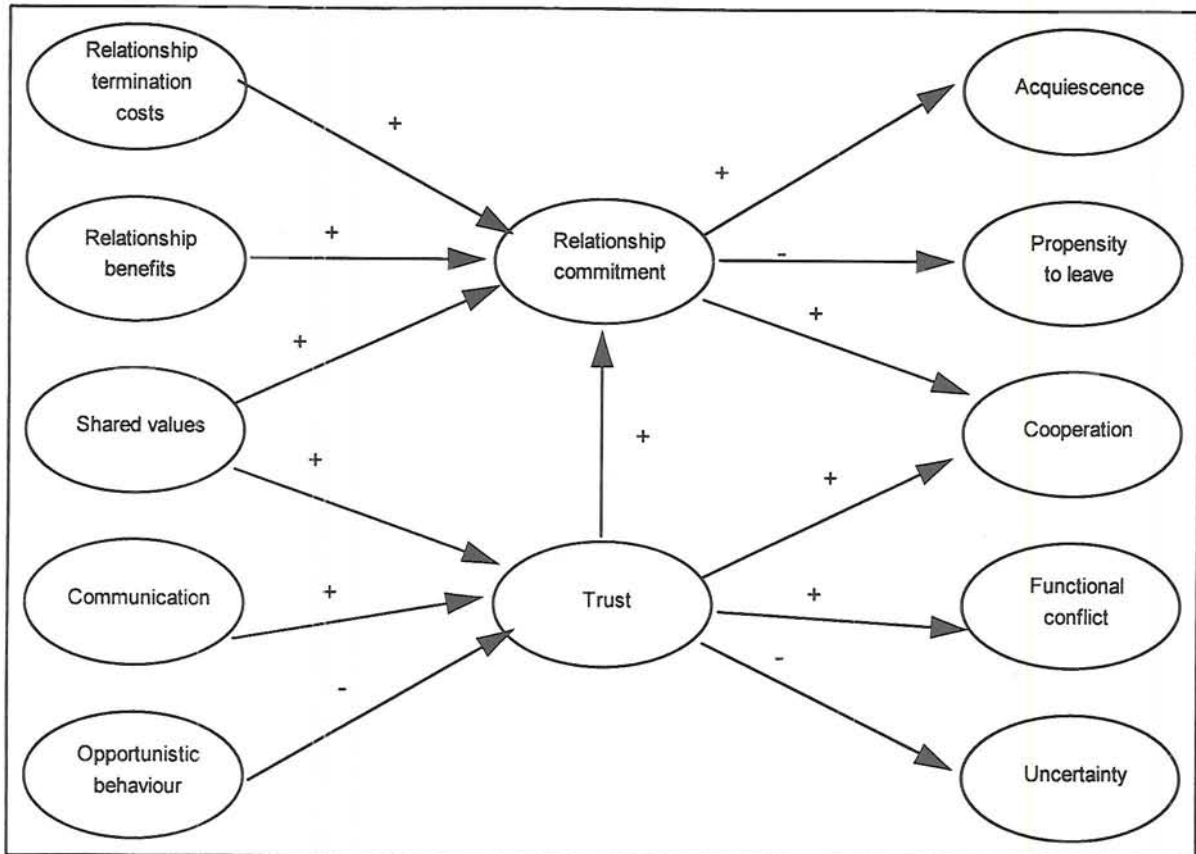


Figure 10.8: The linkage of commitment and trust in a distribution system

Source: Morgan and Hunt, 1994 : 22.

In Figure 10.8 those variables indicated with a plus (+) refer to variables that lead to higher levels of trust or commitment, with minus (-) signs indicating the opposite.

Based on Figure 10.8, relationship commitment and trust develops when manufacturers and distributors attend to relationships by (Morgan and Hunt, 1994 : 34):

- Providing resources, opportunities and benefits that are superior to the offerings of alternative partners.
- Maintaining high standards of corporate values and allying oneself with exchange partners having similar values.
- Communicating valuable information, including expectations, market intelligence and evaluations of the partner's performance.
- Avoiding taking advantage of their exchange partners.

In a study conducted by Garbarino and Johnson (1999 : 82) they endeavoured to determine the linkage between trust, commitment and satisfaction. They concluded that transactional marketing programmes focused on managing satisfaction will be more effective for low relational customers. Relationship marketing programmes directed towards relational customers should however focus on maintaining and building trust and commitment, not satisfaction.

10.6.7 SUMMARY – TRUST AND COMMITMENT IN DISTRIBUTION SYSTEM RELATIONSHIPS

It is often difficult for manufacturers to achieve stability and control in their relationships with their distributors because distributors have disparate goals and hence may engage in sub-optimal behaviour. A supplier must ensure a level of commitment high enough to induce continued membership from its distributors to maintain stability in its systems of distribution (Kumar, Stern and Achrol, 1992 : 240).

Commitment by both parties acts as a powerful signal of the quality of the relationship contemplated and sets the stage for building trust in the relationship, and influences the development of shared social norms for regulating future exchange.

It is evident that an important objective of distributor system management strategies and policies should be to create a distribution system relationship that exhibits trust as well as commitment, due to the significant positive effects this has on productivity and the longevity of the relationship as a whole with benefits for both the manufacturer and the distributor.

In conclusion, the observation of Dwyer, Shurr and Oh (1987 : 23): "Commitment represents the highest stage of relationship bonding". This underlines the importance of the concept in system management.

In this section the focus has been on the use of commitment and trust as approaches to managing distribution systems. Using distribution channel power as the tool to endeavour to secure desired distribution system outcomes can be viewed as the opposite approach. Section 10.7 subsequently investigates the role of

channel power in distribution systems.

10.7 CHANNEL POWER IN DISTRIBUTION SYSTEMS

10.1	Introduction	10.8	Channel conflict
10.2	Definition of a distribution system	10.9	Distributor satisfaction
10.3	Purpose of system management	10.10	Communications
10.4	Manufacturer and distributor relationship	10.11	Agreements
10.5	Dependence and interdependence	10.12	Electronic commerce
10.6	Trust and commitment	10.13	Relationship factors to address
10.7	Channel power	10.14	Customer relationship management
	10.7.1 Defining channel power		
	10.7.2 Sources of power	10.15	Summary of the Chapter
	10.7.3 The power and control linkage		
	10.7.4 The power and trust linkage		
	10.7.5 Countering distributor power		
	10.7.6 Summary		

The assumption can be made that manufacturers and distributors are unlikely to coordinate their activities spontaneously in distribution systems. Unguided distribution system activity, with manufacturers and distributors independently seeking their own self-interest, is therefore apt to lead to sub-optimal performance. It can be argued that only through the exertion of “channel power” can the actions of disparate distribution system members be coordinated.

In this section channel power will firstly be defined (Section 10.7.1) followed by the identification of sources of channel power (Section 10.7.2). Subsequently the linkage between channel power and control (Section 10.7.3) as well as channel power and trust (Section 10.7.4) will be explored. Due to the perceived shift in channel power to distributors, specifically in the crop protection industry, this section will be concluded with input on ways to counter the channel power of distributors (Section 10.7.5).

10.7.1 DEFINING CHANNEL POWER

Channel power can be defined as the ability of a channel member, in a distribution system, to control or influence the marketing strategy of an independent system member at another level in the channel. A system member with high power in the system can change another system member's behaviour or make another system member perform an activity that they would not normally conduct (Berman, 1996 : 557). This definition is supported by El-Ansary and Stern (1972 : 47) where they postulate that channel power refers to one system member's ability to influence some or all of the marketing strategy variables of another system member.

According to Stern, *et.al.*, (1996 : 286), power is the ability of one system member to get another system member to do what it otherwise would not have done. The power of a system member can also be defined as its ability to control the decision variables in the marketing strategy of another member, in a given system at a different level in the distribution system. For this control to qualify as power, it should be different from the influenced member's original level of control over its own marketing strategy (El-Ansary and Stern, 1972 : 47). Rosenbloom (1995 : 151) defines the term power, in a marketing system context, as the capacity of a particular system member to control or influence the behaviour of another system member.

Distributor power has also been defined as the extent of the distributor's freedom to make marketing decisions about the manufacturer's products (Butaney and Wortzel, 1988 : 54). Manufacturer market power is defined as those industry characteristics or conditions having the potential to affect the manufacturer's power in the marketplace (Butaney and Wortzel, 1988 : 55).

For the purpose of this study channel power, or "distribution system power", is defined as the ability of a manufacturer to get a distributor to do what that distributor would otherwise not have done. The sources of channel power are reviewed in Section 10.7.2.

10.7.2 SOURCES OF CHANNEL POWER

In order for a manufacturer to exert “channel power”, knowledge is required about the potential sources of manufacturer channel power in a distribution system with a view of managing these sources.

Lusch and Brown (1982 : 321) developed the logic for categorising power sources such as economic (coercion, reward, legal and legitimate) and non-economic (referent, expertise, traditional and informational). A move from economic to non-economic sources of power corresponds with a move from direct outcome control to indirect outcome control. If a distribution system leader successfully implements non-economic sources of power, the influenced system members attribute less, not more, power to the power-holder. This outcome occurs because the system members adopt the system leader’s norms and values as their own, and therefore believe that they are acting independently of the power-holder. Consequently, the higher the quality of assistance (a non-economic source of power), the lower the influenced system member’s perceptions of the system leader’s power.

Cronin, Baker and Hawes, (1994 : 201) refers to the original conceptualisation of Emerson’s research in 1962 where power was thought of as the inverse of dependence. The level of power A has over B, is inversely proportional to the level of dependence B has over A. Power is also commonly expressed as the ability of one party to influence another (Gaski, 1984 : 10). A model of system power relationships is presented in Figure 10.9.

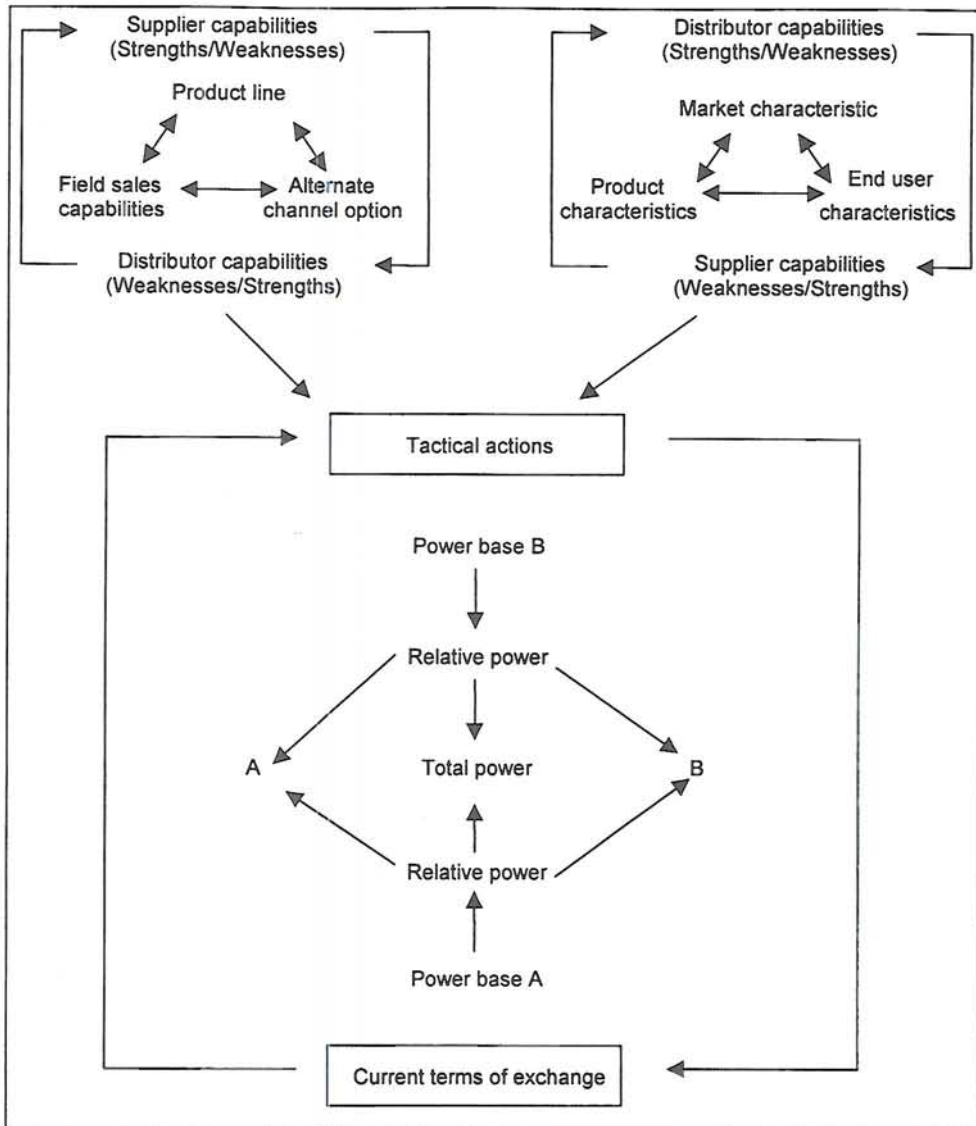


Figure 10.9: A model of channel power relationship

Source: Cespedes, 1992 : 18.

Figure 10.9 illustrates A's ability to control aspects of B's environment in such a way that the new environment will bring about a desired change in B's behaviour. This is not only an important goal in the manufacturer – distributor relationship but also a continuous process in this relationship. Figure 10.9 furthermore identifies the power base of both the manufacturers and distributors. The result being tactical actions from both parties based on their respective capabilities.

Power is however also obtained through the possession and control of resources that are valued by another party. These resources are the assets, attributes, and

conditions within a relationship, that generate and represent each system member's dependence, indebtedness, or allegiance to another (Stern, *et. al.*, 1996 : 286). The valued resources that system members stockpile are known as their "bases" of power (Stern, *et. al.*, 1996 : 288). These include rewards, coercion, expertness, reference and legitimacy and are explained next.

Reward power: Reward power is based on the belief by B that A has the ability to grant rewards to B. Research has shown that monetary compensation is a key element of reward power in coordinating system activities (Stern, *et. al.*, 1996 : 289).

Coercive power: Coercive power stems from B's expectation of punishment by A if B fails to conform to A's influence attempt. Coercive power can be viewed as the "flip side" of reward power. According to Stern, *et. al.*, (1996 : 294) it should be noted however, that the threat and use of negative sanctions can often be viewed as "pathological" and may be less functional in the long run than other power bases that may produce more positive side-effects.

Expert power: Expert power is based on B's perception that A has special knowledge. A firm that wishes to retain expert power in its relationship with other firms in a given distribution system, has three options in the long run (Stern, *et. al.*, 1996 : 296). First, it can dole out its expertise in small portions, always retaining enough vital data so that other distribution system members will remain dependent on it. In practice this would mean that other distribution system members will be kept in the dark concerning some critical elements of the system performance. Secondly, the firm can continually invest in learning and, thereby always have new and important information to offer its distribution system partners. A third option is to encourage distribution system partners to invest in transaction-specific expertise that would be so specialised that they could not easily be transferred into other products or services.

Referent (or identification) power: The referent power of A over B has its basis in the identification of B with A. If A is an attractive group, B will have a feeling of membership or a desire to join (Stern, *et. al.*, 1996 : 297).

Legitimate power: Legitimate power stems from values internalised by B that give B a feeling that A “should” or “has the right to” exert influence and that B has an obligation to accept it (Stern, *et. al.*, 1996 : 299).

While the power of a company to influence the actions of its intermediaries is primarily a function of its power sources and the dependence of the intermediary on the company, a third factor must be considered, namely the intermediary’s countervailing power. According to Etgar (1977 : 75), countervailing power is believed to arise from distributor loyalty, the intermediary’s volume, acquisitions of other intermediaries, advertising sales ratio, and the strength of an intermediary’s associations.

If strong countervailing power exists in a channel, then a manufacturer will find that monetary rewards and threats will be more effective than the use of non-monetary rewards (Etgar, 1976 : 262). In practical terms, this means that the acceptance of controls will be easier where an exchange relationship exists, that is, where the intermediary accepts controls in return for a high level of service (Bradley, 1995 : 786).

Control is best viewed as an outcome of power and results when an organisation is successful in modifying its partner’s behaviour (Anderson and Narus, 1984 : 65).

Having identified sources of power Section 10.7.3 investigates the linkage between channel power and control.

10.7.3 THE LINKAGE BETWEEN CHANNEL POWER AND CONTROL OVER THE DISTRIBUTION SYSTEM

In preceding sections channel power has been defined and sources of channel power have been highlighted. The linkage between channel power and control in the distribution system is, however, of importance for a manufacturer wishing to exert influence over the actions of distributors.

Based on a study on the marketing of industrial products, Cespedes (1992 : 19)

postulates that manufacturer power is related to three factors. These being the quality and extent of the manufacturer's field sales resources, the breadth of its product line, relative to competition in the specific product category, and other distribution options available to the manufacturer in a given market segment. The greater the manufacturer's capabilities in each area, the greater the manufacturer's ability to influence its distributor's environment and the distributor's marketing programmes in support of that manufacturer's products or services, and therefore exerting more control over the distribution system. It is therefore posed that the strength of the power base is directly related to the ability to influence and control distributors in the distribution system.

Three aspects of manufacturer power are interrelated, mutually reinforcing elements of manufacturer's ecological control (Cespedes, 1992 : 22). See Figure 10.10 for a schematic representation of this linkage.

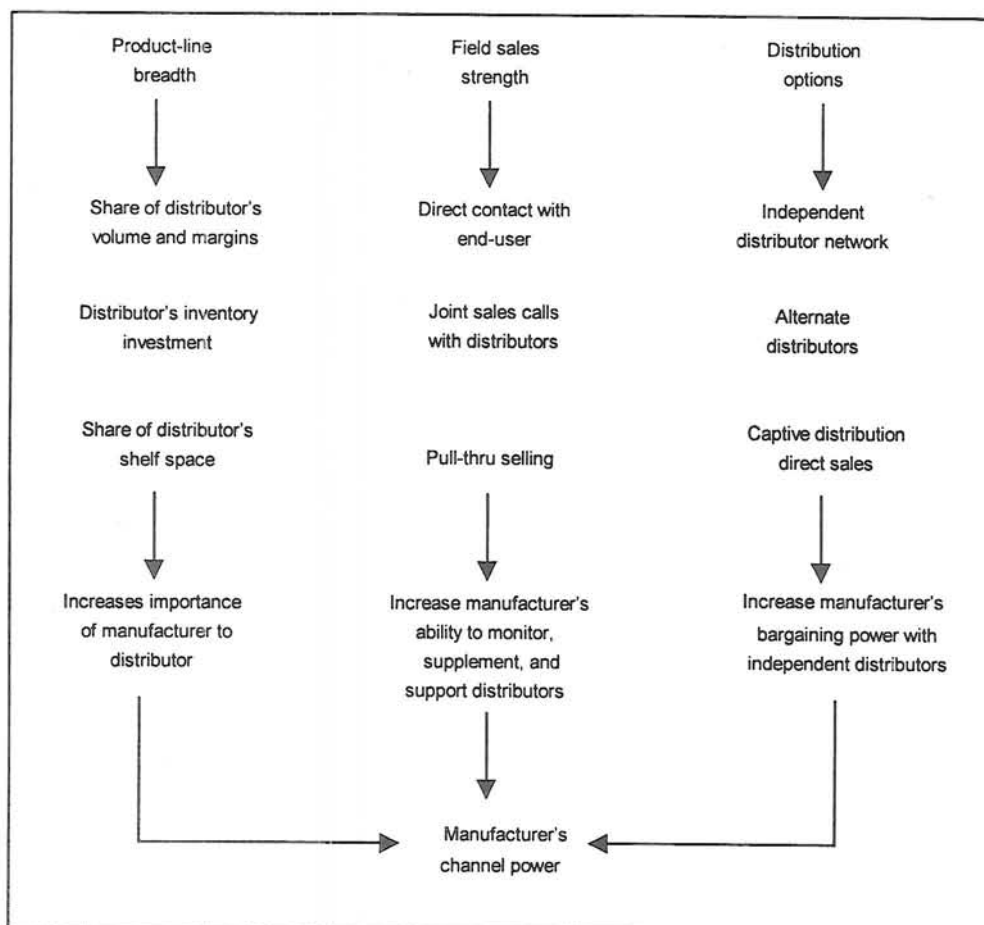


Figure 10.10: The linkage of ecological control and channel power

Source: Cespedes, 1992 : 22.

Figure 10.10 provides a number of aspects a manufacturer should investigate which will impact on the manufacturer's channel power and ability to control, or influence, the distribution system.

An ecological control perspective suggests that channel decisions should be closely linked with the broader areas of marketing and competitive strategy since, in this perspective, the firm's distribution system relationships are both a variable capability and tactic on this larger field of business activity (Cespedes 1992 : 30). It also highlights the interaction of channel power relations with circumstances and tactics beyond any particular distribution arrangement.

A manufacturer or distributor that is a "channel leader" may gain access to power sources because of the specific characteristics, experience, or history of the organisation and its management. Alternatively, its power sources (or their absence) may reflect the particular characteristics of the environmental forces impinging upon the distribution system (demand, technology, competition and legal constraints) and the ability to capitalise upon these forces and to mitigate their effects upon other distribution system members (Etgar, 1977 : 70). A schematic representation of these relationships is presented in Figure 10.11.

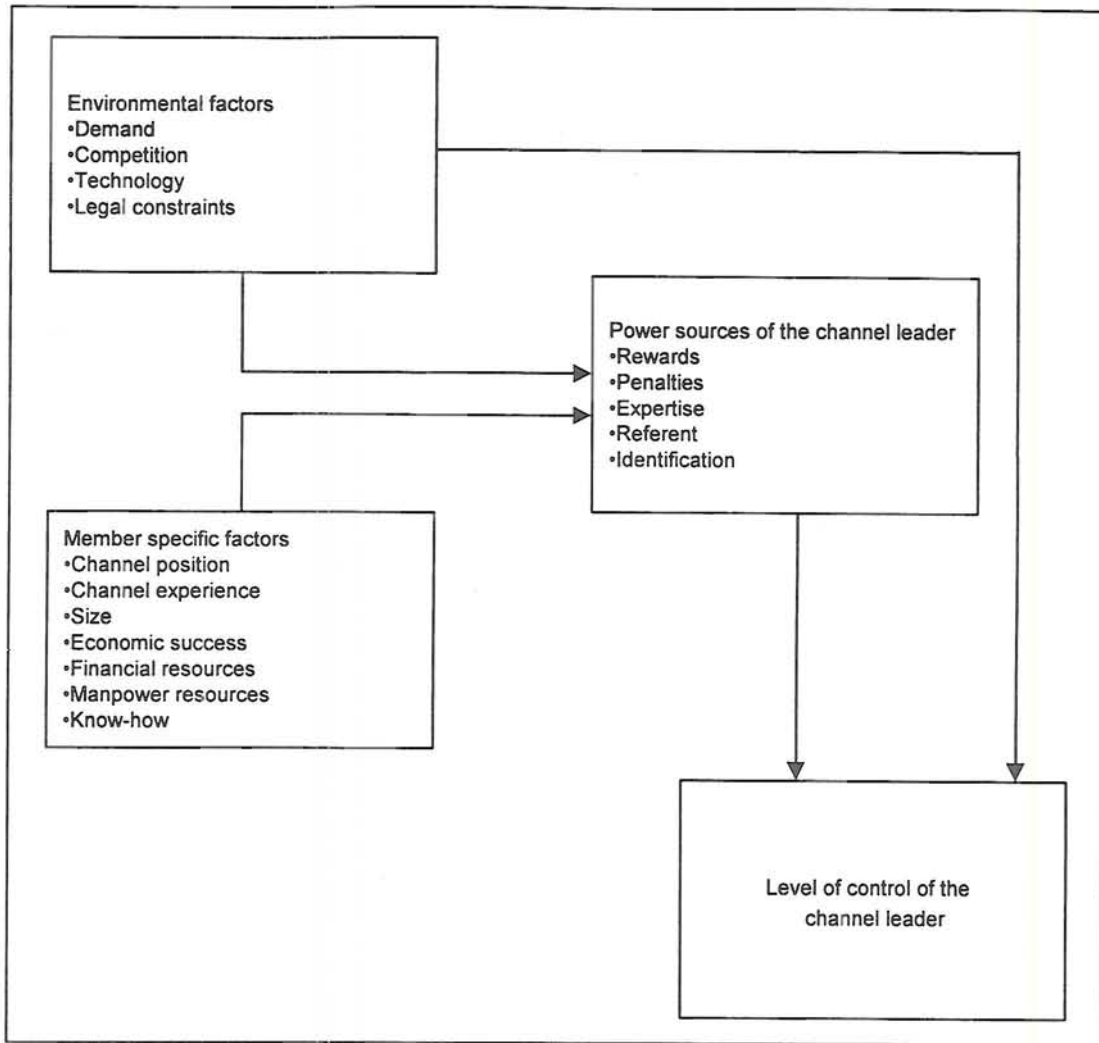


Figure 10.11: A modified model of power and control

Source: Etgar, 1977 : 70.

From Figure 10.11 the deduction can be made that both environmental factors and member specific factors provide the extent of a power base. These factors ultimately result in the level of control the channel leader can bring to bear on other channel members.

Channel members can invest resources in power sources in order to increase their ability to affect channel behaviours and outcomes (Stern, *et. al.*, 1996 : 300). This implies that channel members should seek opportunities to invest wisely in developing bases of power, and also that they should be aware of other channel members' equal incentives to make such investments.

10.7.4 THE LINKAGE BETWEEN CHANNEL POWER AND TRUST IN DISTRIBUTION SYSTEMS

The definition of trust was discussed in Section 10.6.1 and that of channel power in Section 10.7.1. The relationship between channel power and trust in distribution systems, however, needs clarification.

Young and Wilkinson (1989 : 109) argue that marketing's emphasis on power and conflict as key concepts for studying distribution systems has distorted the understanding of how distribution systems function. Long run, successful, relationships between suppliers and distributors are more likely to be associated with the absence of the exercise of coercive power and the presence of commitment and trust (Morgan and Hunt, 1994 : 33). Kumar (1996 : 105) supports the view that the emphasis should be shifted away from what he terms the "power game" to the so-called "trust game". This calls for a "new" approach to the management of relationships with distributors. Guidelines are given in Table 10.6 to reflect the mind shift required.

Table 10.6: The different approaches to distribution system management comparing a "power" approach to a "trust" approach

	The power game	The trust game
Modus operandi	Create fear	Create trust
Guiding principle	Pursue self-interest	Pursue what's fair
Negotiating strategy	Avoid dependence by playing multiple partners off against each other Retain flexibility for self but lock in partners by raising their switching costs	Create interdependence by limiting the number of partnerships Both parties signal commitment through specialised investments, which lock them in
Communication	Primarily unilateral	Bilateral
Influence	Through coercion	Through expertise
Contracts	"Closed," or formal, detailed, and short-term Use competitive bidding frequently	"Open," or informal and long-term Check market prices occasionally
Conflict management	Reduce conflict potential through detailed contracts Resolve conflicts through the legal system	Reduce conflict potential by selecting partners with similar values and by increasing mutual understanding Resolve conflicts through procedures such as mediation or arbitration

Source: Kumar, 1996 : 105.

From Table 10.6 the deduction can be made that if a manufacturer should base the management of the distribution system primarily on the use of manufacturer power ("the power game"), this approach would be detrimental to building trust in the manufacturer relationship with distributors due to the significant difference in approaches.

Although the concept of satisfaction will be elaborated upon in Section 10.9 it is appropriate to highlight the linkage of power, the use of power and satisfaction as part of the overall discussion on channel power. The simultaneous assessment of system input (behavioural-based role performance and economic contribution), process (power and use of coercive power), and outcome variables (compliance and satisfaction) provides a comprehensive framework for assessing the weaker party's current and future business strategy (Gassenheimer, Calantone, Schmitz and Robicheaux, 1994 : 234). See Figure 10.12 for a schematic representation of the linkage.

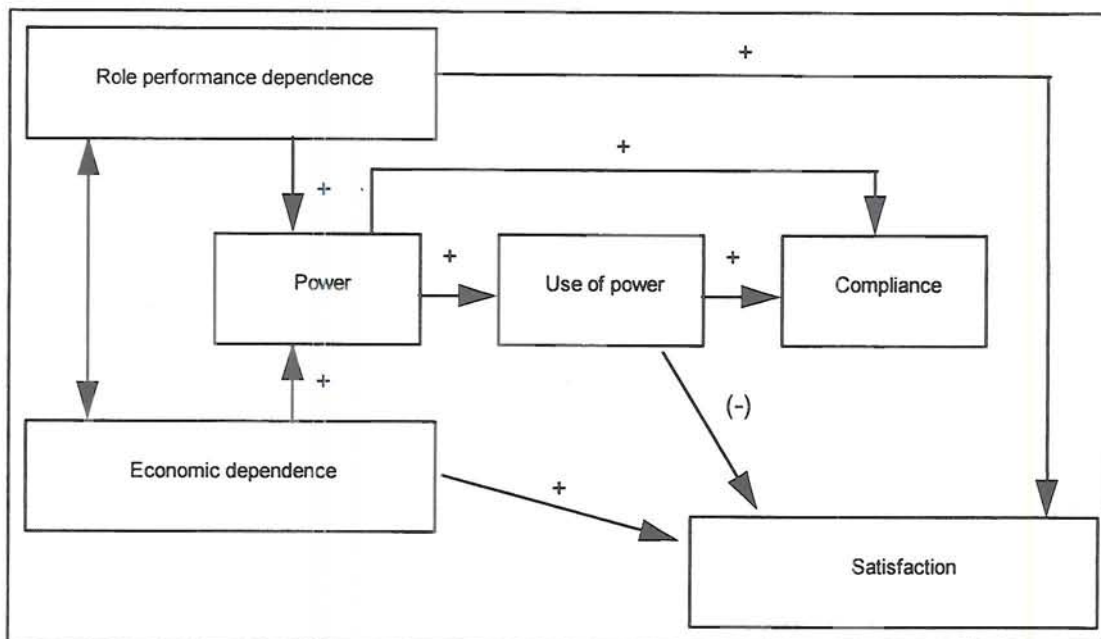


Figure 10.12: Channel exchange relationship model

Source: Gassenheimer, *et. al.*, 1994 : 227.

Figure 10.12 indicates that the use of power can negatively affect satisfaction. In the relevant research by Gassenheimer, *et. al.*, (1994) they, however, qualify the

relationship between use of power and satisfaction. When power is used with discretion it can be an effective tool for the communication of constructive advice. In these situations distributors will actually gain satisfaction (Gassenheimer, *et. al.*, 1994 : 234). Manufacturers should not be hesitant to use their power, with discretion, for the fear that this would automatically impact negatively on distributor satisfaction.

10.7.5 COUNTERING THE POWER OF DISTRIBUTORS FROM THE PERSPECTIVE OF MANUFACTURERS

In the analysis of the global crop protection industry and competitive situation in Chapter 3, the view was conveyed that the balance of power is shifting away from the manufacturers to the distributors in the global crop protection distribution systems.

Countering the power of distributors, from the perspective of manufacturers, is therefore an important issue for manufacturers to consider. Manufacturers have 10 ways to counter the power of distributors (Berman, 1996 : 556):

- Innovation clout: Manufacturers that come out with a continuous stream of unique products can receive preferential treatment from distributors.
- Assortment clout: Manufacturers should strive to dominate a product category.
- Brand identity clout: Brands with excellent end-user franchises have high channel power through high end-user traffic and brand loyalty levels.
- Profit making clout: Financial support for distributors strengthens a manufacturer's power.
- Bundling clout: Package discounts and co-promotions of products.
- Service response clout: A manufacturer's logistics competency increases its bargaining strength.
- Training clout: A manufacturer's superior marketing and product-based training programmes, offered to distributors, increases its channel power.
- Geographic clout: A national or global presence provides a manufacturer with lower advertising, selling and product development cost than a regional

manufacturer.

- Quality clout: A manufacturer's recognised product quality provides brand loyalty.
- Market development clout: A manufacturer with strong market development skills can increase consumer demand.

Manufacturers must, therefore, be knowledgeable concerning their relevant sources of power and use this in a well-structured manner in order to assist in the management of distribution systems. These elements must be included in the appropriate distribution system management model of a manufacturer.

Berman (1996 : 563) lists some of the sources of power used by manufacturers to counter the power base of distributors, as follows:

- having high economic scale,
- having high market share in served markets,
- high brand loyalty,
- using franchising,
- refusing to deal with selected distributors,
- threatening distributor termination,
- using vertical integration,
- using push money,
- adding another distributor to a distributors' territory,
- full-line forcing to sell slow-moving merchandise,
- offering goods in short supply to preferred distributors,
- offering large-quantity discounts to drive distributors to concentrate purchases on major brands,
- expanding product lines so that a manufacturer's brand dominates a distributor's shelf space, and
- allowing a large manufacturer's accounts to bypass traditional distributors.

Depending on the specific situation and options available to a manufacturer these factors should be taken into consideration as possible avenues to manage the power balance in distribution systems.

10.7.6 SUMMARY – CHANNEL POWER IN DISTRIBUTION SYSTEMS

Channel power can be defined as the ability of a manufacturer to get a distributor to do what that distributor would otherwise not have done. Manufacturers have a number of sources of channel power that have to be identified and harnessed in order to exert control over distributors. The strength of a manufacturer's power base is directly related to its ability to influence a distributor.

10.8 CHANNEL CONFLICT IN DISTRIBUTION SYSTEMS

10.1	Introduction	10.9	Distributor satisfaction
10.2	Definition of a distribution system	10.10	Communications
10.3	Purpose of system management	10.11	Agreements
10.4	Manufacturer and distributor relationship	10.12	Electronic commerce
10.5	Dependence and interdependence	10.13	Relationship factors to address
10.6	Trust and commitment	10.14	Customer relationship management
10.7	Channel power	10.15	Summary of the Chapter
10.8	Channel conflict		
	10.8.1 Defining conflict		
	10.8.2 Causes of conflict		
	10.8.3 Managing conflict		
	10.8.4 Summary		

It can be argued that channel conflict in distribution systems is part of the exchange process with the manufacturer attempting to obtain the highest possible return and the distributor attempting to purchase the goods for as little as possible (Berman, 1996 : 568). According to Rosenbloom (1995 : 132) conflict is an inherent behavioural dimension in all social systems, including distribution systems. In Section 10.8.1 channel conflict will be defined followed by the identification of the cause of channel conflict in Section 10.8.2 and finally, the way to manage channel conflict (Section 10.8.3).

10.8.1 DEFINING CHANNEL CONFLICT

Channel conflict can be defined as a situation in which one distribution system member perceives another distribution system member to be engaged in behaviour that prevents or impedes it from achieving its goals. The amount of conflict is, to a large extent, a function of goal incompatibility, domain dissensus, and different perceptions of reality (Stern, *et. al.*, 1996 : 306). Channel conflict can also be seen as a behavioural dimension that can influence how efficiently distribution objectives are achieved (Rosenbloom, 1995 : 139).

In the context of developing appropriate distribution system management models for the crop protection industry, channel conflict can be described, for the purpose of this study, as the stress or tension that results between a manufacturer and a distributor when one of the parties has the perception that its goal attainment is being impeded by the other entity.

Conflict in distribution system was conceptualised by Brown and Day (1981 : 272) as a dynamic process in which conflict progresses from a latent state of incompatibility to perceived conflict to the behavioural stage of manifest conflict. In manifest conflict the parties interact with each other in order to cope with frustrating behaviours.

Distribution channel conflict can be classified into five stages (Pondy, 1967 : 300-305):

- latent conflict (underlying sources of conflict),
- perceived conflict (perception only, when no conditions of latent conflict exist),
- felt conflict (tension, anxiety),
- manifest conflict (behaviour which blocks another's goal achievement), and
- conflict aftermath (post-conflict conduct, either resolution or suppression).

Management of both manufacturers and distributors should endeavour to identify conflict potential as early as possible in order to implement rectifying action prior to

the development of “manifest conflict”. Causes of channel conflict are discussed in Section 10.8.2 which follows.

10.8.2 CAUSES OF CHANNEL CONFLICT IN DISTRIBUTION SYSTEMS

Being proactive in efforts to limit conflict in distribution systems the potential causes of conflict in distribution systems have to be identified.

Some of the most important causes of channel conflict are listed below and will be reviewed in the following paragraphs:

- goal divergence,
- differing perceptions of reality,
- usage of coercive tactics by manufacturers,
- domain issues,
- insufficient communications, and
- management style.

Goal divergence can lead to distribution system conflict (Berman, 1996 : 569). Goal divergence can be defined as the set of goals and objectives a manufacturer and distributor have that very often can be very different from those of other distribution system members. These incompatibilities cause conflict, because they induce behaviour by one distribution system member that is inconsistent with the achievement of another member’s goals (Stern, *et al.*, 1996 : 308). Brill (1994 : 221) confirms this view by stating that conflict is present when the goals of two parties are disparate and each desires to work toward achieving their disparate goals. This view is also shared by Rosenbloom (1995 : 134). It is therefore the task of distribution system management staff to ensure proper goal setting systems and procedures are in place.

Differing perceptions of reality are also important sources of conflict, because they indicate that there will be differing bases of actions in response to the same situation (Stern, *et al.*, 1996 : 314). The level of marketing support provided by manufacturers and the degree of value provided by other members of the distribution system,

relative to the compensation they are given for doing what they do, are sources of considerable frustration in distribution systems (Stern, *et. al.*, 1996 : 312).

Lusch (1976 : 382-390) found that retailers will engage in more conflict with manufacturers when the manufacturers are perceived as likely to use coercive tactics. Coercive tactics may well be more prevalent in asymmetrical power relationships which, in turn, may encourage perceptual differences (Anderson and Narus, 1990 : 45).

According to Berman (1996 : 569) channel conflict is created due to domain issues when a manufacturer adds a new channel or reduces a distributor's territory. Stern, *et. al.*, (1996 : 309) also concedes that conflict in distribution systems can frequently be caused by differences in domain definitions among distribution system members. A distribution system domain comprises two critical elements (Stern, *et. al.*, 1996 : 309):

- The population to be served: For example, are all large accounts supposed to be handled by the direct sales force and all small accounts by distributors?
- Territory to be covered: For example, what is distributor A's area of primary responsibility, and are there any overlaps with distributor B or C?

Potential conflict in distribution systems can therefore be theoretically reduced if proper attention is given to domain related aspects.

Insufficient communications between manufacturers and distributors can cause distribution system conflict (Rosenbloom, 1995 : 134). This view is supported by Berman (1996 : 569). Due to the importance of communications in the distribution system management process Section 10.10 elaborates on this aspect. In managing a distribution system, the principle should be to have policies and a management style that minimises the potential for conflict development (Rosenbloom, 1995 : 134).

A number of variables affect the level of conflict (Young and Wilkinson, 1989 : 118):

- The duration of the relationship (relationships of shorter duration tended to experience more conflict).
- Formality of the contractual relationships (written agreements tended to produce more conflict than did unwritten ones).
- Power (unequal power seemed to lead to more conflict, while strong, mutually perceived interdependence seemed to lead to less conflict).

The challenge is to develop distribution management models that not only have measure in place to pro-actively minimise the development of potential conflict but also to identify conflict in preferably the latent stage and to have systems in place to resolve conflict effectively. Ways to manage channel conflict are addressed in Section 10.8.3.

10.8.3 MANAGING CHANNEL CONFLICT IN DISTRIBUTION SYSTEMS

Given the reality that channel conflict is likely to arise in normal distribution system relations, it becomes necessary to consider how such conflict can be managed or controlled. If channel conflict is not addressed in the distribution system, it is unlikely that coordinated distribution system outcomes will result (Stern, *et. al.*, 1996 : 315).

Members of the distribution system must make a conscious effort to detect conflict or its potential if they expect to deal with it before it becomes highly developed or extensive (Rosenbloom, 1995 : 146). Conflict resolution has consistently occupied a central role in models of the interorganisational exchange process (Frazier, 1983a : 73).

According to Dant and Schul (1992 : 39) two related categories of conflict resolution methods can be identified in conflict resolution literature. The first category consists of mechanisms that can be viewed as “institutionalised” in that they represent policies implemented by the distribution system management to address conflict in a systematic, ongoing manner. A second category of conflict resolution mechanism consists of activities or “processes” that underlie and make possible the enactment of institutionalised conflict resolution mechanisms.

Rosenberg (1974 : 67-74) makes several suggestions for dealing with channel conflict in distribution systems:

- Establishment of a distribution system-wide committee to evaluate emerging problems related to potential conflict.
- Joint goal setting which takes into consideration the goals of the various distribution system members.
- The creation of a distribution executive position for each major firm in the distribution system.

Specific methods of distribution system conflict management and conflict resolution are sensitivity training, shared tasks, and joint goal-setting. These methods require the trust and commitment of distribution system members and are often associated with relationship marketing. In contrast, channel-wide committees, conciliation and distributor advisory councils are administrative techniques used to manage and reduce conflict (Berman, 1996 : 577).

Channel power is not only a lever to marshal resources for productive activity, it can also be exerted in order to resolve or control distribution system conflict (Stern, *et. al.*, 1996 : 322). Given that a channel member has power sources indicates that it has the potential for influence (Frazier, 1983a : 71). A distribution system member can employ a variety of influence strategies in situations where it wants to change the behaviour of another member, e.g. in a conflict situation.

Frazier and Summers (1986 : 172) suggest that power resources can be converted into persuasive messages using threats, legalistic pleas, promises, requests, recommendations and information exchanges.

Dant and Schul (1992 : 38-54) put forward conflict resolution processes. They refer to information-intensive strategies for resolving conflict that involves the open exchange of information in the conflict-resolution process. Given that information exchange can imply a loss of control, trust and cooperation are deemed to be likely conditions for the successful application of information intensive conflict resolution

processes.

Without any conflict, channel members will tend to become passive and non-innovative (Stern, *et. al.*, 1996 : 314). Conflict motivates channel members to adapt, grow and seize new opportunities. Conflict should impel better channel performance, especially if channel members do not consider moderate levels of conflict too costly. Furthermore, divergent views can produce better ideas (Stern, *et. al.*, 1996 : 314). This view is supported by Anderson and Narus (1990 : 45) that refers to the term “functional conflict” which is a consequence of trust in a system relationship.

The overall objective of the effective use of power is to improve the performance of the distribution system. Role specification means defining appropriate behaviour for firms occupying each position in the distribution system (Bradley, 1995 : 781). See Figure 10.13.

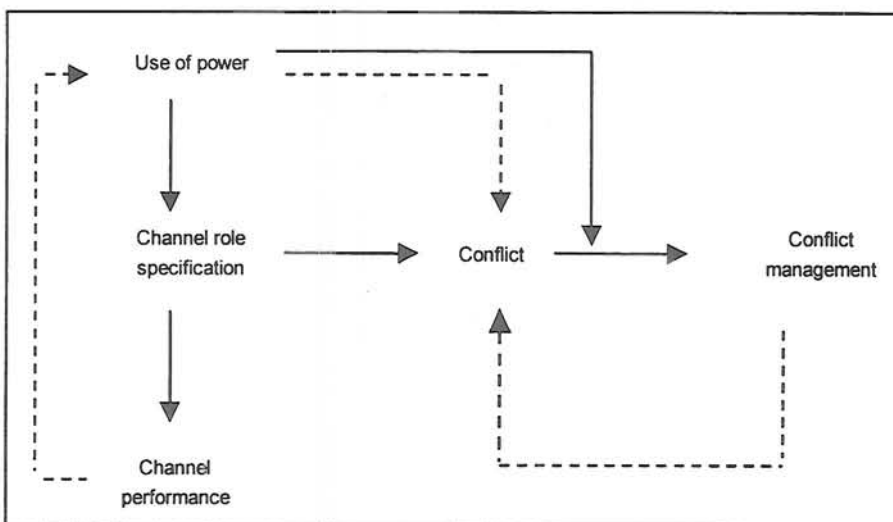


Figure 10.13: Conflict and power related to distribution systems

Source: Bradley, 1995 : 781.

From Figure 10.13 it is evident that there is an interrelation among role specification, conflict and use of power in attempting to specify appropriate roles and to ensure conformity and thereby resolve conflict.

Distribution system members therefore have to have clearly communicated goals with distribution partners and also be prepared to “manage” conflict as part of the

conflict resolution process.

It can be suggested that conflict in distribution systems points to the following generalisations:

- Given the numerous causes from which conflict may develop, it is a pervasive phenomenon in distribution systems.
- Conflict can affect distribution system efficiency.
- Various levels of conflict may have both negative and positive effects on distribution system efficiency.

10.8.4 SUMMARY – CHANNEL CONFLICT IN DISTRIBUTION SYSTEMS

Channel conflict is an inherent behavioural occurrence in the distribution system. Identification of potential sources of conflict and the endeavour to have systems in place to address conflict in the latent stage is one of the tasks of distribution system management.

10.9 DISTRIBUTOR SATISFACTION

10.1	Introduction	10.9	Distributor satisfaction
		10.9.1	Defining satisfaction
10.2	Definition of a distribution system	10.9.2	Linking satisfaction and conflict
		10.9.3	Summary
10.3	Purpose of system management		
		10.10	Communications
10.4	Manufacturer and distributor relationship		
		10.11	Agreements
10.5	Dependence and interdependence		
		10.12	Electronic commerce
10.6	Trust and commitment		
		10.13	Relationship factor to address
10.7	Channel power		
		10.14	Customer relationship management
10.8	Channel conflict		
		10.15	Summary of the Chapter

In preceding sections the concepts of power and conflict have received attention. This raises the question of when a distributor will be "satisfied" with the dispensation they have. In this regard, a definition of distributor satisfaction and the source thereof (Section 10.9.1) is followed by a discussion on the linkage of distribution system satisfaction and conflict (Section 10.9.2).

