

**COMPETITIVE STRATEGIES FOR MULTIPLE
INDUSTRIAL ESTATES
A CASE STUDY OF MULTI-BUSINESS CHEMICAL ESTATES
IN SOUTH AFRICA**

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**University of Twente, The Netherlands
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**COMPETITIVE STRATEGIES FOR MULTIPLE INDUSTRIAL
ESTATES**

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IN SOUTH AFRICA**

DISSERTATION

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on the authority of the rector magnificus,
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Dedicated to my wife, Bets, and children, Izak, Andrew, Mary and Johann

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‘Teach me your way, O Lord, that I may walk in your truth’.

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SUMMARY

Job creation and economic growth are national imperatives for ensuring future political stability in many developing countries. The export of locally manufactured goods is an important component of such a development strategy. Manufacturing industries are often clustered into industrial estates because those estates are recognised as a means of job creation. Unfortunately industrial estates are also renowned for their potential adverse safety, health and environmental (SHE) impact. With the increasing worldwide emphasis on sustainability, manufacturing will not be allowed to compromise the high standards of corporate behaviour demanded by the international community. As a new democracy, South Africa is a typical developing country that has opted for such a development strategy. The chemical industry is a significant component of South Africa's manufacturing capability. A few dominant players in the industry own a number of industrial estates each and undertake a major portion of the manufacturing. Several estates in common ownership, as in this instance, are termed multiple estates. The development potential of such multiple chemical estates are easier to leverage because they belong to a few major operators. However, being chemical sites they entail greater SHE risk. It follows that industrial estates, which attain world class SHE standards and operating costs, can promote South African development through export manufacturing. There is a need, therefore, to examine the operation of multiple industrial estates in the South African chemical industry with a view to applying the outcome to similar situations in other countries.

Industrial estates have stakeholders in terms of Freeman's (1984) stakeholder theory. At a macro level the key stakeholder groups are those whose support is essential for the estates to be sustainable. These key stakeholders have alternatives with which the estates must compete in order to retain that support. Therefore, the central question this research addresses is: What strategies can multiple estates employ to be competitive? Three aspects of this question are considered: to whom should such strategies be directed; who should be responsible for the strategies; and what would such generic strategies entail. These questions are addressed in an in-depth and longitudinal case study over a period of six years concerning a multiple estate entity in the South African chemical industry.

The research found that an industrial estate could be represented as a dynamic system of key stakeholders. The key stakeholder groups, who must obtain value in respect of their principal requirements if the system is to be sustained, are the owner, tenants and external stakeholders. Their high-level value requirements from the estate are, respectively: an improved triple bottom line; enhanced competitive position; and better quality of life. The system that describes the interaction of key stakeholders comprises three cycles based on Senge's (1990) limits-to-growth archetype. The cycles, one for each of the key stakeholders, are found to pivot on the same point; a point that

denotes the impact of the estate's on-site operations. An estate manager is the appointed system custodian. Such an estate manager aligns itself better with stakeholder requirements when it is run according to business principles. The three cycles and common pivot point of the system provide the focus for each of four estate manager roles that have been termed: Landlord; Service Provider; Liaison; and Monitor. The estate manager is responsible for sustaining the estate by balancing the stakeholder groups' high-level requirements while employing strategies that deliver superior value.

Configuring multiple estates entails integrating multiple estate managers in an estates company according to Van der Brugge and Verburg's (1998) organisational concepts for multiple estates. In the absence of compelling strategic, environmental and technological contingencies, such an estates company can deliver superior value if it is independent. Estate managers from such an independent company will have fewer conflicts of interests and are better able to balance the diverging demands of stakeholders. Goold, Campbell and Alexander's (1994