10.9.1 DEFINITION AND SOURCES OF DISTRIBUTOR SATISFACTION

Distribution system satisfaction is defined as the overall evaluation of the relationship between two distribution system members (Berman, 1996 : 578). Customer satisfaction can also be defined as the extent to which a product or service meets or exceeds a customer's expectations (Stanton, Miller and Layton, 1994 : 739).

For the purpose of this study, customer satisfaction is defined as the provision of services to distributors that would meet their identified expectations of a crop protection product manufacturer.

Research by Ruekert and Churchill (1984 : 226-233) suggests that distribution system satisfaction has five dimensions: social interaction, product, financial, cooperative advertising, and assistance. The social interaction dimension examines interactions between the distributor and manufacturer, primarily through the sales representative that services the account. The product dimension reflects the demand for and awareness as well as quality of the manufacturer's products. A financial dimension looks at intermediary margins and returns on investment. A cooperative advertising dimension evaluates cooperative advertising programmes and allowances. The assistance dimension looks at consumer promotions, promotional support, and point-of-purchase displays.

In a study of channel member satisfaction, Dwyer (1980 : 63) concluded the following as sources of distribution system satisfaction:

- Distribution system member satisfaction flows partially from that same member's perceived self-control over decision areas.
- Satisfaction stems from the perceived cooperativeness of partners in the

distribution system.

- Reward, referent and expert power bases can be mobilised for cooperative influence.
- Powerful and cooperative distribution systems exhibit higher levels of satisfaction within the system.

Initially, in a manufacturer relationship with end-users, satisfaction with the service from the distributor is the most important aspect but satisfaction with the product becomes more important during later consumption periods (Mittal, Kumar and Tsiros, 1999 : 98). The linkage of satisfaction and conflict is discussed in Section 10.9.2.

10.9.2 THE LINKAGE OF DISTRIBUTION SYSTEM SATISFACTION AND CONFLICT

In an endeavour to develop a unified theory of distribution system member relationships (manufacturers and distributors) and conflict and satisfaction, Laskey, Nicholls and Roslow (1992 : 90-91) identified seven areas of importance:

- Perceptions may bring differences in the behaviour of distribution system partners and the actions of a partner may change the perception of members.
- It would appear that when there is an imbalance in member's power, conflict will exist.
- Distribution system members hold expectations of each other's duties and performance (the awareness and execution of distribution duties has been linked to conflict).
- Advertising and promotional support, cooperative financing arrangements and product quality are dimensions in distribution system relationships which involve distribution system satisfaction and conflict.
- There is evidence to suggest that the use of power is more related to distribution member satisfaction than coercive threats.
- Different objectives of distribution system members could lead to an increase in conflict coupled to a decrease in satisfaction.
- External factors, like the concentration of competitors within a region, can

contribute to distribution system member dissatisfaction.

Conflict is expected to have a negative relationship with satisfaction (Skinner, Gassenheimer and Kelley, 1992 : 180). Non-coercive sources of power increase satisfaction and reduce conflict, while coercive sources of power reduce satisfaction and increase conflict within the distribution system (Hunt and Nevin, 1974 : 186-193).

Berman (1996 : 578) states that cooperative efforts in a distribution system should result in greater channel efficiency and achievement of goals, which leads to higher levels of satisfaction.

Hunt and Nevin (1974 : 186-193) argue that distribution system satisfaction may be related to higher morale, greater cooperation within a distribution system and fewer terminations of relationships. Satisfied distribution system members can reduce friction between parties, lower dysfunctional forms of conflict, and increase channel efficiency (Lusch, 1976 : 382-390). Satisfaction improvement coupled to the reduction in the attractiveness of alternative distribution system arrangements is key to a defensive strategy aimed at minimising changes of exiting the present distribution system arrangement (Ping, 1993 : 344).

10.9.3 SUMMARY – DISTRIBUTOR SATISFACTION

Effective distribution system management models should endeavour to ultimately have satisfied partners due to the benefits this represents. This calls for addressing those areas that impact on satisfaction and to have formal systems in place to measure partner satisfaction levels.

10.10 THE ROLE OF COMMUNICATIONS IN DISTRIBUTION SYSTEM MANAGEMENT

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The importance of defining the role of communications in distribution system management is evident from the reference to the role of inadequate communications in generating conflict potential in a distribution system (Section 10.8.2), but also the role of communication in conflict resolution.

According to Duncan and Moriarty (1998 : 3) relationship marketing literature often fails to include the communication process as a critical dimension in relationship building, focusing instead on elements such as trust and commitment, which they postulate to be outcomes of communication.

Marketers continue to be interested in how communication between organisations can best be managed to enhance distribution system outcomes. It can be argued that the most important element to successful inter-firm exchange is communication (Bleeke and Ernst, 1993 : 9 as quoted in Mohr, Fisher and Nevin, 1996 : 103). Communication has also been described as the “glue” that holds together a distribution system (Mohr and Nevin, 1990 : 36). The growth of relatively strong and proactive inter-firm relationships is fostered by frequent communications of a non-coercive nature (Anderson and Narus, 1990 : 44). Figure 10.14 provides a simplified

model of communication for distribution channels.

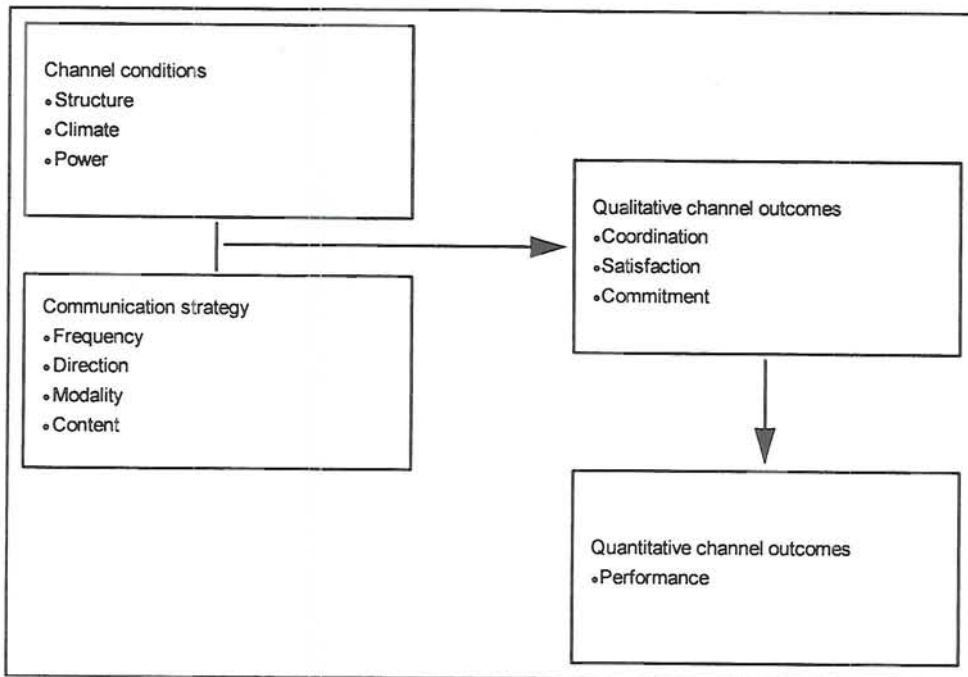


Figure 10.14: A model of communication for distribution channels

Source: Mohr and Nevin, 1990 : 38.

Figure 10.14 conveys the message that communication facets should be linked to distribution system (channel) conditions and proposes the notion of communications strategy as a moderator between channel conditions and outcomes (Mohr and Nevin, 1990 : 49).

The communication strategy of a manufacturer should therefore be seen as an integral component of the applicable distribution system management model. The communication messages to distributors can differ substantially in scope and content as part of the manufacturer's distribution system co-ordination activities.

A distinction is made between "Outcome-based coordination efforts" and "Behaviour-based coordination efforts" (Celly and Frazier, 1996 : 201). Outcome-based coordination efforts reflect the extent to which manufacturer personnel emphasize bottom-line results (sales growth and market share) in personal communications with distributor personnel. Behaviour-based coordination efforts, in contrast, reflect the extent to which personal communications of manufacturer personnel with distributor

personnel emphasize “tasks and activities” (distributor education and training) that are expected to lead to bottom-line results.

An exclusive focus on outcomes may convey that the manufacturer is concerned primarily with the bottom-line and is likely to result in distributor emphasis on selling activities at the expense of other functions such as distributor education and after-sales service. An exclusive focus on behaviours, though conveying concern for service quality and distributor activities, may result in sub-optimal sales performance (Celly and Frazier, 1996 : 207).

According to Celly and Frazier (1996 : 200) formal authority relationships between independent distribution system members are not nearly as strong as within an organisation. This leads to the problem that monitoring and evaluating distributor behaviour is relatively difficult. Manufacturer personnel are not guaranteed an audience with associated distributors. The view is held that the focus should shift to “coordination efforts” in an attempt to align the activities of distribution system members (Celly and Frazier, 1996 : 201). The content of inter-firm communications serves to centre distribution attention on specific issues or activities vital to the coordination process (Frazier and Summers, 1984 : 46-47).

Frazier and Rody (1991 : 53) quote Grabner and Rosenberg as follows: “A given system structure determines, to some degree, the communication patterns of its participants. The nature of communication may differ according to whether a system represents a loose coalition of independently-owned firms, a contractually integrated system, or a system integrated by ownership”.

The more distribution system members exchange information with each other, the better they are able to anticipate and respond to each other’s needs. The better distribution system members are able to fulfil each other’s needs, the higher the level of performance individual firms and the distribution system as a whole, can attain (Lusch and Brown, 1996 : 26).

The amount of communication refers to the frequency and duration of contact between organisational members. The direction refers to the vertical and horizontal

movement of communication within the organisation, whereas the medium of communication, or modality, refers to the method used to transmit information (Mohr and Nevin, 1990 : 39). The main reasons for communication problems in distribution systems are differences in goals, perceptual differences among distribution system members and secretive behaviour (Rosenbloom, 1995 : 169). Morgan and Hunt (1994 : 25) suggest that “timely” communication fosters trust by assisting in resolving disputes and aligning perceptions and expectations.

In a study set in industrial product distribution systems, Boyle and Dwyer (1995 : 197) came to the following conclusions:

- Communication forms that nurture a long-term distribution system relationship can be encouraged through the use of formalised controls.
- Manufacturer recommendations and information are better received by the distributor who perceives his role to be vital to the success of the distribution system.
- Unilateral manufacturer decision-making decreases the manufacturer’s credibility with the distributor, leaving non-mediated approaches ineffective.
- Strong-arm influence tactics are detrimental to successful long-term transacting.
- Recommendations and information exchange reveal the manufacturer’s sincere interest in the distributor’s success.

In the context of this study, crop protection product manufacturers must realise the importance that adequate communication flows have in the management process of distribution systems. Effectiveness of communication processes and perceived effectiveness thereof should also be monitored on an ongoing basis, in order to implement actions to improve levels of effectiveness. Communication strategies must be part of the overall distribution management model of manufacturers.

Prahalad and Ramaswamy (2000 : 79-87) takes the importance of communications between manufacturers and customers (distributors) one step further. Their view is that manufacturers must harness the competencies of their customers as “product testers” or as “concept testers”. In harnessing customer competence manufacturers

have to engage their customers in an active, explicit and ongoing dialogue and create “personalized experiences” with customers. They also make the statement that engaging in dialogue with customers who know what they want requires richer and subtler forms of exchange than many manufacturing companies are used to.

In Section 10.11 the role of agreements in distribution system management is reviewed.

10.11 THE ROLE OF AGREEMENTS IN DISTRIBUTION SYSTEM MANAGEMENT

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10.9	Distributor satisfaction		

The important role of agreements in the management of distribution systems can be related back to the role of factors such as differences in domain definitions between manufacturers and distributors that can lead to conflict (Section 10.8.2). Formal agreements can pro-actively defuse potential conflict areas.

Boyle, Dwyer, Robicheaux and Simpson (1992 : 463) quotes MacNiel who contends that the traditional view of agreements as “arms-length” dealings between anonymous traders using short-term (discrete) and formal agreements for specific performances, is ill-suited to the technical specialisation and complexity of today’s business world. To the extent that a long-term relationship is sought, it is important to

search for mutually beneficial, or integrative, agreements (Clopton, 1984 : 39). Inter-firm agreements could be used to achieve results similar to integration (Heide, 1994 : 82). The same sentiment is conveyed by Heide and John (1992).

Although some research has clearly been done on agreements, there is still much to learn about when different types of agreements should be used to govern relations (Lusch and Brown, 1996 : 19). The area of contractual relationships is however important, because the misuse of agreements could create irreconcilable conflict and other forms of dysfunctional behaviour that could ultimately harm distribution system member performance (Lusch and Brown, 1996 : 19).

In Figure 10.15 a model is presented of some of the antecedents and consequences of contracting in relational exchange in distribution systems. Areas of importance that are postulated by Lusch and Brown (1996 : 21-26) are highlighted.

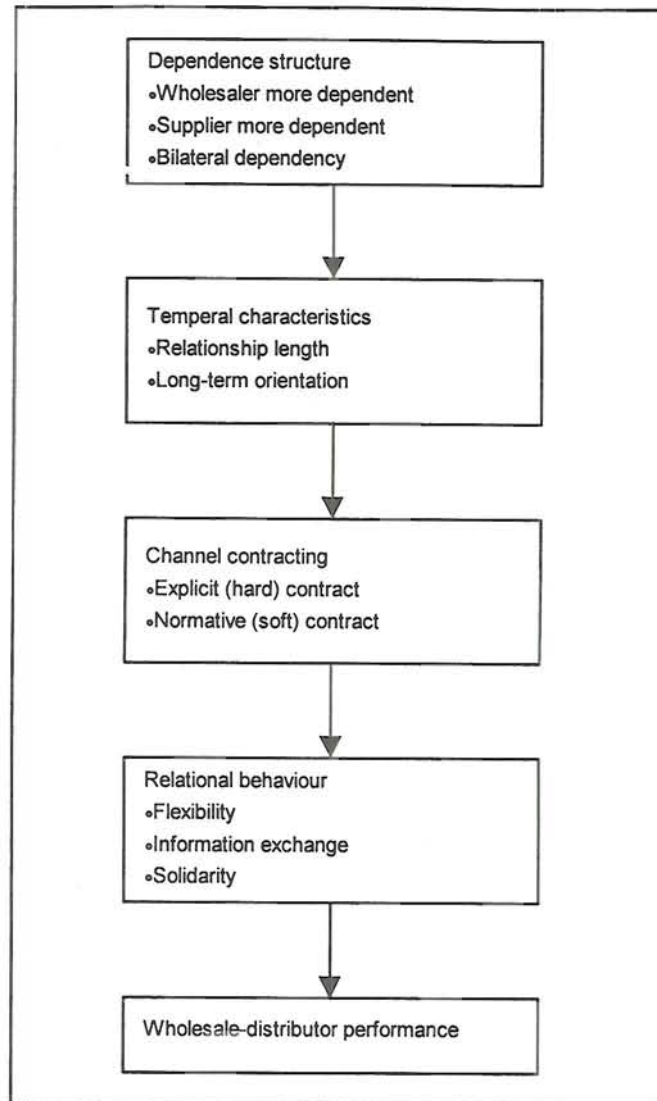


Figure 10.15: A model of the antecedents and consequences of contracting in relational exchange in distribution systems

Source: Lusch and Brown, 1996 : 22.

Based on Figure 10.15, dependency relationship is expected to have an impact on the type of agreement that is used. The more powerful (less dependent) party might demand an explicit agreement, giving it the concessions it wants (Lusch and Brown, 1996 : 21). Etgar and Valency (1983 : 91) argue however, that increased distributor dependence makes the distributor vulnerable to the whims of the manufacturer. Dependence therefore creates uncertainty for the weaker system partner. The use of explicit agreements reduces this uncertainty.

To make relationships work and to avoid opportunistic behaviour, firms develop

understandings, both explicit and implicit, regarding obligations, rules, outcomes and contributions to their relationships (Ring and Van de Ven, 1994 : 90-18). When mutual dependence between a distributor and its manufacturing supplier is high, both parties have a high stake in ensuring the success of the relationship (Buchanan, 1992 : 67).

Agreements will undoubtedly influence behaviour. Clearly, an explicit agreement formally states how parties to the contract should behave over time. Similarly, normative agreements suggest that group members are expected to follow certain patterns of behaviour (Lusch and Brown, 1996 : 23).

There is a constant trade-off between flexibility and control in situations where a company out-sources activities, for example, distribution (Quinn and Hilmer (1994 : 50). The relationship between the extent of flexibility and level of control required is presented in Figure 10.16.

Flexibility	High						Short-term contract
						Call option	
					Long-term contract		
				Retainer			
			Joint development				
		Partial ownership					
	Low	Full ownership					
	High						Low
		Control					

Figure 10:16: Potential contractual relationships

Source: Quinn and Hilmer, 1994: 50.

From Figure 10.16 the message for a manufacturer is that a compromise has to be made between the level of flexibility and the level of control needed. This can provide some guidance for the most appropriate contractual arrangement to enter into. Potential conflict with the potentially coupled downside on distribution system

productivity can be reduced by having applicable agreements in place between manufacturers and distributors. This ensures that the “rules of the game” are transparent.

In Section 10.12 an overview is provided on aspects of electronic commerce on the crop protection industry.

10.12 ELECTRONIC COMMERCE

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Electronic commerce (e-commerce) can be defined as the use of electronic data transmissions to enhance business processes. This includes buying and selling, advertising, delivering goods and customer service (Butler, 2000 : 8).

The use of the internet to facilitate commerce among companies promises vast benefits: dramatically reduced costs, greater access to buyers and sellers, improved marketplace liquidity and a whole new array of efficient and flexible transaction methods (Wise and Morrison, 2000 : 88).

Although the potential consequences of e-commerce on crop protection distribution management models fall outside the scope of this study, a brief review is required, given the anticipated impact it can have on the future business relationships between

manufacturers and distributors.

Mougayar (1998 : 90) states that every organisation interacts on a daily basis with three major entities, namely customers, suppliers and partners. The phrases “CustomerNet”, “SupplierNet” and “PartnerNet” are used to describe this interaction:

- “CustomerNet” focuses on the expansion of electronic distribution channels to reach targeted electronic customers in several types of segments.
- “SupplierNet” focuses on the perfection of the supply chain management process and affects the relationship and processes between suppliers and customers.
- “PartnerNet” is set to exploit virtual partnerships with all kinds of trading partners that are not traditional suppliers or customers.

Interaction with these entities in an “electronic commerce environment” encompasses three stages, namely: e-commerce, e-business and e-partnering (Norris, Hurley, Hartley, Dunleavy and Balls, 2000 : 14).

E-commerce either leverages an internet-based sales channel to enhance marketing, sells products/services, or leverages the internet to make purchasing more efficient. E-commerce allows these purchases and sales transactions to occur with minimal disruption to organisational culture and business processes.

E-business improves business performance by using electronic information technologies and open standards to connect suppliers and customers at all steps along the value chain. E-business can significantly improve business performance by strengthening the linkages in the value chain between businesses and between a business and the ultimate consumer.

E-partnering is an intense relationship between businesses that utilise e-business capabilities to create an environment for shared business improvements, mutual benefits and joint rewards. More than simply linking business systems, e-partnering is a strategic customer focused relationship in which companies work together to

optimise an overall value chain.

A comprehensive market research study conducted by *Doane Marketing Research* (2000 : 6) in the USA indicated that 70 percent of farmers use the internet to get updates on commodity prices (e.g. wheat, maize and soya) and weather data, 34 percent of farmers use it to obtain technical product information and 4 percent use it to purchase farm inputs. Whereas, only 4 percent of farm outputs are sold via the internet.

In the crop protection industry, opinion varies significantly as to the adoption rate of e-commerce in the industry, given the unique nature of the crop protection industry. Some of the most significant barriers precluding the rapid adoption of e-business by farmers are deemed to be (*Doane Marketing Research*, 2000 : 19):

- The internet does not “provide” follow up service, e.g. damaged containers, take-back of unused products etc.
- Transaction security is still a concern for farmers.
- Farmers are not comfortable that income is lost in the process for the local community and local distributor.
- Farmers have to take an additional personal responsibility for crop damage caused by crop protection products due to no on-farm advice rendered by their crop protection distributors.
- There is a lack of crop scouting for pests and fungal diseases (a function normally performed by his local crop protection product distributor).

Although farmers might be somewhat hesitant in fully embracing the internet as a direct purchasing mechanism, manufacturers have a lot to gain from this technology.

From the perspective of crop protection product manufacturers, the advantages, coupled to e-business, would include (*Novartis*, 2000c : 3):

- New partnering opportunities in the combination of agricultural and non-agricultural activities to enhance the product offer (an example would be a

products and a global price setting mechanism for these products (*Agrow*, 2000 : 23).

By using B2B (Business to Business) supply chain management technology, the levels of productivity in the interface between manufacturers and distributors can be greatly enhanced whereas B2C (Business to Consumer, i.e. farmer) models can allow the manufacturer to interact directly with farmers in an effort to create "pull action" or even ultimately to sell directly to farmers.

The conclusions of the Doane Marketing Research Study (*Doane Marketing Research*, 2000 : 15-16) are that farmers:

- Generally view the internet as a great tool for gathering information.
- Occasionally use the internet to purchase farm inputs.
- Do not value the internet, at this stage, as a useful tool in selling farm outputs.

Furthermore, the study concludes that the internet:

- Will force local distributors of crop protection products to be more price competitive, thus becoming more service orientated.
- Provides farmers with the means to look for alternative sources of advice and information, making them less dependent on their local distributor.

E-business provides the technology for manufacturers and distributors to forge closer relationships and build on shared electronic business processes and information exchange. The major threat for both manufacturers and distributors is seen primarily as the potential for significant price erosion, given the ability of farmers to obtain product prices directly from the web.

In Section 10.13, the factors to be addressed by manufacturers in order to optimise the working relationship with distributors are discussed.

10.13 FACTORS TO BE ADDRESSED BY MANUFACTURERS IN ORDER TO OPTIMISE THE WORKING RELATIONSHIP WITH DISTRIBUTORS

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In the preceding sections of Chapter 10, the objective was to identify and review the most important aspects of distribution system management. In order to ensure that all relevant factors impacting on the working relationship between manufacturers and distributors are addressed, it was deemed relevant to also include summary findings of four researchers in this section (Hardy and Magrath, 1988; Corey *et. al.*, 1989; Cronin, 1994 and Spekman, 1988). This approach provides an additional insight into factors related to the manufacturer and distributor relationship that serves to augment previous sections in Chapter 10. These findings are subsequently also summarised at the end of this section.

According to Hardy and Magrath (1988 : 65-69) good distribution system members share a number of practices in the efficient management of distribution systems. These include:

- Set definite marketing objectives and clearly communicate marketing strategies to

all distribution system members.

- Base distribution system arrangements and policies on a thorough market analysis.
- Determine the division of tasks between manufacturers and distributors.
- Understand the distribution system partner's view and profit-making formula.
- Examine the actual balance of power among distribution system members and pursue realistic options.
- Ensure that margins and other support equitably reward partners for performing distribution functions.
- Predict and contain conflict within distribution systems.
- Help manufacturer support staff to develop skills in working with distributors.
- Audit distribution systems to ensure that they remain viable pathways to the market.
- Treat distribution systems as strategic assets and constantly seek ways to utilise them in creating a sustainable competitive edge.

In a case study, Corey, *et. al.*, (1989 : 134-135) compared an extremely successful abrasive marketing company (Norton) to a struggling abrasive marketing company (Carborundum). Selling primarily through distributors, Norton has steadily gained market share for over two decades. Six major determinants of their success were identified:

- The value of the Norton Franchise: With the broadest product line in the abrasives industry, and long-term reliability as a source of supply, Norton has been able to attract and hold distributors that have strong local market share positions and to enforce franchise agreements that require stipulated levels of performance.
- The Norton line is a significant source of distributor income: The Norton product line is typically amongst the three best-selling lines carried by its distributors. High distributor margins and a large installed base ensured Norton's distributors of a steady source of revenue and profit. In addition, distributors derived revenue from Norton's direct sales to managed accounts, which were fulfilled from the distributors stock.
- Tactical programmes aimed at motivating and monitoring distributors: The time

and money as well as attention devoted to nurturing good relationships with its distributors ultimately resulted in more effective representation of the Norton line. Features of Norton's marketing programmes - such as distributor advisory council, incentive programmes and frequent interaction amongst individual distributors and Norton's field sales personnel, helped to build these relationships. In addition, the product and sales training provided to distributors by Norton sales people, as well as joint sales calls and monitoring distributor inventory levels, helped to ensure effective representation at the distributor level.

- A clear sense of selling strategy and long-term consistency in its implementation. The areas of primary sales coverage for distributors and the direct sales force and the role of each, is clearly understood. Norton's credibility with its distributors rested largely on the long-term stability of these relationships.
- Norton retained control over the quality as well as the intensity of its representation in local market areas.
- Ongoing information about market segments and distributor's performance.

In contrast Carborundum had difficulties for the following reasons:

- Conflict between its direct and distributor selling efforts.
- The perception by its resellers that Carborundum's successive management teams had incoherent, uncertain channel policies.
- Erosion of field relationships and the consequent inability to motivate distributors.
- A questioning by distributors of the manufacturer's commitment to the product lines it sold.
- Growth of price competition amongst the manufacturer's distributors and the consequent erosion in the value of the Carborundum franchise.

In comparing the Norton and Carborundum situations, the deduction can be made that a clear, well-communicated channel policy is required. The importance of the concepts of commitment, trust and coordination is also confirmed and these concepts need to be addressed in these types of arrangements with distributors, from the perspective of a supplier.

Compared to sales, marketing, product design and manufacturing, logistics were perceived as a relatively unimportant component of the total package offered to distributors according to Novich (1990 : 49), but research quoted by him shows that service level is now as important as, or more important than product quality and price, in making manufacturer selections. There are deemed to be four key reasons to strive for good service levels (Novich, 1990 : 50): It enhances distributor loyalty, it increases referrals, it supports price premiums, and it reduces operating costs. Development of service strategies centres around four essential steps: understanding and measuring the service needs of distributors, determining where and how service systems break down, benchmarking your system against that of your competitors and simplifying the service system to meet distributor's needs better than the competition (Novich, 1990 : 50).

Research conducted by Cronin, *et. al.*, (1994 : 206) on power dependence in distributor systems and a pre-study interview resulted in a list of 19 role performance elements as the areas where comparisons could be made between manufacturers from the perspective of distributors. The factors are listed as follows:

- product quality,
- delivery lead time,
- quality of advertising,
- pricing,
- completeness of product line,
- technical support,
- amount of advertising,
- quantity discounts,
- order processing speed,
- rate of new product development,
- returns policy,
- credit terms,
- response to emergency orders,
- clarity of price lists,
- timing of new product development,

- product application support,
- training,
- call frequency, and
- responsiveness to field problems.

Spekman (1988 : 80) presents the following factors as elements the distributor looks for when evaluating manufacturers:

- How has the manufacturer signalled commitment? Has the manufacturer committed resources?
- How early into the product design stage is the manufacturer willing or able to allow distributor participation? Is there a recognition that both companies contribute to competitive advantage? What does the manufacturer bring to the relationship that is unique?
- Does the manufacturer understand the level of commitment required to help achieve long-term quality gains? Does it have the resources to sustain such involvement over the long haul?
- As the distributor grows and becomes more expert, is the manufacturer able to grow with the distributor? Does the manufacturer have the talent, resources, and expertise to offer added value in the future? Is the manufacturer committed to maintaining leading edge capabilities at competitive prices?
- Does the manufacturer have adequate technical support? How capable is the manufacturer? Does the manufacturer possess up-to-date technology and is it willing to contribute expertise as part of the total offering? Can the manufacturer help the distributor to leapfrog existing technology and does it offer true innovation?
- Is the manufacturer's senior management committed to the processes inherent in strategic partnerships? Is there an open and free exchange of information across functional areas between the two companies? Does the manufacturer have the infrastructure to support cross-functional interdependence?
- How much future planning is the manufacturer willing to share with distributors? What is the general level of comfort between the two companies?
- How well does the manufacturer know the distributor's business? What is its

commitment to understanding distributor problems and concerns? Does the manufacturer appear to go to the source of the problem, or is there a tendency to focus only on the symptoms? Is prevention more important than remediation?

- What does the manufacturer demand from the distributor? What kind of assurance does it look for as part of the partnership?

The findings presented in Section 10.13 provide an extensive list of factors that can have an impact on the relationship between a manufacturer (supplier) and a distributor. This list is comprehensive, which leads to the question of how to effectively address all the factors in a relationship. In order to provide sufficient attention to relevant factors, it is necessary to narrow this list down to the most important factors to address. These factors augment the findings in the prior sections of Chapter 10.

The extensive lists provided in the preceding paragraphs can be summarised as follows to provide some guidance for a manufacturer wishing to optimise the working relationship with distributors. Manufacturers have to:

- have clear policies in place that are communicated to distributors,
- have mutual objective setting processes in place with distributors,
- ensure that the division of tasks is clear,
- understand the business and aspirations of distributors,
- ensure that distributors are rewarded fairly for tasks performed,
- nurture relationships,
- develop trusting relationships,
- show commitment,
- have information sharing systems in place coupled to good communication skills,
- have skilled staff,
- ensure that both manufacturer and distributor staff are well trained on relevant aspects,
- provide backup support services as required,
- have efficient logistical systems in operation, and
- be responsive to problems.

In summary, therefore, manufacturers have to have a good working relationship with distributors underlined by joint planning, commitment, trust and the provision of service levels of a high standard. Appropriate distribution management models for the crop protection industry have to be structured in an applicable manner in order to address, amongst other things, these factors. Managing customer relationships is the focus of Section 10.14, to follow.

10.14 CUSTOMER RELATIONSHIP MANAGEMENT

10.1	Introduction	10.9	Distributor satisfaction
10.2	Definition of a distribution system	10.10	Communications
10.3	Purpose of system management	10.11	Agreements
10.4	Manufacturer and distributor relationship	10.12	Electronic commerce
10.5	Dependence and interdependence	10.13	Relationship factors to address
10.6	Trust and commitment	10.14	Customer relationship management
10.7	Channel power	10.15	Summary of the Chapter
10.8	Channel conflict		

Customer relationship management (CRM) is defined as “a business strategy which pro-actively builds a bias or preference for an organisation with its individual employees, channels and customers resulting in increased retention and increased performance” (Newell, 2000 : 11). Based on this definition, the key customer relationship tasks are the following:

- Identifying those customer values that are pertinent to a particular business.
- Understanding the relative importance of those values to each customer segment.
- Determining if delivery of those values will affect the bottom line in a positive manner.
- Communicating and the delivery of appropriate values to each customer

segment in ways the customer wants to receive the information.

- Measuring results and providing return on investment.

The foundation of customer relationship management is the maximising of customer value through focusing on business processes that begin and end with the customer. The organisation structure as well as the people, climate and leadership must support these business processes in order to maximise customer value. The company vision, business imperatives and strategy operationalise the process of providing maximum customer value (Adair and Murray, 1994 : 7).

The aspects reviewed in Sections 10.2 – 10.13 therefore need to be grouped in a customer relationship management program reflected in customer focused distribution management models.

10.15 SUMMARY – REVIEW OF RELATED LITERATURE ON DISTRIBUTION SYSTEM MANAGEMENT

10.1	Introduction	10.9	Distributor satisfaction
10.2	Definition of a distribution system	10.10	Communications
10.3	Purpose of system management	10.11	Agreements
10.4	Manufacturer and distributor relationship	10.12	Electronic commerce
10.5	Dependence and interdependence	10.13	Relationship factors to address
10.6	Trust and commitment	10.14	Customer relationship management
10.7	Channel power	10.15	Summary of the Chapter
10.8	Channel conflict		

Distribution systems have been defined as sets of independent and interdependent entities involved in the process of making a product or service available to the end-user (Section 10.2).

The need for relationship marketing has been identified as a pre-requisite in the managing of the manufacturer and distributor interface, given the mutual benefits emanating from this approach (Section 10.3).

Two questions of central prominence in the study of distribution system relationships have been addressed in this chapter. What is the basis, or foundation, for a manufacturer's ability to gain influence over the behaviour of a distributor and what are the behavioural reactions of distributors to the influence attempts of manufacturers?

Managing the relationship between a manufacturer and a distributor has been identified of importance because partnership arrangements assist manufacturers in gaining competitive advantages over competition with positive spin-offs such as market share growth, long-term stability and closer co-operation (Section 10.4).

Creating interdependence between manufacturers and distributors promotes higher levels of trust, greater commitment and lower levels of conflict. Manufacturers and distributors are developing co-operative relations therefore, in order to collectively compete more effectively in the market for end-users (Section 10.5).

Trust has been identified as an important component of the manufacturer and distributor relationship due to its impact on closer and more productive working relationships (Section 10.6). Commitment has also been identified as an essential ingredient for long-term relationships and can be defined as the strength of manufacturer's business ties with distributors (Section 10.6).

Channel power is viewed as the ability of a manufacturer to get a distributor to do what it otherwise would not have done (Section 10.7). Researchers quoted portray the view that manufacturer and distributor relationships are moving away from the "power game" to what is termed the "trust game". The strength of a manufacturer's power base is however related to the level of control that can be exerted over distributors. Manufacturers also need to be knowledgeable concerning the power base of a manufacturer and exploit possible sources of power to strengthen their power base.

Channel conflict is seen as a behavioural dimension that can influence how efficiently distribution objectives are achieved. Manufacturers and distributors must be aware of the causes of conflict, how to manage conflict and how to proactively prevent the occurrence of conflict (Section 10.8).

Distribution system satisfaction is viewed as the overall evaluation of the relationship between a manufacturer and distributor. Conflict is expected to have a negative relationship with satisfaction (Section 10.9).

Communication has been identified as probably the most important element in successful manufacturer and distributor interface. Sound communication strategies should be a component of distribution system management models (Section 10.10).

The role of agreements in distribution system management, as reviewed, reflects the need for a compromise between “control” and “flexibility” in drawing up agreements with distributors (Section 10.11).

Some pointers on the potential impact of electronic commerce in the relationship between manufacturers and distributors serve to illustrate the changes that can be expected to occur based on this technology (Section 10.12).

A comprehensive list of factors is presented in Chapter 10 for manufacturers to address in order to optimise the working relationship with distributors. Section 10.13 adds to the input generated in Sections 10.1 – 10.12, with a summary of factors which manufacturers have to address in order to optimise the working relationships with distributors. The most noteworthy are: to have clear policies, mutual objective setting, joint planning, trust, commitment, good communications, rewarding distributors fairly, competent staff and the provision of good backup support services.

Finally, the scope of relationship management is defined as the identification, delivery and measuring of the elements of customer values (Section 10.14).

In conclusion: “The challenge is for both distributors and manufacturers to combine their efforts so as to increase the power of their dyad in the marketplace rather than

focusing their efforts on increasing their power within the dyad" (Smith, Venkatraman and Wortzel, 1995 : 298).

Part I
Introduction, background, aims and framework of the study

Part II
Industry and competitive analysis of the global crop protection industry

Part III
Crop protection distribution systems in selected countries

Part IV
Problem statement – management problems of crop protection distribution systems in South Africa and Australia

Part V
Research methodology - literature research and primary research regarding distribution system management
Chapter 9
Research methodology employed
Chapter 10
Review of related literature on distribution system management
Chapter 11
Review and analysis of survey results

Part VI
Distribution system management models for the crop protection industry in South Africa and Australia

Part VII
Summary, conclusions and recommendations

CHAPTER 11

REVIEW AND ANALYSIS OF SURVEY RESULTS

11.1 INTRODUCTION

In Chapter 10 a review of related literature on distribution system management provided the secondary research data input for this study. The primary research data input will be reviewed and analysed in this chapter.

The survey results, on which the review and analysis are based, are contained in three separate reports:

- Survey report on sales agents in South Africa (*Novartis*, 1998 d).
- Survey report on sales representatives in Australia (*Novartis*, 1999 a).
- Survey report on the comparisons between the South African and Australian results (*Novartis*, 1999 b).

These reports cannot be reviewed in detail due to the comprehensive nature thereof. Details such as similarities and differences between sales agents (South Africa) and sales representatives (Australia) working in different geographical regions or serving different crops have not been addressed in this chapter.

The review and analysis process followed was structured in such a manner that the South African and Australian results could be discussed separately, but also compared with a view to identify both similarities and differences. Subsequently, implications are identified for the construction of distribution system management models.

The first component of the feedback addresses the affiliation of sales agents (South Africa) and sales representatives (Australia) to patented product manufacturers (suppliers) and generic product manufacturers (suppliers) (Sections 11.2.1 – 11.2.2). This is followed by Sections 11.2.3 - 11.2.6 where respondents provided their views,

via open questions, on selection criteria for patented product suppliers (Section 11.2.3), generic product suppliers (Section 11.2.4), the ideal supplier selection criteria (Section 11.2.5) and perceived shortcomings of suppliers (Section 11.2.6). The outcome of this feedback is the identification of a number of factors a manufacturer should address in the construction of distribution system management models.

In Section 11.2.7, the knowledge base is expanded upon by the addition of feedback from respondents on the ranking questions posed to them in order to clarify distributor (sales agents and sales representatives) requirements in more detail. Data generated in this section also provides further insight into factors that should be taken note of in the distribution system management models building process. Section 11.2.8 provides a rating of supplier (manufacturer) companies on a number of "corporate quality" aspects. In Section 11.2.9 some insight is provided on the perceived farmer requirements of distributors from the perspective of sales agents and sales representatives.

Depending on the particular context, the term "supplier" and "manufacturer" will be used as synonyms in the feedback provided. The "manufacturer" being the "supplier" of products to distributors.

Section 9.3, page 189 provides details concerning the structure of the tables used to provide feedback on the research data generated as well as the applicable data processing approach used.

11.2 REVIEW AND ANALYSIS OF RESEARCH FINDINGS

11.2.1 AFFILIATION OF SALES AGENTS AND SALES REPRESENTATIVES

11.2.1.1 SOUTH AFRICAN RESULTS

The following question was posed with regards to the affiliation of sales agents and sales representatives with dealerships or distributors: "Please name the dealership or distributor, with whom you are affiliated, or from whom you draw the crop

protection chemicals you sell, in the order of importance to you". Table 11.1 provides feedback on the South African results.

Table 11.1: Major suppliers of crop protection products to agents in South Africa

Firms	Index	Rating
1. Monsanto	100	5,8
2. Bayer	76	6,5
3. Novartis	69	5,9
4. Dow AgroSciences	56	5,3
5. Du Pont	54	5,0
6. AgrEvo	49	6,0
7. Cyanamid	47	4,4
8. Plaaskem	40	4,5
9. Rhône-Poulenc	39	5,0
10. Travon	36	4,9
11. Other	187	5,0

The following deductions can be made from these results:

- Respondents were asked to name the "dealership" or "distributor" they are affiliated to. In practice, only Bayer have recently still supplied products directly to individual agents. All the other companies mentioned, sell products to a distributor that would use an agent for reselling to a farmer. These results can therefore be viewed as incorrect, which is a fact technically. Historically, many of these entities, as mentioned in Chapter 6, used to have their own sales forces. It is interesting to note, therefore, that although all the agents questioned are part of a specific distributor buying products from the companies listed in Table 11.1, they still see the manufacturer (Monsanto, Dow Agrosciences, Novartis, etc) as the "distributor" they are coupled to. An agent working for a Novartis affiliated distributor will in many cases make the statement: "I work for Novartis". This reflects the strong bond that exists in many instances in South Africa between sales agents and their principal suppliers.
- Monsanto is indicated as the most important supplier of crop protection products in South Africa from the perspective of the respondents. This is a reflection of the importance of the flagship Monsanto herbicide marketed as Roundup.
- The top seven suppliers are research-based manufacturers highlighting the

importance sales agents place on having a research-based manufacturer as a supplier. Even though the South African market is a generic market in nature, sales agents still perceive the research-based manufacturers as their most important product suppliers.

11.2.1.2 AUSTRALIAN RESULTS

For the Australian part of the survey the wording of the question had to be changed slightly to read: "Please name the group or distribution network with whom you are affiliated, or from whom you draw the crop protection chemicals you sell, in order of their importance to you". Table 11.2 provides feedback on the Australian results from the survey.

Table 11.2: Major suppliers of crop protection products to sales representatives in Australia

Firms	Index	Rating
1. Cropcare	100	5,7
2. Nufarm	97	5,2
3. Novartis	77	5,0
4. AgrEvo	62	5,2
5. IAMA	61	6,8
6. Monsanto	57	5,0
7. Rhône-Poulenc	52	4,5
8. Elders	40	6,8
9. CRT	38	7,0
10. Bayer	26	4,3
11. Other	201	4,9

The following deductions can be made:

- IAMA and CRT have distributors affiliated to them to whom they sell. It would therefore be expected that these companies would primarily be indicated as part of the key suppliers to the sales representatives. Elders only supply products to the Elders-owned outlets.
- As is evident from Table 11.2, many respondents named companies like Novartis, AgrEvo, Monsanto and Rhône-Poulenc as the "group or distribution

network” to whom they are affiliated.

- Many of the distributors affiliated to the likes of IAMA, Wesfarmers and CRT are not happy with the arrangements they have with these distribution networks based on personal deduction made from numerous discussions with distributors. It can therefore be reasoned that they see their affiliation to their preferred supplier (read manufacturer) as being of more importance and of more substance and therefore indicate these entities as the so-called “distribution network” to whom they feel they are affiliated.

11.2.1.3 COMPARISON BETWEEN SOUTH AFRICA AND AUSTRALIA

In both the South African and the Australian feedback, most of the respondents did not answer the question correctly in purely the technical sense. Therefore, comparisons between the two countries are difficult. An observation, based on the feedback and especially practical experience, it would appear that there is a closer or tighter relationship in general, between distributors and manufacturers in South Africa. This can be attributed to the historical development of distribution in South Africa, as depicted in Chapter 6, where many of the present day sales agents were on the payroll of the manufacturers in question.

11.2.1.4 IMPLICATIONS – AFFILIATION OF SALES AGENTS AND SALES REPRESENTATIVES

In both South Africa and Australia research-based manufacturers are in most instances indicated as the most important suppliers. The research-based manufacturers therefore have a seemingly distinct advantage over generic manufacturers insofar as it can be postulated that based on the feedback, distributors value the relationships with research-based manufacturers more than that of generic product manufacturers.

11.2.2 MAJOR SUPPLIERS OF CROP PROTECTION PRODUCTS

11.2.2.1 MAJOR SUPPLIERS OF PATENTED PRODUCTS

◆ SOUTH AFRICAN RESULTS

Respondents were asked: "Please name the research-based manufacturers of patented agricultural chemicals whose products you sell, listing the companies in the order of their importance to your business". Table 11.3 provides feedback on the South African results.

Table 11.3: Major suppliers of patented crop protection products to sales agents in South Africa

Firms	Index	Rating
1. Monsanto	100	6,1
2. Bayer	80	6,6
3. Novartis	77	6,4
4. Du Pont	51	5,5
5. AgrEvo	47	6,1
6. American Cyanamid	44	5,1
7. Zeneca	34	5,4
8. Dow-AgroSciences	34	5,7
9. Rhône-Poulenc	32	6,0
10. Plaaskern	17	4,8
11. Other	73	5,4

Deductions that can be made are as follows:

- The number one spot held by Monsanto is a reflection of the Monsanto distribution policy to make their products available to virtually all distributors.
- Bayer has a large number of affiliated sales agents reflecting their number two spot.
- Although Novartis is the company with the biggest market share, the Novartis policy of limited and exclusive distribution is reflected here because most sales agents in South Africa have no direct access to the Novartis product range.
- Companies like Zeneca, AgrEvo, American Cyanamid and Rhône-Poulenc also

follow policies of limited distribution.

- There is no direct correlation between total market share and number of sales agents affiliated, due to a number of factors, the key being the importance of product portfolio.

◆ AUSTRALIAN RESULTS

Respondents were asked: "Please name the research-based manufacturers of patented agricultural chemicals whose products you sell, listing the chemical companies in the order of importance to your business". Table 11.4 provides feedback on the Australian results from the survey.

Table 11.4: Major suppliers of patented crop protection products to sales representatives in Australia

Firms	Index	Rating
1. CropCare	100	5,8
2. Novartis	80	5,4
3. Monsanto	70	5,3
4. Rhône-Poulenc	65	5,0
5. AgrEvo	50	5,5
6. Nufarm	50	5,1
7. Bayer	36	4,6
8. Dow AgroSciences	34	4,2
9. Du Pont	26	3,7
10. Cyanamid	19	3,5
11. Other	26	4,6

Deductions that can be made as follows:

- CropCare is the biggest supplier of crop protection products in Australia with an 18 percent market share. CropCare was formed from the previous ICI crop protection company in Australia (ICI crop protection now trading as Zeneca globally). CropCare act as the exclusive agent for the Zeneca product portfolio for the Australian market. CropCare also market a wide portfolio of generic products.
- The ranking is more or less in line with the respective market shares of the manufacturers.

- Although Nufarm is in reality a generic company they also act as the Australian agent for some research-based suppliers and are therefore indeed also a supplier of some patented products from the perception of the sales representatives. Nufarm is the second biggest supplier of crop protection products in Australia.

◆ COMPARISONS BETWEEN SOUTH AFRICA AND AUSTRALIA

In the discussion on the South African feedback, it was clear that the ranking, as provided by the respondents and the relevant market share, did not correspond. In the situation in Australia, the response was a better reflection of the relevant market shares. This can be explained based on the situation that exclusive distribution arrangements are used more in South Africa, whereas in Australia this is the exception rather than the rule.

◆ IMPLICATIONS – SUPPLIERS OF PATENTED PRODUCTS

If a manufacturer would consider entering into a partnership arrangement with another manufacturer in order to have a sought after combined product portfolio, the logical choice in South Africa would be from the group of Monsanto, Bayer and Novartis whereas in Australia the preferred partners should come from the CropCare, Novartis and Monsanto group.

11.2.2.2 MAJOR SUPPLIERS OF GENERIC PRODUCTS

◆ SOUTH AFRICAN RESULTS

Respondents were asked: "Please list the suppliers of generic agricultural chemicals whose products you sell, listing the companies in the order of their importance to you in your business". Table 11.5 provides feedback on the South African results.

Table 11.5: Major suppliers of generic crop protection products to sales agents in South Africa

Firms	Weight	Index
1. Dow AgroSciences	100	6,7
2. Travon	90	6,8
3. Exportos	41	6,7
4. Plaaskem	30	6,3
5. Applied	22	6,2
6. Qwemico	12	6,7
7. Bayer	12	6,6
8. Makteshim	7	6,3
9. Technichem	5	7,0
10. Novartis	5	6,5
11. Other	51	6,3

Deductions that can be made as follows:

- Dow AgroSciences are still one of the major suppliers of generic products in South Africa.
- The Novartis linked grouping of Travon, Exportos and Applied has become the most important supplier of generic products in South Africa (see Chapter 7 for detail concerning this affiliation).
- Two distributors, namely Technichem and Qwemico are playing an increasing role as suppliers of generic products over and above their primary distribution focus.
- Apart from Dow AgroSciences and the Travon plus Exportos grouping, the other manufacturers play a relatively insignificant role in the supply of distributors with generic products.

◆ AUSTRALIAN RESULTS

Respondents were asked: "Please list the suppliers of generic agricultural chemicals whose product you sell, listing the companies in the order of their importance to you in your business". Table 11.6 provides feedback on the Australian results.

Table 11.6: Major suppliers of generic crop protection products to sales representatives in Australia.

Firms	Index	Rating
1. Nufarm	100	6,6
2. Farnoz	50	6,5
3. Davison	33	6,0
4. "None"	29	7,0
5. Artfern	22	6,8
6. CropCare	5	6,3
7. Monsanto	4	5,2
8. Sipcam	3	6,3
9. AMC Rural	2	7,0
10. Sinonsa	2	7,0
11. Other	22	5,6

Deductions that can be made as follows:

- Nufarm is the dominant player in the generic crop protection market in Australia.
- Farnoz has grown significantly over the last few years to be ranked second, as is confirmed when actual sales figures are analysed.
- Davison is a notable player in the Western Australia herbicide market.
- It is important to note that 16,7 percent of respondents indicated that they do not conduct business with generic product manufacturers due to some distributors having this as a policy.
- The biggest distribution entity in Australia, namely IAMA, formed a generic arm trading as Artfern, to source and formulate generic products for the IAMA crop protection product distribution arm.
- CropCare has the exclusive agency for the complete Zeneca product portfolio but also acts as a notable source of generic products for the Australian distributors.
- Although Monsanto is a research-based company, some respondents see Monsanto as a source of generic products probably because the most significant Monsanto product is indeed the biggest selling non-patented product in Australia.

◆ COMPARISON BETWEEN SOUTH AFRICA AND AUSTRALIA

In South Africa there are only two significant groupings of generic product suppliers. They are the Travon, Applied and Exportos grouping plus Dow AgroSciences. The

Australian situation is that firstly the world's second largest generic product manufacturer is based in Australia (Nufarm) and that a number of other generic players, with significant market shares, are also present. These companies are Farmoz, Davison and CropCare. IAMA, as the distributor with the largest market share in Australia, also owns one of the major manufacturers of generic products in Australia, namely Artfern.

◆ IMPLICATIONS – SUPPLIERS OF GENERIC PRODUCTS

In both countries, the impact of the generic product manufacturers has to be taken into consideration in the distribution system management planning process, due to these manufacturers' influence in these markets.

11.2.3 PATENTED PRODUCT SUPPLIER CRITERIA

11.2.3.1 SOUTH AFRICAN RESULTS

Respondents were asked: "In the previous question you identified your most important research-based supplier. Why did you elect to work closely with this manufacturer? What does this manufacturer have, or do, that made you decide to support them? Please list your research-based product supplier's criteria in the order of their importance to you". The feedback received from the respondents is summarised in Table 11.7 for the South African part of the survey.

Table 11.7: Selection criteria for patented product suppliers in South Africa

Criteria	Number of mentions	Weight	Percentage weight	Index	Ratings
1. Product range	113	714	24	100	6,3
2. Long-term familiarity	79	531	18	74	6,7
3. Product effectiveness	73	465	16	65	6,4
4. Backup support	40	228	8	32	5,7
5. Business linkage	32	218	7	31	6,8
6. Corporate resources	29	179	6	25	6,2
7. Good contact	13	86	3	12	6,6
8. Exclusivity	11	72	2	10	6,5
9. Price	12	66	2	9	5,5
10. People relationship	11	66	2	9	6,0
11. Other	47	292	10	41	6,2

Many of the criteria indicated by the respondents in these open-ended questions were also covered in the ranking questions. The response on these ranking questions is discussed in detail in Section 11.2.7.

Deductions can be made as follows:

- The overriding importance of a good product range containing effective products is highlighted in the feedback.
- The manufacturer linkages with the distributor play a very important role as reflected in feedback comments grouped under long-term familiarity, business linkages, good contact or communication and the remarks on the importance of people relationships.
- Backup support requirements also rate highly in the feedback.

11.2.3.2 AUSTRALIAN RESULTS

Respondents were asked: "In the previous questions you identified your most important research-based supplier. Why did you elect to work closely with this manufacturer? What does this manufacturer have, or do, that made you decide to support them? Please list your research-based product supplier's criteria in the order of importance to you". The feedback from the Australian respondents is summarised in Table 11.8.

Table 11.8: Selection criteria for patented product suppliers in Australia

Criteria	Number of mentions	Weight	Percentage weight	Index	Ratings
1. Product range	155	966	36	100	6,2
2. Backup support	49	281	10	29	5,7
3. Product effectiveness	41	256	9	27	6,2
4. People relationships	36	203	8	21	5,6
5. Margins	25	137	5	14	5,5
6. Business linkage	18	118	4	12	6,6
7. Good contact	19	111	4	11	5,8
8. Stock availability	15	90	3	9	6,0
9. Price	16	87	3	9	5,4
10. Rebates	11	63	2	7	5,7
11. Other	69	391	16	40	5,7

As is the case with the South African results, the more detailed discussions will be addressed in Section 11.2.7 of this chapter.

Deductions can be made as follows:

- The importance of a good product range containing effective products.
- The requirements from respondents of good backup support from manufacturers (suppliers).
- The role of people relationship in forging the working interface between manufacturer and distributor.
- The importance of product pricing as was evident in responses grouped under the headings of margins, rebates and price.

11.2.3.3 COMPARISON BETWEEN SOUTH AFRICA AND AUSTRALIA

A comparison of patented product suppliers criteria between South Africa and Australia reveals that:

- The importance for a manufacturer to have an extensive product range was underlined in both surveys.
- In the South African feedback responses categorised as “long-term familiarity”, were rated to be the second most important criteria because many of the agents questioned have a strong bond with their key manufacturers as a result of the situation that many of them used to be employed by many of the suppliers as salaried representatives.
- Backup support assistance provided by the manufacturers was deemed to be very important in both countries and underlines the importance, in both cases, of having a strong manufacturer field sales force presence to provide these backup support functions.
- As expected, product effectiveness is of paramount importance in both countries.
- People relationships play an integral part of the manufacturer relationship with distributors in both countries (the “long-term familiarity” and “people relationship” data could have been grouped together under one “people relationship” heading).

- In the South African study, price played a relatively unimportant role, whereas in Australia, pricing receives a higher profile rating (the Australian headings of “price”, “margins” and “rebates” could have been grouped together, but were kept apart due to subtle differences in these response groupings).
- It can be reasoned that aspects like stock availability would have rated higher, but given the situation that factors like these are given, or “musts” and are addressed effectively by most manufacturers, a relatively low ranking can probably be expected.

11.2.3.4 IMPLICATIONS – PATENT PRODUCT SUPPLIER CRITERIA

The foundation of success, from the perspective of a manufacturer, seems to be a comprehensive portfolio of effective products. This raises the question whether manufacturers should not group product portfolios in a partnership approach to collectively market extensive sought after product ranges. Manufacturers have to understand and provide the backup support required by distributors and realise that distributors want more than just the best product price.

11.2.4 GENERIC PRODUCT SUPPLIER CRITERIA

11.2.4.1 SOUTH AFRICAN RESULTS

Respondents were asked: “With reference to your most important supplier of generic products, why did you elect to work closely with this supplier of generic products? What does this generic product supplier have, or do, that made you decide to sell their products? Please list your generic product supplier criteria in the order of their importance to you”. The feedback received from the South African respondents is presented in Table 11.9.

Table 11.9: Selection criteria for generic product suppliers in South Africa

Criteria	Number of mentions	Weight	Percentage weight	Index	Ratings
1. Product range	104	690	35	100	6,6
2. Product availability	37	256	13	37	6,9
3. Product efficacy	29	183	9	27	6,3
4. Price	27	172	9	25	6,4
5. Business linkage	23	160	8	23	7,0
6. Terms	12	83	4	12	6,9
7. Backup support	13	82	4	12	6,3
8. Familiarity	10	70	4	10	7,0
9. Stock availability	8	51	3	7	6,4
10. Delivery	7	43	2	6	6,1
11. Other	25	172	9	25	6,9

Deductions can be made as follows:

- Under “product availability” responses were grouped relating to respondents feedback indicating that they sell those generic products that the distributors are affiliated to carry, or have in stock, at that particular time. This is indicative of a situation that distributors in many cases will buy a generic product from a number of sources depending on the “best deal” at the time of purchase.
- As can be expected, respondents also put emphasis on support of manufacturers with a good product range containing effective products, which can also be interpreted as good product formulations.
- Price and terms are of importance due to the fierce price competition between generic products, making it extremely important for distributors to have a competitive purchase price in order to compete effectively on farm level.

11.2.4.2 AUSTRALIAN RESULTS

Respondents were asked: “With reference to your most important supplier of generic products, why did you elect to work closely with this supplier of generic products? What does this generic product supplier have, or do, that made you decide to sell their products? Please list your generic product supplier criteria in the order of their importance to you.” The feedback received from the Australian respondents is presented in Table 11.10.

Table 11.10: Selection criteria for generic product suppliers in Australia

Criteria	Number of mentions	Weight	Percentage weight	Index	Ratings
1. Price	55	346	16	100	6.3
2. Product range	53	338	15	98	6.4
3. "No dealings"	31	217	10	63	7.0
4. Business linkage	28	190	9	55	6.8
5. Backup support	24	135	6	39	5.6
6. Stock availability	22	131	6	38	6.0
7. Product efficacy	21	120	5	35	5.7
8. Product availability	16	100	5	29	6.3
9. Contact and communication	16	95	4	27	5.9
10. Corporate reputation	13	82	4	24	6.3
11. Other	73	444	20	128	6.1

Deductions can be made as follows:

- Price plays a very significant role in the decision to support a particular manufacturer.
- The product range offered by generic manufacturers is rated as the second most important criteria.
- In total 17,2 percent of respondents are affiliated to a distributor who has a policy not to support generic product manufacturers.
- A sound "business linkage" is important and backup support is provided.

11.2.4.3 COMPARISON BETWEEN SOUTH AFRICA AND AUSTRALIA

In making a comparison between the South African and Australian results the following observations can be made:

- Product range featured prominently in both surveys.
- Price appears to be more of an issue in Australia than in South Africa, as is underlined with the perceived higher levels of price competition in Australia.
- Stock availability was once again confirmed as an area that must be addressed.
- Australian respondents indicated in some cases that they would sell those

specific products that are available from their regional offices (“product availability”).

- A stark difference is the situation that a number of distributors in Australia have no dealings with generic companies whereas this is not the case in South Africa.
- The importance of supplier backup support is applicable in both countries.

11.2.4.4 IMPLICATIONS – GENERIC PRODUCT SUPPLIER CRITERIA

The importance of a broad product range and aggressive pricing of generic suppliers result in a significant threat posed to the research-based supplier by these entities.

11.2.5 IDEAL PRODUCT SUPPLIER CRITERIA

11.2.5.1 SOUTH AFRICAN RESULTS

Respondents were asked the following: “Suppose you were to find an ideal supplier of patented agricultural chemicals, what would such a supplier have, or do, that would make them an ideal supplier of products for your business? Please list your ideal patented product supplier criteria in the order of their importance to you”. The feedback from the South African respondents is presented in Table 11.11.

Table 11.11: Criteria for the ideal supplier of crop protection products in South Africa

Criteria	Number of mentions	Weight	Percentage weight	Index	Ratings
1. Backup support	104	690	35	100	6,6
2. Product range	37	256	13	37	6,9
3. Product efficacy	29	183	9	27	6,3
4. Price	27	172	9	25	6,4
5. Exclusivity	23	160	8	23	7,0
6. Stock availability	12	83	4	12	6,9
7. Delivery	13	82	4	12	6,3
8. Experience and knowledge	10	70	4	10	7,0
9. Training and advice	8	51	3	7	6,4
10. People relations	7	43	2	6	6,1
11. Other	25	172	9	25	6,9

Details concerning the different criteria mentioned will be discussed further under Section 11.2.7 because some of these criteria also featured in the ranking questions posed to respondents. It is however appropriate to compare the manner in which sales agents evaluated their present major product manufacturer (supplier) and comparing that with what support they would like to be forthcoming from their “ideal” supplier.

In Table 11.11, backup support is clearly ranked as the overriding requirement. This is in contrast with the evaluation of their present suppliers, as is reflected in Table 11.7, where backup support is ranked in the number four position. By rating “product range” and “long-term familiarity” in the number one and two spots in Table 11.7, it can be reasoned that the agents might primarily be supporting their present supplier firstly due to a good product portfolio and the situation that a long-term association exists. Furthermore it can be deduced from Table 11.11 that, in relative terms, a manufacturer’s backup support would become relatively more important than the product portfolio in future. This is understandable if cognisance is taken of the reality that real “unique” products are becoming less and less common, as products with similar attributes and efficacy become available due to the lapsing of patent protection on leading products and the subsequent introductions of generic substitutes. This issue received attention in Chapter 3. It is postulated that sales agents realise that the product offers from potential suppliers could theoretically become more alike in future and therefore the increase in relative importance of backup support. Due to the importance thereof, the scope of the term “backup support” and exactly what is covered by this term is dealt with extensively in Section 11.2.7.2 of this chapter.

However, no illusions should exist concerning the importance of products in meeting the requirements of sales agents. In reality, “product range” and “product efficacy” could be grouped together. In Table 11.7, this would result in a weighted percentage allocation of 40 percent whereas it would receive a weighted allocation of 21 percent in Table 11.11. This underlines the foundation of success in the distribution of crop protection products from the perspective of a manufacturer that a wide range of effective products is the key to success. There is no substitute for this.

Price receives a high rating in the set criteria for an “ideal” supplier (Table 11.11). Given the question posed, this should perhaps be expected. Of more importance perhaps is the view that price is definitely not seen as the primary reason for sales agents presently supporting their major supplier (manufacturer), as is evident from Table 11.7. This makes sense, given the reality that due to the price competitive nature of the crop protection market, price levels of the different suppliers for similar products tend to be in a narrow band. Sales agents generally do not have a major issue insofar as that they will lose significant volumes of business due to high transfer prices of products to their affiliated distributor from their product supplier (manufacturer). As is expected, price plays a more important role in a sales agent’s relationship with a generic manufacturer. This is reflected in Table 11.9.

11.2.5.2 AUSTRALIAN RESULTS

Respondents were asked the following: “Suppose you find an ideal supplier of patented agricultural chemicals, what would such a supplier have, or do, that would make them an ideal supplier of products for your business? Please list your ideal patented product supplier criteria in order of their importance to you”. The feedback from the Australian respondents is presented in Table 11.12.

Table 11.12: Criteria for the ideal supplier of crop protection products in Australia

Criteria	Number of mentions	Weight	Percentage weight	Index	Ratings
1. Product range and new technology	88	548	17	100	6,2
2. Backup support	75	416	13	76	5,5
3. Price	66	368	11	67	5,6
4. Stock availability	52	299	9	55	5,8
5. Margin	38	216	7	39	5,7
6. Contact with suppliers (communication)	38	212	7	39	5,6
7. Product efficacy	35	201	6	37	5,7
8. Exclusivity	30	189	6	34	6,3
9. Marketing and sales support	32	165	5	30	5,2
10. People relationships	18	99	3	18	5,5
11. Other	96	522	16	95	5,4

In Table 11.12 product range and the ability of a manufacturer to bring new technology to the market is deemed to be the overriding attribute the “ideal” supplier

should have. In an analysis of the specific comments, it is clear that respondents are looking for manufacturers that would be able, not only to bring new chemical products, but also new biotechnology solutions to the market. This was not found in the South African leg of the survey probably because genetically modified crops are still insignificant in South Africa, whereas in Australia these crops have a high profile.

Responses referring to good product quality and effective products were grouped under the heading of "product efficacy". These scores could be interpreted in conjunction with the product range and new technology heading, to add more weight to the importance of the product range in total.

Once again, the grouping of responses under the heading "backup support" featured prominently.

The issue of pricing was addressed using two headings, i.e. "price" and "margins". These two groupings of responses could have been grouped together. Responses relating to "competitive pricing" were grouped under "price", whereas responses relating to "good profit margins" were grouped under "margins". The message however is clear, that pricing, in the broadest context, is a key component in the overall marketing mix, as can be expected in a highly competitive and price sensitive market.

11.2.5.3 COMPARISON BETWEEN SOUTH AFRICA AND AUSTRALIA

In comparing the South African results to those of Australia, the message seems to be consistent. Agents in South Africa and sales representatives in Australia see the "ideal" manufacturers as providing:

- A wide range of effective products backed up by research and development and a steady flow of new products or new technology.
- High levels of backup support.
- Competitively priced products that enable the distributor to generate an acceptable margin.

- Sound interpersonal relations and systems of communication with manufacturers, and the granting of exclusivity in situations where it would be to the benefit of those involved.

11.2.5.4 IMPLICATIONS – IDEAL PRODUCT SUPPLIER CRITERIA

Manufacturers with a sought after product portfolio comprising products that are deemed to be effective, coupled to the promise of adding new products i.e. new technology to the product portfolio, have a sound base from which to muster distributor support.

The interaction between manufacturer and distributor needs to address a range of services, i.e. backup support, marketing and sales support, information flow and training that has to be provided in order to complete the augmented product offer.

11.2.6 SHORTCOMINGS OF PRESENT SUPPLIERS

In order to obtain a more comprehensive picture of what sales agents and sales representative exactly require from manufacturers, it was deemed appropriate to also add a question concerning perceived shortcomings of present suppliers. These results should be interpreted in conjunction with the criteria forwarded for an ideal supplier (Tables 11.11 and 11.12) as well as the reasons why the respondents are supporting their present suppliers as is presented in Tables 11.7 and 11.8.

11.2.6.1 SOUTH AFRICAN RESULTS

Respondents were asked: "In your opinion where do research-based suppliers of crop protection products fall short in the marketing of their products? Please list their shortcomings in order of importance, as you perceive them to be". The South African respondents' feedback is contained in Table 11.13.

Table 11.13: Shortcomings of suppliers in South Africa of crop protection products as perceived by sales agents.

Criteria	Number of mentions	Weight	Percentage weight	Index	Ratings
1. Promotional programmes	59	391	29	100	6,6
2. Product range and research	21	140	10	36	6,7
3. Communication	20	132	10	34	6,6
4. Stock availability	17	113	8	29	6,6
5. Backup support	17	112	8	29	6,6
6. Training	15	100	7	26	6,7
7. Marketing policies	11	72	5	18	6,5
8. Experience and knowledge	9	55	4	14	6,1
9. Price	6	39	3	10	6,5
10. People relationships	6	39	3	10	6,5
11. Other	24	160	12	41	6,7

From Table 11.13, the following deductions can be made:

- Agents believe that suppliers should allocate more resources to promotional activities.
- Wider product portfolios are desired from their suppliers.
- Communication between sales agents and manufacturers can be improved.
- Logistical supply systems and structures are not optimal.
- Backup support activities should be improved.
- Sales agents feel that manufacturers should spend more time and resources on training of sales agents.
- The experience and knowledge base of some of the manufacturer staff is deemed to be lacking.

11.2.6.2 AUSTRALIAN RESULTS

Respondents were asked: "In your opinion where do research-based suppliers of crop protection products fall short in the marketing of their products? Please list their shortcomings in order of importance, as you perceive them to be". The Australian respondents feedback on what they perceive to be the shortcomings of the supplier (manufacturers) is presented in Table 11.14.

Table 11.14: Shortcomings of suppliers in Australia of crop protection products as perceived by sales representatives

Criteria	Number of mentions	Weight	Percentage weight	Index	Ratings
1. Marketing and sales	68	441	23	100	6,5
2. Stock availability	39	257	13	58	6,6
3. Satisfied with supplier	29	203	11	46	7.0
4. Contact and communication	22	149	8	34	6.8
5. Experience and knowledge	25	148	8	34	5.9
6. Price	20	130	7	29	6,5
7. Training and information	19	119	6	27	6,3
8. Backup support	11	69	4	16	6,3
9. Margin	10	66	3	15	6,6
10. Packaging	9	57	3	13	6,3
11. Other	43	272	14	62	6,3

From Table 11.14, the following deductions can be made:

- The criticism levelled, as grouped under marketing and sales, refers to the perception that manufacturers are out of touch with end-users (farmers), do not create enough pull action at farm level, and lack focus with marketing campaigns.
- Manufacturers can improve the supply chain management procedures.
- Only 16 percent of respondents indicated that they were satisfied with their manufacturers and do not see scope for improvement.
- Contact and communication between manufacturers and distributors in general can be improved.
- A lack of experience and technical knowledge of the manufacturer field staff is evident as a shortcoming that should be addressed.
- Product prices are deemed to be too high.
- Sales representatives require more training and information on products.
- Sales representatives believe manufacturers are not supporting them enough to ensure acceptable margins.
- Some sales representatives felt that product packaging needed improvement.

11.2.6.3 COMPARISON BETWEEN SOUTH AFRICA AND AUSTRALIA

In comparing the feedback from the South African respondents and the Australian

respondents, a number of similarities can be identified:

- Manufacturers are deemed to be losing touch with the end-users.
- The marketing activities of manufacturers are deemed to be lacking.
- Communication between manufacturers and sales agents, or representatives, is not optimal.
- Manufacturers need to increase the competence and general skills level of their staff.
- Logistical supply systems should be improved.

11.2.6.4 IMPLICATIONS – SHORTCOMINGS OF SUPPLIERS

As indicated in the previous paragraph, manufacturers are required to increase their knowledge of farmer requirements, become more marketing orientated, address the important issues of manufacturer communications with distributors and ensure that competent and well trained staff interface with distributors.

11.2.7 DISTRIBUTOR REQUIREMENTS THAT SUPPLIERS MUST ADDRESS

In Section 11.2.7 the knowledge base generated in the prior sections with the open ended questions will be expanded upon with the addition of feedback from respondents on ranking questions. The purpose thereof is to clarify distributor requirements that suppliers (manufacturers) must address in more detail.

11.2.7.1 PRODUCT PORTFOLIO

The questions put to the respondents were aimed at determining the importance of having an extensive product portfolio available. In order for a manufacturer to maximise profitability the general “rule” in the industry is to only market “in-house” products to distributors. If a manufacturer gets involved in so-called “third party” products (products sourced from another entity for resale to distributors) this normally leads to higher overall inventory cost, reduced overall margin percentages, bigger staff requirements, loss of focus on major products, etc. If the importance of

“control” over distribution is taken into consideration, argument could be made that a manufacturer would be forced to become involved in a wider product portfolio in order to have enough negotiation clout with distributors.

Respondents in South Africa and Australia were asked: “Please rate your perceptions regarding the value of the following to you in the running of your business. Is your supplier providing:” This was followed by a number of statements. The feedback for South Africa and Australia is provided in Table 11.15. A distinction was made between generic product suppliers and patented product suppliers. Answers were rated on a seven-point scale. For each question the mean value as well as the standard deviation has been provided.

Table 11.15: Product portfolio requirements

Requirement	South Africa				Australia			
	Generic product supplier	Patented product supplier	Generic plus patented	Generic plus patented	Generic product supplier	Patented product supplier	Generic plus patented	Generic plus patented
	Mean	Mean	Mean	Std. Dev.	Mean	Mean	Mean	Std. Dev.
1. A broad comprehensive range of products	6,8	6,7	6,73	0,659	5,9	5,8	5,82	1,170
2. All the products you require	6,8	6,6	6,62	0,781	5,4	5,2	5,28	1,540
3. New technology products	6,8	6,9	6,86	0,432	6,5	6,3	6,40	0,876
4. New products in the pipeline	6,8	6,8	6,78	0,554	6,3	6,3	6,33	0,865
5. Comprehensive research and trial programmes	6,6	6,6	6,61	0,741	6,0	5,8	5,89	1,513
6. Some market brand leaders	6,9	6,7	6,71	0,547	6,0	5,9	5,94	1,004
7. Effective product brand building amongst farmers	6,4	6,3	6,34	0,835	5,6	5,7	5,66	1,013
8. Involvement in developing biotechnology products	6,3	6,1	6,14	1,325	6,2	5,8	5,96	1,307

Note: “No consequence” (1) to “Vital” (7).

In the open-ended questions posed to respondents, it became clear that product portfolio is a critical element in the relationship between a manufacturer and a distributor.

From Table 11.15, the following deductions can be made as key inputs into the channel design phase:

- Both patented and generic manufacturers will be able to significantly strengthen their position if a comprehensive range of products can be provided. Manufacturers have a number of options. One option would be to buy in products from other manufacturers and to resell these products as part of their in-house portfolio to the distributors. The second option would be for a manufacturer to form a strategic alliance with another manufacturing company, whereby a portfolio could be assembled by combining the two entities' portfolios and then offering the expanded portfolio as a package to distributors.
- Research-based multi-national product manufacturers have, only with rare exceptions, pooled resources in the past, in order to exert more power in the market place. This approach should be considered.
- Traditionally there has always been a stand-off between the so-called research-based manufacturers and generic product manufacturers. Given the Australian situation, an option would be for a research-based multi-national to pool resources with a generic manufacturer. This would address the objective of being able to approach a distributor with a comprehensive product portfolio.
- As was expected, the respondents indicated that they would love access to "some market brand leaders". This is important for salespeople. If they have a real "blockbuster" in their portfolio that is sought after, it gives them an immediate advantage at farm level. They can use this product to leverage the farmer to purchase generic products from them by using the principle of bundling products.
- New technology products can be an extremely profitable proposition for distributors due to high margins generated. It is important to "market" research capabilities of manufacturers and resources allocated to development of new products to distributors. They should be kept updated on new products being developed and made to realise that support for the supplier in the short-term would, or could, lead to access to pipeline products in future.

In summary therefore, the challenge for a manufacturer is to have an extensive product portfolio that can be offered to distributors, but at the same time to not

become a “wholesaler” for other manufacturers. Manufacturers also need to communicate and “market” their research capabilities for the discovery of new products and keep distributors informed about new pipeline products, as a tool for ensuring short-term affiliation.

11.2.7.2 BACKUP SUPPORT

In the preceding sections, the importance of backup support became evident on numerous occasions. For example, in Tables 11.10, 11.11, 11.12 and 11.13 this was deemed by respondents to be one of the important requirements that they have of their suppliers, given the situation that a competitive product portfolio is of course taken for granted.

Due to the anticipated importance of backup support, this concept was catered for extensively in the questionnaire. It was deemed important to understand exactly what backup support respondents would like to receive.

Respondents were asked: “Thinking about backup support and service to you in the agricultural chemical supply business: what do you consider to be key factors of supplier backup support and service to you? Please list your supplier support criteria in order of their importance to you”.

◆ SOUTH AFRICAN RESULTS – OPEN ENDED QUESTION

Feedback from the South African respondents is provided in Table 11.16.

Table 11.16: Backup support required by sales agents from suppliers in South Africa

Criteria	Number of mentions	Weight	Percentage weight	Index	Ratings
1. Information and training	110	682	20	100	6,2
2. Expertise and knowledge	100	621	18	91	6,2
3. Speed in support	94	620	18	91	6,6
4. Availability of support	94	588	17	86	6,3
5. Communication with salesperson	28	175	5	26	6,3
6. Stock availability	24	152	5	22	6,3
7. Promotional support	22	101	3	15	4,6
8. Trials and research	15	92	3	13	6,1
9. People relations	12	67	2	10	5,6
10. Product support	8	50	1	7	6,3
11. Other	37	225	7	33	6,1

From Table 11.16 the following deductions can be made:

- Product information provision and coupled training on products are of paramount importance as a “backup service” requirement.
- Having access to manufacturer expertise and knowledge is understandable in an industry that is highly technical.
- Availability of support and speed of support should be interpreted in the light of the requirement of sales people to provide farmers with answers at short notice, that in many cases requires immediate assistance from manufacturer technical advisers.

◆ AUSTRALIAN RESULTS – OPEN ENDED QUESTION

Respondents were asked: “Thinking about backup support and service to you in the agricultural chemical supply business: what do you consider to be key factors of supplier backup support and service to you? Please list your supplier support criteria

in order of importance to you.” Feedback from the Australian respondents is provided in Table 11.17.

Table 11.17: Backup support required by sales representatives from suppliers in Australia

Criteria	Number of mentions	Weight	Percentage weight	Index	Ratings
1. Availability of support	99	602	23	100	6,1
2. Stock availability	72	450	17	75	6,3
3. Expertise and knowledge	55	347	13	58	6,3
4. Communication with manufacturer	46	297	11	49	6,5
5. Information and training	49	293	11	49	6,0
6. Reaction speed	21	136	5	23	6,5
7. Product delivery	18	109	4	18	6,1
8. People relationship	16	88	3	15	5,5
9. Products	12	72	3	12	6,0
10. Promotional support	14	71	3	12	5,1
11. Other	36	195	7	32	5,4

From Table 11.17 the following deductions can be made:

- Of paramount importance to the Australian respondents is to have quick access to support, i.e. to be able to get in contact with the right manufacturer employee to assist in problem solving.
- Having assistance in managing product supply and product availability is seen as an important “backup service” requirement.
- Provision of timely information, expertise, advice and knowledge to assist distributor sales people was rated highly as a requirement and could also be linked to training requirements.

◆ SOUTH AFRICAN AND AUSTRALIAN RESULT – RANKING QUESTIONS

Over and above the open ended question pertaining to backup support, respondents

were also asked a number of ranking questions related to aspects of backup support. Sales agents and sales representatives were asked: "How would you rate your main supplier on the following aspects"? Feedback is provided in Table 11.18.

Table 11.18: Ranking of selective backup support functions provided by the main supplier of the respondents.

Rating aspects	South Africa		Australia	
	Mean	Std. Dev.	Mean	Std. Dev.
1. Understanding your business	5,86	1,139	5,47	1,284
2. Understanding your particular needs	5,78	1,182	5,38	1,194
3. Interest shown in your business	5,88	1,238	5,38	1,294
4. Commitment to the success of your business	5,88	1,172	5,31	1,292
5. Care taken in helping you to succeed	5,83	1,219	5,19	1,259
6. Time spent with you to render advice and assistance	5,49	1,353	4,93	1,341
7. Sense of urgency when necessary	5,94	1,171	5,63	1,245
8. Loyalty to you	5,90	1,420	5,09	1,577
9. Provision of sales and other information	5,53	1,529	5,36	1,162
10. Provision of sales literature	5,47	1,329	5,42	1,144
11. Provision of technical literature	5,47	1,423	5,31	1,250
12. Provision of product samples for trials	4,47	1,971	4,22	1,728
13. Speed in becoming aware of particular situations in the market	5,62	1,187	5,12	1,156
14. Speed in response to calls for help	6,06	1,187	5,65	1,006
15. Speed in fulfilling promises or commitments	5,86	1,012	5,63	1,050
16. Speed in delivering normal orders	5,95	1,179	5,82	1,157
17. Speed in delivering urgent orders	6,03	1,156	5,69	1,292
18. Speed in providing technical advice	5,99	1,211	5,41	1,209
19. Speed in solving a technical problem or customer complaint	5,90	1,026	5,38	1,228

Table 11.18 provides a good indication of what the backup support levels of the main suppliers of the survey respondents are. This can be used as the basis for a specific supplier (manufacturer) to use in benchmarking exercises.

◆ COMPARISON BETWEEN SOUTH AFRICA AND AUSTRALIA

In South Africa the overriding requirements are information, training and access to expertise, whereas in Australia, being able to get support seems to be the most

important requirement. Current backup service levels between South Africa and Australia seem to be comparable, based on the feedback presented in Table 11.18.

◆ IMPLICATIONS – BACKUP SUPPORT

Implications for the development of distribution system management models from the perspective of backup support, can be highlighted as:

- Support must be available if required.
- Respondents require speed in the support actions.
- Provision of information and training is necessary.
- Good lines of communication between manufacturers and distributors must exist.
- Logistical systems need to be effective and responsive.
- Good product promotional support is required.

11.2.7.3 PRODUCT ATTRIBUTES

In previous sections, the importance of product attributes is evident in the measurement of why respondents are supporting their current supplier (manufacturer) and also in the requirements they have from their ideal supplier.

Respondents in South Africa and Australia were asked: “In the selling of new research-based, i.e. patented crop protection products, how important are the following attributes in your opinion”. The same question was also asked pertaining to generic or commodity products. These responses are presented in Table 11.19.

Table 11.19: Rating of product attributes as perceived by sales agents and sales representatives in South Africa and in Australia

Requirement	South Africa				Australia			
	Generic product supplier	Generic product supplier	Patented Product Supplier	Patented Product Supplier	Generic product supplier	Generic product supplier	Patented product supplier	Patented product supplier
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
1. Efficacy	6,64	0,686	6,81	0,492	6,38	0,925	6,49	0,786
2. Unique product benefit	-	-	6,56	0,775	-	-	6,04	1,465
3. Cost effectiveness	6,45	0,902	6,29	0,917	6,29	8,856	5,97	1,660
4. Environmental safety	6,15	1,087	6,25	1,062	5,85	1,196	5,91	1,170
5. Label ease-of-use instructions	5,93	1,293	6,20	1,073	5,49	1,381	5,81	1,236
6. Pricing	6,39	0,987	6,22	1,001	6,37	0,810	5,89	1,077
7. Packaging ease-of-use	5,82	1,207	5,87	1,064	5,33	1,218	5,44	1,150
8. Packaging ease of disposal	5,57	1,347	5,74	1,287	5,45	1,381	5,66	1,236
9. Brand name awareness	5,17	1,382	5,70	1,210	3,96	1,609	5,00	1,363
10. Label appearance	5,48	1,388	5,61	1,295	4,33	1,538	4,57	1,468
11. Manufacturer's name	5,10	1,560	5,37	1,476	3,59	1,671	4,02	1,699

Note: "No consequence" (1) to "Vital" (7).

From Table 11.19, the following deductions can be made:

- Product efficacy is key.
- Pricing and the concept of cost effectiveness, plus rebates in Australia, must be managed professionally from the perspective of the manufacturer.
- Unique product benefits should be identified and highlighted in the applicable marketing and promotional activities.

Manufacturers need to ensure that applicable product attributes, as identified in Table 11.19, are addressed in relevant marketing campaigns and communicated to distributors.

11.2.7.4 EXCLUSIVITY

In all probability, the most controversial issue that arises in crop protection companies where distribution matters are concerned, centres around the concept of exclusivity. Divergent opinions exist on this issue. Given anti-trust legislation in certain countries, for example the USA, the complexity hereof is further enhanced. It can be stated that there are advantages and disadvantages coupled to both exclusive distribution policies (i.e. limited distribution) as well as non-exclusive distribution arrangements (opening up of distribution).

Due to the importance of this concept as is reflected in the sales agents and sales representatives requirements from an "ideal" supplier (refer Tables 11.11 and 11.12), it was deemed important to get a more detailed insight into the sales agents' and sales representatives' viewpoint on this controversial issue.

Sales agents and sales representatives in South Africa and in Australia were asked: "Please rate your degree of agreement with the following statements" and to provide a rating on a seven-point scale with one being totally disagree and seven being definitely agree. The feedback is presented in Table 11.20.

Table 11.20: Sales agents' and sales representatives' responses to statements pertaining to exclusivity and to interdependence aspects

Question posed	South Africa		Australia	
	Mean	Std. Dev.	Mean	Std. Dev.
1. Agents and resellers should be free to source products from any and all suppliers.	6,53	2,282	5,38	1,959
2. Exclusive distribution reduces price-cutting.	6,18	1,314	5,18	2,025
3. Exclusive distribution enables agents or resellers to command a higher selling price and a better profit margin.	6,40	1,116	5,38	1,797
4. Agents and resellers put more effort into selling exclusive brands.	6,45	1,087	5,70	1,495
5. Agents and resellers with exclusive distribution rights should not sell directly competing products.	5,54	1,768	4,59	1,787
6. Exclusivity leads to long-term relationships with mutual long-term benefits for both supplier and the agent or reseller.	6,54	0,857	5,73	1,605
7. Exclusivity is only practical if the supplier has a comprehensive range of good products.	6,08	1,320	5,24	1,684
8. Suppliers should offer long-term commitments to agents or resellers.	6,54	0,885	6,14	0,936
9. Agents and sales representatives should offer long-term exclusive selling commitments to a supplier.	6,39	1,037	5,41	1,436
10. Contracts between suppliers and distributors should be renegotiated every year.	4,71	1,902	5,23	1,620
11. Suppliers should support agents, resellers so that they have long-term contracts even in hard times.	6,59	0,912	5,90	1,245

Note: "Totally disagree" (1) to "Definitely agree" (7).

A basic difference in distribution policies can be detected in the respondents' feedback presented in Table 11.20.

The distribution structure in South Africa is based on a number of exclusive, or semi-exclusive arrangements. The exact opposite is the situation in Australia where exclusive trading arrangements are the exception rather than the rule.

The general observation can be made that South African respondents seem to be more inclined towards the establishment of long-term exclusive arrangements. In Australia the respondents seem to favour more short-term arrangements with a possibly larger number of manufacturers supplying products. Based on these findings, an assumption can be made that distributors in Australia would be more hesitant to enter into long-term arrangements that they feel would restrict their

product supply options, than would generally be the case in South Africa.

11.2.7.5 STOCK MANAGEMENT

The importance of stock availability and stock management features prominently in the feedback regarding reasons for supporting current suppliers, criteria for “ideal” suppliers (see Tables 11.11 and 11.12) and also in the evaluation of shortcomings of suppliers (see Tables 11.13 and 11.14). Given the cost of inventory and unpredictable weather patterns and the impact that has on farmer requirements optimal stock levels will always be a key challenge for manufacturers of crop protection products.

It would be expected that delivery of stock to distributors is of a high level, given the level of competition in the industry. South African agents rated their manufacturers as “good” when asked their views on their manufacturers’ speed of product delivery. Australian sales representatives awarded their suppliers a “good” rating as well. The same rating concerning stock availability of “good” was forthcoming from South African respondents and an “acceptable” rating provided by their Australian counterparts (*Novartis*, 1999b. 3.3.3).

Given numerous sources of generic or commodity products available, the view is that if a distributor cannot source a product from his preferred source, the distributor would simply contact an alternative source. The implication for distribution channel management models design is that stock management systems need to be of a high standard.

11.2.7.6 MARKETING PROGRAMMES

Marketing programmes in the crop protection industry have two key components. The first being the endeavour to “sell” products to the sales agents and sales representatives and the second being the creation of pull action at farmer level. The view is held that both these activities are of significant importance if a manufacturer would like to be successful.

Table 11.13 reflects that sales agents in South Africa are of the perception that the number one shortcoming of manufacturers in South Africa is, what could be termed, the promotional support they place behind their products.

In Australia the sales representatives indicated that they perceived marketing and sales promotion activities as the most important shortcomings of the suppliers in Australia (see Table 11.14).

Given the known importance of these marketing and promotional tools prior to the construction of the questionnaire, a question bank was built to determine what the perceptions were of the most important promotional and marketing support the sales agents and sales representatives desired.

Respondents were asked: "How much weight do you place on the following forms of communications assistance from your suppliers in the running of your business?" A seven-point scale was used, with one being "no consequence" and seven being "vital". The feedback from South African and Australian respondents is tabulated in Table 11.21.

Table 11.21: Marketing and promotional support requirements of sales agents in South Africa and sales representatives in Australia

Promotional Activity	South Africa		Australia	
	Mean	Std. Dev.	Mean	Std. Dev.
1. Technical product literature	6,37	0,855	5,80	1,159
2. Product launch meetings	6,40	0,951	5,33	1,168
3. Presentations at farmer meetings	6,32	0,905	5,44	1,136
4. Farm trials (product development trials)	6,24	1,104	5,92	1,033
5. Demonstration trials on farms	6,19	1,109	5,89	0,990
6. Printed spray programmes	6,01	1,326	5,41	1,129
7. Product sales literature	6,04	1,097	5,04	1,342
8. Farmer days	5,91	1,169	5,19	1,307
9. Newsletters	5,51	1,264	4,56	1,230
10. Magazine and journal advertising	5,52	1,243	4,10	1,464
11. Farmer visits with manufacturers	5,54	1,514	4,60	1,459
12. Conferences and seminars	5,40	1,365	4,86	1,304
13. Manufacturer literature	5,40	1,410	4,08	1,576
14. Promotional videos	5,33	1,357	4,17	1,454
15. Radio advertisements	5,20	1,409	4,04	1,480
16. Manufacturer advertising	5,10	1,365	3,91	1,519

Note: "No consequence" (1) to "Vital" (7).

From Table 11.21 it would appear that focus should be placed on the following activities:

- product development and demonstration trials on farms,
- technical product literature,
- product launch meetings, and
- presentations at farmer meetings.

The results in Table 11.21 should be used as a "checklist" for marketing personnel of manufacturers in the process of compiling product specific marketing plans.

Elements included in this list include requirements to create “push” and “pull” marketing objectives.

11.2.7.7 COMMUNICATION

The importance of a sound communication flow between the manufacturer and the distributor featured prominently when respondents were asked to indicate what they expected from the “ideal” supplier (see Table 11.12 for the Australian results). This was also evident in the identified shortcomings of the present suppliers in South Africa (see Table 11.13) and also the shortcomings of suppliers in Australia (see Table 11.14).

11.2.7.8 CORPORATE REPUTATION

The corporate reputation of the manufacturer ranked highly in the eyes of the South African respondents. This is reflected in Table 11.7 in the analysis of the reasons why the agents support their most important present product supplier. This is understandable, if cognisance is taken of the impact the drastic restructuring of the global crop protection industry had on the sales agents at ground level in South Africa. It is therefore important that research-based manufacturers should stress their staying power in the crop protection industry.

Of interest is the situation that South African sales agents apparently are not unduly worried by the corporate resources or staying power of the manufacturers of generic products. This does not feature as a criteria in Table 11.9. The reason for this could be the perception that they have many possible sources of generic or commodity products and therefore the future of a specific generic manufacturer is not of great concern.

The feedback from the Australian respondents in Tables 11.8 and 11.10 indicates that they do not take corporate manufacturer resources or “staying power” into consideration in the decision process as to which manufacturer to support.

Manufacturers, in general, spend considerable resources in “selling” the specific

manufacturing company. The impact of this, however, has to be questioned as a tool to gain distributor support.

11.2.7.9 TRAINING

In a difficult financial environment, training is normally one of the first activities to be scaled down.

South African agents as well as Australian sales representatives rated the training levels provided by their manufacturers as lacking (see Tables 11.13 and 11.14). Given the technical nature of the business, the importance of training can be easily grasped. Feedback from the South African and Australian respondents is provided in Table 11.22. A seven-point scale was used with one being “very poor” and seven being excellent. Respondents were asked to rate their leading supplier.

Table 11.22: Level of training provided by manufacturers to sales agents in South Africa and sales representatives in Australia

Activity	South Africa		Australia	
	Mean	Std. Dev.	Mean	Std. Dev.
1. Crop training	5,13	1,767	4,54	1,625
2. Product training	5,60	1,464	4,86	1,632
3. Sales training	4,60	1,966	4,14	1,687

Note: “Very poor” (1) to “Excellent” (7).

It is clear that the perception in both countries is that training provided by the manufacturers in general is not up to standard. The implication is that effective distribution system management models must cater for well planned and effective product training programmes.

11.2.7.10 INTERPERSONAL RELATIONSHIPS

Although not rated very highly in the criteria set for the “ideal” supplier, as depicted in Tables 11.11 and 11.12, interpersonal relations between sales agents or sales representatives and manufacturer personnel is definitely a factor that must be taken into account. Suffice to say that suppliers should be able to relate to the agents and representatives in the field in order to form the close working relationship which is desired.

Manufacturing company management should in particular be aware of the importance of supplier field personnel and distributor sales agents or sales representative interface. The implication being that manufacturers must ensure that properly trained employees, with the necessary people skills, interface with distributors.

11.2.7.11 EXPERIENCE AND KNOWLEDGE OF SUPPLIER STAFF

Manufacturer personnel should be seen as an ally, assisting the individual sales agent or sales representative in maximising his turnover. If a particular manufacturer’s personnel are the preferred source of information and assistance for an individual sales agent or sales representative, this will rub off on the individual promoting and selling more of that particular supplier’s products (see Tables 11.13 and 11.15).

This aspect is also covered to some extent under the heading of backup support as was discussed in Section 11.2.7.2. Feedback on “good technical backup” featured prominently in response to what requirement sales agents and sales representatives have of manufacturers. The manufacturer must however ensure that they have the right calibre of people to provide this support, as was also eluded to in the previous section.

11.2.8 CORPORATE QUALITY RATING OF SUPPLIERS

In Section 11.2.7 the focus was on what support distributors require from

manufacturers (suppliers) given the endeavour to identify the most important aspects manufacturers should address.

It is, however, also deemed important to have a measure on how distributors generally view their current main suppliers on a number of “quality ratings”. This will provide additional insight on how distributors meet the set expectations. Respondents were asked to rate their main supplier on a number of attributes that could be termed “overall supplier corporate quality ratings”. This feedback is presented in Table 11.23.

Table 11.23: Corporate quality ratings of the main product suppliers of respondents

Quality Elements	South Africa		Australia	
	Mean	Std. Dev.	Mean	Std. Dev.
1. Communications – keeping you informed	5,73	0,996	5,33	1,090
2. Forward planning	5,56	1,099	5,26	1,316
3. Co-ordination of activities – general efficiency	5,86	1,063	5,38	0,975
4. New ideas – innovation	5,62	1,138	5,04	1,109
5. Strategic planning	5,57	1,120	5,02	1,156
6. Brand building	5,88	0,923	5,18	1,274
7. Support of their products in the field	5,99	0,992	5,23	1,378
8. Support for their distributors	5,82	1,148	5,46	1,140
9. Product delivery service	6,04	0,999	5,63	1,158
10. Technical backup support services	6,06	0,836	5,35	1,197
11. General administration	5,98	0,838	5,60	1,026
12. New product research capability	6,13	1,130	5,08	1,361
13. New product development	6,08	1,210	5,03	1,411
14. Marketing ability	5,88	1,038	5,38	1,128
15. Company image	6,20	0,908	5,51	1,109
16. Credibility among farmers	6,33	0,765	5,56	1,029
17. Professionalism	6,37	0,774	5,72	0,957
18. Ethics and honesty	6,33	0,797	5,87	0,895
19. Resources	5,84	0,863	5,53	0,945
20. Management ability	5,96	0,922	5,52	0,989
21. Environmental awareness	6,42	0,760	5,65	1,086
22. Stock management and availability	5,70	1,290	5,46	1,188

From Table 11.23 it is evident that data is presented that can also assist a manufacturer in a benchmark exercise in order to identify the “gap” between actual in-house performance on the aspects and that of competitors.

11.2.9 FARMER REQUIREMENTS OF DISTRIBUTORS

The prime purpose of this study is to determine the aspects that determine the relationship between distributors and their supplier (manufacturer) companies. It is however clear that manufacturers need to take cognisance of the situation that their ultimate customer is still the farmer that will physically use their products.

Although in essence outside the scope of this study, it was felt appropriate to take a snapshot of why distributors believe their farmer customers actually buy from them. This information ultimately also has a bearing on how a manufacturer should structure their distribution network and promotional activities to support their distribution strategy.

11.2.9.1 SOUTH AFRICAN RESULTS

Respondents were asked: "When your customers purchase their agricultural chemicals from you, what is their product selection criteria as you perceive them to be? What do they look for when they make their choices or decisions regarding the crop protection chemicals they buy and use"? The results for South Africa are presented in Table 11.24.

Table 11.24: Product selection criteria for farmers in South Africa when they purchase crop protection products as perceived by sales agents

Criteria	Number of mentions	Weight	Percentage weight	Index	Ratings
1. Price	179	1105	29	100	6,2
2. Relationships	107	664	18	60	6,2
3. Cost effectiveness and product quality	75	446	12	40	5,9
4. Efficacy	51	314	8	28	6,2
5. Recommendation from agent	41	259	7	23	6,3
6. Service level of agent	36	209	6	19	5,8
7. Backup support or after-sales backup	32	183	5	17	5,7
8. Reputable brand name	26	153	4	14	5,9
9. Experience with product previously	22	135	4	12	6,1
10. Product availability	10	52	1	5	5,2
11. Other	46	254	7	23	5,5

From Table 11.24 the following deductions can be made:

- Price is perceived to be the overriding product selection criteria for farmers.
- Sales agents believe that the personnel relationship between the farmer and sales agent plays an important part in the purchase decision.
- Farmers support sales agents providing sound recommendations, good service and backup support.

11.2.9.2 AUSTRALIAN RESULTS

Respondents were asked: "When your customers purchase their agricultural chemicals from you, what is their product selection criteria as you perceive them to be? What do they look for when they make their choices or decisions regarding the crop protection chemicals they buy and use"? The results for Australia are presented in Table 11.25.

Table 11.25: Product selection criteria for farmers in Australia when they purchase crop protection products as perceived by sales representatives

Criteria	Number of mentions	Weight	Percentage weight	Index	Ratings
1. Price	126	786	29	100	6,2
2. Efficacy	69	450	17	57	6,5
3. Agent advice and recommendation	45	284	11	36	6,3
4. Cost effective, quality product	45	276	10	35	6,1
5. Specific problem to resolve	26	173	6	22	6,7
6. Corporate reputation and brand name	24	144	5	18	6,0
7. Stock availability	24	133	5	17	5,5
8. Backup support	19	104	4	13	5,5
9. Contact / commercial / information	16	89	3	11	5,6
10. Environmentally safe product	13	65	2	8	5,0
11. Other	35	185	8	24	5,3

From Table 11.25 the following deductions can be made:

- Price is perceived to be the most important criteria on which farmers base their purchase decision.
- Understandably farmers support good, effective products.
- Farmers will rely on distributors for advice, recommendations and will support distributors that can provide these services when required.

11.2.9.3 COMPARISON BETWEEN SOUTH AFRICA AND AUSTRALIA

In comparing the results in Table 11.24 with those in Table 11.25, a number of interesting observations can be made:

- Price seems to play an important role in both countries.
- South African sales agents view their interpersonal relationship with farmers as one of the main reasons why farmers support them, whereas the perception of the Australian sales representatives appears to be that interpersonal relationships do not play an important role.
- Product efficacy is important in both instances.

- Distributor backup support and service levels provided are understandably important.
- The corporate reputation of the manufacturer and specific brand name also play a role in the farmers decision-making process.

11.2.9.4 IMPLICATIONS – FARMER REQUIREMENTS OF DISTRIBUTORS

Manufacturers have to create “pull action” on farm level for their products. Farmers need to be convinced that products are cost effective, of good quality and have a reputable brand name. Specifically in the case of new products, farmers need to be given trial material to see for themselves how a product can perform.

It can therefore be reasoned that effective distribution system management models need to cater for a structure that allows manufacturers to create demand on farm level and not only aim at “selling” products to distributors.

11.3 SUMMARY

The response received from the respondents in South Africa and Australia indicated a remarkably similar set of requirements between those of the sales agents and the salaried representatives.

Some of the most important implications evident from the two market research studies that must be taken into consideration, in the construction of distribution system management models, can briefly be summarised as:

- A sought after product range.
- Products with proven efficacy.
- Competitively priced products that will provide the distributors with acceptable margins and bottom line profitability.
- High levels of backup support from manufacturers.
- Good interpersonal relations between manufacturer staff and distributor staff.
- Effective physical product supply systems and structures.

- Manufacturer staff well trained and competent in their jobs and preferably with a lot of practical experience.
- Exclusive distribution arrangements appear to be very important in South Africa, but of lesser importance in Australia.
- Effective communication systems between manufacturers and distribution entities, to cater for rapid problem solving.
- Product training to distributor staff does not appear to be at the desired level in general.
- Manufacturers in general, are viewed to be rather weak in the proper planning of marketing campaigns and the execution of effective promotional and marketing programmes.

These aspects can broadly be summarised as a need for operational excellence and customer intimacy from the perspective of distributors.

Against the background of the industry and competitive analysis, the literature search as well as the primary research, Chapter 12 addresses the design of distribution system management models.

Part I
Introduction, background, aims and framework of the study

Part II
Industry and competitive analysis of the global crop protection industry

Part III
Crop protection distribution systems in selected countries

Part IV
Problem statement – management problems of crop protection distribution systems in South Africa and Australia

Part V
Research methodology - literature research and primary research regarding distribution system management

Part VI
Distribution system management models for the crop protection industry in South Africa and Australia
Chapter 12
Designing distribution system management models
Chapter 13
Distribution system management models for the crop protection industry in South Africa
Chapter 14
Distribution system management models for the crop protection industry in Australia

Part VII
Summary, conclusions and recommendations

CHAPTER 12

DESIGNING DISTRIBUTION SYSTEM MANAGEMENT MODELS

12.1 INTRODUCTION

The completion of Part II (Industry and competitive analysis of the global crop protection industry), Part III (Crop protection distribution systems in selected countries) and Part V (Research methodology - literature research and primary research regarding distribution system management) of the study provides the required information, against the background of the problem statement in Part IV, to proceed with the development of distribution system management models for application in South Africa and Australia. This is contained in Part VI of the study and comprises of three chapters. In Chapter 12 the process of designing distribution system management models is discussed based on the Stern-process template, followed in Chapters 13 and 14 with the design of "ideal" country specific distribution system management models for South Africa and Australia respectively.

12.2 LINKING THE AIMS AND FRAMEWORK OF THE STUDY WITH A PROCESS TEMPLATE FOR DESIGNING DISTRIBUTION SYSTEM MANAGEMENT MODELS

The aims and framework of the study (Chapter 2) have to be linked with the template to be used for structuring the process of designing distribution systems management models.

In Chapter 2, Figure 2.1 (page 15) provided the overall approach taken to address the primary aim of the study, namely to develop appropriate distribution system management models for application in South Africa and Australia. As is evident from Figure 2.1, the approach taken is to use, in essence, four sources of information input to address both the secondary and the primary aim of the study. These sources being:

- Industry and competitive analysis.
- The present crop protection distribution systems in South Africa and Australia.
- Review of related literature on distribution system management.
- Empirical research using surveys.

Based on this overriding approach a more detailed framework of the study was presented in Figure 2.2 (page 17), dividing the study into seven components or parts.

To ensure that the process of developing appropriate distribution models for South Africa and Australia is well structured, it was deemed necessary to introduce and utilise a template designed specifically for the development of customer driven distribution systems in the model building process. This template will be discussed in the rest of this chapter.

12.3 DESIGNING CUSTOMER DRIVEN DISTRIBUTION SYSTEMS

12.3.1 BACKGROUND

Two major models have been developed for use in the design of customer (distributor) driven distribution systems. The Rangan, Menezes and Maier (RMM) approach, as described by Sudharshan (1995 : 356-364), is one option that could be used. It was, however, considered that the Stern-process model (Stern, *et. al.*, 1996 : 189) would provide the more appropriate template for this study. The reason for deciding upon the model proposed by Stern, *et. al.*, (1996 : 189) is that it has been specifically designed to deliver superior distributor value. As such it focuses on two significant value disciplines, namely operational excellence and distributor intimacy. The summary of the surveys conducted in South Africa as well as in Australia calls for exactly these aspects to be addressed in distribution system management models. Confirmation thereof is evident in the summary section of Chapter 11 (Section 11.3, page 333).

For the sake of completeness the terms operational excellence and distributor intimacy, as defined by Stern, *et. al.*, (1996 : 188), are elaborated upon. Operational

excellence means providing customers (distributors) with reliable products or services at competitive prices and delivered with minimal difficulty or inconvenience. Customer (distributor) intimacy means segmenting and targeting markets precisely and then tailoring offerings to match exactly the demands of those niches. Delivering superior distributor value is the key to generating distributor loyalty (Jacob, 1994:216 as quoted by Stern, *et. al.*, 1996:188).

12.3.2 THE DISTRIBUTION SYSTEM DESIGN TEMPLATE

The distribution system design template, as proposed by Stern, *et. al.*, (1996 : 189), is presented in Figure 12.1. It is important firstly to review this process template and align it with the contents of this study, whereafter it will be applied as a guideline in order to systemically structure the process of developing distribution system management models for South Africa and Australia.

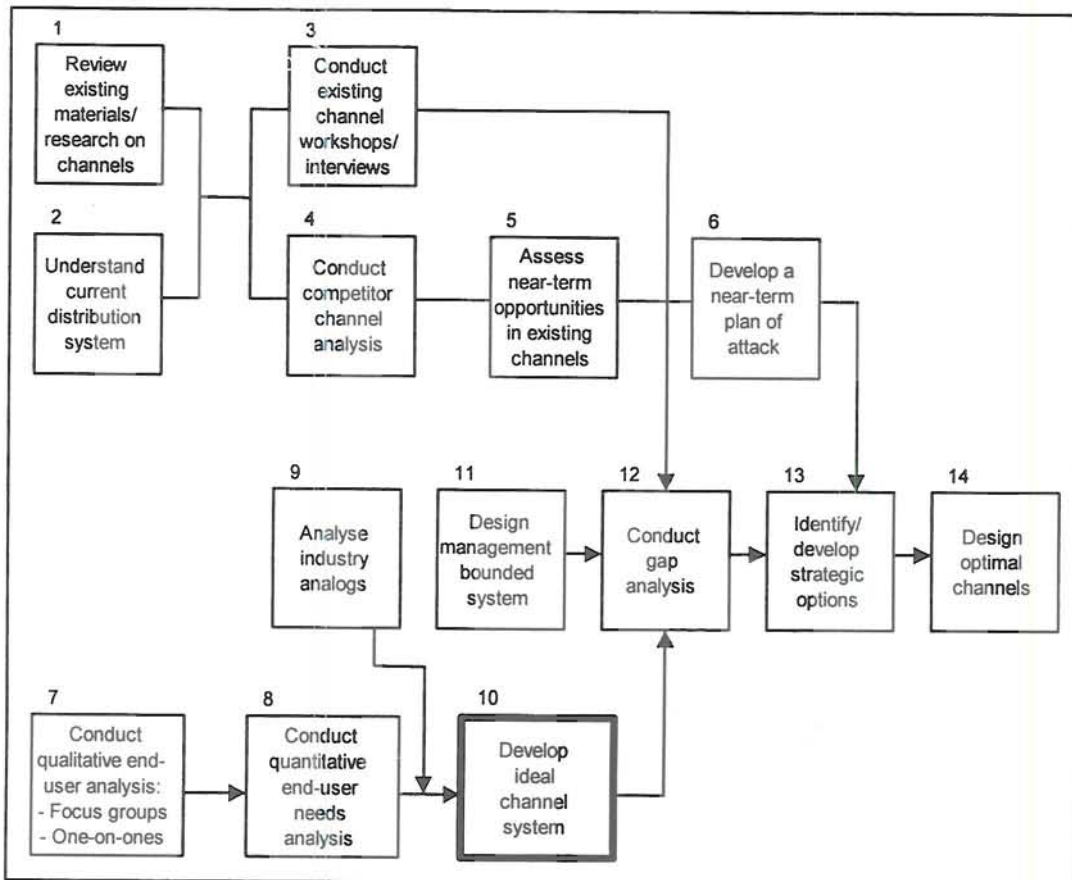


Figure 12.1: An analytical approach for designing customer driven distribution systems

Source: Stern, El-Ansary and Coughlan, 1996 : 189.

Note: In Figure 12.1 the term “channel” is used whereas the term “distribution system” is used as a synonym in this text for “channel”.

Sections 12.3.2.1 to 12.3.2.14 serve to briefly describe steps 1-14 as indicated in Figure 12.1.

12.3.2.1 REVIEW EXISTING MATERIAL AND RESEARCH ON DISTRIBUTION SYSTEMS (STEP 1)

The purpose of Steps 1-4 in the Stern-process model (see Figure 12.1) is to ensure a comprehensive understanding of existing conditions and challenges facing a manufacturer or supplier (Stern, *et. al.*, 1996 : 190).

The industry and competitive analysis (Chapters 3 and 4), the analysis of crop protection distribution systems in selected countries (Chapters 5 to 7), the review of related literature (Chapter 10) and the analysis of the survey results (Chapter 11) address Step 1.

12.3.2.2 UNDERSTAND THE CURRENT DISTRIBUTION SYSTEM (STEP 2)

According to Stern, *et. al.*, (1996 : 190) Step 2 requires attention to significant macroeconomic, technological or behavioural trends that will likely have an impact on the distribution system strategy over time.

The industry and competitive situation analysis in Chapter 3, the company situation analysis discussed in Chapter 4 and the review of distribution systems in Europe, the USA, South Africa and Australia (Chapters 5 to 7) address this step in the distribution system model development process.

12.3.2.3 CONDUCT EXISTING DISTRIBUTION SYSTEM WORKSHOPS AND INTERVIEWS (STEP 3)

Stern, *et. al.*, (1996 : 192) see the purpose of Step 3 as finding out what competitors are doing with their distribution systems. This action is a standard area that is addressed by a company like Novartis. Examples are regular focus group discussions with affiliated distributors to discuss industry trends, distribution planning sessions, strategic planning exercises per distributor on an annual basis, etc. The company situation analysis, as presented in Chapter 4; provides some feedback on the results of these forms of information gathering.

12.3.2.4 CONDUCT COMPETITOR DISTRIBUTION SYSTEM ANALYSIS (STEP 4)

Step 4 has been covered as part of the company situation analysis as presented for Novartis in both South Africa and Australia (Chapter 4).

12.3.2.5 ASSESS NEAR-TERM OPPORTUNITIES IN EXISTING DISTRIBUTION SYSTEMS (STEP 5)

Step 5 is aimed at encouraging short-term changes (i.e. "fine tuning") in specific distribution system strategies and policies as may be warranted by the data generated in the course of the execution of Step 1-4 in the usage of the Stern-process model (Stern, *et. al.*, 1996 : 192). The models to be presented in Chapters 13 and 14 will indicate numerous "near-term" opportunities that can be generated through the implementation of some of the suggestions.

12.3.2.6 DEVELOP A NEAR-TERM PLAN OF ATTACK (STEP 6)

The comments in Section 12.3.2.5 above are also applicable here. Manufacturers do not have to drastically alter distribution systems in all cases but can improve levels of operational excellence and customer intimacy addressing some identified shortcomings immediately.

12.3.2.7 CONDUCT QUALITATIVE END-USER ANALYSIS (STEP 7)

The purpose of the qualitative and quantitative (Section 12.3.2.8 to follow) distributor and end-user analysis phases are to determine what end-users want from the buying process, beyond a first-rate product, and how these preferences can be used to group distributors and end-users into discrete segments (Stern, *et. al.*, 1996 : 197).

It is suggested by Stern, *et. al.*, (1996 : 197) that focus groups and one-on-one interviews are conducted unless data sources are available containing comprehensive and meaningful lists of distributor and end-user requirements.

For the purpose of this study a comprehensive listing of distributor requirements is available from in-house Novartis documentation and, as a result, it was not deemed necessary to repeat the focus group process. Some of the applicable internal data sources that address the requirements of this step, and were incorporated as such in the distribution system management model building process, include:

- Needs and wants of agrochemical sales agents in South Africa (*Ciba*, 1995).
- Needs and wants of agrochemical sales agents in South Africa – follow-up study in 1997 (*Novartis*, 1997c).
- Reseller service and product expectations from Novartis – study done in Australia (*Novartis* 1997d).
- Market research study report on the commitment of the Novartis South Africa distribution agents – this survey was conducted as part of this study (*Novartis*, 1998c).
- Questionnaire used by UAP (United Agricultural Products) in the USA and Britain to measure the performance of their suppliers (*United Agricultural Products*, 1998).

Whereas the purpose of the qualitative phase is to provide accurate guidelines and input for the planning and execution of the quantitative phase, it is considered that a sufficient internal database exists and has been utilised as input in this study to ensure that the quantitative phase could be conducted in a scientific manner.

12.3.2.8 CONDUCT QUANTITATIVE END-USER ANALYSIS (STEP 8)

Step 8 requires empirical research to permit quantitative analysis of end-user needs. Two surveys were conducted, one in South Africa (*Novartis*, 1998d) and one in Australia (*Novartis*, 1999a). The results of the South African and Australian surveys were also combined in a separate report to compare the two markets, with regard to similarities and differences (*Novartis*, 1999b). The details are discussed in Chapter 11.

It is also proposed by Stern, *et. al.*, (1996 : 200) that service outputs required by

customers (distributors) should be measured and the ability of existing distribution systems to deliver the service outputs they desire. In the questionnaire construction phase (Section 9.2.1.2, page 183), attention was given to this requirement.

12.3.2.9 FINALISE INDUSTRY ANALOGUES (STEP 9)

Stern, *et. al.*, (1996 : 202) propose that benchmarking studies be undertaken to uncover insights from companies that are known to conduct distribution well, no matter what industry they are in. In the survey questionnaires used, respondents were asked to rate their number one supplier on a number of attributes. This provided data that can be used to compare and benchmark the distribution effectiveness of different suppliers (manufacturers). See Sections 11.2.3 and 11.2.4, pages 298 and 301. Benchmarking and analysis against other industries, so-called generic benchmarking, was however not conducted.

12.3.2.10 DEVELOP THE "IDEAL" DISTRIBUTION SYSTEM (STEP 10)

The steps preceding Step 10 will provide a comprehensive list of requirements (wants and needs) from the distributors (Stern, *et. al.*, 1996 : 204-205). As such, Step 10 represents an "ideal" distribution system and thus forms the basis for the development of distribution system models applicable to South Africa and Australia.

The energy sources funding the delivery of service output to end-users are distribution activities termed marketing "flows", or a set of functions performed by distribution system members (Stern, *et. al.*, 1996 : 205). Eight generic marketing flows are suggested:

- Physical possession (storage and delivery).
- Ownership (inventory carrying cost).
- Promotion (personal selling, advertising, sales promotion, publicity and public relations cost).
- Negotiations (time and legal cost).
- Risking (price guarantees, warranties, insurance, installation, repair and after-sale

service cost).

- Financing (credit terms, terms and conditions of sale).

Relevant “marketing flows” are addressed in Chapters 13 and 14. The three distribution system management models suggested for manufacturers in South Africa (Chapter 13) and Australia (Chapter 14) address Step 10 of the Stern-process model approach and therefore provide “ideal” models that need to be adapted by specific manufacturers to correspond with the manufacturer’s unique situation and business approach.

Following the preceding ten steps in the Stern-process template should result in addressing the problem statement as formulated in Section 8.5 (page 177). Addressing these steps should result in the development of “ideal” distribution system management models that would maximise the probability that a distributor will buy and actively promote the complete product portfolio of a manufacturer in an environment where distributors have numerous sources of product supply.

12.3.2.11 DESIGN A MANAGEMENT BOUND DISTRIBUTION SYSTEM (STEP 11)

The biases, objectives, constraints and threats imposed by internal and external forces should be addressed at this stage. The risk profile of the focal organisation (manufacturer) management needs to be taken into consideration. Are they risk takers or risk averse? It is also important to understand the internal politics, organisational structure and culture (Stern, *et. al.*, 1996 : 211).

Because only generic “ideal” models will be suggested for crop protection product suppliers (manufacturers) in South Africa and Australia, this step is considered to fall outside the ambit of this study. If, however, a specific company considers implementing one of these “ideal” models, it stands to reason that this step will be critical, not only in getting a proposal approved internally, but also to the ultimate success of implementation.

12.3.2.12 CONDUCT A GAP ANALYSIS (STEP 12)

At the conclusion of Step 11 three different distribution system management models can be isolated, namely:

- An “ideal” (distributor driven) system (Step 10).
- The existing system of the manufacturer in question.
- A “management bounded” system (i.e. the “ideal” system reconfigured by management’s objectives and constraints) (Step 11).

Stern, *et. al.*, (1996 : 213) propose that a “gap” analysis is performed at this stage. In Chapters 13 and 14 models would be proposed that are deemed “ideal”. It stands to reason that specific manufacturers wishing to design new distribution system models would identify the “gap” between the “ideal” system and their present distribution system model in order to design a distribution system model that fits the exact company requirements to become a “management bound” distribution system model that closes the “gap” which may exist. Step 12 is not addressed as part of this study.

12.3.2.13 IDENTIFY AND DEVELOP STRATEGIC OPTIONS (STEP 13)

In essence Step 13 entails the construction of applicable options for the distribution activities of a manufacturer and will flow from Step 12. This step is not addressed in this study.

12.3.2.14 DESIGN OPTIMAL DISTRIBUTION SYSTEMS (STEP 14)

Ultimately, the 14 step process should result in the construction of “optimal” distribution system models that would marry the requirements (wants and needs) of the distributors, in order to develop “customer intimacy” and the creation of “operational excellence” in the provision of reliable services and products to distributors. The “optimal” distribution system management model will be unique and addresses the requirements of a specific manufacturer being the “ideal management

bound" system.

12.3.3 OVERVIEW OF THE DISTRIBUTION SYSTEM DESIGN PROCESS

Distribution system design is a critical element of any marketing strategy and has long-term implications for a manufacturer (supplier).

The 14 step process as proposed by Stern, *et. al.*, (1996 : 187-219) proposes that individuals involved with the design process keep their focus on the most important people in the entire distribution system, namely the customers (distributors).

Steps 1-4 involve an examination of the institutions and agencies engaged in distribution activities relative to the product or service, the cost incurred in running the system, and the challenges being confronted by the system.

Steps 5-6 investigate the feasibility and practicality of implementing immediate changes in the existing distribution system based on data collected during the initial phases.

Steps 7-9 require "wiping the slate clean" and taking an unbiased look at options available. This culminates in Step 10, with the design of the "ideal" distribution system. Steps 1-10 are covered in detail in this study with Chapters 13 and 14 proposing six "ideal" distribution system management models, as they relate to Step 10. These templates can be used by specific manufacturers as the foundation on which to design "optimal" distribution systems following the guidelines proposed by the Stern-process template in Steps 11-14.

Step 11 makes provision for management biases to enter the fold as-well-as macro-environmental and competitive constraints. The result is a "management bounded" distribution system or the "ideal" system constrained by reality.

Step 12 identifies the “gaps” between the “ideal” system, the “management bound” system and the existing system for the specific company conducting the review.

Step 13 comprises the development of strategic options with the “optimal” distribution system ultimately derived at after the conclusion of Step 14.

12.4 SUMMARY

The distribution system design process model template of Stern, *et. al.*, (1996:189) provides a sound framework for the design of distribution system management models aimed at the provision of operational excellence and customer intimacy to distributors from the perspective of manufacturers, i.e. superior distributor value.

In the following two chapters distribution system management models for the crop protection industry are presented respectively for South Africa (Chapter 13) and Australia (Chapter 14). Whereas the preceding chapters of this study endeavoured to address Steps 1-9 in the Stern-process model, Chapters 13 and 14 compress the data generated into the “ideal” distribution system management models, corresponding with Step 10 in the Stern-process model.

Part I
Introduction, background, aims and framework of the study

Part II
Industry and competitive analysis of the global crop protection industry

Part III
Crop protection distribution systems in selected countries

Part IV
Problem statement - management problems of crop protection distribution systems in South Africa and Australia

Part V
Research methodology - literature research and primary research regarding distribution system management

Part VI
Distribution system management models for the crop protection industry in South Africa and Australia
Chapter 12
Designing distribution system management models
Chapter 13
Distribution system management models for the crop protection industry in South Africa
Chapter 14
Distribution system management models for the crop protection industry in Australia

Part VII
Summary, conclusions and recommendations

CHAPTER 13

DISTRIBUTION SYSTEM MANAGEMENT MODELS FOR THE CROP PROTECTION INDUSTRY IN SOUTH AFRICA

13.1 INTRODUCTION

In Chapter 12 the Stern-process model was described as a process template for use by manufacturers, or suppliers, in the design of distribution system management models that are responsive to customer needs. This approach provides answers to the questions of what kinds of services have to be provided to customers in order to ensure customer satisfaction and what kinds of marketing, as well as logistical activities, will have to be performed to generate the desired level of customer service.

The purpose of Chapters 13 and 14 is to extend this basic process model, or process template, to its application in the South African and the Australian crop protection industry. In this regard, it is important to understand the linkage between the generic Stern-process model (Section 12.3, page 337) and the country specific distribution system management models as presented in Chapters 13 and 14 (see Section 13.1.1 for this linkage). It is furthermore required to differentiate each of the country specific models based on three levels of inherent manufacturer product portfolio strength (Section 13.1.2). Also, the standard format which will be used for the construction of the respective models needs to be explained (Section 13.1.3). Addressing the above-mentioned aspects will provide the basis for the development of the country specific distribution system management models for both South Africa (Sections 13.2 – 13.4) and Australia (Chapter 14).

13.1.1 LINKING THE STERN-PROCESS MODEL AND THE COUNTRY SPECIFIC MODELS

Linking the Stern-process model and the country specific model development calls for a brief review of the process model template of Stern and the relevant components of this study.

The Stern-process model starts with a full unfolding of the distribution systems currently being used for the product or service. Steps 1-4 involve an examination of the institutions engaged in distribution activities and the challenges being confronted by the system. Analysis of the macro-environment and competition is required during these steps.

These steps are covered in this study through:

- The industry and competitive analyses (Chapters 3 and 4).
- The analysis of crop protection distribution systems in selected countries (Chapters 5 to 7).
- The review of related literature (Chapter 10).
- The review and analysis of survey results (Chapter 11).

The process followed in this study, to the end of Chapter 7, resulted in the ability to define the problem statement as presented in Chapter 8.

Steps 5 and 6 in the Stern-process model are directly linked to Steps 1-4 insofar that it is highly likely that immediate changes in existing distribution system management models can be made by manufacturers as a result of the data collected during the course of the first stages of the process. Steps 5 and 6 therefore entail implementing immediate changes to the specific distribution system management model used. The models presented in Chapters 13 and 14 will identify a number of “near-term” opportunities.

Steps 7 to 9 in the Stern-process model require that the focus should be on the identification of customer needs and wants that have to be addressed in order to provide high levels of customer satisfaction. Chapter 10 (Review of related literature on distribution system management) provided some answers to the requirements of customers. The industry specific requirements of the crop protection product distributors have, however, been addressed in the review and analysis of the survey results, as presented in Chapter 11.

Steps 10-14 of the Stern-process model builds on the prior steps to culminate in the design of appropriate distribution system management models.

Step 10 in the Stern-process model endeavours to design "ideal" distribution system management models for manufacturers. In this study, the purpose of Chapter 13 is to design "ideal" distribution system management models that can be used by crop protection product manufacturers operating in South Africa. The same approach for Australia is used in Chapter 14.

Based on the "ideal" system developed in Step 10, the Stern-process model calls for a "management-bound" system to be developed in Step 11. Stern, *et. al.*, (1996:219) refers to this as the "ideal" system constrained by reality and manufacturer (supplier) management risk profile as well as willingness to change. The "ideal" models presented in Chapters 13 and 14 are "generic" models. No attempt has been made to address possible approaches by management of a specific manufacturer. It is therefore foreseen that management of manufacturers would use the "ideal" models presented in Chapters 13 and 14 as a starting point and then adapt these models based on their unique situation with regard to risk profile, organisational culture and objectives.

Step 12 in the Stern-process model calls for a "gap" analysis between the "ideal" (customer-driven) system, the existing, unique system of the specific company and the management "bound" system. This is not addressed in this study.

Steps 13 and 14 in the Stern-process model entail the ultimate development of an "optimal" company specific system addressing whatever constraints are applicable. These steps are also not addressed in this study.

13.1.2 PRODUCT PORTFOLIO STRENGTH AS THE BASIS FOR DIFFERENTIATION

In the endeavour to develop "ideal" distribution management models (see Step 10 of the Stern-process model) for South Africa and Australia, it is considered that product portfolio strength should be the basis of differentiation between different sub-

distribution system management models. The rationale for this will be explained subsequently.

In the industry and competitive analysis presented in Chapters 3 and 4, it was evident that products and particularly the overall product portfolio strength of a manufacturer plays a decisive role in the determination of the competitive ability of that specific manufacturer. The review and analysis of the survey results (Chapter 11) confirmed this. It can thus be deduced that the product portfolio strength of a manufacturer forms a core component of an appropriate distribution system management model. This implies an approach of proposing different “ideal” sub-distribution system management models for manufacturers with different product portfolio strengths.

Distribution system management models are presented for South Africa (Chapter 13) and Australia (Chapter 14) for manufacturers with “extensive” product portfolios (Sections 13.2 and 14.2), those with “medium-sized” portfolios (Sections 13.3 and 14.3), and those with “limited” portfolios (Sections 13.4 and 14.4). The end result is three “ideal” models put forward for use in South Africa and three “ideal” models for use in Australia. The “ideal” distribution system management model construction is covered in Section 13.1.3.

13.1.3 CONSTRUCTION FORMAT OF THE DISTRIBUTION SYSTEM MANAGEMENT MODELS

A standard construction format was used for the development of the six distribution system management models (three for South Africa and three for Australia). The construction of these country specific models culminate in Step 10 of the Stern-process model which is described as the design, or construction, of an “ideal” distribution system management model.

In each case, background is provided on the profile of a typical manufacturer for which the specific model would be applicable, based primarily on product portfolio strength. This is followed by a proposed distribution system management model reflecting all the information generated in this study using the guidelines proposed in

Steps 1-9 of the Stern-process model. These models are deemed to be “ideal” models (Step 10 of the Stern-model) given the reality of the crop protection market and the profile of the “typical” manufacturer in question. The most important prerequisites stipulated in Steps 1-9 of the Stern-process model were covered in Chapters 3,4 and 6 and provided valuable input in the construction of the models. The analysis of the global crop protection industry and competitive environment (Chapter 3) coupled to the company situation analysis (Chapter 4) provided background information. The discussion on the present crop protection distribution systems in South Africa and Australia (Chapter 6) provided details concerning the country specific industry environment within which the “ideal” distribution system management models must function.

The next standard component in the presentation of the six distribution system management models is an extensive discussion of 12 areas that manufacturers must address in order to meet the goals of “customer intimacy” and “operational excellence”. The underlying aim of the Stern-process model is the design of a process or model to deliver superior customer value, therefore the focus on “customer intimacy” and “operational excellence” (Stern, *et. al.*, 1996 : 1988). Implementing Steps 7 and 8 of the Stern-process model the emphasis is on determining what customers needs and wants are or what service outputs they require. The review and analysis of the survey results (Chapter 11) addresses this. Based on this analysis, the 12 areas to address were identified and are subsequently addressed in each of the six models to ensure that the proposed models will be capable of meeting the desired customer service requirements.

The aspects covered in the literature research (Chapter 10) also tie in with some of the information requirements called for in Steps 7 and 8 of the Stern-process model. Areas covered in the literature research such as channel power, channel conflict, trust, commitment, dependence and interdependence are not discussed as separate headings in the presentations of the six distribution system management models but are reflected in the overall approach taken with the construction of the models and the overriding manufacturer and distributor working relationship approach conveyed in the text. These aspects are also covered to some extent under the heading of “areas to address”, an example being channel conflict management under the

section on communication.

Section 13.2 contains the model for a South African manufacturer with an “extensive” product portfolio, Section 13.3 the model for a manufacturer with a “medium” sized portfolio and Section 13.4 the model for a manufacturer with a “limited” portfolio.

13.2 A DISTRIBUTION SYSTEM MANAGEMENT MODEL FOR A MANUFACTURER WITH AN EXTENSIVE PRODUCT PORTFOLIO OPERATING IN SOUTH AFRICA.

13.2.1 INTRODUCTION

The purpose of Section 13.2 is to propose an “ideal” distribution system management model for a manufacturer with an extensive product portfolio operating in South Africa. Manufacturers operating in South Africa that can be classified as having extensive product portfolios would be Aventis (the AgrEvo and Rhône-Poulenc merged entity), Dow Agrosciences and Novartis. Given that extensive background information on Novartis has been provided, it was decided to propose an “ideal” distribution system management model using Novartis as the typical company. This model is however “generic” in the sense that either Novartis, Aventis or Dow Agrosciences can use it to develop specific “management bound” models or “optimal” models (refer the Stern terminology as described in Sections 12.3.2.10 – 12.3.2.14, pages 343 to 345).

Following Steps 1-9 in the Stern-process model template resulted in the identification of a number of customer requirements (needs and wants). The proposed model developed in this section is therefore a distribution system management model that is deemed capable of delivering the desired level of customer service. This proposed model is presented in Section 13.2.3. As background, Section 13.2.2 provides the profile of a typical manufacturer that has an extensive product portfolio using Novartis as an example of such a manufacturer. The model as proposed in Section 13.2.3 requires that a number of key areas need to be addressed in the implementation process thereof. These key areas, based primarily on the primary research data generated, are addressed in detail in Section 13.2.4. In Section

13.2.5 the perceived advantages and disadvantages of the model presented are discussed. Manufacturers can use the “ideal” model proposed in Section 13.2.3 (corresponding with Step 10 of the Stern-process model template) as the starting point to ultimately develop “optimal” distribution system management models (corresponding with Steps 11-14 of the Stern-process model template). The foregoing aspects address the standard construction format as outlined in Section 13.13.

13.2.2 PROFILE OF THE MANUFACTURER

13.2.2.1 CHARACTERISTICS OF THE MANUFACTURER

In Chapters 4 and 7, substantial detail is provided concerning the characteristics of Novartis South Africa as a manufacturer. For the sake of completeness, the following relevant characteristics can be highlighted:

- A dominant market share of approximately 25 percent.
- A strong and dedicated distribution network.
- Travon as a linked generic product supplier arm.
- The most comprehensive in-house product portfolio in South Africa.

The Novartis South Africa operation is therefore well positioned but the potential still exists for affiliated distributors to change alliances, or even to be bought by competitor manufacturers, in order to secure distribution.

Given the requirements placed on the “ideal” supplier by the sales agents in South Africa, it is clear that Novartis South Africa has all the building blocks to be extremely successful on the distribution front. Securing long-term stability and control over the distribution channel, whilst having an acceptable cost profile in the Novartis linked distribution system, however remains the key challenge.

13.2.2.2 OBJECTIVES OF THE MANUFACTURER

It can be stated that the main objective of Novartis would be to secure distribution systems over the long term in order to maintain the present strong market position and to have an effective distribution system in place for the introduction of new products. The most important corporate objectives for Novartis South Africa, can be listed as follows:

- To secure distribution channels.
- To build a long-term strategic alliance between distribution channel members.
- To remove some of the distribution system associated costs from the Novartis balance sheet.
- To have Novartis, the Novartis affiliated distributors, sales agents and Travon, linked as shareholders in the strongest distribution network in South Africa.
- To have the required critical mass in order to ensure price competitive sourcing of products needed to augment the Novartis in-house range of products via Travon.
- To combine the Novartis product portfolio with the Travon portfolio into the most comprehensive and sought after product range in South Africa.
- To achieve maximum synergies by integrating administrative systems and information technology systems.

In order to achieve the corporate objectives, as listed, the Novartis approach should therefore be to use its present strong position in the market, given the affiliated linkages to the associated distributors and Travon, to integrate the applicable entities in the present distribution system into a cohesive unit in order to secure a distribution channel. Ultimately, the control, or lack of control, over distribution systems will be one of the strategic issues determining the medium and long-term success of Novartis in South Africa of profitable business growth. Initially, control over the distribution systems by Novartis revolved around Novartis using unique products, contractual agreements and exclusive distribution rights to attain this goal. The increased generic nature of the market forces Novartis to consider changes to the present distribution policies and structures to facilitate the maintenance of control over present captive distribution systems over the longer term.

13.2.2.3 DISTRIBUTION SYSTEM OPTIONS

The distribution system options available to manufacturers with extensive product portfolios in South Africa would be:

- Market products to all distributors that meet basic criteria like, ability to pay, good reputation, etc., and therefore offer no exclusivity.
- Market products to selected distributors without providing exclusivity, but only limiting distribution to some extent.
- Exclusive geographical distribution to selected distributors.
- Forward integration into the distribution system by the formation of strategic alliances.
- Forward integration into the distribution system by using the principle of joint shareholding in joint structures.

Increased control over distribution systems via some form of forward integration into the distribution system is called for, given the general diminishing of manufacturer control over distribution.

13.2.3 A PROPOSED DISTRIBUTION SYSTEM MANAGEMENT MODEL

This section coincides with Step 10 of the Stern-process model template being the development of an “ideal” distribution system management model that is the end result of the preceding nine steps in the Stern-process. The concept of the model presented in this section is based on a number of basic but important findings, derived at from following the steps in the Stern-process. These findings include:

- A comprehensive product portfolio forms the foundation for determining distribution system power.
- Although Novartis has an extensive product portfolio and a promising pipeline of new products, Novartis cannot supply all the product requirements of distributors.
- Given the importance of having a “complete” product portfolio, as is evident from

the market research, Novartis should investigate ways to be in a position to offer a complete product range to distributors.

- A manufacturer “partner” is required to provide the products to complement and complete the Novartis product portfolio.
- Commodity, or generic products, form a significant part of the South African crop protection market, leading to the situation that it is extremely important for a distributor to have access to a reliable source of commodity products.
- Experience in South Africa confirms that it would not be a viable proposition for a company like Novartis to integrate forward into the distribution system to the extent of selling directly to the end-users.
- Novartis should not consider the possibility of buying in complementary products in order to complete the Novartis product portfolio.
- A key success factor in the marketing of crop protection products in South Africa centres around having key sales agents committed to a specific product portfolio.
- The ideal distribution system management model will tie in sales agents to the extent that they will be fully committed to the promotion of a given portfolio.
- The ideal structure should result in a cohesive linkage of Novartis, a commodity product manufacturer, distributors and affiliated sales agents.

Based on above findings, the challenge is to mould the different components required to make the whole distribution system function optimally into one inter-linked unit working closely together that addresses the identified needs and wants of customers. In Figure 13.1 a schematic representation of a proposed distribution system model is provided that would assist the linking together of the components required to have an optimally functioning and cohesive distribution system management model.

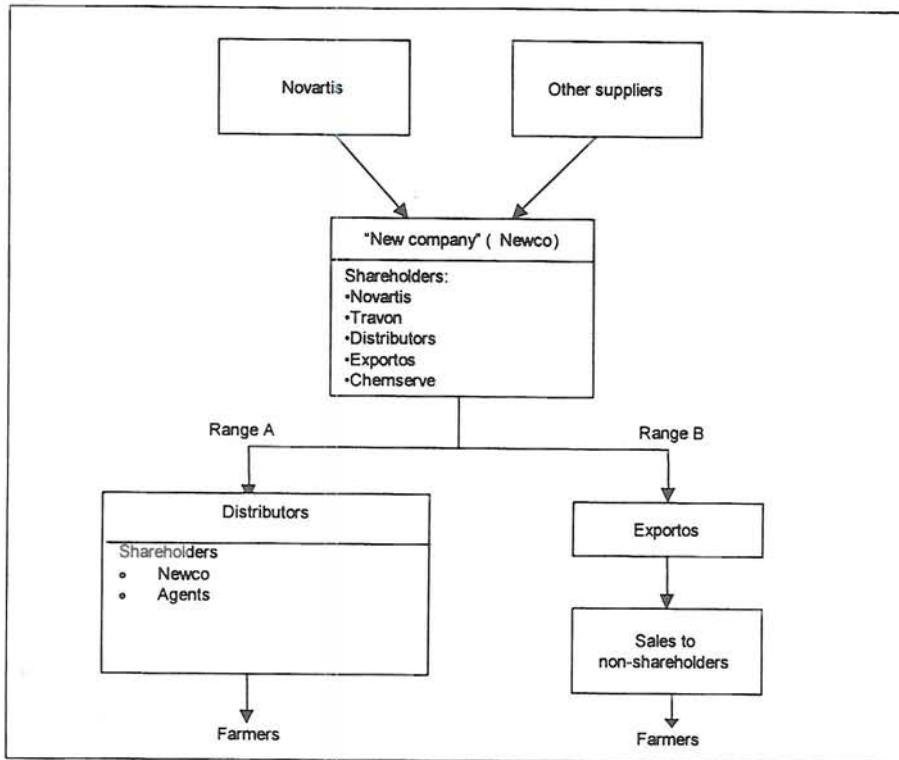


Figure 13.1: A distribution management model for a manufacturer with an extensive product portfolio in South Africa

The distribution management model proposal, as set out in Figure 13.1, can be elaborated upon as follows:

- A new company is formed as “Newco”.
- Novartis takes up a majority shareholding position of 51 percent in Newco.
- Travon is fully integrated in the new company and will perform the function of sourcing products required to fill any gaps in the Novartis portfolio.
- Selected distributors will be offered shares in the new company in exchange for shareholding of Newco in the specific distributors based on a share swap formula.
- Chemserve will be a shareholder and become the production arm for the formulation of commodity products for the Newco.
- Exportos will be a shareholder with the responsibility of selling products to non-shareholder distributors i.e. performing the “wholesale” function for the group.

Following from the above implementation actions will be as follows:

- The proposal manages to integrate a research-based manufacturer (Novartis), a commodity product supplier (Travon), distributors, agents, a generic product formulation facility (Chemserve) and a “wholesale” entity (Exportos) into one interlinked unit.
- All the components required to build a strong distribution system namely, patented product portfolio, generic product portfolio, formulation facilities, distributors and agents are linked tightly in this proposal, via the principle of joint ownership in jointly-owned structures.
- Novartis secures a captive distribution system.
- Travon is granted the opportunity of becoming a partner with Novartis in the dominant crop protection company in South Africa.
- Distributors and agent shareholders are also offered the opportunity of becoming joint shareholders with Novartis in what will be the leading supplier of crop protection products in South Africa.
- The new company (Newco) will dominate the South African market with approximately a 40 percent market share (Novartis products plus Travon products).

Detail concerning the implementation of the proposed model (Figure 13.1) will be discussed at length in Section 13.2.4.

An integral component of the proposed model in Figure 13.1 is the endeavour to tie in distributors and the affiliated agents. The proposal can only work if there are significant advantages for these distributors as well as the individual agents, who are shareholders in the present distributors. Some of the advantages of the proposed model from the perspective of the distributors, can be listed as:

- They ensure long-term security of product supply.
- They ensure a long-term affiliation to Novartis.
- They ensure full commitment from Novartis.
- They ensure that they will maintain the exclusive distribution rights for Novartis

products.

- Due to backing by Novartis, the financial exposure of the distributor will be deemed to be less.
- The general risk profile of the distributor will be lessened once again due to the Novartis linkage and support that can be expected in difficult time.
- The linkage with Novartis will increase the shareholder value of the distributors.
- Cost savings would be made due to the integration of administrative systems, logistical systems and information technology systems.
- The distributor form part of a group that has the critical mass to dominate the South African market.
- The distributors ensure dedicated support from Novartis on all fronts, including managerial assistance and administrative assistance.

If reference is made to some of the sales agent requirements from manufactures that were forthcoming from the market research conducted in South Africa for this study, it is clear that this proposed model (Figure 13.1) addresses a number of requirements from the perspective of the sales agents (see Chapter 11). These requirements would include:

- extensive product portfolio,
- future access to new technology,
- tight business linkages,
- linkage to companies with staying power,
- ensured exclusive distribution rights, and
- what was termed "long-term familiarity relationships".

The point also needs to be made that the agents in question want to maintain their position as entrepreneurs and would not be willing to revert back to a position where they work for a manufacturer as an employee. This proposal also ensures that they are indeed still private businessmen.

13.2.4 AREAS TO ADDRESS IN THE IMPLEMENTATION OF THE MODEL

The purpose of Section 13.2.4 is to provide detail concerning the implementation of the proposed distribution system model, i.e. to describe the marketing flows and activities to meet customer needs against the background of the model presented in Figure 13.1. The critical feature of Step 10 in the Stern-process model template (designing “ideal” distribution system management models) is to determine what it will take in the ways of marketing flow or activities to deliver the desired service outputs that would result in achieving the objectives of excellence in customer service and customer satisfaction (Stern, *et. al.*, 1996 : 203). The primary market research presented in Chapter 11 identified the wants and needs (requirements) of distributors. In Section 13.2.4 the purpose is to describe the marketing flows and activities to address these requirements. Sections 13.2.4.1 – 13.2.4.12 are areas identified during the primary research phase. See Chapter 11 for details on these areas.

13.2.4.1 PRODUCT PORTFOLIO

Due to the importance placed by agents interviewed in the South African leg of the survey on having a good, extensive product portfolio, a company like Novartis, with an extensive product portfolio has a big advantage. The following key deductions can be made pertaining to requirements for a product portfolio:

- an extensive product portfolio,
- some unique (patented) products,
- access to commodity products at competitive prices,
- well branded products, and
- some market brand leaders.

From the perspective of a manufacturer, it is impossible to meet all these requirements. No one manufacturer has a complete product portfolio. One approach would be for a company like Novartis to buy in products from other manufacturers in order to build up a relatively complete product portfolio that could be offered as a package to distributors. The historical distribution systems used in South Africa

reflected this thinking and resulted in manufacturers following this strategy. The historical overview of distribution in South Africa, as depicted in Chapter 6, clearly illustrates that this type of strategy is not sustainable due to low profitability, increase in cost structures, loss of focus, etc.

The ideal concept from the perspective of a company like Novartis is, therefore, to have a comprehensive product portfolio consisting of Novartis and non-Novartis products that can be offered as a package to distributors. The formation of Travon had this objective as one of the key concepts, as is evident from the overview on Travon in Chapter 7 (Section 7.3.1.2, page 144).

Building the future distribution model for Novartis in South Africa should ensure that distributors have access to a wide product portfolio. If the proposed structure can result in the most extensive product range being offered, the proposal will meet one of the prime requisites identified by the South African sales agents that were interviewed. The view is that the model presented in Figure 13.1 addresses this requirement.

Although the Novartis portfolio can cover a significant component of the sales agent's product portfolio, the contribution from Travon specifically pertaining to commodity (generic) products is critical. It should also be remembered that even between Novartis and Travon, there would still be significant gaps in the portfolio, because some manufacturers might decide not to give access to some products. The question therefore should be asked what Travon needs, in order to improve the chances of obtaining access to selected products from manufacturers. The answer centres predominantly around the issue of critical mass. If the Novartis and Travon alliance can prove that their affiliated distributors have a significant, if not dominant market share in South Africa, the chances of obtaining access to products improves drastically. The solution therefore is to construct a Novartis, Travon and distribution network with a dominant market position that will make it extremely attractive for another manufacturer to provide products. The grouping, as proposed in Figure 13.1 will have approximately 40 percent combined market share. Seen from a different perspective, a potential supplier should realise that by not giving the mentioned grouping access to a product or products, they immediately exclude themselves from

a very significant part of the market.

In summary, therefore it is necessary to have a structure, coupled to a strong market position in place, in order to ensure that the most comprehensive product portfolio could be put together. This is the first, and probably the most important element, in the quest to ensure appropriate system power in the distribution system. It is evident that the proposed distribution system management model for Novartis South Africa, as portrayed in Figure 13.1 and described subsequently, addresses all these issues in an adequate manner. This proposal also manages to ensure that the agent's requirements pertaining to product portfolio related issues can be fully met.

13.2.4.2 PRODUCT ATTRIBUTES

The most important product attribute that was identified in the market research conducted for this study has been product efficacy. It should be born in mind that the sales agents realise that they need the trust and long-term commitment from their farmer customers.

A product that does not perform up to expectations can be seen as a negative reflection on the sales agent. In practice therefore, sales agents place a very high premium on product efficacy and will not, as a general rule, be interested in selling products that are questionable.

A relevant deduction from the stated importance of product efficacy is that the sales agents need to be convinced that a specific product is indeed effective. This raises the question as to what marketing flows or marketing activities, that are based on the model in Figure 13.1, will be relevant. Effective distributor commitment to a product requires appropriate actions in order to achieve this objective:

- Extensive field testing of products to ensure efficacy under different climatic conditions.
- Training of sales agents to ensure that recommendations are correctly done to ensure efficacy.

- Convincing sales agents of product performance by the provision of trial result data.
- Convincing sales agents of product performance by physically taking them to relevant trial sites and product demonstration sites to see first-hand what the product performance looks like.
- Regular feedback meetings with sales agents in order to identify product shortcomings proactively in order to investigate rectifying actions.

It is clear that the agents require a quality product with regard to packaging, formulation, labelling, etc. These aspects should be a given in the product offer design and should not be compromised on in any manner. The model presented in Figure 13.1 provides a manufacturer with the structure to embark on actions in order to convince sales agents effectively as to the inherent benefits of the particular products.

13.2.4.3 PRICING

The issue of pricing received a high rating in the sales agents survey conducted in South Africa as one of the of criteria a manufacturer is rated on. Although price is an important element, and understandably so, addressing only pricing will definitely not lead to the establishment of complete product support from distributors. How can the model in Figure 13.1 assist a manufacturer in managing the pricing issues?

The task for the manufacturer is to have an effective network in place to monitor pricing levels at farm level and to have the capability to act fast in addressing pricing issues that might, and will, crop up. The role of manufacturer field personnel is significant in ensuring that a manufacturer prices its products effectively. In order to keep an effective price management system in operation the following aspects need to be addressed:

- Data on competitor product positioning and coupled pricing needs to be kept up-to-date.
- Regular surveys need to be conducted to gain information to assist in pricing

decisions.

- Manufacturer field personnel should play a key role in providing up-to-date market information.
- Manufacturer field personnel should be in contact with leading big farmers on a regular basis to stay on top of pricing issues.
- Manufacturer personnel must be directly involved in the tender process for big farms in order to ensure required pricing adjustments are made where required and deemed necessary.
- Manufacturers and distributors should have set communication lines to rapidly resolve pricing issues.
- Pricing policies need to be clear and concise to ensure that distributors, and affiliated agents know who the decision-making individuals are.

By having appropriate systems in place, a manufacturer can monitor and manage pricing issues effectively. The close linkage of manufacturer, distributor, sales agents, and Travon, in the proposed model (Figure 13.1) should facilitate this communication process about to pricing.

13.2.4.4 EXCLUSIVITY

Exclusivity was rated by the sales agents interviewed in the South African market research survey to be an important aspect that determines the working relationship between a distributor and a manufacturer. The Novartis South Africa experience has been that the granting of exclusivity can be a significant factor in building distributor loyalty and increasing the level of distributor commitment. The discussion on the present Novartis South Africa distribution structure and the strategy of linking exclusivity to the product life cycle was explained in Chapter 7.

The model that is presented Figure 13.1 is built on the concept of exclusivity as an integral part of the proposed future distribution strategy and will meet the criteria for an “ideal supplier” as put forward by sales agents in South Africa.

- forward required information on a timely basis,
- train agents adequately,
- rapidly support them on all relevant issues,
- be readily available to resolve problems,
- have the required technical knowledge and experience,
- assist in physical stock supply and resolve hitches in stock supply activities,
- assist with promotional support activities, and
- provide support on the personnel front.

Distribution system managers, from the perspective of manufacturers, need to ensure the compliance with these requirements is part of the “operational excellence” drive. The model presented in Figure 13.1 would put a manufacturer in a favourable position to deliver on these “backup support” activities given the focus on a limited number of distributors and a limited number of sales agents in the distribution system model proposed.

13.2.4.7 COMMUNICATION

In Chapter 10 the importance of effective communication was highlighted as one of the most important elements that determine the success or failure of interfirm relationships. The importance of communication in the managing of channel conflict also featured prominently in Chapter 10.

The distribution model proposed in Figure 13.1 lends itself to put communication structures in place that can ensure high levels of cooperation, given the cohesive grouping of the distribution channel partners into jointly owned structures. Based on the proposed model, formal communication platforms would be required consisting of the following:

- Monthly distributor meetings where all agents in a specific region, the Novartis Regional Manager, Novartis head office employees on an *ad hoc* basis, and Newco employees, discuss product specific issues and matters of mutual

concern, specifically for combined marketing programmes.

- At Newco level, quarterly meetings should be held involving Novartis employees, distributor managers as well as delegates from Chemserve and Exportos.
- Product development and marketing activities should be coordinated by product development meeting structures at Novartis.
- Project teams should be used, reporting to the product development meeting structure, to focus on product development and introduction of new products with the involvement, at some stages, by distributor personnel to ensure buy in of marketing plans and promotional activities.
- Planned marketing activities to be discussed with distributors prior to each spray season to ensure that everyone is totally informed and distributors' ideas can be incorporated in the planned activities.
- Reviews after each spray season concerning product related aspects and promotional activities need to be conducted to, once again, create the opportunity for information to flow effectively from sales agent level to Novartis head office.

The proposed distribution system management model therefore requires a well planned and coordinated communications policy to ensure the optimal flow of information.

13.2.4.8 STOCK MANAGEMENT

Stock management is rated highly by respondents in the market research conducted for this study as one of the important aspects suppliers must address effectively. Understandably the importance of stock management also featured in the literature review in Chapter 10. Given the unpredictable nature of the weather in South Africa, having the correct product ready at the right time is deemed to be of critical importance.

The most important element of stock management is seen to be a good forecasting system, integrated through the distribution system. The basic outline of an applicable system for the proposed distribution system management model proposed in Figure 13.1 would be:

- Each sales agent needs to do a quarterly product volume requirement update.
- At distributor level, all the agents budgets are collated and checked by the distributor manager, in close cooperation with the Novartis regional sales manager, who would be responsible for forwarding a budget for the specific distributor through to Novartis head office.
- At head office level, detailed reviews would be done by product managers on a product per product basis.
- The sales manager would check total figures in a top-down fashion.
- Data would then be fed into the production planning system.
- A monthly sales and operational meeting would be held to discuss stock and logistical issues.

Combining the physical product supply and invoicing at Newco would mean that distributors would only need to have one account and one location for placing orders. Warehousing, for the complete Newco product portfolio, should be centralised in order to gain the benefits of combining the present Novartis and Travon logistics infrastructure.

Once again, the proposed distribution system management model (Figure 13.1) lends itself to developing an efficient system of forecasting and stock management. Electronic linkages between all the warehouses in the proposed structure would ensure maximum stock transparency and would enable products to be moved from distributor to distributor if necessary, in order to meet unexpected demand.

13.2.4.9 MARKETING PROGRAMMES

In the feedback received from the agents in South Africa, they indicated that promotional support with marketing programmes as provided by the manufacturers in South Africa were deemed to be an important shortcoming of suppliers.

A template and checklist to use in order to construct and manage marketing programmes effectively on a product by product basis should be used by manufacturers.

One of the advantages of the proposed distribution model (Figure 13.1) for Novartis South Africa is that manufacturer resources can be focused and directed at the support and assistance of a limited number of distributors and agents resulting in more resources being available for applicable marketing programmes.

13.2.4.10 TRAINING

Product training is deemed to be of critical importance in ensuring that sales agents have confidence in products and are able to make proper recommendations on product usage. This is reflected in the survey results in South Africa, where the importance of training being provided by manufacturers was highlighted.

Given that the proposed distribution system management model in Figure 13.1 would result in the whole focus of Novartis being centred on a limited number of distributors and associated agents, Novartis would be able to focus its training efforts as well and provide a much wider array of training than would otherwise be possible.

Training should be seen as not only a means of ensuring that sales agents make the correct recommendations, but should also be seen as improving the general level of professionalism in the whole distribution system, improving working relationships and increasing levels of commitment.

Training programmes should address areas like:

- technical product specific training,
- crop training,
- training in areas like weed control and insect control,
- selling skills,
- interpersonal relations skills,
- presentation skills, and
- key account management.

Training programmes aimed at other levels in the distribution system would address

areas like stock management systems and debtor control systems.

It would also be of benefit to Novartis, in the proposed system, to pay attention to facilitating the training of the distributor management teams in applicable aspects. This will ultimately ensure a more efficient distribution system, due to an increase in the general expertise of the distribution system members. The risk, from a Novartis perspective, of becoming dependent on a select number of distributors, can also be reduced by ensuring that the overall management of these distributors is in the hands of capable and well-trained management teams.

13.2.4.11 CORPORATE REPUTATION

Respondents in the market research project indicated that being linked to a manufacturing company with solid backing that is perceived to have staying power is an important consideration in the relationship between manufacturers and distributors. The “corporate reputation” of the manufacturer (supplier) was deemed an important criteria by sales agents. The proposed model in Figure 13.1 with Novartis and distributors grouped into one company will definitely satisfy this need, given that distributor and agent shareholders will be joint shareholders with one of the leading crop protection companies in the world in one legal entity. Being given the opportunity to participate in the proposed distribution structure can be seen as a type of insurance policy for the distributors, because they will be bound to a manufacturer that undoubtedly has the required “staying power” to remain a dominant force in the crop protection industry for the foreseeable future.

13.2.4.12 INTERPERSONAL RELATIONS

The importance of sound interpersonal relations was highlighted not only in the literature review but also featured as a prominent aspect from the perception of the sales agents in the market research that was conducted in South Africa.

From a Novartis perspective, against the background of the proposed distribution system proposal in Figure 13.1, the area where interpersonal relationships are key is the interface between the Novartis regional sales managers, the relevant dealership

manager and the sales agents with whom he will be in contact frequently. Actions that should be considered to ensure that these relationships are at an optimum level would include:

- Involvement of distributor managers in interviews in situations where Regional Sales Managers are appointed.
- Conducting personality profiles of individuals prior to appointment in order to try and minimise the risk of appointing people not suited to a position where interpersonal relationships are crucial.
- Training Novartis employees who interface with distributors in interpersonal skills.

It also goes without saying that interpersonal relations should be the cornerstone of any marketing or supplier entity and therefore personnel selection and applicable training should endeavour to address this element.

13.2.5 ADVANTAGES AND DISADVANTAGES OF THE MODEL

Advantages of the proposed model presented in Figure 13.1, from the perspective of Novartis, would include:

- The model would result in the linkage of the Novartis product portfolio with the commodity (generic) product portfolio of Travon.
- The combination of the two product portfolios would result in the most sought after product portfolio in South Africa.
- The model will result in a research-based manufacturer (Novartis), a commodity product supplier (Travon), key distributors and sales agents becoming joint shareholders in a distribution structure.
- The Newco would have a dominant market position in South Africa, given an approximate 40 percent market share.
- A cohesive, interlinked distribution system will be formed, capable of addressing the requirements of all parties participating.
- Novartis gains significant indirect shareholding, via Newco, in leading distributors at no direct cost.

- Control over the dominant distribution system in South Africa is drastically improved.
- A distribution channel is secured for the medium to long term.
- Novartis will be able to dominate the market, given the combined strength of the whole network.
- Novartis should be able to increase market share further, given the strengthening of the distribution alliance.
- Novartis can reduce headcount and cost to sales ratios due to logistical and administrative functions that can, to some extent, be transferred across to Newco.
- Increased influence over the marketing and sales activities pertaining to Novartis products throughout the distribution system.
- There will be more control over the strategic direction as well as day-to-day management of the relevant distributors.
- There will be higher levels of commitment from the relevant distribution system members.
- There will be improved productivity throughout the whole distribution system, resulting in strengthening of the combined competitive position.
- Effective barriers of entry will be created for competitors.

Disadvantages of the proposed model presented in Figure 13.1, from the perspective of Novartis, would include:

- The role players link their destiny together and become fully reliant on each other.
- The different entities lose flexibility because they will be committed to a joint venture.

13.2.6 SUMMARY – EXTENSIVE PRODUCT PORTFOLIO

The proposed distribution system management model presented in Figure 13.1 manages to integrate a research-based manufacturer, a commodity product supplier, distributors and agents into a cohesive distribution structure. This provides the manufacturer with a satisfactory level of control over the distribution channel without the need to invest heavily in, for example, a salaried sales force to market products

on farm level. This addresses the problem statement in Chapter 8, i.e. how a manufacturer can attain an optimal balance between costs, profit and levels of distribution system control.

The proposed model has exclusivity as the underlying business concept. The linked distributors and agents will not market products clashing with that of the manufacturer in question. The result being that the manufacturer maximises the probability that its products will attract the required level of support. Once again, this addresses a key component of the problem statement as defined in Chapter 8.

The problem statement in Chapter 8 also identifies the need for a distribution management system that will assure distributor, and sales agent, commitment in an environment where distributors have numerous sources of product supply. The proposed model is successful in ensuring that distributors will only source products from the manufacturer and linked partner suppliers, given the joint shareholding arrangements in this model.

Following Steps 1-9 of the Stern-process model resulted essentially in determining the needs and wants (requirements) of distributors that manufacturers need to address in order to achieve the goal of customer excellence and customer intimacy. The model proposed in Figure 13.1 and the coupled marketing activities (marketing flows) discussed, manage to provide a structured model to address customer requirements. Section 13.2 therefore addresses Step 10 in the Stern-process model template with the development of a proposed "ideal" distribution system management model for use by manufacturers with extensive crop protection product portfolios operating in South Africa.

In Section 13.3 a distribution system management model for a manufacturer with a medium-sized product portfolio will be proposed.

13.3 A DISTRIBUTION SYSTEM MANAGEMENT MODEL FOR A MANUFACTURER WITH A MEDIUM-SIZED PRODUCT PORTFOLIO OPERATING IN SOUTH AFRICA

13.3.1 INTRODUCTION

As was highlighted in Section 13.1.2 on the introduction to the distribution system building process, a distinction was made between product manufacturing companies based on their inherent product portfolio strength due to the significant role the strength of the product portfolio plays in determining the most appropriate distribution system options.

In Section 13.2 where Novartis was used as an example of a company with an extensive product portfolio, the underlying assumption based on the market research findings was that such a company has significant potential channel power based on the portfolio strength. In Section 13.4, following on this section, the other extreme situation where a supplier has very limited channel power potential based on the approach that it has a limited product portfolio, will be elaborated upon.

In this section an “ideal” distribution system management model for a manufacturer with a medium-sized product portfolio operating in South Africa is presented. Typically such a manufacturer would be in a position to exert significant influence over distributors but not to the extent that would be possible for a manufacturer with an extensive product portfolio. Put differently, manufacturers in this category need to put more emphasis on value added attributes in their total product offer than theoretically a manufacturer with an extensive product portfolio that can rely “more” on its portfolio in the manufacturer relationship with distributors. Zeneca South Africa is deemed to be an example of a “typical” manufacturer that fits the profile of having a medium-sized product portfolio.

In Section 13.3.2 background is provided on the profile of a typical manufacturer that has a medium-sized product portfolio. Zeneca is used as an example of such a manufacturer. The proposed distribution system management model is presented in Section 13.3.3. The proposed model review is followed by a number of key areas

that have to be addressed in the process of implementation of the model. These areas are discussed in Section 13.3.4. In Section 13.3.5 the advantages and disadvantages of the model are reviewed.

The model development process corresponds with Step 10 in the Stern-process model template, i.e. the development of "ideal" distribution models against the background of the preceding steps as addressed in this study (see Chapter 12 for detail).

13.3.2 PROFILE OF THE MANUFACTURER

13.3.2.1 CHARACTERISTICS OF THE MANUFACTURER

A typical manufacturer (like Zeneca) in this category, and operating in South Africa, would have the following characteristics:

- One of the top five international research-based crop protection product manufacturers.
- A product portfolio of probably 20 to 25 products of which 3-5 might be market leaders in their respective sub-markets.
- A few patented products that are unique and sought after by distributors.
- Probably 10 products that can be replaced by similar chemistry from the perspective of a farmer or a distributor.
- A number of commodity products that face stiff generic competition.
- An organisational structure consisting of 30 to 40 employees with a strong marketing team, a strong field force presence with regional sales managers in place to serve distributors and a development team with the ability to develop and register products locally.
- Typically, in the South African context, these companies would not have their own product formulation facilities, and will either import products ready formulated or formulate some of their products locally, using third party toll formulators.
- Warehousing facilities will typically be outsourced to third party contractors.
- A market share in the 8 to 12 percent range.

In summary therefore, these manufacturers could be described as marketing and sales orientated entities, with an overall policy of outsourcing non-core activities. These manufacturers therefore have the manpower and expertise to effectively market and support their products in South Africa.

13.3.2.2 OBJECTIVES OF THE MANUFACTURER

Given the changes that have occurred in the South African crop protection market over the last decade, manufacturers in the grouping under discussion will have no illusion as to the belief that the distribution of their products through the present distribution network of distributors in South Africa is the most appropriate way to serve the South African market (see Chapter 6). Typically, companies in this category will not have the portfolio strength, nor resource basis to drastically change the *status quo* in the local market. This is reinforced by the general view of the crop protection market in South Africa as a declining market (in hard currency terms) and a market dominated by generics, due to the ease of generic product registrations. Most manufacturers in the grouping under discussion will not be able to secure "extra" resources from their head offices to invest in South Africa.

The most important corporate considerations for manufacturers in this group in the process of developing distribution management systems would include the following, based on strict operating guidelines layed down by their respective international head offices:

- strict cost containment,
- headcount restrictions,
- policy of outsourcing non-core activities,
- securing reliable, stable distribution systems,
- using the present system of distributors,
- focus only on the marketing of their in-house products,
- aggressive defence of key in-house commodity products,
- rapid introduction of new in-house chemistry, and
- providing high standards of backup support and service to their clients.

These companies would therefore be marketing and sales orientated companies, focusing on the marketing of a product portfolio to established distributors in South Africa, using backup support and service in an endeavour to add value.

13.3.2.3 DISTRIBUTION SYSTEM OPTIONS

The distribution system options available for manufacturers in the grouping of manufacturers with medium-sized product portfolios in South Africa would be:

- Market products to all distributors that meet basic criteria like the ability to pay, good reputation, etc, therefore no form of exclusivity.
- A policy of “limited” distribution which might correspond to two competing distributors in a specific geographical area, both having access to major products.
- Using the principle of geographical exclusivity for patented products, but widening distribution in the latter part of the product life cycle and ultimately, a wide distribution philosophy in the post patent era when competition from generic equivalents intensifies.
- Forward integration into the distribution system by, for example, buying distributors or entering into shareholding arrangements.

Given the corporate considerations put forward in Section 13.3.2.2, the important aspect is that these manufacturers are not willing to invest heavily in the local South African market due to its size constraints and relative low profitability. The overriding guideline should be a policy of minimum levels of investment given the global policy of the mother company that would rather direct resources towards the big and growing markets that lend themselves to higher returns on investment than to invest in South Africa.

13.3.3 A PROPOSED DISTRIBUTION SYSTEM MANAGEMENT MODEL

Using the results of the market research conducted and the objectives of typical manufacturers in this grouping a possible distribution model for a typical manufacturing company in this category is presented in this section. This process

coincides with Step 10 in the Stern-process model template that calls for the development of “ideal” distribution management models.

The relevant underlying manufacturer policy applicable to this model, as presented in Figure 13.2, can be listed as being:

- The manufacturer will only market in-house products.
- A policy of limited distribution, based on not more than two distributors in a geographical area, will be followed for patented products.
- Commodity products will be made available to all distributors deemed to be financially sound and having a good reputation.
- Active ingredients of commodity products will be made available to commodity product formulators.
- The full range of commodity products will be made available to Travon.

In Figure 13.2, a schematic representation of the proposed distribution model is presented for a manufacturer, like Zeneca, with a “medium-sized” product portfolio operating in South Africa.

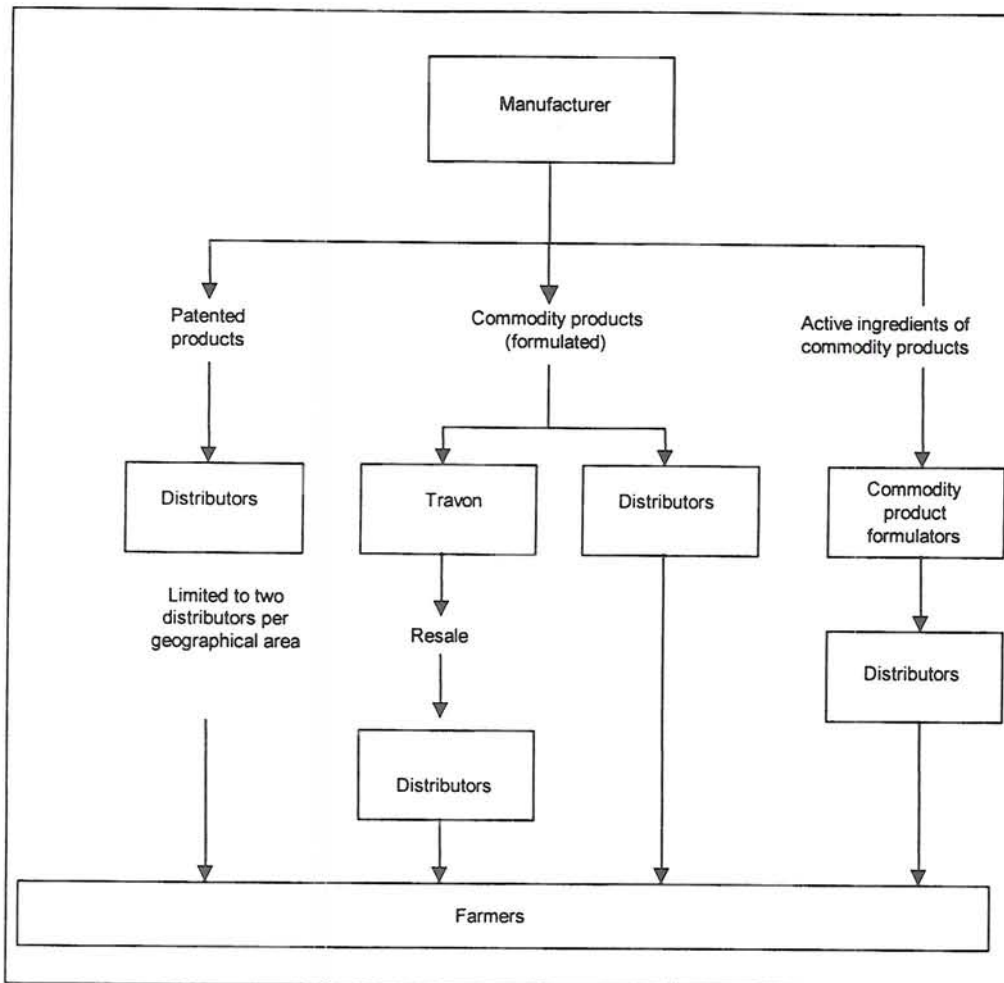


Figure 13.2: A distribution management model for a manufacturer with a medium-sized product portfolio in South Africa

Implementation actions of the proposed model would include:

- For the patented product distribution leg, two distributors will be required in the Western Cape, one distributor in the Eastern Cape, one in Kwazulu-Natal, five distributors in the maize growing areas and probably three distributors in the Northern Province, giving a total of approximately 12 distributors to service.
- The manufacturer's marketing and sales staff should focus their attention and resources on these 12 distributors.
- Commodity products will be supplied to most distributors in South Africa.
- Commodity products will be supplied to Travon in order to ensure that the Novartis and Travon affiliated distributors can obtain access to those

- commodities that do not clash with the Novartis in-house product portfolio.
- Active ingredients of in-house commodity products can be supplied to commodity product formulators.
 - In situations where sought after, patented products, are made available to distributors, these products should be used to tie in commodity products, thereby ensuring that the specific distributor will only sell the manufacturer's commodities.
 - In many situations, distributors will have stronger affiliations with other manufacturers than would be the case with manufacturers in this category, with only a "medium-sized" product portfolio, resulting in diminished channel power.
 - A company like Travon can be used for warehousing.
 - Companies like Novartis, Bayer and Dow AgroSciences can be used to toll formulate products for the manufacturer.
 - Where at all possible, the manufacturer should endeavour to sign product specific distribution agreements with the distributors on the patented products, in an endeavour to enforce exclusive marketing by the distributors of specific products and to preclude them from also marketing similar opposition products.

In summary, the proposal suggested in Figure 13.2 would entail the identification of approximately 12 distributors to cover the country and this would be the system for marketing the core, unique products. The manufacturers' service and backup support should be focused on these distributors. It must however be realised that in most cases the typical manufacturer in this category will not be the most prominent source of products supply for the distributors in question.

13.3.4 AREAS TO ADDRESS IN THE IMPLEMENTATION OF THE MODEL

Given the proposed model in Figure 13.2 for a distribution system management model to be considered by a manufacturer company with a medium-sized product portfolio operating in South Africa, Section 13.3.4 endeavours to focus on a number of significant areas to address in the relationship of the manufacturer and the distributor. The purpose of this section is to review the applicable marketing flow and activities to address in order to provide high levels of customer service based on addressing the needs and wants identified in this study.

These aspects are a direct outflow of the results emanating from primarily the market research conducted in South Africa (Chapter 11) as well as the results of the literature search study as reported on in Chapter 10.

13.3.4.1 PRODUCT PORTFOLIO

The importance of a sound and comprehensive product portfolio is evident from the report on the market research conducted in South Africa and reported on in Chapter 11.

It is undoubtedly clear that a manufacturer with a non-optimal product portfolio will have more difficulty in securing distributor loyalty and commitment than would theoretically be the case with a manufacturer with an extensive, sought after portfolio. The approach from a manufacturer in this situation should however still be to use leading patented products in the portfolio and to bundle less sought after products with these products and thereby endeavour to get firm commitments from distributors on sale volumes of all the products in the package.

The results of the market research conducted in South Africa, for the purpose of this study, contains the feedback on product portfolio related aspects. Based on this research, it is evident that the typical manufacturer company reviewed in this section will fall short, specifically in the requirements pertaining to the extent of the product portfolio.

Theoretically, the extent of the manufacturer product portfolio can be addressed by buying in products from another manufacturer and reselling a broad portfolio to the distributors. As is transparent from the historical review of the distribution of crop protection products in South Africa (Chapter 6) this has been tried by manufacturers like Schering (now Aventis), Ciba-Geigy (now Novartis) and ICI (now Zeneca), without success. The evolution of the distributor distribution system in South Africa has reached a point where this approach will not be a viable option. A manufacturer with a medium-sized portfolio would not be able to drastically restructure the local industry without a substantial financial injection from the mother company. This will most likely not be forthcoming, given the low attractiveness of the South African crop

protection industry. The model proposed in Figure 13.2 will not provide the South African distributors with the wide portfolio they would ideally desire.

13.3.4.2. PRODUCT ATTRIBUTES

The main product attribute distributors and affiliated agents are concerned about is product efficacy. A valid argument could be made that, if a manufacturer with a less attractive product portfolio would like to be successful in winning favour with distributors, an exceptional effort would need to be made to differentiate the product offer as much as possible from the competitive product offer. Areas to address in this respect would be:

- state of the art product formulation technology,
- user-friendly packaging concepts,
- ease of disposal of containers,
- environmentally safe product attributes,
- water-soluble bag packaging concepts (where applicable),
- comprehensive user recommendations, and
- branding.

As described in Section 13.2.4.2, it is of critical importance to have a process in place to convince the relevant sales agents of the product specific attributes as well as the performance of the product. The actions listed in Section 13.2.4.2 are also applicable in this context, from the perspective of a manufacturer with a medium-sized product portfolio.

Given that the model in Figure 13.2 calls for the manufacturer in question to focus marketing activities on primarily 12 distributors, the manufacturer can effectively focus resources on this limited number of distributors in the process of convincing these distributors of the applicable product attributes.

13.3.4.3 PRICING

Pricing received a high importance rating in the research study conducted in South

Africa. There is no doubt that pricing levels and managing of pricing issues needs special attention in the context of elaborating on distribution system proposals.

Typically, a manufacturer with an extensive product portfolio that is offered to a distributor in a package format, will not be open to the same level of pricing pressure as a manufacturer with a very limited product portfolio on whom a distributor would typically not be so reliant. It should therefore stand to reason that a manufacturer with a medium-sized product portfolio in a less intimate relationship with a distributor than a manufacturer with an extensive product range offer, would have to be willing to provide better margins and generally better trading conditions. Experience confirms that distributors are price sensitive and that manufacturers with a weaker power base have no choice but to offer more attractive margins and trading terms.

Managing product pricing policies and frequent liaison with distributors on pricing issues are deemed to be of extreme importance for manufacturers, especially companies with limited portfolio strength. The model proposed in Figure 13.2 provides the manufacturer with 12 key contact points for the management of pricing issues.

In Section 13.2.4.3, action steps have been proposed to manage price management, which are also applicable in this instance.

13.3.4.4 EXCLUSIVITY

Exclusivity was rated by the sales agents interviewed in the South African market research survey as an important aspect that influences the working relationship between manufacturers and distributors.

Exclusivity should, in practice, only be granted to a distributor if the distributor is prepared to market a specific product exclusively without marketing any product that clashes directly with that product. Distributors tend to insist on exclusivity as a matter of course, but in many cases they are not prepared to reciprocate with exclusivity from their side.

If distributors are prepared to abide by exclusive arrangements, the suggestion would be that this is considered as an effective way to improve the chances of obtaining full commitment from a distributor. In situations where this is not possible or feasible for some reason, the suggestion would be typically not to have more than two distributors operating in a geographical area with the same product specifically in the case of new, unique and patented products. Granting exclusivity on unique products can give a manufacturer the leverage to persuade a distributor to also sell commodity products from that specific manufacturer rather than from a generic manufacturer. With regard to products in the post patent era, distribution can be widened. The model in Figure 13.2 would enable a manufacturer to grant exclusivity to distributors in selected geographical areas.

13.3.4.5 BUSINESS LINKAGE

The importance of a sound business linkage is evident in the appropriate sections in the literature review. This has been reconfirmed in the market research study.

The model for a proposed distribution system as presented in Figure 13.2, would mean in practice that there would be no formal linkages such as shareholding or ownership, between a manufacturer with a medium-sized product portfolio and distributors, in the South African context.

The distribution option put forward aims at identifying approximately 12 distributors on which the manufacturer should focus its efforts and resources. In line with the literature research findings, the approach should be aimed at moving away from transactional-based relationships based on discrete transactions, to relationships built on the principles of relational exchange (see Section 10.4, page 200).

Given the advantages that are coupled to following a relationship marketing approach, as is evident from the literature study, it is clear that these principles should be nourished in the context of the relationship between the manufacturer in question, and specifically the approximately 12 distributor accounts foreseen in the South African context. The model in Figure 13.2 would facilitate the development and nourishment of mutually beneficial relationships.

13.3.4.6 BACKUP SUPPORT

Backup support was identified by the respondents in the South African leg of the market research as one of the aspects the said manufacturers should effectively address in order to improve the working relationship between manufacturers and the distributors.

Given the characteristics of a typical manufacturer with a medium-sized product portfolio, as described in Section 13.3.2.1, the regional sales managers of the relevant supplier (manufacturer) will be crucial in providing this backup service. Aspects that the regional sales managers would have to give attention to would include:

- Acting as the link between the distributor and manufacturer.
- Monitoring opposition activities and keeping both the manufacturer head office and distributor informed on relevant aspects and possible counter measures to be considered by the manufacturer.
- Assisting the distributor and affiliated agents on price related problems where they arise.
- Managing product development activities at field level and keeping the distributor informed on applicable aspects.
- Assisting the distributor with securing tenders for the manufacturer's products.
- Assisting sales agents with visits to key farmer customers.
- Assisting sales agents with the investigation of complaints.
- Providing technical training to sales agents.
- Ensuring that sales agents have adequate promotional material and literature to assist them in their selling activities.
- Implementation of relevant action plans to promote sales in conjunction with distributors and affiliated sales agents.
- Spraying of product demonstration sites with new products to assist sales agents in their effort to convince farmers of product efficacy.
- Supporting distributor management with product volume forecasting and assisting in ensuring timely supply of products as well as assisting in resolving product supply related problems.

Coordination between the manufacturer head office and distributor management and agents should also be formalised with regular meetings, where all aspects pertaining to backup support should periodically be discussed, in order to assure compliance with distributor and agent backup support needs and the support provided by the manufacturer. Based on the 12 key accounts proposed in Figure 13.2 the regional sales managers can focus all their attention on this limited number of distributors and their affiliated sales agents.

13.3.4.7 COMMUNICATION

The importance of good communication between manufacturers and distributors is emphasized by the literature research findings (Chapter 10). As was expected, the importance of communications also featured prominently in the feedback received from the sales agents in South Africa (Chapter 11).

The linkage between the distributor and the manufacturer should be optimised by ensuring that communication is at the desired level. Formal communication structures that should be considered in order to address this challenge would include:

- Bi-monthly meetings between the distributor management, sales agents and manufacturer personnel.
- Combined planning meetings to discuss relevant marketing plans, promotional plans prior to each spray season to ensure that everybody is fully informed on planned actions.
- Regular review meetings after each spraying season to review any problems that might have transpired with a view to preventing future occurrences.

13.3.4.8 STOCK MANAGEMENT

The importance of having stock available at short notice is evident in the agricultural market where it is important to apply crop protection products timeously in order to obtain the desired results.

The importance of well functioning stock management systems and structures was also evident from the feedback provided by the respondents of the South African leg of the survey conducted for this study (see Chapter 11).

In Section 13.2.4.8 a procedure for managing the stock management challenge has been proposed that would be equally applicable in the case of manufacturers in this category.

The role of the regional sales managers and the manufacturer's logistics employees at head office level is critical. Good communication is important in order to ensure that the distributor is fully informed on stock related issues and gets rapid feedback in situations where problems arise. Interpersonal relations also play a key role here and experience has proved that head office employees liaising directly with distributors concerning product supply, invoicing and account queries, need to have the right interpersonal profile and personality in order to ensure good distributor relations.

Manufacturers should have formal service level questionnaires completed periodically by distributors in order to evaluate all aspects pertaining to product supply and invoicing.

13.3.4.9 MARKETING PROGRAMMES

It is interesting to note that the agents in South Africa expressed the opinion that the promotional and marketing programmes of the manufacturers in South Africa were viewed as being a significant area requiring improvement in general. Manufacturers have to spend more time and resources on proper joint planning and execution of marketing programmes in conjunction with distributors. The focus on only 12 distributors, as proposed in Figure 13.2, would facilitate a focused approach to the development and implementation of targeted marketing programs aimed at this limited number of customers.

13.3.4.10 TRAINING

Given the technical nature of marketing crop protection products at farm level, the importance of technical product training being provided to the agents is clear. This belief is also underlined by the feedback received from the respondents in South Africa that partook in this study.

Training issues have been comprehensively elaborated on in Section 13.2.4.10 and will, for that reason, not be discussed in detail again. The principles suggested in Section 13.2.4.10 are also applicable in the scenario of a manufacturer company with a medium-sized portfolio, that not only see training as ensuring that the sales agents can effectively recommend the products, but also as a means of adding value to the product package offered by a manufacturer.

The difference between the proposal put forward for a company with an extensive product portfolio in Section 3.2.4.10 and the proposal in this section, would be that a manufacturer with a medium-sized product portfolio would only have resources to focus on product specific training. The view is held that a manufacturer, with an extensive portfolio as is described in Section 13.2, should also add non-product specific training modules to their overall training package.

13.3.4.11 CORPORATE REPUTATION

The agents in South Africa indicated that they deemed manufacturer staying power and a sound corporate reputation for quality, as important criteria in the choice of suppliers.

The typical manufacturer under discussion in this section would be part of one of the top ten, if not top five, crop protection manufacturers in the world. This aspect should therefore not be a stumbling block from the perspective of the distributor.

13.3.4.12 INTERPERSONAL RELATIONS

The importance of interpersonal relations in the interface between supplier

employees and distributor employees received coverage in the review of related literature presented in Chapter 10.

In the feedback provided by the agents in South Africa, the importance of interpersonal relations is also stressed. In order not to repeat the key actions applicable, reference is made to the proposals put forward in Section 13.2.4.12. These principles would also be applicable to supplier companies with a medium-sized portfolio.

13.3.5 ADVANTAGES AND DISADVANTAGES OF THE MODEL

Advantages of the proposal presented in Figure 13.2, from the perspective of the manufacturer, would include:

- The manufacturer that focuses solely on the marketing of in-house products.
- No direct distribution system related investments are called for.
- A relatively small complement of salaried employees and outsourcing of non-core activities would result in a favourable cost-to-sales regime.
- A limited number of distributors must be available on which to focus resources and activities.
- The use of exclusivity, or semi-exclusivity on a selected basis to increase distributor commitment is catered for.
- The flexibility exists for commodity products to be distributed on a wide front.
- The manufacturer remains flexible regarding the distributors to support and can easily change distribution strategies should the need arise.

Disadvantages for a manufacturer implementing the proposed distribution system model presented in Figure 13.2 would be:

- The proposed model does not manage to ensure that distributors will only sell the manufacturer's products and not opposition products due to the relative weak product portfolio.
- The manufacturer can still be forced out of supplying a distributor if a manufacturer with a more comprehensive product portfolio can come up with a

better package proposal for a distributor.

- The model does not provide a solution for securing captive medium and long-term distribution systems.
- The model does not ensure full commitment from distributors targeted for the distribution of the portfolio.

13.3.6 SUMMARY – MEDIUM-SIZED PRODUCT PORTFOLIO

The model presented is based on the assumption that the typical manufacturer in this category does not have a sufficiently wide product portfolio to tie in the South African distributors in a medium to long-term fully integrated and captive distribution system management model. The model is also based on the belief that it would be foolhardy to try to address the product range shortcomings by sourcing in products from other manufacturers for resale to the distributors. This model therefore does not manage to fully address the stated problem of how to secure distribution channels over the medium to long-term (see Chapter 8).

The model is, in essence, based on providing a limited portfolio to a select number of distributors, with specific regard to the patented products, but also maintaining the option of widening the breadth of distribution in the later stage of a specific product's life-cycle and specifically in the post patent phase.

The view put forward is that the focus should be on value-added activities, that are provided in a focused manner to distributors and agents, in order to achieve support for the marketing plans of the manufacturer's product range. These actions should assist to address the problem of gaining increased distributor commitment in an environment with numerous sources of product supply.

13.4 A DISTRIBUTION SYSTEM MANAGEMENT MODEL FOR A MANUFACTURER WITH A LIMITED PRODUCT PORTFOLIO OPERATING IN SOUTH AFRICA

13.4.1 INTRODUCTION

The purpose of Section 13.4 is to propose an "ideal" distribution system

management model for a manufacturer with a limited product portfolio. Typically, a manufacturer of crop protection products in South Africa with a “limited” product portfolio needs to clarify a number of basic policy principles prior to the development of an applicable distribution system management model.

The South African market is a small market in the global context and a multi-national manufacturer needs to, in essence, decide what the level of involvement in such a market is. Principles that require clarification from the perspective of the manufacturer would include:

- What level of resources allocation would be acceptable, or deemed appropriate?
- What level of business risk should be strived for?
- Would a strategy of focusing on a few major, unique products be followed or should a strategy of also marketing “me too” products be embarked upon?
- Should an opportunistic approach be followed or should a more long-term approach be considered?

The importance of having a extensive product portfolio, from the perspective of the manufacturer, has been stressed in order to exert influence over distributors to focus on the manufacturer’s products in their selling campaigns. Clearly a supplier with a limited product portfolio, has the dilemma that they have an extremely weak power base. BASF has been identified as a typical company, operating in South Africa, that is deemed to have a “limited” product portfolio.

The approach followed in this section is that the typical manufacturer in this category having a limited product portfolio, should follow a very focused, niche marketing strategy, in order to maximise profitability on a few major products, with a low cost backup structure. Following a discussion on the profile of the manufacturer (Section 13.4.2.1) a proposed model is presented in Section 13.4.3, which relates to Step 10 in the Stern-process model template. The implementation of the model features in Section 13.4.4, followed by advantages and disadvantages of the model in Section 13.4.5.

13.4.2 PROFILE OF THE MANUFACTURER

13.4.2.1 CHARACTERISTICS OF THE MANUFACTURER

The typical characteristics of a research-based manufacturer that falls into the category of having a limited product portfolio can be described as follows:

- A limited product portfolio, but typically a few unique patented products.
- An organisational structure consisting of typically, a country head, marketing head, development head and, probably two to three technical advisors serving distributors i.e. only five to eight salaried employees.
- No in-house capability to do country specific development trials.
- No production or formulation facilities in South Africa.
- No in-house warehousing facilities at all with third party contractors responsible for warehousing.
- Strict guidelines from the respective head offices to keep head count to the minimum as well as strict cost to sales ratio directives.
- A limited ability to serve a large number of distributors efficiently, due to limitations on the number of field staff.
- Limited distribution system power due to the product range limitations.

In summary therefore, a small marketing company structure with a number of activities outsourced, focusing on a limited number of in-house products.

A company that is perceived to typically fit this profile in the South African context, is deemed to be BASF. Although BASF is a significant player in the global crop protection industry, the company's product fit for South Africa is such that it has to be described as limited. BASF however, has a few unique products that are in demand. The structure of the company reflects the structure of the "typical" company in this category, as was described in the previous paragraph. The challenge for management would be to focus on a small number of profitable products and to try to gain maximum market share in the applicable sub-markets. A situation whereby the total portfolio leverage is insignificant, if compared to some of the competing manufacturers operating in the South African market.

13.4.2.2 OBJECTIVES OF THE MANUFACTURER

A supplier company in the category of having a limited product portfolio operating in the South African market should give attention to the following objectives:

- Fixed investments should be kept to a minimum i.e. no investment in product formulation facilities.
- Only core activities should be conducted internally, the rest should be outsourced.
- Marketing and sales coordination activities must be controlled by own staff.
- Development of new products should be coordinated internally, but the physical trial activities should be outsourced in order to reduce head count and fixed costs.
- A clear focus should be given to unique, patented and sought after products, rather than to spend limited resources on products in the portfolio with low margins, strong generic competition and doubtful market fit.
- Financial exposure and risk should be minimised by staying clear of small distributors with doubtful financial viability.
- It would be more productive, given limited resources, to focus on national distribution entities for distribution, rather than numerous regional distributors that call for more stocking points and more accounts.
- The temptation to source in products from other manufacturers in order to strengthen the product portfolio should be avoided.
- It should be realised that "distributor control measures" other than the product portfolio will have to be developed.

The view is therefore held that the business approach should be that of a focused marketing organisation doing niche marketing with a few selected products in an endeavour to gain maximum market share in the limited number of targeted sub-markets.

13.4.2.3 DISTRIBUTION SYSTEM OPTIONS

The options available for manufacturers in this grouping would be:

- Sell products to a large number of relatively small localised distributors. This

calls for extra resources in the management and service of a large number of accounts.

- Sell to national distributors. This could lead to only one or two accounts in South Africa, but negotiation power with large distributors would be severely restricted by the limited product offer.
- Use other multi-national manufacturers to assist in the development and marketing of specific products based on an exclusive development and distribution agreement. This could be successful if the product in question is unique and would fill a key void in the partner's portfolio, but could be risky due to limited emphasis being placed on the product by the partner company and the real threat that the partner might at some stage obtain access to an in-house product with the same attributes.
- A wholesaler entity like Travon is an extremely attractive proposition due to it offering one account coupled to warehousing facilities giving access to virtually all the key distributors in South Africa.

Given the scenario of limited portfolio strength and limited resources, the applicable business approach would have to be flexibility and adaptability in order to leverage the maximum return for the company.

13.4.3 A PROPOSED DISTRIBUTION SYSTEM MANAGEMENT MODEL

Given background as to possible distribution policy options, Section 13.4.3 proposes an applicable distribution system management model. Having a limited product portfolio, coupled to limited resources, also severely limits the different distribution system management model choices open for consideration. A supplier company, with the profile as described, will also be seen as a "small" relatively unimportant manufacturer from the perspective of distributors. Section 13.4.3 coincides with Step 10 in the Stern-process model template, i.e. the proposal of an "ideal" distribution system management model.

The proposal would be that instead of having a rigid and inflexible distribution system management model in place, distribution channels should be decided upon on a product per product basis. The approach suggested would therefore entail a

distribution strategy being devised for each new product being developed, based on the identification of the most appropriate option for that specific product. The proposed steps to follow for a new product in development could be:

- Identify the most important crops and applicable sub-markets for the specific product.
- Identify distributors servicing those specific crops and sub-markets.
- Review the present product offers the identified distributors have in their present portfolios.
- Identify distributors that might have a gap in their portfolio for the specific product.
- Decide on an appropriate distribution strategy.

If a distributor such as Wenkem, with a national presence, has a gap in their portfolio for a unique patented product that can be provided, the approach should be to use them, rather than say five regional distributors for distribution. Given the resource limitations, this will make more sense. If the product has real unique features, a company like Wenkem would, in some cases, be willing not to market directly competing products if they are granted exclusive distribution rights in return for the product in question.

For those products that are still patented, but that cannot be classified as “unique” due to similar chemistry with the same control spectrum being sold by competitors, the following options would be applicable:

- Make the products available to distributors on a non-exclusive basis on a wide front.
- Identify one leading distributor per geographical area and provide the whole range to them on a regional exclusive basis.
- Only provide access to the said products for a national distributor like Wenkem.
- Use Travon as a wholesale arm and only sell to them for channelling via the Travon linked distributors to the end-user.

The most applicable approach is deemed to be the identification of one regional

distributor per geographical area and to provide the portfolio to them. With only a limited number of field sales staff, it would be impossible to serve a large number of distributors and it would probably make more sense if efforts were directed at a limited number of distributors.

Low margin commodity products should not receive much attention from the perspective of the manufacturer as profiled. This should be seen as opportunity business. The suggested approach should be to try and obtain fixed orders for fixed volumes of these products before these products are imported. If the few national distributors and Travon are targeted by this approach, it is not time-consuming and it is a practical low risk approach.

In order to act as a summary of the thoughts conveyed in this section, a schematic distribution flow chart of a distribution management model is presented in Figure 13.3 to be considered by a manufacturer with a limited product portfolio operating in South Africa.

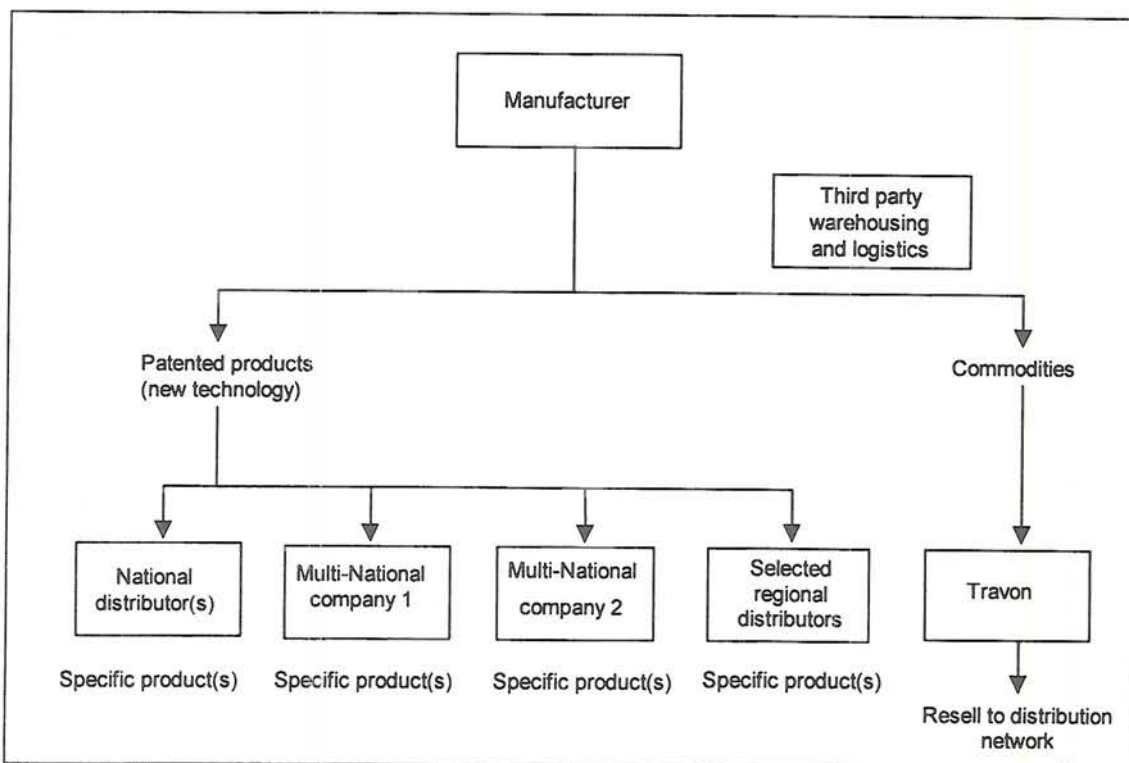


Figure 13.3: A distribution management model for a manufacturer with a limited product portfolio in South Africa

From Figure 13.3 the following comments can be made pertaining to the proposed distribution system management model:

- New chemistry can be marketed effectively by identifying a national distributor or even another multi-national manufacturer with strong distribution capabilities in South Africa to assist in the product development and distribution of specific compounds.
- Granting exclusivity and attractive margins will play a vital role in the persuasion of an entity to take a specific product on board.
- The distribution decisions on new products need to be done on a product specific basis to ensure that the chosen partner has a specific gap in their portfolio that can be addressed by that product.
- A company like Travon can be used to market commodity products to the distribution network in South Africa, due to the Travon option providing a situation that serving only one account still ensures access to the products by most distributors in South Africa.
- Warehousing and logistics should be outsourced to provide the manufacturer with the flexibility to focus resources and manpower on marketing activities.

13.4.4 AREAS TO ADDRESS IN THE IMPLEMENTATION OF THE MODEL

In Section 13.4.3 overriding guidelines have been provided pertaining to the overall distribution philosophy that is deemed to be appropriate. In the following sections, some areas to be addressed will be covered in more detail. The purpose of Section 13.4.4 is to describe the marketing flow and activities to consider in order to address the customer needs and wants identified in this study, by following Steps 1-9 of the Stern-process model template.

13.4.4.1 PRODUCT PORTFOLIO

The research conducted for the purpose of this study reconfirmed conclusively that product portfolio is the most important criteria by which a distributor measures a potential manufacturer. The important message flowing from the research is that a

manufacturer with a limited product portfolio is at a tremendous disadvantage in their efforts to influence distributors compared to manufacturers with superior product offers.

For the purpose of implementation of the proposed model for manufacturers with limited product portfolio strength, the product portfolio can be divided into different categories:

- Products in the process of being developed.
- Products with unique characteristics that are patented and sought after.
- Products that are perhaps still patented but need to compete against similar chemistry.
- Products that can be classified as commodity type products and facing generic competition.

Given the limited resources typically available to companies in this category that operate in South Africa, decisions pertaining to the distribution of new products need to be made at an early stage in the product development stage. The ideal strategy would be to identify a company with product development and registration capabilities and to sign a development and coupled exclusive distribution contract.

If a product is deemed to be of significant importance to a partner company, because it might fill a strategic gap in that company's portfolio, this strategy is sound. Companies that can be approached, depending on the product, would include Bayer, Dow AgroSciences and Novartis. The downside is that these companies might replace such a product at some stage with similar chemistry, because the leading research-based companies tend to do research in the same chemistry classes in most instances. Products with these described unique characteristics could however be developed with the assistance of independent field scientists, as well as government agricultural research institutes. This would result in the flexibility of being able to offer these products to national distributors, who in general do not have the research and field trial capabilities. These distributors would include Wenkem and Travon. If the product is only used, for example in a crop in the Cape, a strong local

distributor could be used. In order to ensure distributor commitment, the suggestion would be to grant exclusive distribution rights to the chosen party, but to insist contractually, that in return for the exclusivity the distributor would not be allowed to distribute directly competing products.

In the case of the second classification of products, i.e. those products that are registered, patented and sought after, the starting point should be to determine which national or regional distributors lack a specific product or products and to approach the most appropriate distributor.

Products with stiff competition could be marketed through a national distribution structure such as Travon, if a gap exists in the Travon portfolio. Good margins would, in this case, be a prime driver of commitment to ensure that distributors provide these types of products with enough support.

Products that are classified as straight commodities and that offer acceptable in-house net margins, should be distributed as widely as possible.

The view is held that a manufacturer with the portfolio and resource constraints, as sketched in this section, would probably be better off when distribution decisions are made on a product specific basis. It is doubtful that any given distributor or distributor grouping would give the required backing to the whole range. The reason being that there will be a number of manufacturers with superior portfolios that would be able to "force" a distributor's hand. Each product's distribution strategy would therefore need to be developed individually.

Given the oversupply of formulation facilities in South Africa, a company like Bayer might be enticed to distribute a specific product rather than a competing product, if the product could be toll formulated at, for example, the Bayer facility.

Due to the high interest rates in South Africa, coupled to the cost of inventory, the concept of providing a manufacturer with consignment stock could be an interesting option in order to gain a competitive advantage. If a national distribution entity such as Travon is used, the product can be imported and warehoused by Travon on

behalf of the manufacturing company, resulting in more resources being available for marketing and sales promotion, given the smaller logistical responsibility.

13.4.4.2 PRODUCT ATTRIBUTES

Respondents in South Africa in the market research survey conducted for this study, rated product specific attributes second in order of importance, after product portfolio size.

The main product attribute undoubtedly would be the efficacy of the product. Sales agents need to believe and trust in the efficacy and capability of the product. In practice, this calls for two key areas that need to be addressed. Firstly, the manufacturing company needs to ensure that the development of the product is done in a professional and accurate manner, under different climatic conditions and under high disease pressure, pest pressure and weed pressure, depending on the type of product. In many cases this basic requirement, being neglected, leads to product introduction failures. Secondly, sales agents need to be convinced of the product efficacy prior to market introduction. This must be accomplished by the spraying of commercial demonstration sites during the season prior to introduction. Sales agents need to be shown these sites and even encouraged to participate in the choosing and spraying of these demonstration sites.

Experience has taught that involvement of a distributor in the product design phase, with detail such as specific formulation, packaging concepts, pack sizes, label layouts, etc., lead to a radical improvement in distributor and sales agent "buy-in" and coupled commitment.

13.4.4.3 PRICING

It stands to reason, as confirmed by the appropriate market research conducted for this study, that product pricing is important. A manufacturer with a small portfolio and a small team to provide backup support has no choice but to use price to a greater degree than a dominant manufacturer in the marketing mix. The big danger for a small supplier with limited manpower actively involved at end-user level, is that

distributors tend to “create” imaginary price wars in order to put pressure on a manufacturer with limited market knowledge in order to increase distributor margins. This is one of the reasons why manufacturer field staff is a must.

Depending on the availability of enough field staff, the general recommendation would be that the manufacturer handles tender business directly insofar as tendering on behalf of the manufacturer, but stipulating that a specific distributor will provide the product. There are cases where a distributor has received special purchase prices to supply tenders, but who has then sold these products to smaller farmers at inflated “list prices”. It should also be mentioned that a manufacturer should never circumvent a distributor in a tender situation by invoicing the farming enterprise directly without any benefit to the distributor. It has proved to be the quickest way to break up the relationship between a supplier and a distributor and leads to the deterioration of the trust between the companies.

A small supplier should also use the principle of consignment stock, extended payment terms, or so-called seasonal accounts, in determining the supply price. In many cases, extended terms are more important than the actual margin, given cash flow considerations of the smaller distributors particularly.

Smaller manufacturing firms with a limited field force, need to spend more resources, in relation to a manufacturer with an extensive field force presence, to monitor pricing trends and pricing elasticity. The recommendation pertaining to key concepts of product price management, as was proposed in Section 13.2.4.3, is also applicable for the implementation of this distribution system management model.

13.4.4.4 EXCLUSIVITY

Resulting from the market research study, it is evident that the concept of exclusive distribution rights can play an important role in the manufacturer relationship with a distributor.

The concept of exclusivity needs to be viewed in the correct context. Providing exclusivity on commodity products rarely adds any benefit for a manufacturer. Distributors that are excluded will easily access a product with the same active

ingredient from a competing manufacturer. Consideration however could be given to providing key distributors exclusivity on a specific brand name for a commodity product and to meeting the needs of the rest of the distribution trade with a differently branded product. For a small manufacturing company with limited resources this might not always be a practical option.

If a manufacturer with a limited portfolio wants to gain full commitment on a unique product, exclusivity might be an appropriate tool to consider. Manufacturers in this category can provide a national distributor with an exclusive distribution contract and expect as a trade off, in return for granting exclusivity, that the distributor does not sell any products that clash with the product in question.

In situations where a supplier has a limited product portfolio and limited resources, exclusive distribution rights could also be used to entice a distribution entity with development and registration capabilities to take a new product on board, and to develop and market that product.

13.4.4.5 BUSINESS LINKAGE

A manufacturer with a limited resource base and limited channel power due to a restricted product portfolio cannot be expected to forge the same level of business linkages with distributors, as would potentially be the case with manufacturers that have an extensive product portfolio and resources at their disposal.

Business linkage with distributors should address the following aspects:

- Entering into product specific, and probably exclusive, product development and distribution contracts with national distributors.
- Regular product specific planning and review meetings to ensure that product development and distribution activities are properly planned and executed to the benefit of both parties.
- Ensuring that manufacturer field staff provide the required support and backup to distributor agents as and when required.
- Regular measurement, by the manufacturer, of service levels provided by

manufacturer field staff and head office staff to the relevant distributors.

Business linkages along the lines of strategic alliances, strategic partnerships or joint shareholding are not seen to be applicable in the proposed business model. Formalised business linkages would in all probability be evident in product specific distribution contracts between the manufacturer and the distributor.

13.4.4.6 BACKUP SUPPORT

Given the increased “similarity” between competitor products and the strong position generic products have in South Africa, it is extremely important for a manufacturer to endeavour to differentiate itself from competitor suppliers by virtue of providing superior backup support

As stated, the typical manufacturer grouped in this category of manufacturers will have severe manpower restrictions and will physically not be capable of providing the same level of backup service as would be the case with the bigger players. The result should be that the backup support elements are limited to a number of key areas. These areas are deemed to include:

- product specific training,
- promotional support through farmer days,
- provision of technical backup at sales agent level, and
- assistance with investigations concerning product non-performance.

It would be impossible to extend backup support much beyond the scope of the elements mentioned, given limited manpower resources.

13.4.4.7 COMMUNICATION

The importance of open lines of communication in the manufacturer relationship with distributors has been highlighted in both the literature study conducted, as well as in the market research conducted.

The following communication aspects need to be addressed:

- Clear communication of a manufacturer's objectives and relevant strategies in order to ensure that distributors are kept informed on applicable actions.
- Regular meetings with distributor employees in order to identify and address potential problems as early as possible.
- Joint planning exercises prior to marketing campaigns to ensure optimum information exchange.
- Review meetings after marketing campaigns in order to identify shortcomings with a view to eliminating similar problems in the future.
- Open, honest information exchange at all times.

13.4.4.8 STOCK MANAGEMENT

Timely product supply rates as one of the most important requirements placed on manufacturers by distributors.

Given the resources required to manage stock, logistics and invoicing, the approach for a company with limited resources would be to use a national distributor not only to do distribution, but also to be responsible for logistics management to some degree, depending on the particular situation. Permutations could include:

- Distributors placing orders directly on the manufacturer, importing, customs clearing and doing physical warehousing of the products on behalf of the manufacturer.
- The manufacturer can import the product themselves and use third party warehousing facilities.
- One national distributor, such as Travon, could be used to perform all logistic related functions as well as resell to regional distributors, thereby minimising the manufacturer resource allocation required for logistics as well as invoicing.

13.4.4.9 MARKETING PROGRAMMES

Having limited manpower resources, marketing program activities need to be focused on those activities that would provide the highest potential return. Marketing programmes should centre on the following key aspects:

- Farmers days to create pull action.
- Farmer study group presentations.
- Convincing external influencers such as agricultural extension officers and agricultural consultants on the attributes and benefits of products.
- Direct mail campaigns aimed at both farmers and sales agents.
- Spraying of farmer demonstration sites with new products in order to demonstrate unique product benefits.
- Execution of joint marketing campaigns with distributors on key products.

13.4.4.10 TRAINING

Not only does the market research survey indicate the importance of proper training, but the South African survey also highlighted the issue that sales agents perceive the product training they receive from suppliers to be inadequate. It stands to reason that a well trained sales agent who is confident concerning the product he sells will be more successful in convincing a farmer of the product's merits than a sales agent that has not been properly trained on the benefits of a specific product.

Training on product specific issues should therefore clearly form a high priority in the activities to be conducted by manufacturers. Limited resources available to the manufacturers with a limited portfolio strength would force manufacturers in this category to focus training solely on product specific training activities.

13.4.4.11 CORPORATE REPUTATION

The staying power of suppliers rated highly on the requirements placed by distributors on suppliers. Given the rapid industry consolidation, it is inevitable that a

question mark will be placed over the medium and long-term staying power of a manufacturer with limited local resource allocation and a limited product offer. A manufacturer classified in this group would always have the problem that distributors would prefer to be associated with the "bigger" players who are perceived to have a better likelihood of being around over the long-term and introducing innovative new products.

13.4.4.12 INTERPERSONAL RELATIONS

The role of interpersonal relations was highlighted in the primary and secondary research results. The employees of a typical manufacturer in the category under discussion should take note of these findings and endeavour to optimise the personnel relations they have with their customers.

13.4.5 ADVANTAGES AND DISADVANTAGES OF THE MODEL

Based on the model presented in Section 13.4.3 and the areas to address in the implementation thereof (Section 13.4.4), the advantages and disadvantages of the proposed model are subsequently listed. Advantages of the proposed distribution model, from the perspective of the manufacturer, would include:

- a low fixed cost structure,
- a focus on marketing and sales activities,
- outsourcing of non-key activities,
- flexibility in allocating products to the most suited distributor entity, and
- a limited number of distributor accounts.

Disadvantages of the proposed distribution model would include:

- In some cases, it might be difficult, even impossible to identify a suitable entity to assist in the development and distribution of a given product.
- Due to the focus on a limited number of products, the manufacturer will not be able to leverage support based on the breadth of the product portfolio.

13.4.6 SUMMARY – LIMITED PRODUCT PORTFOLIO

It is believed that a manufacturer with a small potential portfolio operating in the South African market should use the following guiding principles in conducting business in South Africa:

- A small dedicated team of salaried marketing and sales employees.
- Outsource non-core activities.
- Take product distribution decisions based on specific merits of specific products.
- Identify the most appropriate distributor per product and not necessarily try to “force” all the products through one distribution channel.
- Commodity type products will have to be offered at attractive margins, but could be marketed effectively by supplying only the Travon network and therefore limiting the number of distributors and coupled logistical backup support.

The proposed model in Section 13.4.3 does not provide optimal solutions for a manufacturer with a limited product portfolio to address the issues facing manufacturers as formulated in the problem statement in Chapter 8. The proposed model only goes some way in the endeavour to increase the level of “channel control” and also does not offer a magical solution to the problem of numerous generic product offers.

It is, however, believed that the proposed model (Section 13.4.3) plus the proposed implementation activities (Section 13.4.4) will assist the manufacturers in questions to achieve acceptable levels of specific distributor support on some, if not all, of their key products.

13.5 SUMMARY – CHAPTER 13: DISTRIBUTION SYSTEMS MANAGEMENT MODELS FOR SOUTH AFRICA

The proposed distribution system management model for manufacturers with extensive product portfolios entails forward integration into the distribution systems with the formation of a jointly owned distribution entity in which the manufacturer, a

commodity product supplier, distributors and sales agents will be joint shareholders (Section 13.2.3). The underlying concept is to form a close knit “community” of partners to address the challenges of distributing crop protection products.

In the case of manufacturers with a medium-sized product portfolio, the approach conveyed in the proposed model has been that these manufacturers should identify key distributors on which the marketing effort should be focused and endeavour to focus resources on the building of true partnership alliances with these distributors (Section 13.3.3).

Given the lack of inherent product portfolio strength, the proposed model for this category of manufacturers with a limited product portfolio calls for product specific distribution arrangements to be made, dependent on the identification of distributors that have specific gaps in the portfolios for such a product and that would provide sufficient resource allocation to the promotion thereof (Section 13.4.3).

Part I
Introduction, background, aims and framework of the study

Part II
Industry and competitive analysis of the global crop protection industry

Part III
Crop protection distribution systems in selected countries

Part IV
Problem statement – management problems of crop protection distribution systems in South Africa and Australia

Part V
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Part VI
Distribution system management models for the crop protection industry in South Africa and Australia
Chapter 12
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Part VII
Summary, conclusions and recommendations

CHAPTER 14**DISTRIBUTION SYSTEM MANAGEMENT MODELS FOR THE CROP
PROTECTION INDUSTRY IN AUSTRALIA****14.1 INTRODUCTION**

In the previous chapter three distribution system management models have been proposed for use in South Africa. Following the exact same approach and structure Chapter 14 contains three models for use in Australia.

As was the case in Chapter 13, the proposed distribution system management models proposed in Chapter 14 are deemed to be “ideal” models developed using the Stern-process model template as described in detail in Chapter 12. Following the first nine steps of the template in this study, Step 10 is addressed in Chapter 14, i.e. the development of “ideal” distribution system management models which manufacturers could use as a basis for the development of “management bound” and ultimately “optimal” distribution system management models. These activities will address Steps 11-14 of the Stern-process model template.

The structure used for the development of the distribution system management models in Chapter 14 is exactly the same structure followed in Chapter 13. In each case, the profile of a typical manufacturer is followed by stating the objectives of the specific manufacturer and a discussion on distribution system options available. These sections are followed by the presentation of a proposed distribution system management model, the areas to address for the implementation thereof, as well as perceived advantages and disadvantages of the proposed model.

In Section 14.2 a distribution system management model is presented for a manufacturer with an extensive product portfolio. Section 14.3 caters for a manufacturer with a medium-sized portfolio and in Section 14.4 a model for a manufacturer with a limited product portfolio is presented. Reasoning for this approach corresponds with the sentiments conveyed in Chapter 13 (Section 13.1.2,

page 351).

14.2 A DISTRIBUTION SYSTEM MANAGEMENT MODEL FOR A MANUFACTURER WITH AN EXTENSIVE PRODUCT PORTFOLIO OPERATING IN AUSTRALIA

14.2.1 INTRODUCTION

In Section 14.2 Novartis Australia is used as an example of a typical manufacturer that has an “extensive” product portfolio. Aventis would be an example of another manufacturer marketing an extensive product portfolio in Australia. The purpose of this section is therefore to develop an “ideal” distribution management model for manufacturers with extensive product portfolios, using Novartis as an example.

The profile of Novartis (Section 14.2.2) is followed by the proposal of a distribution management model in Section 14.2.3 and areas to address in the implementation of this model (Section 14.2.4), followed by a discussion on the advantages and disadvantages of the model in Section 14.2.5.

14.2.2. PROFILE OF THE MANUFACTURER

14.2.2.1 CHARACTERISTICS OF THE MANUFACTURER

In order to provide background to Novartis Australia, the following aspects, applicable to the construction of a distribution system management model, can be listed:

- Turnover of approximately R800 mio per annum.
- Market share of 13.4 percent in the Australian market.
- A workforce of 130 employees.
- A team of 21 territory sales managers generating sales at distributor level.
- A strong local product development team.
- An in-house product formulation facility.
- In-house warehousing and logistics systems.

- An extensive product portfolio.
- An ageing product portfolio.
- A distribution policy that in essence gives most distributors access to the complete Novartis product range.
- A general perception within the company that channel power is increasingly shifting towards the distributors.

Novartis can therefore be classified as having a good, extensive product portfolio and a relatively good market share.

14.2.2.2 OBJECTIVES OF THE MANUFACTURER

An increase in channel power should be a priority objective of a manufacturer in order to at least maintain the present market share position and to ultimately grow the business.

Traditionally, as is the case with most research-based companies, the level of control over distributors has been in direct correlation to the product portfolio strength. Without any doubt, the future of Novartis Australia will depend on the success of managing the distribution system. If the Novartis Australia portfolio is analysed, based on profitability, the situation is that the bulk of the profit is generated either by products in the post patent era or products on the verge of patent expiry. Of the top 20 products, based on profit contribution, only 6 products have patent protection. Given the ease of registration of generic products in Australia, it is possible to source commodity look alikes of virtually all the Novartis products that are in the post patent era.

Novartis Australia will in the future not be able to rely to the same extent, as was the case in the past, on its product portfolio to control distribution. Other ways and means will have to be found to ensure an acceptable market share.

The key objectives for Novartis Australia include:

- To build a long-term strategic alliance between distribution system members.
- To remove some of the distribution system associated costs from the Novartis balance sheet by the sharing of resources with system members.
- To create a cohesive linkage between Novartis, a generic product producer partner and leading members in the distribution system.
- To ultimately brand a significant number of outlets as Novartis linked entities.
- To integrate the Novartis product portfolio with a non-competing commodity product portfolio, supplied by a commodity product manufacturing partner, into the most sought after and complete product offer in Australia.

The Novartis approach should therefore be to integrate the present Novartis product portfolio and market share strength with a commodity product producing partner, in order to have the product portfolio basis to tie distributors into a cohesive network, built on cooperation, striving for common objectives and increased returns for all involved.

14.2.2.3 DISTRIBUTION SYSTEM OPTIONS

A number of distribution system options are available for a manufacturer like Novartis operating in Australia. These options would include:

- Complete opening up of distribution and giving all distributors full access to the complete Novartis portfolio.
- Limiting distribution to two or three national distributors.
- Reaching an agreement with IAMA, as the biggest distributor, with close to a third of the market secured, to take on the Novartis portfolio exclusively in the formation of a strategic alliance between the two companies.
- Exclusive distribution via selected regional distributors in return for exclusivity from these distributors.
- Forward integration into the distribution system by using the principle of joint shareholding in joint structures.

Obviously various other permutations could also be considered. It is however

believed that the strategic trust should be some form of forward integration into the distribution network in order to gain, and secure, long-term control over the applicable distribution systems.

The reliance on a product portfolio alone as the key element in exerting channel control is not sustainable, given the proliferation of substitute products.

14.2.3 A PROPOSED DISTRIBUTION SYSTEM MANAGEMENT MODEL

A proposed distribution system management model for Novartis Australia is presented in this section. Details concerning implementation of this model will be elaborated upon in detail in Sections 14.2.4.1. – 14.2.4.12.

The basic model presented in this section is based on a number of basic but important findings emanating from the company situation analysis, the present distribution system in Australia, the literature review and the research studies conducted. These key findings include:

- A comprehensive product portfolio forms the foundation for determining distribution system power.
- Novartis has an extensive portfolio with a good pipeline of new products, but lacks a number of significant products for a complete portfolio, giving rise to the statement that given the requirements solicited from the surveys, the assumption must be made that Novartis should look at ways to enhance its portfolio, given the distribution system objectives.
- A partner will be required for Novartis to beef up the Novartis portfolio.
- Commodity products form an essential part of a distributor's portfolio and therefore it is important for a distributor to have a reliable linkage to a reputable manufacturer of commodity products.
- Experience in South Africa has proven that a manufacturer should not endeavour to integrate forward to the extent that the manufacturers sell products directly to the farmer and the view is that this would also be applicable to the situation in Australia.

- Success in distribution requires having sales representatives promoting products at farm level.
- Manufacturers must try to tie in the best sales representatives, and the distributors they are affiliated to, in such a manner that these entities will “only” promote the specific manufacturer’s product offer.

Based on these basic findings, the challenge therefore would be to get these different elements structured into a cohesive whole.

In Figure 14.1 a schematic presentation of such a structure is provided. Following a brief description of this model, detail will be provided in the following sections concerning the implementation of the proposed distribution system management model.

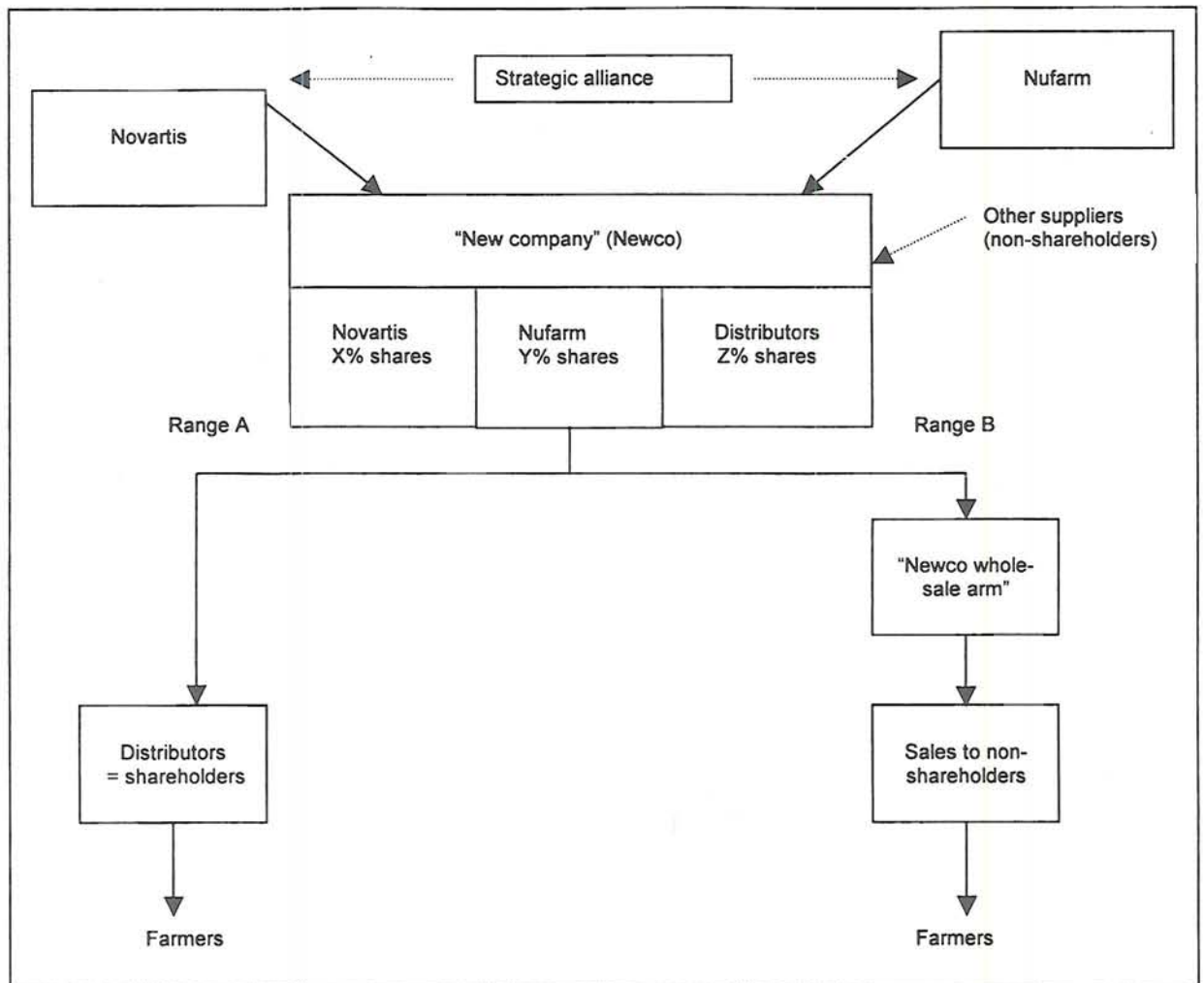


Figure 14.1: A distribution management model for a manufacturer with an extensive product portfolio in Australia

Although detail is provided in the following sections, the principles of the proposed model can be summarised as follows:

- A strategic alliance is formed between Novartis and the biggest generic product manufacturer in Australia, namely Nufarm, which has approximately a 14.5 percent market share in Australia.
- A new company is formed with Novartis and Nufarm as the major shareholders.
- All sales of formulated Novartis and Nufarm products are channelled via the newly formed company.
- Selected distributors will be invited to take up shareholding in the new company.
- Distributors who are shareholders will only be allowed to source their crop

protection products from the new company.

- From the potential 1400 outlets, an estimated 400 outlets would be targeted to serve as affiliated outlets.
- The new company will also have a “wholesale” unit selling selected products, at less favourable terms, to non-shareholder distributors.

In order to implement this proposed model a number of key areas have to be addressed. These areas receive attention in Section 14.2.4.

14.2.4 AREAS TO ADDRESS IN THE IMPLEMENTATION OF THE MODEL

The basic outlines of the proposed model have been presented in Section 14.2.3. Using the results gathered for this study by following the Stern-process model template, the manner in which the key areas will be addressed in the model implementation phase is presented in this section.

14.2.4.1 PRODUCT PORTFOLIO

The importance of product portfolio has been discussed at length. The proposed distribution system management model will result in the new company (Newco) having an impressive portfolio:

- The complete Novartis portfolio.
- Future access to Novartis pipeline products.
- The complete Nufarm portfolio.
- The critical mass to negotiate for specific products that neither Novartis or Nufarm can supply, due to the anticipated Newco market share that would ensure the required critical mass to facilitate the ease of product sourcing.
- Linked distributors will have one account to source what would undoubtedly be the best portfolio in Australia.

Given the background of the literature study and the market research, the statement can be made that this model meets the requirement of compiling a strong, sought

after portfolio, as the first step in the constructing of a distribution system management model.

In the model (Figure 14.1), a distinction has been made between product range A and a product range B. It is clear that a very significant part of the portfolio of Newco would be commodity products. Either Newco offers these products to non-affiliated distributors or they will source it elsewhere. For this purpose, the company should be structured to be able to also market a selective range of products to non-shareholders.

Further to the previous paragraph, the importance of other commodity product formulators in Australia should be realised. These entities generally buy in active ingredients for formulation in their own, or third party formulation facilities, for marketing to distributors in Australia. Novartis would have to remain active in the marketing of commodity active ingredients to these commodity product formulators. Examples of these companies are Davison, Farnoz and CropCare.

The critical element would be the ability to secure Nufarm as a partner in the Newco entity. From the Nufarm perspective, their distribution system control problems are even more profound, given that products similar to all their products can be sourced elsewhere. The combining of the Novartis patented products with the Nufarm generic products in the proposed scenario would result in the Novartis portfolio supporting the Nufarm product portfolio.

14.2.4.2 PRODUCT ATTRIBUTES

The importance of product attributes features highly in the feedback from the Australian survey. The key specific attribute is product efficacy, which is understandable, given the technical nature of the business and possible dire consequences if a product does not perform to expectations.

As a starting point, both Novartis and Nufarm have built up reputations as companies that sell good quality products. Therefore, approaching either distributors or farmers with both Novartis and Nufarm branded products would not be problematic from a

perceived quality and efficacy perspective.

Given that product attributes have been identified as one of the factors that determine the relationship between a manufacturer and distributors, the question should be asked, how distributors would be addressed, given the model outlined in Figure 14.1, on these product attribute aspects.

Distributors, and specifically sales staff, need firstly to be convinced of a specific product's attributes and secondly, to buy into the specific product concept and take ownership of a product in their mindset. The most appropriate guideline of how to address the aspect of product attributes, in relation to the distribution system relations perspective, would be to provide some indicators on the process that should be followed in the development of a new product. If these steps are followed, the requirements, as put forward by the respondents in the survey, should be met. These steps would include the following activities:

- Sales representatives should be shown the field development trials of the products being developed by the manufacturer, in order to convince the sales representative of product efficacy.
- Farmer demonstration trials need to be sprayed prior to new product introductions in order to not only convince sales representative, but also to create the pull action at farm level, by making farmers aware of the new products and expected benefits to be derived from the use of these products.
- Sales representative should be given the opportunity to provide input on their assessment of development trial results as well as demonstration trials.
- Providing an opportunity for sales representatives to give their input will result in "buy-in" in a product concept.
- Joint product planning meetings with distributor personnel should be held as part of the overall product concept development and discussion of issues such as formulation type, packaging type, label recommendations, product positioning, advertising campaigns, promotional plans, etc.
- During especially the launch year of a new product, the manufacturer technical staff should be available to immediately follow up any product related issues or non-conformance in order to resolve problems, or perceived problems,

proactively in a professional manner.

- Review meetings should be arranged after each spray season to review all product specific issues and to identify any improvement required to improve the total product offer.

In a situation where a distribution policy is followed where “everybody” has access to a manufacturer’s products, the procedures as sketched in the preceding paragraph are not practical, given the large number of people involved. The model presented in Figure 14.1 will result in a focused approach with only a limited number of distributors that form part of the distribution structure. It becomes feasible in this scenario to follow the guidelines as sketched due to the practicality of implementation.

The view is therefore that the proposed model should lead to a better structure to address the issues of product attributes as they pertain to the sales representative. Basic to this of course is the assumption that a quality product is required initially and that the above proposed process is no substitute for an inferior product.

14.2.4.3 PRICING

Not surprisingly, the issue of pricing received high ratings in the Australian parts of the survey conducted for this study.

In the presentation of a distribution model for Novartis in South Africa, the question of procedures for price management has been addressed (see Section 13.2.4.3, page 365 for detail). This will not be repeated in this section. The same principles would however apply for the proposed distribution model for Novartis in Australia. The manufacturer needs to have a system in place to rapidly track the development of prices in the field and be able to respond rapidly should action be required.

Integration of the Novartis and Nufarm logistical and administrative functions pertaining to invoicing, debtor control, transport, warehousing, etc, in the Newco entity, should lead to substantial savings that theoretically should result in better margin structures and of course provide more pricing flexibility should the need arise.

14.2.4.4. EXCLUSIVITY

The research conducted in Australia reflects the situation that the concept of exclusivity does not play a significant role in the present distribution structure in Australia.

In order to entice distributors to become shareholders in the proposed Newco, a good product portfolio and the coupling of this company to Novartis and Nufarm alone might not be enough. If distributors can be offered the advantages of a good product portfolio plus the concept of exclusivity in some form on certain products, the proposal would be far more attractive. The view therefore is that the concept of exclusivity should be used as one of the elements to entice distributors to join up in the concept structure.

Granting of exclusivity on some products for the shareholder distributors would put them in a position of having to rely less on price in their dealings with farmers and therefore theoretically increase gross margins. Given the literature research input, the use of exclusivity could, and should, lead to increased commitment and cooperation from the perspective of the supplier, i.e. manufacturer.

The manufacturers in question in the proposal put forward, namely Novartis and Nufarm, need to ensure that they acquire maximum market penetration on their commodity products. Products in the post patent era therefore need to be distributed on a wide front. Even in this scenario, the concept of exclusivity should be entertained. The shareholder distributors could be given exclusivity on a well established brand name, whereas the rest of the market can be served with a different fighting brand of the same active ingredient. Products can also be differentiated using formulation types and giving the shareholder distributors exclusivity on the most sought after formulation.

14.2.4.5 BUSINESS LINKAGE

The present distribution system in Australia, and the coupled manufacturer network, in reality consists of a number of different entities operating independently, with no

formal business linkages spanning the divide between the manufacturers and distributors.

The proposed model, as formulated, would create business linkages between:

- A research-based manufacturer (Novartis) and a generic product manufacturer (Nufarm).
- Distributors directly linked, via shareholding, with a research-based company.
- Distributors directly linked, via shareholding, with a generic product manufacturer.
- The linkage of a research-based manufacturer, a generic product manufacturer and distributors into one entity.

One of the deductions that can be made from the literature review, as presented in Chapter 10, is that in general there appears to be a trend for manufacturers and distributors to become more and more involved in the formation of strategic alliances and joint ventures for the mutual benefit of all parties. The proposed model as put forward for Australia, can be deemed to reflect this general trend as well.

14.2.4.6. BACKUP SUPPORT

The market research studies conducted highlighted the importance of backup support. Practical reality indicates that it is not possible to give the required backup support due to the disproportionate ratio between manufacturer sales force strength and the number of distributor outlets. The proposal for the revised structuring of distribution will however address this issue.

From the perspective of the distributors in Australia, backup support will be emanating primarily from its contact with the Novartis field sales force, consisting of 6 state sales managers and 21 territory sales managers. Key activities to be performed by these individuals include:

- Transfer of all relevant company and product specific information to distributors.

- Training of distributors.
- Assisting distributors with field sales.
- Investigation of product complaints.
- Soliciting product orders from distributors.
- Ensuring timely supply of products to distributors.
- Attending to all quality issues.
- Assisting in promotional support.
- Selling product concepts to external influencers.
- To be readily available when advice or assistance is called for.

In a situation where a company like Novartis should sell to all the distributors in Australia, this would mean that the Novartis field staff of 27 individuals would have to provide backup support to 1 400 distributor outlets. The proposal presented in this section would result in the number of applicable outlets being probably in the order of 400. It stands to reason that given this new ratio of field sales staff to distributor outlets, levels of backup support provided can be improved dramatically.

14.2.4.7 COMMUNICATION

Communication has been highlighted in many studies on inter-company relationships as being of extreme importance.

The model presented will undoubtedly provide challenges from a communication perspective, given the number of entities involved. The following communication linkages need to be addressed:

- Novartis and Nufarm on a strategic level.
- Novartis and Nufarm interfaces pertaining to product portfolios.
- The Newco, Novartis and Nufarm interface.
- Communication between Newco and its shareholder distributors.

Formal communication platforms, as proposed in Section 13.2.4.7 on page 368, will also be applicable in the management of the distribution model proposed for

Australia.

14.2.4.8. STOCK MANAGEMENT

Given changing climatic conditions that could lead to drastic changes in product requirements and rapidly changing volume requirements, stock management remains a key challenge for both manufacturers and distributors. The requirements are rapid response as well as timely and accurate deliveries. The message from the literature review and the market survey studies is clear. Stock management systems should be state-of-the-art. The proposal to form the Newco would result in significant cost savings for both Novartis and Nufarm, due to duplication on numerous fronts relating to stock management and transport being eliminated. This should lead to the potential to develop a logistical system that is state-of-the-art due to the critical mass that would be available to service the reduced number of distributors in a better manner. An ideal platform is presented by the model for state-of-the-art business to business electronic "e-business" linkages.

14.2.4.9 MARKETING PROGRAMMES

The approach taken by most crop protection manufacturers to use a wide range of distributors, ultimately results in a situation that a manufacturer needs to service a large number of distributors. This must ultimately lead to a situation where it is a given that dilution of effort pertaining to marketing programmes will occur.

The advantage the proposed distribution model offers is that the Novartis territory sales managers and the Novartis state sales managers will be able to focus their efforts on the shareholders affiliated to Newco.

In reviewing the work patterns of for example the Novartis territory sales managers, it is evident that their work pattern is geared and structured toward the "push action" related activities on distributor outlet level. "Pull action" activities at farmer level like farmers days, demonstration sites, and visits to key farmer customers, do not receive enough attention primarily due to the huge number of distributor outlets that they visit taking up most of their time.

A system of key account management would be proposed in order to provide outlets with high levels of service and backup. The structure and work patterns proposed for key account management by Rock (1998) would be suggested as a template. More time can therefore be earmarked to assist distributors in the execution of combined marketing programmes.

14.2.4.10 TRAINING

The importance of adequate training being offered by manufacturers is evident from the market research conducted in Australia. The distribution proposal being presented for Novartis would effectively result in virtually all the focus being centred on the distributors that are shareholders in Newco. Training can therefore also be more focused and expanded due to the limited number of distributors.

Training programmes should address areas like:

- technical product specific training,
- crop specific training,
- training on areas like weed control and insect control,
- selling skills,
- interpersonal relations skills,
- presentation skills,
- key account management,
- principles of value adding,
- stock management, and
- forecasting systems for product requirements.

A wide range of training activities are therefore proposed that should also assist in strengthening the relationship between the manufacturer and the distributor.

14.2.4.11 CORPORATE REPUTATION

There are primarily two reasons why corporate reputation is deemed to be an important consideration for distributors in evaluating potential suppliers. The first is the staying power of a manufacturer, given the rapid changes that occur in the crop protection industry, and the second is the link between corporate reputation and the perceived quality of the products.

For the distribution model to work, it is therefore important that the two manufacturer companies are both reputable. Given that Novartis is one of the world's leading crop protection companies and Nufarm as the second biggest global player in generic products, the view is held that both companies do indeed have staying power. The perception regarding the quality of the products of both companies is extremely high.

It would therefore seem as if the proposed structure would address the requirements of distributors on the aspect of corporate reputation as was delivered in the feedback from the respondents that partook in the study.

14.2.4.12 INTERPERSONAL RELATIONS

The survey conducted in Australia confirmed the findings summarised in the literature review concerning the importance of interpersonal relations in the relationship between a manufacturer and a distributor.

From the perspective of a manufacturer, the message therefore is that employees need to be people that can indeed build lasting interpersonal relations with distributors. Employees need also to be monitored on their relationships with distributors, possibly one of the most difficult aspects to monitor in the supplier relationship with distributors. The suggestions put forward in Section 13.2.4.12 on page 372 will also be applicable in the Australian context.

14.2.5 ADVANTAGES AND DISADVANTAGES OF THE MODEL

Advantages of the proposed model from the perspective of a manufacturer, would include:

- The strengths of a research-based manufacturer (Novartis) is linked to that of a leading generic product manufacturer (Nufarm).
- The combination of the two portfolios would result in the most sought after portfolio in Australia.
- The reputation of the two partner manufacturers would result in a portfolio that is highly rated with regard to general product efficacy, packaging quality and product formulation quality.
- The concept of product range exclusivity will assist in gaining distributor shareholder commitment.
- Manufacturers and distributors will be jointly combined in the Newco entity to form a basis for a focused cohesive unit.
- The proposal would result in a structure with a significant market share in Australia.
- Substantial logistical related cost savings can be realised.

Disadvantages of the proposed model would include:

- The risk coupled to the implementation of the new structure that will be seen as a threat to established distributors that do not join.
- The working relationship between Novartis and Nufarm needs to be excellent, due to potential clashes on commodity products sold by Nufarm that were originally Novartis molecules.
- Novartis and Nufarm become fully dependent on each other for future success and lose their present level of independence.

14.2.6 SUMMARY – EXTENSIVE PRODUCT PORTFOLIO

The overriding requirements distributors have of manufacturers are an extensive product portfolio consisting of good quality, efficient products. Practically neither a

company like Novartis nor a company like Nufarm can provide such an extensive portfolio. By adding the resources of Novartis and Nufarm, such an extensive product portfolio with the desired quality is feasible.

The proposed structure, as discussed in this section, is an effort to combine the capabilities of Novartis, as a research-based supplier, and Nufarm, a high quality generic product manufacturer, with distributors, in a newly formed legal entity that will act to cement a structure between the partner groups, in order to create a cohesive distribution system management model to serve the Australian farmer.

14.3 A DISTRIBUTION SYSTEM MANAGEMENT MODEL FOR A MANUFACTURER WITH A MEDIUM-SIZED PRODUCT PORTFOLIO OPERATING IN AUSTRALIA

14.3.1 INTRODUCTION

The basic approach to be followed in this section is that a manufacturer classified as having a “medium-sized” product portfolio does indeed start off with “significant” channel power, but definitely needs to address a number of other areas, as identified in the market research conducted for this study, in order to build “channel power” to the optimum level.

A recommended “ideal” distribution system management model will be presented for typical companies that can be classified in this category. In the Australian context Cyanamid and DuPont are seen as manufacturers for which this classification would be appropriate.

In the following section, the profile of the manufacturer (Section 14.3.2), the proposed distribution system management model (Section 14.3.3), the areas to address in the implementation of the model (Section 14.3.4), as well as the advantages and disadvantages of the model (Section 14.3.5) are discussed.

14.3.2 PROFILE OF THE MANUFACTURER

14.3.2.1 CHARACTERISTICS OF THE MANUFACTURER

The profile of a manufacturer that is classified as having a medium-sized portfolio operating in Australia can be deemed to be the following:

- Turnover of approximately R300 mio per annum.
- Market share of approximately 7 percent in the Australian market.
- A workforce of approximately 50 employees.
- A team of 10 territory managers generating sales at distributor level.
- A local product development team.
- No in-house product formulation facilities.
- In-house warehousing and logistics systems.
- A “medium-sized” product portfolio.

The manufacturing company sketched can therefore be seen as a player that, to some extent, falls short of the optimum portfolio but is well represented in the country with the required infrastructure and a noteworthy market share position as well.

14.3.2.2 OBJECTIVES OF THE MANUFACTURER

Typically, manufacturers in this category would have had two or three “blockbuster” type products that are patented and sought after. In most cases, these manufacturers would now be in a position whereby their historically leading products would be in the post patent phase, with their new line of patented products being inclined to be more niche type products.

The business approach of manufacturers in this category could be summarised as follows:

- To defend their leading commodity products aggressively and effectively, in their post patent era.

- To develop and introduce new products successfully.
- To outsource non-essential functions to third parties.
- To improve the linkage and level of business cooperation with distributors.

The general approach of a company in this classification should therefore be to effectively introduce new products, effectively defend commodity products and to investigate ways and means of improving and strengthening their relationship with distributors by adding backup service and distributor service elements to its total product offer.

14.3.2.3 DISTRIBUTION SYSTEM OPTIONS

Distribution system options available to manufacturer companies with a "medium-sized" product portfolio operating in the Australian market would include the following:

- Open up distribution completely and providing all distributors with full access to the complete product portfolio.
- Limiting distribution to some selected distributors only.
- Reaching an exclusive distribution arrangement with one of the national distributors like IAMA or Elders, to exclusively market the whole product range.
- Forward integration into the distribution system by using the principle of joint shareholding in joint structures.

It is obvious that a significant number of other variations on the theme also exists. Given the limitations of both an extensive product portfolio and a dominant market position, forward integration into distribution would be frowned upon. The general approach should be to investigate processes and procedures that, coupled to the relatively good product portfolio, could be combined as a cohesive product offer to increase the level of business linkage between the manufacturer and distributors. The role of granting exclusivity or not, in strengthening business relationships, is also a topical point to consider.

14.3.3 A PROPOSED DISTRIBUTION SYSTEM MANAGEMENT MODEL

Using the findings of this study based on the usage of the Stern-process model template, an outline of a possible distribution management model is presented in Figure 14.2. Details concerning the implementation of this model will be elaborated upon in detail in Sections 14.3.4.1 – 14.3.4.12.

The basic distribution management model presented in this section is based on a number of findings derived at from this study. These findings include:

- The product portfolio at the disposal of the typical manufacturer in this category is not sufficient to “secure” distribution on its own.
- The manufacturer company will have to address a number of value-added aspects, or service elements, to drastically enhance the total product offer.
- Commodity products in the portfolio will have to be managed differently, from a distribution management perspective, to ensure that generic look alike are deprived of market entry as far as possible.
- Exclusivity, or some form of exclusivity, should be considered on a product per product basis, as a potential measure to increase distributor commitment.
- In all probability, there is not one distributor that could be used alone in order to reach the planned turnover and market penetration objectives.
- It would not make sense for the typical manufacturer in question to integrate forward into distribution due to limited resources, specifically portfolio strength.

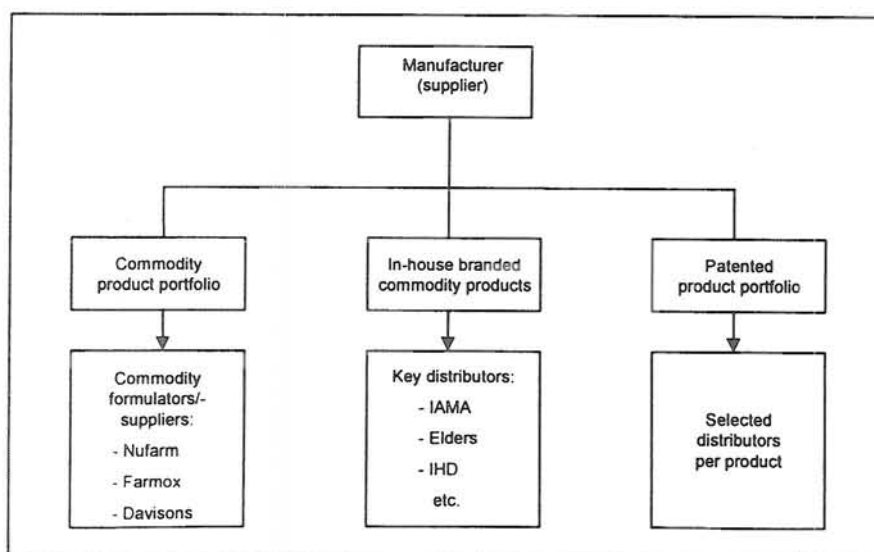


Figure 14.2: A distribution management model for a manufacturer with a medium-sized product portfolio in Australia

Although detail is provided in the following sections, the implementation of the proposed distribution model, as depicted in Figure 14.2, can be summarised as follows:

- Commodity product formulators in the local market should be given access to active ingredients of the manufacturer's commodity products in order to try and preclude these entities from sourcing applicable active ingredients elsewhere.
- The generic product manufacturers should sell these commodity products under their own brand names.
- The manufacturer should keep direct control over its own branded products in the case of commodities and provide these products to selected distributors with other distributors being supplied from the mentioned generic product manufacturers.
- Given that the manufacturers in question typically do not have in-house formulation facilities and that surplus formulation capacity exists in the local market, providing a generic product formulator or manufacturer with toll formulation business should be used to leverage support and compliance with post patent strategies.
- Patented products should typically be restricted to a limited number of distributors in order to ensure commitment and sufficient support from the distributors.

14.3.4 AREAS TO ADDRESS IN THE IMPLEMENTATION OF THE MODEL

The outline of a proposed distribution management model has been presented in Section 14.3.3. Using the results from the surveys conducted in Australia for the purpose of this study as input, the areas that need to be addressed in the relationship between a manufacturer and a distributor will be discussed in the rest of this section, against the background of the proposed distribution model structure. The purpose of this section is to provide detail concerning the implementation of the proposed distribution system model.

14.3.4.1 PRODUCT PORTFOLIO

A manufacturer in the situation of having a “medium-sized” portfolio can, theoretically, try to improve the product portfolio by:

- sourcing in third party products to augment the in-house product portfolio;
- pool products with another manufacturer in a strategic alliance structure in order to build a more sought after portfolio; and
- focus only on in-house products.

The proposal would be that the focus should only be on in-house products, due to the loss of focus the other approaches would result in, given the limitations on resources typically associated with a manufacturer in this category. The disadvantages of sourcing in third party products for resale by a research-based manufacturer have been covered in Chapter 6. If a suitable strategic alliance partner can be identified, the option of two companies pooling resources might remain an option.

As is evident from the proposed distribution model, a classification should be made between commodity products, patented products and perhaps even products in the development phase. These different groupings would require different approaches and different strategies.

14.3.4.2 PRODUCT ATTRIBUTES

Given that crop protection products are sold in a highly technical environment and are important inputs that can determine the success or failure of a crop, it is understandable that respondents in this study rated product attributes, specifically efficacy, as a key requirement that needs to be addressed by manufacturers.

Manufacturers need to “sell” the product attributes and product capabilities to distributors. The principle once again is to convince the sales representative before they will be able to effectively convince their farmer clients of the product's

advantages over competitor products.

In Section 13.2.4.2 on page 364, actions required to convince distributors of the relevant product attributes are discussed in detail. These proposed actions hold true for companies classified as having “medium-sized” portfolios as well and are therefore not repeated in this section.

The procedures and actions described in Section 13.2.4.2 are not practically feasible in situations where products are distributed to a large number of distributors, due to the time and resources required to administer these actions. This once again calls for the decision that has to be made on the most applicable width of distribution. The narrower the distribution policy is with regards to the number of distributors serviced, the better from the perspective of manufacturer support and distributor commitment. However on the downside, this leads to a reduction in market coverage.

14.3.4.3 PRICING

Understandably, pricing always features high on the list of issues in any manufacturer and distributor relationship. This is also the case as reflected in the research conducted for this study.

A short summary is provided of key areas concerning pricing, that a manufacturer with a “medium-sized” product portfolio should address. Some aspects would include:

- The upkeep of a database on product pricing, on distributor and end-user level, of in-house products compared to relevant opposition products.
- Regular surveys and market research to be done in order to update the database required to assist in price management.
- Ensuring that manufacturer field personnel monitor day-to-day pricing developments in the field.
- Manufacturer personnel ensuring contact with, specifically, major farmers to keep abreast of relevant pricing developments.

- Manufacturers involvement with distributors, in determining product pricing, specifically commodity products, for situations where farmers call for tenders.
- Communication lines between manufacturers and distributors to facilitate rapid response and decision-making on pricing issues if called for.
- Clear and well communicated pricing policies between manufacturers and distributors.

14.3.4.4 EXCLUSIVITY

Granting exclusivity will only be an option for a manufacturer if the distributor undertakes not to sell directly competing products. Experience in Australia would suggest that a manufacturer with a "medium-sized portfolio" would definitely not be able to solicit this from the distributors. The view is therefore held that manufacturers in this category under review will not be able to effectively use the concept of exclusivity in an endeavour to increase the level of commitment from a distributor.

In Section 14.3.3 a distinction was made between commodity products in the portfolio and patented products in the portfolio. With regard to exclusivity, the approach to the range of commodity products needs to be structured round the following principles:

- All, or most, channels should be blocked directly prior to patent expiry with a manufacturer's commodity active ingredient.
- Local generic product formulators and manufactures should be given access to active ingredients to formulate and sell under their own brand names, in order to preclude them from sourcing those specific products from generic sources.
- Prior to patent expiry, product differentiation strategies should be in place pertaining to unique packaging concepts, unique state-of-the-art formulations, loyalty programmes, etc.
- The manufacturer should keep the in-house brands for commodity products directly under control and preferably limit distribution of these products to selected distributors, with other distributors typically being supplied by the generic products formulators and manufacturers who are given access to the relevant

active ingredient.

With regard to products in the post patent phase, consideration should be given to keeping the branded product “somewhat” exclusive or semi-exclusive, but it must be ensured that the active ingredient is distributed widely.

If the issue of exclusivity is discussed as it relates to patented products and products in the development phase, the guiding principle should be that more leverage can be obtained by providing some form of exclusivity. It is also true that distributors call for exclusive distribution rights, as was evident from the market research conducted for this study, but in many cases also want to sell directly competing products. This leads to a situation whereby the specific distributor cannot, and does not, focus only on the product in question, and that added to this, the manufacturer does not have full market coverage because some distributors were not given access to a product. This results in a manufacturer obtaining no real benefit from granting a distributor exclusivity.

The message should be that theoretically there is no doubt that granting exclusivity, or some form of exclusivity, will lead to increased commitment from a distributor. In practice, the decision on these issues by a manufacturer with a “medium-sized” portfolio would probably best be done on a product specific basis. In Australia, distributors are at present, as a general rule, not prepared to market a product exclusively and to refrain from selling competing products.

14.3.4.5 BUSINESS LINKAGE

Business linkages between manufacturers and distributors are deemed to become closer in general, as is confirmed by the literature review presented. From the market research conducted for the purpose of this study, the importance of business linkages was also highlighted.

In Australia, the business linkages between manufacturers and distributors can be described as hands-off and informal in general. Manufacturers have supply arrangements with a large number of distributors and the same applies to distributors

that source products from a large number of manufacturers. In such circumstances, it is difficult to form really close and unique business partnerships and to move away from transactional marketing arrangements to relationship-based alliances.

The question however is, whether a manufacturer with a “medium-sized” portfolio has the ability and power to break this mould. The only way would be to move away from a distribution policy where “most” distributors are supplied with a more focused approach, to where only a few distributors can be served.

The task of the manufacturer with a “medium-sized” product portfolio would be to move their chosen distributors on the relationship scale from a transactional marketing arrangement approach to a relationship marketing approach as was presented in Chapter 10.

14.3.4.6 BACKUP SUPPORT

Backup support also featured prominently in the feedback given by respondents in the market survey conducted in Australia. In Section 14.2.4.6 a complete list of backup support functions that are deemed appropriate for the situation in Australia is presented. The view is that all these actions are just as applicable to a manufacturer with a “medium-sized” portfolio as to manufacturers who have what can be termed “extensive” product portfolios.

14.3.4.7 COMMUNICATION

The importance of communication received significant attention in the review of the literature as presented and this has been confirmed by the market research conducted for this study. An open and honest communication process is in essence all that is needed. Some of the areas to address will include:

- Communication of relevant manufacturer objectives, goals, strategies and applicable action plans.
- Regular contact to review product specific actions.

- Joint planning exercises to ensure distributors buy-in to new concepts.
- Regular feedback meetings to discuss a specific season's problems and issues and to gain feedback on what the manufacturer can do to improve all aspects of the business.

14.3.4.8 STOCK MANAGEMENT

Stock management can be an area of friction between manufacturers and distributors and requires appropriate management attention. Typically, a company with a "medium-sized" portfolio will have to address the following issues in the stock management and invoicing processes:

- System of compiling product budgets and updated forecasts from distributors.
- A system and procedure to challenge and review the distributor input coordinated by the manufacturer employed territory managers.
- An efficient centralised distributor service function for distributors to place orders.
- Rapid feedback on any stock related issues or supply problems.
- Regular distributor service level surveys to be conducted to ensure that the manufacturer conforms with the required standards as benchmarked against competition.

14.3.4.9 MARKETING PROGRAMMES

Respondents in the survey conducted in Australia viewed the lack of sufficient marketing programmes or "marketing and sales support" as a significant shortcoming of manufacturers in Australia.

The following marketing programmes should be focused on and be developed in collaboration with distributors:

- Pull action strategies consisting of farmer days and farmer study group presentations.
- Marketing efforts aimed at "selling" products and spray programme concepts to

external influencers.

- Direct mail campaigns targeted at farmers.
- Demonstration trial programmes for new products.
- Joint marketing campaign planning exercises with distributors.

14.3.4.10 TRAINING

Distributor sales personnel require adequate training in order to ensure that products are recommended properly and that sales people have confidence in the capability of the products they sell. Training would need to cover the following fields:

- product specific training,
- training in weed control, insect control and disease management practices, and
- training in selling skills, as an added service provided to distributors.

14.3.4.11 CORPORATE REPUTATION

Achievements of the manufacturer with regard to new technology, new pipeline products, future outlook, financial performance, etc, should be communicated continuously in order to ensure that distributors feel comfortable with the long-term sustainability of the manufacturer, i.e. build the corporate reputation of the manufacturer.

14.3.4.12 INTERPERSONAL RELATIONS

Management of interpersonal relations between a manufacturer and a distributor requires that a manufacturer pays attention to:

- Appoint employees that have the makeup to build good interpersonal relations with distributors by using available profiling systems to measure job applicants.
- Training of employees in managing relationships with distributors.
- Measuring individual relationship strengths and weaknesses with distributors.
- Ensuring adequate resources are allocated to relevant relationship building activities with distributors.

- Soliciting informal feedback from distributors on problem areas and specific individuals, that need to be addressed.

Advantages and disadvantages of the proposed distribution system management model are presented in Section 14.3.5.

14.3.5 ADVANTAGES AND DISADVANTAGES OF THE MODEL

Advantages of the proposed model, from the perspective of a manufacturer, would include:

- The model is a low risk model insofar as products are spread over a number of distributors.
- Generic formulators can be tied in reasonably effectively if they are supplied with active ingredients of the relevant products in the post patent era.
- The manufacturer does not need to invest resources in becoming directly involved in setting up in-house distribution structures.

Disadvantages of the proposed model would include:

- A committed and fully dedicated distribution system cannot be secured by this model.
- Tying in generic product formulators will call for relative aggressive pricing against potential generic imports.
- The manufacturer will have to rely heavily on non-product specific factors to try to improve distributor commitment due to the lack of formal structural business linkages in this model.

14.3.6 SUMMARY – MEDIUM-SIZED PORTFOLIO

A manufacturer with a “medium-sized” portfolio operating in Australia, will not be able to leverage channel control based on portfolio strength. It is extremely easy to import generic products and thereafter the manufacturer will be under pressure from this

source.

The proposal presented addresses the generic product issue by endeavouring to tie in the local commodity product formulators effectively by using the option of selling active ingredients to them.

A manufacturer with the profile as sketched, will not be able to secure distribution exclusivity from any significant distributor in the Australian market and therefore a number of different distributors are proposed, dependent on product specific considerations. Australian distributors are generally not prepared to abstain from marketing products that clash directly with even products they have exclusively. Granting product exclusivity is therefore not a viable option for a manufacturer in this category.

The model presented will not be the solution to securing long-term dedicated and committed distribution systems. The model calls for a heavy reliance on aspects such as marketing programmes, communication, backup support and distributor service, in order to strengthen the relationship between the manufacturer and the distributor.

14.4 A DISTRIBUTION SYSTEM MANAGEMENT MODEL FOR A MANUFACTURER WITH A LIMITED PRODUCT PORTFOLIO OPERATING IN AUSTRALIA

14.4.1 INTRODUCTION

Based on the Stern-process model template, this section endeavours to present an "ideal" distribution system management model for a manufacturer with a limited product portfolio operating in Australia. The development of this "ideal" model corresponds with Step 10 in the Stern-process model template.

A company with a limited product portfolio at its disposal should follow a totally different strategy as opposed to, for example, a company that has an extensive product portfolio. The component with which to leverage channel control, namely an extensive product portfolio, cannot be relied on to provide distribution system power.

The position of a manufacturer company with a limited product portfolio in Australia is similar in many ways to the situation of a similar supplier in South Africa, but also significantly different in many respects. The difference in approaches and options will be highlighted in this section. Typical manufacturers in Australia that fit the profile would be F.M.C. and Sumitomo.

A supplier with a limited product portfolio would need to make strategic decisions pertaining to the appropriate strategy to follow. Areas to address would include:

- What level of resource allocation is appropriate?
- Should only unique in-house products be distributed?
- Should a strategy be followed to source third party products in order to bolster the product portfolio and by so doing, be in a better position to exert more influence over distributors?
- Should a policy be followed to offer the complete range of products to one distribution entity to distribute?
- Should product distribution decisions be taken on merit or on a product per product basis?
- Should an opportunistic approach to distribution be taken or should a more long-term approach be considered?

In the following sections, the profile of the manufacturer (Section 14.4.2), the proposed distribution system management model (Section 14.4.3), the areas to address in the implementation of the model (Section 14.4.4), as well as the advantages and disadvantages of the model (Section 14.4.5) are discussed.

14.4.2 PROFILE OF THE MANUFACTURER

14.4.2.1 CHARACTERISTICS OF THE MANUFACTURER

The typical profile of a multi-national manufacturer that falls within this category will be the same as the profile sketched for the South African situation in Section 13.4.2.1 on page 394. In summary it comprises a small product portfolio, limited

manpower resources and strict budgeting constraints. A company that fits this profile, given the Australian situation, would be F.M.C. This American company is one of the smaller players in the global crop protection market, but has some very good insecticides and is particularly strong in one chemical class of insecticides that is used extensively in cotton production in Australia. F.M.C can therefore be seen as a potential niche player in certain crops and specifically in some important sub-markets.

The structure of the company is once again very similar to the example used for the South African situation, namely BASF. F.M.C has a country manager, development manager, secretary and two technical field staff. Given this limitation on resources, this group should operate as facilitators or coordinators of product development, marketing and distribution, and rely heavily on third parties to perform most of the required functions.

14.4.2.2 OBJECTIVES OF THE MANUFACTURER

A manufacturing company in this category, having a limited product portfolio operating in Australia needs to address similar issues as sketched for the South African situation in Section 13.4.2.2 on page 395:

- Fixed investments to be kept to a minimum.
- No investment in formulation facilities.
- Only core marketing related activities and core logistical planning activities to be done internally.
- Marketing and sales coordination activities as the primary focus.
- Development of new products to be coordinated internally, but to be outsourced to either third party contractors or to potential distributors of the specific products with product development capabilities.
- A clear focus to be given to unique, patented products with a specific market fit, given the resource limitations.
- Commodity products in the profile to be marketed in the active ingredient form to one of the commodity formulators with the capability of also actively marketing

these products.

- Profit margins provided to distributors to generally be more attractive than those of a company providing an extensive product portfolio.

14.4.2.3 DISTRIBUTION SYSTEM OPTIONS

Distribution system options that should be considered would be:

- Choosing a strategic alliance distribution partner with the capability to assist in the development and registration of products and channelling the whole portfolio via this distributor.
- Using two or three national distributors along the lines as outlined in the previous point.
- Taking distribution decisions on a product-by-product basis, depending on which distributor has a gap in their portfolio or which is deemed to be the best candidate to reach the desired market share objectives in the relevant sub-market.

Various possibilities exist that could be considered as being based on the identified options. The key would probably be to remain flexible and to ensure that options are open, given situations where manufacturers with extensive portfolios can coerce a distributor to favour their products, due to product portfolio scope, rather than that of a manufacturer that can typically only provide one or two products.

14.4.3 A PROPOSED DISTRIBUTION SYSTEM MANAGEMENT MODEL

Using the realities of the crop protection market in Australia, the practical limitations of a manufacturer with limited resources and a limited product portfolio, coupled to the results of the survey conducted in Australia for this study, a distribution model is presented in this section. Details of the implementation of this model and coupled concept will be elaborated on in Sections 14.4.4.1 – 14.4.4.12.

The model presented in this section is based on some important findings derived from the market research results, the literature review and the situation in the

Australian market. These findings include:

- The level of potential channel power is severely limited by the portfolio restrictions.
- The possibilities concerning product development and distribution for each new molecule should be done independently in order to identify the best distribution partner, or partners, for a specific product.
- Granting of distribution exclusivity and attractive margins should be considered in order to secure product specific distribution.
- Commodity type products can be offered to Australian generic product formulators.

Figure 14.3 presents the possible distribution systems for products that should be considered. This model is deemed to be an “ideal” distribution system management model.

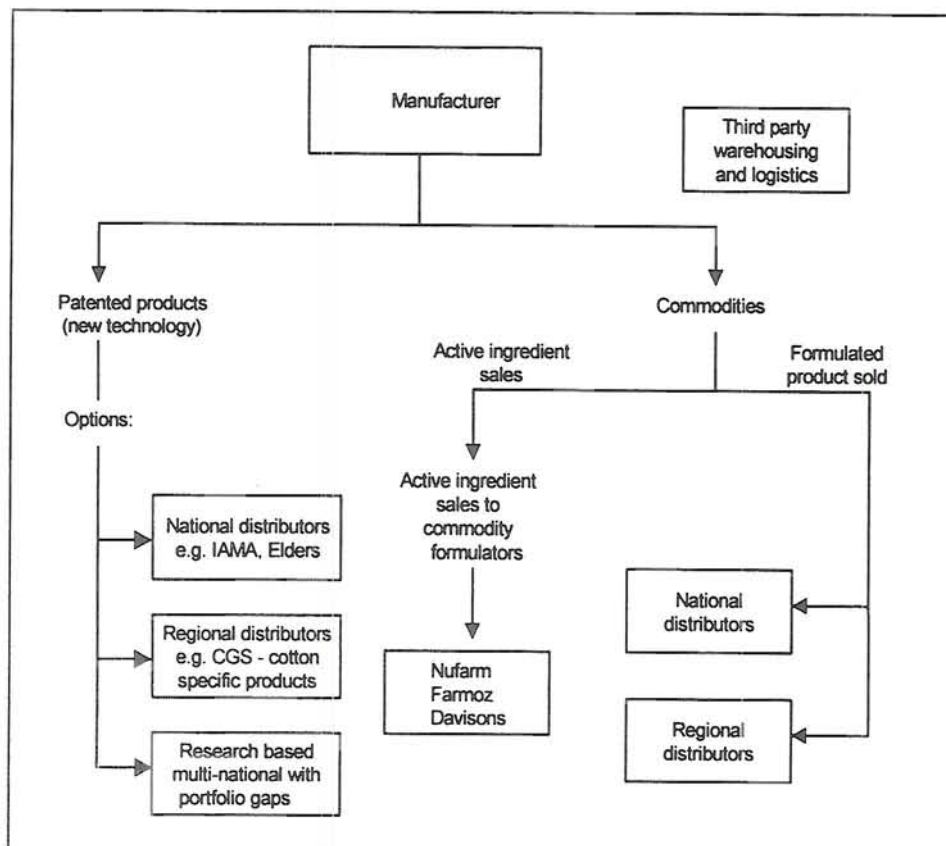


Figure 14.3: A distribution management model for a manufacturer with a limited product portfolio in Australia

In Figure 14.3, a distinction is made between commodity products and patented products. As far as patented products go, the proposal is that a distributor is selected that is deemed the most appropriate for a given product. This distributor is tied in contractually to distribute this specific product. As illustrated in Figure 14.3, in some cases a research-based manufacturer could also be used as a vehicle to assist in the development and marketing of specific products, in situations where a research-based manufacturer needs to source in a specific product to augment a critical gap in their portfolio and subsequent product range offer to distributors.

With regard to commodity products, given the ease of generic product registration in Australia, it can be expected that one of the three generic product manufacturing entities in Australia will show interest in commodity products with a reasonable market position. For a manufacturer with limited resources, it would be extremely difficult to compete with these companies on a commodity product due to their strong position in the Australian market. The obvious approach would be to offer the commodity products to one, or even all, of these generic product manufacturing companies to formulate and market under their own brand names. This will ensure more than adequate market coverage.

14.4.4 AREAS TO ADDRESS IN THE IMPLEMENTATION OF THE MODEL

Figure 14.3 sketches the general outlines of the proposed distribution model that can be considered for a manufacturer with a limited product portfolio. In Sections 14.4.4.1 – 14.4.4.12 some areas to address in the implementation of the distribution model will be elaborated upon.

14.4.4.1 PRODUCT PORTFOLIO

The typical supplier with a limited portfolio cannot use portfolio strength in securing distribution and therefore has to rely on the specific, unique characteristics of individual products in order to secure distribution for these products.

Products in the portfolio of a manufacturer with a limited product portfolio could be classified as:

- New active ingredients in the development phase.
- Registered and patented products with unique characteristics in demand.
- Products still to be patented, but in the mature stage of their product life cycles.
- Products classified as commodities with alternative sources of supply available.

In line with the model presented in Figure 14.3, the following strategies would be applicable for these groupings of products:

- In the case of active ingredients that are in the process of development, the most appropriate strategy would be to identify one distributor that, given an exclusive distribution arrangement, would be able to assist in the product development and registration process, and ultimately will have the capability to perform a satisfactory distribution function for the product. In Australia, most of the leading distributors do have these resources at their disposal to do in-house product development and product registration.
- The product classification of registered, patented and sought after products should be distributed on a selective basis as well, preferably with only one distributor. The manufacturer in this instance will be forced to rely heavily on the distributor to perform a number of actions, given the limited resources of the manufacturer, that would normally be provided by the bigger manufacturers. Exclusivity and higher than average margins would be required to gain the necessary commitment from a distributor on these products.
- As products reach maturity stage, distribution should be widened by adding more distributors and supplying products to the likes of Nufarm, Farmoz and Davison to distribute under their own brand names. This should form part of a pro-active, post-patent strategy to secure a distribution channel prior to these companies being able to source the generic equivalent. As depicted in Figure 14.3, products in the post-patent phase should be marketed in active ingredient form and in branded form on as wide a front as possible.

The management of a product portfolio for a company with a limited product portfolio should therefore be managed by deciding on a broad general strategy for the product categories, but ultimately decisions will have to be taken on a product-by-product basis.

14.4.4.2 PRODUCT ATTRIBUTES

The importance of product attributes has been mentioned in the discussion on both the South African and Australian survey results.

Areas a manufacturer with a limited product portfolio needs to address would include:

- Given that most of the product development trials for local product registration would be done by third parties, the manufacturer needs to ensure that trial results are accurate and that development work is done thoroughly.
- Distributor personnel need to be convinced, prior to product introduction, about the efficacy of products.
- The role of the manufacturer personnel would be to coordinate the whole product development process in such a fashion that the highest quality standards are applicable in all cases.
- Involvement of distributor employees in the development process, marketing planning process and of course launch phase, will lead to “buy-in” of the product concept.

14.4.4.3 PRICING

There is no doubt that pricing is an important element in the marketing mix for crop protection products. This has been confirmed by the relevant market research studies.

In comparing a manufacturer with an extensive product portfolio versus a manufacturer with a limited product portfolio, the deduction that can be made about

pricing is that the manufacturer with a weaker portfolio will generally have to be more aggressive on pricing and be prepared to provide better margins. In practice this is illustrated by the strategies of these relatively small players in both Australia and South Africa.

It should also be borne in mind that a distributor will generally get less backup support from a manufacturer with limited resources, specifically field staff, than would be the case with the more prominent manufacturers. This typically calls for more resource allocation internally by the distributor, which is one of the justifications for receiving a more attractive margin.

Market information gathering is always a challenge for a manufacturer with limited resources. Special efforts must however be made to ensure that pricing tendencies are monitored sufficiently in order to prevent distributors continuously using competitor pricing as a means to negotiating improved product margins.

14.4.4.4 EXCLUSIVITY

The granting of exclusivity on certain products can assist in improving distributor commitment and resource allocation. The general recommendation should therefore be that in product specific situations where high levels of commitment and marketing assistance is required from a distributor, the granting of product specific exclusivity should be an option that a manufacturer with a limited product portfolio should consider. This should however only be considered if the distributor refrains from marketing directly competing products. It is doubtful that this would be the case in Australia which results in the situation that the concept of exclusivity might not be a practical option.

As was discussed in the section on product portfolio in Section 14.4.4.1, exclusivity should become less of an element in the distribution strategy as a product progresses along the product life cycle concept curve.

In the post-patent era, brand name exclusivity can be considered, but a manufacturer would then have to have different, perhaps distributor specific brand

names in place, to ensure that all distributors can access the product. If this is not done, these distributors would simply source a similar generic equivalent from another source.

14.4.4.5 BUSINESS LINKAGE

A manufacturer with a limited product portfolio, limited manpower and limited financial resources will have difficulty in forming the same level of business linkages with distributors. It is however possible for manufacturers with limited resources to still have extremely close working relationships with distributors. Areas to address in order to assist in the forging of these relationships would include:

- granting distribution exclusivity (as discussed),
- regular product planning and review meetings,
- distributor service and support to be optimised, given limited resources, and
- regular measurement of service levels.

14.4.4.6 BACKUP SUPPORT

The level of backup support provided by a manufacturer is critical in the effort to differentiate a supplier from competitors, specifically generic manufacturers in many instances.

A supplier with limited resources available at its disposal needs to ensure that these resources are used optimally. The focus should be areas that include:

- product specific training,
- promotional support,
- technical product backup, and
- investigation of complaints.

Backup support beyond these key areas would be impractical, given the manpower resources that manufacturers in this category will typically have.

14.4.4.7 COMMUNICATION

The importance of communication in the supplier relationship with distributors is undisputed. Following is a list of communication elements a manufacturer with limited resources needs to address in communicating with distributors:

- Communication of the manufacturer's objectives, strategies and relevant actions.
- Regular meetings to review product specific action plans.
- Joint planning exercises relating to product development and marketing issues.
- Feedback meetings after specific spraying seasons to review all relevant aspects of the preceding marketing campaigns.
- Openness and honesty in all areas of communication.

14.4.4.8 STOCK MANAGEMENT

Timely product supply and the efficiency of logistical structures were identified as an important aspect to address in the interrelationship between a manufacturer and a distributor in the data gathered for this study.

For a manufacturer with limitations on infrastructure and manpower, this can be a challenge. Most leading distributors in Australia can perform this function. Distributors can therefore import products, clear products through customs, do warehousing and arrange transportation for a manufacturer. The recommendation would be that a manufacturer with limitations on resources should therefore outsource these activities to distributors.

Manufacturers however, still need to coordinate the product pricing, review of budgeted volumes, timing of requirements, etc, in order to ensure that stock management is optimal.

14.4.4.9 MARKETING PROGRAMMES

From the perspective of a manufacturer with limited resources, marketing

programmes should focus on the following aspects:

- Pull action strategies consisting of farmer days, farmer study group presentations.
- Targeting of external influencers in order to convince them of specific product attributes and efficacy.
- Direct mail campaigns to farmers.
- Coordinating spraying and viewing of product demonstration spray sites.
- Joint planning with distributors on product specific marketing plans as well as the joint execution of these plans.

14.4.4.10 TRAINING

Training provided by a manufacturer to a distributor can cover a host of topics including product specific training, crop training, selling skills training, key client management training, etc. Once again, given the resource limitation placed on a manufacturer with a small product portfolio, these manufacturers cannot be expected to provide a comprehensive training package. For this reason, the sole focus should be on product specific technical training.

14.4.4.11 CORPORATE REPUTATION

The perceived "staying power" of a supplier was deemed to be important, given the feedback from the market research conducted for this study pertaining to the concept of corporate reputation. The rapid rationalisation that is evident in the crop protection industry will naturally lead to a perception that a manufacturer with a small international market share might be vulnerable.

In practice, there is not much that a manufacturer like this can do to counter this perception. The approach should be to ensure product quality, people quality and to provide good service without being too concerned that the perception exists, rightly or wrongly so, that the smaller crop protection manufacturing companies seem to be on a rocky road.

14.4.4.12 INTERPERSONAL RELATIONS

Manufacturers need to ensure that employees will be able to get along well with distributors and have the ability to forge strong interpersonal relations with distributors. If problems on this front are picked up, remedial action needs to be administered immediately. Items covered in Section 13.2.4.12 on page 372 would be valid here as well.

14.4.5 ADVANTAGES AND DISADVANTAGES OF THE MODEL

Advantages of the proposed distribution model, from the perspective of the manufacturer, would include:

- a low fixed cost structure,
- a focus on marketing and sales activities,
- outsourcing of non-core activities,
- flexible product allocation to distributors, and
- limited number of accounts.

Disadvantages of the proposal would include:

- Identifying a suitable distributor for a specific product could, in some cases, be problematical, due to the large number of product offers in the market place.
- The product portfolio, as a whole, cannot be used in this model, for the purpose of increasing the level of channel power.

14.4.6 SUMMARY – LIMITED PRODUCT PORTFOLIO

A manufacturer with a limited product portfolio operating in Australia should consider the following guiding principles:

- A small dedicated team of employees focused on the marketing and sales functions.

- Outsourcing of non-core activities.
- Distribution decision on products to be done on a product-by-product basis.
- Distribution exclusivity should be considered in cases where a distributor would assist in the development of products as a tool to gaining more commitment from a specific distributor.

The model presented in Section 14.4.4, however, does not provide optimal solutions for a manufacturer with a limited product portfolio to address the issues facing these manufacturers as formulated in the problem statement in Chapter 8.

In conclusion therefore, a targeted niche marketing strategy based on a small number of products is required.

14.5 SUMMARY – CHAPTER 14: DISTRIBUTION SYSTEM MANAGEMENT MODELS FOR AUSTRALIA

The distribution system management model presented for Australia in the case of manufacturers with extensive product portfolios had the following key elements:

- The model proposes “forward integration” into the distribution system.
- A partner is required to provide a source of generic (commodity) products.
- A broad portfolio is collectively required.
- A formal structure exists whereby distributors and manufacturers have joint equity.

In the model for a manufacturer with a “medium-sized” product portfolio operating in Australia the emphasis is on using different distribution channels for different product groupings, based on the stage of products in the product life cycle. This calls for a thorough knowledge of the market. The inherent portfolio weakness of these manufacturers, compared to manufacturers with an extensive product portfolio, calls for using backup service and support elements as differentiating tools in order to get a competitive advantage over other manufacturers.

In Australia the model presented for manufacturers with a limited product portfolio is based on focussed niche marketing strategies. A low fixed cost base and flexibility in making product specific distribution channel decisions are the premise on which this model should function.

14.6 COMPARISON OF PROPOSED DISTRIBUTION SYSTEM MANAGEMENT MODELS BETWEEN SOUTH AFRICA AND AUSTRALIA

The distribution system management models for manufacturers with extensive product portfolios for both South Africa and Australia were based on the same principles:

- The models propose “forward integration” in the distribution system.
- That a manufacturer partner is required to provide a source of generic products to complement the product portfolio of the manufacturer for whom the proposed model is applicable.
- A formal structure is created in which distributors and relevant manufacturers have joint equity.

The models for manufacturers with medium-sized product portfolios for the two countries placed the emphasis on the usage of different distribution channels for different product groupings, based on the stage of the specific products in the product life cycle. This results in a different distribution channel approach for unique patented products compared to commodity products for which generic substitutes are available. The inherent product portfolio weakness of typical manufacturers in this grouping, compared to manufacturers with extensive product portfolios, calls for using backup service and support elements as differentiating tools in order to obtain a competitive advantage over other manufacturers.

In the case of manufacturers with limited product portfolios the approach was based on a focussed niche marketing strategy in both countries. A low fixed cost base and flexibility in making product specific distribution channel decisions are the basis upon

which these models are built.

In Chapter 15 a summary, conclusions and recommendations of the study are presented.

Part I
Introduction, background, aims and framework of the study

Part II
Industry and competitive analysis of the global crop protection industry

Part III
Crop protection distribution systems in selected countries

Part IV
Problem statement – management problems of crop protection distribution systems in South Africa and Australia

Part V
Research methodology - literature research and primary research regarding distribution system management

Part VI
Distribution system management models for the crop protection industry in South Africa and Australia

Part VII
Summary, conclusions and recommendations
Chapter 15
Summary, conclusions and recommendations

CHAPTER 15

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

15.1 INTRODUCTION

A summary of the study is followed by a list highlighting the emanating conclusions. Subsequently, recommendations are made for manufacturers of crop protection products in order to address in the strategic management of distribution systems in the crop protection industry. Finally, proposals for further research are suggested.

15.2 SUMMARY

The findings of this study relating to the development of distribution system management models will be summarised in subsequent sections.

In the following sections each of the seven parts of the study have been summarised.

15.2.1 PART 1: INTRODUCTION, BACKGROUND, AIMS AND FRAMEWORK OF THE STUDY

Traditional sources of distribution channel power for the manufacturer of crop protection products such as quality products, the power of the brand, an installed customer base and a broad portfolio of mostly patented products, have diminished significantly in their impact. It is reasoned that manufacturers need to review the manner in which these products are marketed, which distribution system management models are to be used, and the importance that is placed on distribution management in the marketing mix (see Chapter 1).

The purpose of the study has been considered to entail a secondary aim and a primary aim. The secondary aim was defined as: "Establishing the key factors which determine the relationship between manufacturers and distributors". For its part, the primary aim was defined as: "The development of appropriate distribution

system management models for application in South Africa and Australia” (see Figure 2.1, page 15).

Figure 2.1 provided the overall approach taken to address the primary aim of the study. To ensure that the process of developing appropriate distribution system management models for South Africa and Australia is well structured, it was deemed necessary to introduce and utilise a template designed specifically for the development of customer driven distribution systems in the model building process. The distribution system model design approach was based on the guidelines provided by the Stern-process model template (see Chapter 12 for details of this process model).

Given the guidelines provided by the Stern-process model template, the detailed framework of the study was presented in Figure 2.2 on page 17. The framework consists of seven parts, reflecting Sections 15.2.1 – 15.2.7 of this chapter.

15.2.2 PART II : INDUSTRY AND COMPETITIVE ANALYSIS OF THE GLOBAL CROP PROTECTION INDUSTRY

This part of the study consisted of firstly an analysis of the global crop protection industry and the competitive situation (Chapter 3), and secondly a company situation analysis for Novartis South Africa and Novartis Australia (Chapter 4).

The dominant economic characteristics of the global crop protection industry are as follows:

- A global market valued at US\$28 090 mio.
- The South African market valued at R850 mio.
- The Australian market valued at Australian \$1 490 mio.
- A global market decline of 3.1 percent from 1998 to 1999.
- A rapid rate of industry player consolidation.
- Leading products, based on sales, being predominantly products in the post-patent phase.

- Declining profitability in the industry due to the reduction in market size and increased generic product pressure.
- An industry relatively unsuccessful in introducing new patented “blockbuster” chemistry.
- Ease of market entry for generic products in specifically South Africa and Australia, making these markets attractive from the perspective of generic product manufacturers.

Industry driving forces that create incentives and pressure for change to the current industry characteristics have been identified as follows:

- An industry in a decline phase resulting in pressure being brought to bear on profitability requiring a reduction in the manufacturer cost base and increasing market penetration by manufacturers in order to maintain profitability levels in absolute terms.
- The entry of more generic product manufacturers, and products, resulting in margin erosion and more supplier (manufacturer) choices for distributors.
- The rationalisation in the number of research-based manufacturers, resulting in more formidable competitors with increased resources and marketing clout.
- Product registration requirements, in countries like South Africa and Australia, favouring the introduction of generic products, resulting in increased levels of competition and subsequent profit erosion.
- The inability of research-based manufacturers to introduce novel new products to boost profitability.

Based on the company situation analysis for South Africa and Australia (Chapter 4) the challenges for Novartis in these countries have been summarised as follows:

- The strong market share position of Novartis in South Africa and the high levels of distribution support that poses the challenge of how the current market share position and level of distribution support can be maintained, at least over the foreseeable future.

- In contrast, the challenge in Australia is to increase the present level of market penetration and to significantly increase the current level of distributor support and commitment from the present relatively low levels, resulting in Novartis gaining more channel control.

15.2.3 PART III : CROP PROTECTION DISTRIBUTION SYSTEMS IN SELECTED COUNTRIES

In Chapter 5 the crop protection distribution systems in Europe and the USA were analysed. The markets for crop protection products in Europe can be termed to be orientated towards a consumer-style market (large numbers of farmers, small farms and no significant on-farm selling activities for crop protection products), *versus* the market in the USA, which can be classified as an industrial market (large farms, relatively few farmers and sales representatives conducting on-farm sales activities).

In Chapter 6 the crop protection distribution systems in South Africa and Australia were reviewed.

In South Africa manufacturers use approximately 46 independent distributors to market products on farms through 600 affiliated commissioned sales agents. It is expected that many of these distributors will have to be consolidated in order to achieve critical mass.

In Australia the distribution of crop protection products is controlled by essentially five national distributor groupings. These distributors can be classified into categories consisting of those that are termed retailers and those that perform both wholesale and retail functions. An oversupply of distributor linked sales representatives and distributor outlets make the market extremely competitive resulting in low levels of distributor profitability in many instances.

Chapter 7 served to focus on the distribution system used by Novartis in South Africa. Given the unique distribution system employed by Novartis in South Africa, this chapter was included to serve as a "case study" that has relevance in an endeavour to address the problem statement. The main principle underlying the

approach here is the concept of providing the Novartis affiliated distributors product portfolio exclusivity, in return for contractual commitments from the relevant distributors not to stock competing products.

15.2.4 PART IV : PROBLEM STATEMENT – MANAGEMENT PROBLEMS OF CROP PROTECTION DISTRIBUTION SYSTEMS IN SOUTH AFRICA AND AUSTRALIA

In Chapter 8 the problem statement has been formulated as to what distribution system management models to use that will (i) optimally balance direct distribution related cost and subsequent level of control over distributors; (ii) maximise the probability that a distributor will buy and actively promote the complete product portfolio of a manufacturer; and (iii) to achieve this in an environment where distributors have numerous sources to supply similar products at competitive prices.

15.2.5 PART V : RESEARCH METHODOLOGY - LITERATURE RESEARCH AND PRIMARY RESEARCH REGARDING DISTRIBUTION SYSTEM MANAGEMENT

Primary research conducted, used country specific questionnaires constructed for South Africa and Australia based on literature search on distribution channel management and data gathered from existing survey research pertaining to crop protection products. Details of the research methodology employed is presented in Chapter 9. Research conducted evolved around a telephonic survey in South Africa obtaining information from 253 sales agents, and from 180 sales representatives in Australia using a similar survey questionnaire.

Secondary research conducted, consisted of a literature search reported in Chapter 10. Based on this review the general consensus appears to be that there is a trend away from transactional (transactional marketing) relationship styles to a partnership based (relationship marketing) relationship approach in the interface between manufacturers (suppliers) and distributors. These relationships are earmarked by high levels of trust, commitment, channel conflict management systems and good communications.

Implications for the construction of distribution system management models, derived at from the survey, include the following (see Chapter 11):

- The importance of a manufacturer having a broad, sought after product portfolio.
- The requirement for products with proven efficacy.
- Products have to be competitively priced enabling distributors to generate acceptable profit margins.
- High levels of manufacturer backup support is required.
- Current levels of backup support is deemed, generally, to be of a low standard.
- The importance of good interpersonal relationships between manufacturer and distributor staff.
- The importance of having well trained and experienced manufacturer field staff assisting the distributors.
- Manufacturers are viewed to be rather weak in the proper planning and execution of effective promotional and marketing programmes.

15.2.6 PART VI : DISTRIBUTION SYSTEM MANAGEMENT MODELS FOR THE CROP PROTECTION INDUSTRY IN SOUTH AFRICA AND AUSTRALIA

In Chapter 12 the Stern-process model is described as a process template for use by manufacturers, or suppliers, in the design of distribution system management models that are responsive to customer needs. This approach provides answers to the questions of what kinds of services have to be provided to customers in order to ensure customer satisfaction (customer intimacy) and what kinds of marketing, as well as logistical activities, have to be performed to generate the desired level of customer service (customer excellence). The first four parts of this study correspond with Steps 1-9 of the Stern-process model template. Step 10 in the Stern-process model template calls for the design of what is termed "ideal" distribution system management models.

Proposed "ideal" distribution system management models for South Africa were presented in Chapter 13 and those for Australia in Chapter 14.

Given similarities between the South African and Australian markets, the overall approach to addressing the challenges of distribution of crop protection products by research-based manufacturers is deemed to be the same. Given, however, the fragmented nature of distribution in South Africa, compared to the strength of the leading five distributors in Australia, implementation of the proposals for “forward integration” in the distribution system might be more difficult in Australia as was proposed for manufacturers with extensive product portfolios.

15.2.7 PART VII : SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Chapter 15 related to this Summary, Conclusions and Recommendations.

15.3 MAJOR CONCLUSIONS OF THE STUDY

From the findings of this study it can be concluded that:

- The crop protection industry is expected to become even more competitive, resulting in increased margin pressure and a strengthening of the bargaining position of distributors due to numerous, and increasing, sources of generic product supply.
- Meaningful and interactive relationships with distributors (customers) can only be developed and maintained if the entire process of manufacturer and distributor interaction is well understood and managed, using appropriate distribution management models.
- Developing customer focused distribution system management models calls for a well structured process as proposed by the Stern-process model template.
- The distribution system management models proposed will assist in balancing direct distribution related cost and levels of control over distribution, based on the overall approach to direct resources selectively at targeted distributors and pro-actively addressing and managing their “needs and wants” as identified in this study.
- Based on the primary research conducted, it may be concluded that manufacturers in general are not effectively managing the factors that play a role

in the relationship between manufacturers and distributors.

- The study established a list of key factors which determine the relationship between manufacturers and distributors in order to improve the levels of customer service, customer intimacy and operational excellence, thus addressing the secondary aim of the study.
- Effective management of the requirements of distributors by manufacturers will increase the probability that distributors will actively promote the product portfolio of manufacturers in an environment where distributors have numerous sources of product supply.
- The provision of proposed “ideal” distribution system management models for manufacturers in both South Africa and Australia addresses the primary aim of this study as well as the problem statement.
- The proposed “ideal” distribution system management models only form a basic outline that has to be adapted by a specific manufacturer, using Steps 11-14 in the Stern-process model template, in order to provide an “optimal” and company specific distribution system management model.
- Manufacturers with different levels of inherent product portfolio strength will require a different approach to the development of optimal distribution system management models, as was evident from the direct linkage in the study between product portfolio strength and the corresponding “ideal” distribution system management model.
- Manufacturers have to play a more active part in determining their own destiny by elevating the importance of distribution system management to that of a strategic issue and ensuring enough thought and resources are made available to the planning and implementation of distribution management systems.

The literature search, the primary research and the proposed “ideal” distribution system management models address the problem statement and associated issues adequately for a manufacturer of crop protection products to have a sound knowledge base in order to embark on the process to develop an “optimal” distribution system management model for the particular manufacturer.

15.4 RECOMMENDATIONS FOR MANUFACTURERS

As a result of this study, the following recommendations may be made for manufacturers:

- Ensure that a formal company specific distribution management system model is designed and implemented.
- Ensure that the distributor requirements (needs and wants), are addressed in the formal distribution management model of the company.
- Ensure that all relevant staff are familiar with these requirements and know what their respective roles are as they pertain to these requirements.
- Ensure that the manufacturer's performance, against requirements, are measured from the perspective of distributors on a regular basis.
- Ensure that only well trained and experienced staff are appointed that have the required profile to work in an environment that requires high levels of interpersonal relationship maintenance.
- Instil the philosophy that distribution system management is part of a manufacturer's strategic business and marketing focus and not simply a task to be performed by a third party.

15.5 RECOMMENDATIONS FOR FURTHER RESEARCH

Three aspects may be identified that warrants further in-depth research as it relates to distribution system management models in the crop protection industry, namely a rigorous analysis of farmer requirements (needs and wants), e-commerce and biotechnology.

Although not a specific part of this study, it can be argued that the farmers' requirements (needs and wants) have a major influence on aspects determining the nature of the relationships between manufacturers (product suppliers) and distributors.

A detailed discussion on farmer requirements was not an oversight of this study, given the definition of distributors as the customers of the manufacturers (product suppliers). Given, however, the argument that the farmer is the “ultimate” customer of the manufacturers, the view is expressed that a study on farmer requirements will greatly augment this study for the purpose of later integration of the findings into a holistic marketing strategy for the crop protection industry.

The Internet is fast becoming an important new distribution channel for commerce in many businesses. The possible role of Internet “business to consumer” functionality in the crop protection industry needs further investigation as a possible way for manufacturers to bypass distributors in some instances and to interact directly with farmers.

The web makes prices more transparent and it makes information available in real time. This will make customers more powerful (Crowe, 2000 : 28). It can be reasoned that in the crop protection industry both distributors and farmers will gain more price transparency via Internet based distribution systems, putting both parties at a better bargaining position in relation to manufacturers. The issue of price transparency is also reviewed by Griffith (1999:34-42).

The challenge for manufacturers of crop protection products will be to design web based distribution models that will benefit the manufacturer but at the same time not disrupt long-standing and valued distribution channel relationships. Maira and Taylor (1999 : 13) refers to the term “fluid-network organisations” as an approach to address this challenge. Research on the approaches which crop protection product manufacturers should take with regards to electronic marketing will serve to augment the present study. Evans and Wurster (1999:85-94) also provides insights into approaches that manufacturers should consider in the e-commerce environment that could also provide input into applicable studies for the crop protection industry. Also see Christensen and Tedlow (2000:42-45) for comments on the foreseen impact of e-commerce on distribution channels. Katz and Rothfeder (2000:26-41) see e-commerce as an opportunity for manufacturers rather than a threat because it provides manufacturers with the opportunity to open new ways of distributing their products. At the same time, however, Internet technology provides entrepreneurs,

not present in a specific industry, the opportunity to enter rapidly because entry barriers are lowered by the new technology (Hirsh, Rodewig, Soliman and Wheeler, 1999:42).

Biotechnology is increasingly used by many dominant players in the crop protection industry as a springboard to create new market opportunities beyond the traditional crop protection products. By acquiring or forming joint ventures with companies in the seed and downstream food and feed markets, these players clearly intend to create global integrated agribusiness enterprises (*Pesticide Outlook*, 2000:8). This development can result in a change of the profile of the "traditional" crop protection product manufacturer as well as the overall structure of agricultural input and output supply structures. The possible impact these developments will have on the future distribution channels for crop protection products should be thoroughly investigated. Functional foods, as premium-priced products that provide health benefits documented in clinical trials, comprise a potential US\$60 billion market annually (Moore and Eig, 2000 : 4). Manufacturers of crop protection products need to take strategic decisions if their present distribution system models should be expanded to include the linkage of the distribution of crop protection products, genetically modified seeds, the traditional crop protection product distributors, food processors and marketers of functional food in an integrated production input (crop protection products and seeds) and production output (genetically modified foods) into an inter-linked food chain alliance.

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Appendix A

Questionnaire to identify the factors that determine the relationship between manufacturers and distributors of crop protection products in South Africa

1. Regions:

Free State/East Tvl/ West Tvl	Cape
North Tvl/Lowveld	Natal

2. Classification: Patent Generic

Respondent's:

3. Name:

4. Location:

STICK LABEL HERE

5. Phone number:

6. Interviewer:

7. Date of interview:

8. Anonymous: YES

NOTE: THIS SURVEY HAS BEEN COMMISSIONED BY AN INTERNATIONAL AGRICULTURAL CHEMICAL COMPANY WHO REQUESTS YOU ANSWER THE FOLLOWING QUESTIONS. YOUR RESPONSES WILL REMAIN ANONYMOUS AS THE COMPANY WILL ONLY RECEIVE A GRAPHIC REPORT PORTRAYING THE AVERAGE RESPONSES OF RESPONDENTS.

Q1. **AWARENESS: CORPORATE:**Q1.1 **DEALERS:**

Please name the dealerships, or distributors, with whom you are affiliated, or from whom you draw the crop protection chemicals you sell, in the order of their importance to you.

Sequence of mention	List the firms in the order given	Weight
1		7
2		6
3		5
4		4
5		3
6		2
7		1

Q1.2 **AWARENESS: CORPORATE:****CROPS:**

What are the main crops grown in your area from which you derive your sales? Please list them in the order of their importance to you.

Sequence of mention	List the crops in the order given	Weight
1		7
2		6
3		5
4		4
5		3
6		2
7		1

Q1.3 **AWARENESS: CORPORATE:****PATENT PRODUCT MANUFACTURERS:**

Please name the research-based manufacturers of patented agricultural chemicals whose products you sell, listing the companies in the order of their importance to your business.

Sequence of mention	List the companies in the order given	Weight
1		7
2		6
3		5
4		4
5		3
6		2
7		1

AWARENESS: CORPORATE:**Q1.4 GENERIC PRODUCT DISTRIBUTORS:**

Please list the suppliers of generic agricultural chemicals whose products you sell, listing the companies in the order of their importance to you in your business.

Sequence of mention	List the companies in the order given	Weight
1		7
2		6
3		5
4		4
5		3
6		2
7		1

Q2. IMPORTANCE FACTORS: CORPORATE:**Q2.1 PATENT PRODUCT MANUFACTURER SELECTION CRITERIA:**

In Q1.3 you named (Enter name) your most important supplier of research based products: Why did you elect to be an agent for this manufacturer? What does this manufacturer have, or do, that made you decide to represent them? Please list your research based product supplier criteria in the order of their importance to you. (Please be specific.)

Sequence of mention	List the criteria in the order given	Weight
1		7
2		6
3		5
4		4
5		3
6		2
7		1

IMPORTANCE FACTORS: CORPORATE:**Q2.2 GENERIC PRODUCT SUPPLIER SELECTION CRITERIA:**

In Q1.4 you named (Enter name) as your most important supplier of generic products: Why did you elect to be an agent for this supplier of generic products? What does this generic product supplier have, or do, that made you decide to sell their products? Please list your generic product supplier criteria in the order of their importance to you. (Please be specific.)

Sequence of mention	List the criteria in the order given	Weight
1		7
2		6
3		5
4		4
5		3
6		2
7		1

**Q2.3 IMPORTANCE FACTORS: CORPORATE:
IDEAL MANUFACTURER CRITERIA:**

Suppose you were to find an ideal manufacturer, and/or distributor of patented agricultural chemicals for your purposes: What would such a manufacturer have, or do, that would make them an ideal supplier of patented chemicals for your business? Please list your ideal patented product supplier criteria in the order of their importance to you. (Please be specific.)

Sequence of mention	List the criteria in the order given	Weight
1		7
2		6
3		5
4		4
5		3
6		2
7		1

**Q2.4 IMPORTANCE FACTORS: CORPORATE:
BACKUP SUPPORT:**

Thinking about backup support and service to you in the agricultural chemical supply business: What do you consider to be the key factors of supplier backup support and service to you? Please list your supplier support criteria in the order of their importance to you:

Sequence of mention	List the criteria in the order given	Weight
1		7
2		6
3		5
4		4
5		3
6		2
7		1

**Q2.5 IMPORTANCE FACTORS: CORPORATE:
FARMER BRAND SELECTION CRITERIA:**

When your customers purchase their agricultural chemicals from you: What are their product selection criteria as you perceive them to be? What do they look for when they make their choices/decisions regarding the crop protection chemicals they buy and use?

Sequence of mention	List the criteria in the order given	Weight
1		7
2		6
3		5
4		4
5		3
6		2
7		1

Q4. PRODUCT DEVELOPMENT and PRICING RATINGS:

* Please rate your degree of agreement with the following statements:

		_____						fully
	N/A	disagree				agree		
	0	1	2	3	4	5	6	7
Q4.1	A good well branded product always commands a premium price.							
Q4.2	Farmers buy the cheapest products even if they are inferior.							
Q4.3	Agents should be consulted by suppliers in the development of pricing and pricing policies.							
Q4.4	Agents should be consulted in the development of packaging.							
Q4.5	Suppliers should customise their products and packaging appropriate to their distributors.							
Q4.6	A comprehensive range of good products is more important to an agent than cheap pricing.							

Q5 EXCLUSIVITY and INTER DEPENDENCE RATINGS:

* Please rate your degree of agreement with the following statements:

		_____						fully
	N/A	Disagree				agree		
	0	1	2	3	4	5	6	7
Q5.1	Agents should be free to source products from any and all suppliers.							
Q5.2	Exclusive distribution reduces price cutting.							
Q5.3	Exclusive distribution enables an agent to command a higher selling price and a better profit margin.							
Q5.4	Agents always put more effort into selling exclusive brands.							
Q5.5	Agents with exclusive distribution rights should not sell directly competing products.							
Q5.6	Exclusivity leads to long-term relationships with mutual long-term benefits for both the supplier and the agent.							
Q5.7	Exclusivity is only practical if the supplier has a comprehensive range of good products.							
Q5.8	Suppliers should offer long-term commitment to agents.							
Q5.9	Agents should offer long-term and exclusive selling commitment to a supplier.							
Q5.10	Supplier/distributor contracts should be re-negotiated every year.							
Q5.11	Suppliers should support agents that have long-term contracts in bad times.							
Q5.12	Suppliers should know and understand an agents business and farming area.							

Q6 TECHNICAL SUPPORT RATINGS:

* Exclusive Products:

In the case of **exclusive distribution** agreements how important are the following in your opinion:

	N/A	no need	_____				vital	
	0	1	2	3	4	5	6	7
Q6.1 Readily available technical support from the supplier?	0	1	2	3	4	5	6	7
Q6.2 Assistance from the supplier in serving key accounts/farmers?	0	1	2	3	4	5	6	7
Q6.3 Assistance in investigating claims?	0	1	2	3	4	5	6	7
Q6.4 Assistance in solving product related problems eg. efficacy?	0	1	2	3	4	5	6	7
Q6.5 Frequent regular visits from technical staff of the supplier?	0	1	2	3	4	5	6	7
Q6.6 Product training from technical staff?	0	1	2	3	4	5	6	7

* Generic/Commodity Products:

In the selling of **generic or commodity** products how important are the following in your opinion:

	N/A	no need	_____				vital	
	0	1	2	3	4	5	6	7
Q6.7 Readily available technical support from the supplier?	0	1	2	3	4	5	6	7
Q6.8 Assistance from the supplier in serving key accounts?	0	1	2	3	4	5	6	7
Q6.9 Assistance in investigating claims?	0	1	2	3	4	5	6	7
Q6.10 Assistance in solving product related problems eg. efficacy?	0	1	2	3	4	5	6	7
Q6.11 Frequent visits from technical staff of the supplier?	0	1	2	3	4	5	6	7
Q6.12 Product training from technical staff?	0	1	2	3	4	5	6	7

Q7 COMMUNICATION RATINGS:

* How much weight do you place on the following forms of communication with your suppliers in the running of your business:

	N/A	no consequence	_____				vital	
	0	1	2	3	4	5	6	7
Q7.1 Easy access on the telephone?	0	1	2	3	4	5	6	7
Q7.2 Faxes?	0	1	2	3	4	5	6	7
Q7.3 E-mail?	0	1	2	3	4	5	6	7
Q7.4 Technical product literature?	0	1	2	3	4	5	6	7
Q7.5 Product training?	0	1	2	3	4	5	6	7
Q7.6 Selling skills training?	0	1	2	3	4	5	6	7
Q7.7 Newsletters?	0	1	2	3	4	5	6	7
Q7.8 Conferences/seminars?	0	1	2	3	4	5	6	7
Q7.9 Supplier visits to you?	0	1	2	3	4	5	6	7
Q7.10 Product launches/meetings?	0	1	2	3	4	5	6	7
Q7.11 Farmer visits with supplier staff?	0	1	2	3	4	5	6	7
Q7.12 Product sales literature?	0	1	2	3	4	5	6	7
Q7.13 Corporate manufacturer literature?	0	1	2	3	4	5	6	7
Q7.14 Farm trials?	0	1	2	3	4	5	6	7
Q7.15 Demonstration sites?	0	1	2	3	4	5	6	7
Q7.16 Spray programmes?	0	1	2	3	4	5	6	7
Q7.17 Farmer Days?	0	1	2	3	4	5	6	7
Q7.18 Promotional videos?	0	1	2	3	4	5	6	7
Q7.19 Magazine/journal advertising?	0	1	2	3	4	5	6	7
Q7.20 Radio advertising?	0	1	2	3	4	5	6	7
Q7.21 TV advertising?	0	1	2	3	4	5	6	7
Q7.22 Corporate manufacturer advertising?	0	1	2	3	4	5	6	7
Q7.23 Presentations at farmer meetings/study groups?	0	1	2	3	4	5	6	7

Q8 POLICY AND SUPPORT RATINGS:

* Please rate your perceptions regarding the value of the following to you in the successful running of your business. In your supplier providing:

	no consequence							vital	
	N/A	0	1	2	3	4	5	6	7
Q8.1 A broad, comprehensive range of products.	0	1	2	3	4	5	6	7	
Q8.2 All the products you require.	0	1	2	3	4	5	6	7	
Q8.3 Some market brand leaders.	0	1	2	3	4	5	6	7	
Q8.4 New technology products.	0	1	2	3	4	5	6	7	
Q8.5 New products in the pipe line.	0	1	2	3	4	5	6	7	
Q8.6 A comprehensive research and trials programme in South Africa.	0	1	2	3	4	5	6	7	
Q8.7 Reliable product deliveries.	0	1	2	3	4	5	6	7	
Q8.8 Effective product brand building among farmers.	0	1	2	3	4	5	6	7	
Q8.9 Open channels of communication.	0	1	2	3	4	5	6	7	
Q8.10 Joint planning exercises.	0	1	2	3	4	5	6	7	
Q8.11 Mutual trust and cooperation.	0	1	2	3	4	5	6	7	
Q8.12 To be involved in the development of biotechnology products.	0	1	2	3	4	5	6	7	

In Q1.3 and Q1.4 the names of the suppliers are given. Select the category to be rated Patent Generic (tick box) and proceed as follows:

I would now like to ask you some questions about (enter name) the product supply company you mentioned in Q1.

Q9. SERVICE, CONTACT AND ACCESSIBILITY RATINGS:

* How long have you been:

- Q9.1 An agent in your present area?
- Q9.2 Selling their products?

N/A Number of years of service:

0	1	2	3	4	5	6	7+
0	1	2	3	4	5	6	7+

* In a normal year how often would you be visited by their:

- Q9.3 Regional Manager?
- Q9.4 Any other of their management personnel?

N/A Number of visits per year:

0	1	2	3	4	5	6	7+
0	1	2	3	4	5	6	7+

* Assuming you wished to contact this company for any reason, how would you rate accessibility (ease of contact) of the company's:

	very difficult							very easy	
	N/A	0	1	2	3	4	5	6	7
Q9.5 Regional Manager?	0	1	2	3	4	5	6	7	
Q9.6 Product managers?	0	1	2	3	4	5	6	7	
Q9.7 Any other head office personnel?	0	1	2	3	4	5	6	7	

Q11 CORPORATE QUALITY RATINGS:

* How would you rate the company in terms of quality in the following respects: The quality of their:

	very _____							
	N/A	poor					excellent	
	0	1	2	3	4	5	6	7
Q11.1 Communication / keeping you generally informed?	0	1	2	3	4	5	6	7
Q11.2 Forward planning?	0	1	2	3	4	5	6	7
Q11.3 Co-ordination / general efficiency?	0	1	2	3	4	5	6	7
Q11.4 Ideas/innovation?	0	1	2	3	4	5	6	7
Q11.5 Strategy planning?	0	1	2	3	4	5	6	7
Q11.6 Brand building?	0	1	2	3	4	5	6	7
Q11.7 Support for their products in the field?	0	1	2	3	4	5	6	7
Q11.8 Support for their agents?	0	1	2	3	4	5	6	7
Q11.9 Delivery service?	0	1	2	3	4	5	6	7
Q11.10 Technical backup support services?	0	1	2	3	4	5	6	7
Q11.11 General administration/accounting?	0	1	2	3	4	5	6	7
Q11.12 New product research capability?	0	1	2	3	4	5	6	7
Q11.13 New product development?	0	1	2	3	4	5	6	7
Q11.14 Marketing ability?	0	1	2	3	4	5	6	7
Q11.15 Company image?	0	1	2	3	4	5	6	7
Q11.16 Credibility among farmers?	0	1	2	3	4	5	6	7
Q11.17 Professionalism?	0	1	2	3	4	5	6	7
Q11.18 Ethics / honesty?	0	1	2	3	4	5	6	7
Q11.19 Resources generally?	0	1	2	3	4	5	6	7
Q11.20 Management generally?	0	1	2	3	4	5	6	7
Q11.21 Environmental awareness?	0	1	2	3	4	5	6	7
Q11.22 Stock management and availability?	0	1	2	3	4	5	6	7

Appendix B

Questionnaire to identify the factors that determine the relationship between manufacturers and distributors of crop protection products in Australia

1. Regions:

Queensland	New South Wales	Victoria
Western Australia	South Australia	Tasmania

Respondent's:

3. Name:

4. Location:

STICK LABEL HERE

5. Phone number:

6. Interviewer:

7. Date of interview:

8. Anonymous: YES

NOTE: THIS SURVEY HAS BEEN COMMISSIONED BY AN INTERNATIONAL AGRICULTURAL CHEMICAL COMPANY WHO REQUESTS YOU ANSWER THE FOLLOWING QUESTIONS. YOUR RESPONSES WILL REMAIN ANONYMOUS AS THE COMPANY WILL ONLY RECEIVE A GRAPHIC REPORT PORTRAYING THE AVERAGE RESPONSES OF RESPONDENTS.

Q1. AWARENESS: CORPORATE:**Q1.1 DEALERS:**

Please name the group or distribution network with whom you are affiliated, or from whom you draw the crop protection chemicals you sell, in the order of their importance to you.

Sequence of mention	List the firms in the order given	Weight
1		7
2		6
3		5
4		4
5		3
6		2
7		1

Q1.2 AWARENESS: CORPORATE:**Q1.2 CROPS:**

What are the main crops grown in your area from which you derive your sales? Please list them in the order of their importance to you.

Sequence of mention	List the crops in the order given	Weight
1		7
2		6
3		5
4		4
5		3
6		2
7		1

**Q1.3 AWARENESS: CORPORATE:
PATENT PRODUCT MANUFACTURERS:**

Please name the research-based manufacturers of patented agricultural chemicals whose products you sell, listing the companies in the order of their importance to your business.

Sequence of mention	List the companies in the order given	Weight
1		7
2		6
3		5
4		4
5		3
6		2
7		1

**Q1.4 AWARENESS: CORPORATE:
GENERIC PRODUCT DISTRIBUTORS:**

Please list the suppliers of generic agricultural chemicals whose products you sell, listing the companies in the order of their importance to you in your business.

Sequence of mention	List the companies in the order given	Weight
1		7
2		6
3		5
4		4
5		3
6		2
7		1

Q2. IMPORTANCE FACTORS: CORPORATE:
Q2.1 PATENT PRODUCT MANUFACTURER SELECTION CRITERIA:

In Q1.3 you named (Enter name) your most important supplier of research based products: Why did you elect to work closely with this manufacturer? What does this manufacturer have, or do, that made you decide to support them? Please list your research based product supplier criteria in the order of their importance to you. (Please be specific.)

Sequence of mention	List the criteria in the order given	Weight
1		7
2		6
3		5
4		4
5		3
6		2
7		1

Q2.2 IMPORTANCE FACTORS: CORPORATE:
GENERIC PRODUCT SUPPLIER SELECTION CRITERIA:

In Q1.4 you named (Enter name) as your most important supplier of

generic products: Why did you elect to work closely with this supplier of generic products? What does this generic product supplier have, or do, that made you decide to sell their products? Please list your generic product supplier criteria in the order of their importance to you. (Please be specific.)

Sequence of mention	List the criteria in the order given	Weight
1		7
2		6
3		5
4		4
5		3
6		2
7		1

**Q2.3 IMPORTANCE FACTORS: CORPORATE:
IDEAL MANUFACTURER CRITERIA:**

Suppose you were to find an ideal manufacturer, and/or supplier of patented agricultural chemicals for your purposes: What would such a manufacturer have, or do, that would make them an ideal supplier of patented chemicals for your business? Please list your ideal patented product supplier criteria in the order of their importance to you. (Please be specific.)

Sequence of mention	List the criteria in the order given	Weight
1		7
2		6
3		5
4		4
5		3
6		2
7		1

**Q2.4 IMPORTANCE FACTORS: CORPORATE:
BACKUP SUPPORT:**

Thinking about backup support and service to you in the agricultural chemical supply business: What do you consider to be the key factors of supplier backup support and service to you? Please list your supplier support criteria in the order of their importance to you:

Sequence of mention	List the criteria in the order given	Weight
1		7
2		6
3		5
4		4
5		3
6		2
7		1

**Q2.5 IMPORTANCE FACTORS: CORPORATE:
FARMER BRAND SELECTION CRITERIA:**

When your customers (farmers) purchase their agricultural chemicals from you: What are their product selection criteria as you perceive them to be? What do they look for when they make their choices/decisions regarding the crop protection chemicals they buy and use?

Sequence of mention	List the criteria in the order given	Weight
1		7
2		6
3		5
4		4
5		3
6		2
7		1

**Q2.6 IMPORTANCE FACTORS: CORPORATE:
SUPPLIER SHORTCOMINGS:**

In your opinion where do the manufacturers of research based crop protection products fall short in the marketing of their products? What are their shortcomings in the marketing of their products to farmers and/or in their support of their distributors and resellers? Please list their shortcomings in the order of their importance as you perceive them to be.

Sequence of mention	List the criteria in the order given	Weight
1		7
2		6
3		5
4		4
5		3
6		2
7		1

Q3. BRAND IMPORTANCE RATINGS:

* Patented Products:

In the selling of **new research based, ie patented, crop protection products**: How important are the following attributes in your opinion:

N/A no consequence ————— vital

- Q3.1 A unique product benefit?
- Q3.2 Efficacy?
- Q3.3 Cost-effectiveness?
- Q3.4 Environmental safety?
- Q3.5 Packaging ease-of-use?
- Q3.6 Packaging ease of disposal?
- Q3.7 Label appearance?
- Q3.8 Label ease-of-use instructions?
- Q3.9 The name of the manufacturer?
- Q3.10 Awareness of the brand name?
- Q3.11 Pricing?
- Q3.12 Rebate programme of the supplier?

	0	1	2	3	4	5	6	7
Q3.1	0	1	2	3	4	5	6	7
Q3.2	0	1	2	3	4	5	6	7
Q3.3	0	1	2	3	4	5	6	7
Q3.4	0	1	2	3	4	5	6	7
Q3.5	0	1	2	3	4	5	6	7
Q3.6	0	1	2	3	4	5	6	7
Q3.7	0	1	2	3	4	5	6	7
Q3.8	0	1	2	3	4	5	6	7
Q3.9	0	1	2	3	4	5	6	7
Q3.10	0	1	2	3	4	5	6	7
Q3.11	0	1	2	3	4	5	6	7
Q3.12	0	1	2	3	4	5	6	7

* Generic Products:

In the selling of **generic or commodity crop protection products** how important are the following attributes in your opinion:

N/A no consequence ————— vital

- Q3.12 Efficacy?
- Q3.13 Cost-effectiveness?
- Q3.14 Environmental safety?
- Q3.15 Packaging ease-of-use?
- Q3.16 Packaging ease of disposal?
- Q3.17 Label appearance?
- Q3.18 Label ease-of-use instructions?
- Q3.19 The name of the manufacturer?
- Q3.20 The development of a brand name?
- Q3.21 Pricing?
- Q3.22 Rebate programme of the supplier?

	0	1	2	3	4	5	6	7
Q3.12	0	1	2	3	4	5	6	7
Q3.13	0	1	2	3	4	5	6	7
Q3.14	0	1	2	3	4	5	6	7
Q3.15	0	1	2	3	4	5	6	7
Q3.16	0	1	2	3	4	5	6	7
Q3.17	0	1	2	3	4	5	6	7
Q3.18	0	1	2	3	4	5	6	7
Q3.19	0	1	2	3	4	5	6	7
Q3.20	0	1	2	3	4	5	6	7
Q3.21	0	1	2	3	4	5	6	7
Q3.22	0	1	2	3	4	5	6	7

Q4. PRODUCT DEVELOPMENT and PRICING RATINGS:


* Please rate your degree of agreement with the following statements:

N/A disagree  fully agree

Q4.1	A good well branded product always commands a premium price.	0	1	2	3	4	5	6	7
Q4.2	Farmers buy the cheapest products even if they are inferior.	0	1	2	3	4	5	6	7
Q4.3	Resellers should be consulted by suppliers in the development of pricing and pricing policies.	0	1	2	3	4	5	6	7
Q4.4	Resellers should be consulted in the development of packaging.	0	1	2	3	4	5	6	7
Q4.5	Suppliers should customise their products and packaging appropriate to their resellers.	0	1	2	3	4	5	6	7
Q4.6	A comprehensive range of good products is more important to a reseller than cheap pricing.	0	1	2	3	4	5	6	7

Q5. EXCLUSIVITY and INTER DEPENDENCE RATINGS:

* Please rate your degree of agreement with the following statements:

N/A disagree  fully agree

Q5.1	Resellers should be free to source products from any and all suppliers.	0	1	2	3	4	5	6	7
Q5.2	Exclusive distribution reduces price cutting.	0	1	2	3	4	5	6	7
Q5.3	Exclusive distribution enables a reseller to command a higher selling price and a better profit margin.	0	1	2	3	4	5	6	7
Q5.4	Resellers always put more effort into selling exclusive brands.	0	1	2	3	4	5	6	7
Q5.5	Resellers with exclusive distribution rights should not sell directly competing products.	0	1	2	3	4	5	6	7
Q5.6	Exclusivity leads to long-term relationships with mutual long-term benefits for both the supplier and the reseller.	0	1	2	3	4	5	6	7
Q5.7	Exclusivity is only practical if the supplier has a comprehensive range of good products.	0	1	2	3	4	5	6	7
Q5.8	Suppliers should offer long-term commitment to resellers.	0	1	2	3	4	5	6	7
Q5.9	Resellers should offer long-term and exclusive selling commitment to a supplier.	0	1	2	3	4	5	6	7
Q5.10	Supplier/distributor contracts should be re-negotiated every year.	0	1	2	3	4	5	6	7
Q5.11	Suppliers should support resellers that have long-term contracts in bad times.	0	1	2	3	4	5	6	7
Q5.12	Suppliers should know and understand a resellers business and farming area.	0	1	2	3	4	5	6	7

Q6 TECHNICAL SUPPORT RATINGS:

* Exclusive Products:

In the case of **exclusive distribution** agreements how important are the following in your opinion:

N/A no need ————— vital

Q6.1	Readily available technical support from the supplier?	0	1	2	3	4	5	6	7
Q6.2	Assistant from the supplier in serving key accounts/farmers?	0	1	2	3	4	5	6	7
Q6.3	Assistance in investigating claims?	0	1	2	3	4	5	6	7
Q6.4	Assistance in solving product related problems eg. Efficacy?	0	1	2	3	4	5	6	7
Q6.5	Frequent regular visits from technical staff of the supplier?	0	1	2	3	4	5	6	7
Q6.6	Product training from technical staff?	0	1	2	3	4	5	6	7

* Generic/Commodity Products:

In the selling of **generic or commodity** products how important are the following in your opinion:

N/A no need ————— vital

Q6.7	Readily available technical support from the supplier?	0	1	2	3	4	5	6	7
Q6.8	Assistance from the supplier in serving key accounts?	0	1	2	3	4	5	6	7
Q6.9	Assistance in investigating claims?	0	1	2	3	4	5	6	7
Q6.10	Assistance in solving product related problems eg. efficacy?	0	1	2	3	4	5	6	7
Q6.11	Frequent visits from technical staff of the supplier?	0	1	2	3	4	5	6	7
Q6.12	Product training from technical staff?	0	1	2	3	4	5	6	7

Q7 COMMUNICATION RATINGS:

* How much weight do you place on the following forms of communication with your suppliers in the running of your business:

no
N/A consequence ————— vital

Q7.1	Easy access on the telephone?	0	1	2	3	4	5	6	7
Q7.2	Faxes?	0	1	2	3	4	5	6	7
Q7.3	E-mail?	0	1	2	3	4	5	6	7
Q7.4	Technical product literature?	0	1	2	3	4	5	6	7
Q7.5	Product training?	0	1	2	3	4	5	6	7
Q7.6	Selling skills training?	0	1	2	3	4	5	6	7
Q7.7	Newsletters?	0	1	2	3	4	5	6	7
Q7.8	Conferences/seminars?	0	1	2	3	4	5	6	7
Q7.9	Supplier visits to you?	0	1	2	3	4	5	6	7
Q7.10	Product launches/meetings?	0	1	2	3	4	5	6	7
Q7.11	Farmer visits with supplier staff?	0	1	2	3	4	5	6	7
Q7.12	Product sales literature?	0	1	2	3	4	5	6	7
Q7.13	Corporate manufacturer literature?	0	1	2	3	4	5	6	7
Q7.14	Farm trials?	0	1	2	3	4	5	6	7
Q7.15	Demonstration sites?	0	1	2	3	4	5	6	7
Q7.16	Spray programmes?	0	1	2	3	4	5	6	7
Q7.17	Farmer Days?	0	1	2	3	4	5	6	7
Q7.18	Promotional videos?	0	1	2	3	4	5	6	7
Q7.19	Magazine/journal advertising?	0	1	2	3	4	5	6	7
Q7.20	Radio advertising?	0	1	2	3	4	5	6	7
Q7.21	TV advertising?	0	1	2	3	4	5	6	7
Q7.22	Corporate manufacturer advertising?	0	1	2	3	4	5	6	7
Q7.23	Presentations at farmer meetings/study groups?	0	1	2	3	4	5	6	7

Q8 POLICY AND SUPPORT RATINGS:

* Please rate your perceptions regarding the value of your supplier providing the following to you in the successful running of your business. In your supplier providing:

N/A ^{no} consequence ——— vital

Q8.1	A broad, comprehensive range of products.	0	1	2	3	4	5	6	7
Q8.2	All the products you require.	0	1	2	3	4	5	6	7
Q8.3	Some market brand leaders.	0	1	2	3	4	5	6	7
Q8.4	New technology products.	0	1	2	3	4	5	6	7
Q8.5	New products in the pipe line.	0	1	2	3	4	5	6	7
Q8.6	A comprehensive research and trials programme in South Africa.	0	1	2	3	4	5	6	7
Q8.7	Reliable product deliveries.	0	1	2	3	4	5	6	7
Q8.8	Effective product brand building among farmers.	0	1	2	3	4	5	6	7
Q8.9	Open channels of communication.	0	1	2	3	4	5	6	7
Q8.10	Joint planning exercises.	0	1	2	3	4	5	6	7
Q8.11	Mutual trust and cooperation.	0	1	2	3	4	5	6	7
Q8.12	To be involved in the development of biotechnology products.	0	1	2	3	4	5	6	7

In Q1.3 and Q1.4 the names of the suppliers are given. Select the category to be rated Patent Generic (tick box) and proceed as follows:

I would now like to ask you some questions about (enter name) the product supply company you mentioned in Q1.

Q9. SERVICE, CONTACT AND ACCESSIBILITY RATINGS:

* How long have you been:

N/A Number of years of service:

Q9.1	A reseller in your present area?	0	1	2	3	4	5	6	7+
Q9.2	Selling their products?	0	1	2	3	4	5	6	7+

* In a normal year how often would you be visited by their:

N/A Number of visits per year:

Q9.3 Territory Manager?

0	1	2	3	4	5	6	7+
---	---	---	---	---	---	---	----

Q9.4 State Sales Manager?

0	1	2	3	4	5	6	7+
---	---	---	---	---	---	---	----

Q9.5 Any other of their management personnel?

0	1	2	3	4	5	6	7+
---	---	---	---	---	---	---	----

* Assuming you wished to contact this company for any reason, how would you rate accessibility (ease of contact) of the company's:

N/A very difficult _____ very easy

Q9.6 Territory Manager?

0	1	2	3	4	5	6	7+
---	---	---	---	---	---	---	----

Q9.7 State Sales Manager?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q9.8 Business Managers?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q9.9 National Sales Manager?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q9.10 Any other head office personnel?

0	1	2	3	4	5	6	7+
---	---	---	---	---	---	---	----

Q10. AGENT INVOLVEMENT, COMMUNICATION AND SPEED RATINGS:

* How would you rate this company in the following respects. For their:

N/A very poor _____ excellent

Q10.1 Understanding of your business?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q10.2 Understanding your particular needs / problems?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q10.3 Interest shown in your business?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q10.4 Commitment to the success of your business?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q10.5 Care taken in helping you to succeed?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q10.6 Time spent with you in advice and assistance?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q10.7 Sense of urgency when necessary?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q10.8 Loyalty to you?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

* How would you rate the company in terms of providing you with pertinent:

Q10.9 Sales and other information?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q10.10 Product sales literature?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q10.11 Technical literature?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q10.12 Sample products for trial / testing?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q10.13 Crop training?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q10.14 Product training?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q10.15 Sales training?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

* How would you rate the company's speed in:

N/A very slow _____ very fast

Q10.16 Becoming aware of a particular situation in the market place?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q10.17 Responding to your call for any reason?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q10.18 Fulfilling a promise or commitment made to you?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q10.19 Delivering a normal order under normal circumstances?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q10.20 Delivering an urgent order?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q10.21 Providing technical advice?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q10.22 Solving a technical problem or customer complaint?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q11 CORPORATE QUALITY RATINGS:

* How would you rate the company in terms of quality in the following respects: The quality of their:

very
N/A poor ————— excellent

Q11.1 Communication / keeping you generally informed?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q11.2 Forward planning?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q11.3 Co-ordination / general efficiency?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q11.4 Ideas/innovation?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q11.5 Strategy planning?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q11.6 Brand building?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q11.7 Support for their products in the field?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q11.8 Support for their resellers?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q11.9 Delivery service?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q11.10 Technical backup support services?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q11.11 General administration/accounting?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q11.12 New product research capability?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q11.13 New product development?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q11.14 Marketing ability?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q11.15 Company image?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q11.16 Credibility among farmers?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q11.17 Professionalism?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q11.18 Ethics / honesty?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q11.19 Resources generally?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q11.20 Management generally?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q11.21 Environmental awareness?

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Q11.22 Stock management and availability?

0	1	2	3	4	5	6	7
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Q12 MARKETING RESOURCE and POLICY RATINGS:

- * Finally, please rate your perceptions regarding this company's marketing resources and policies as follows. How would you rate:

very
N/A poor ————— excellent

Q12.1	The quality of their products generally?	0	1	2	3	4	5	6	7
Q12.2	Their pricing structures and policies?	0	1	2	3	4	5	6	7
Q12.3	Ease of access to any of their products by any grower?	0	1	2	3	4	5	6	7
Q12.4	Their policies regarding exclusivity in distribution?	0	1	2	3	4	5	6	7
Q12.5	Their knowledge, expertise regarding the products they sell?	0	1	2	3	4	5	6	7
Q12.6	Their present sales through your business?	0	1	2	3	4	5	6	7
Q12.7	All else being equal, their future sales through your business?	0	1	2	3	4	5	6	7
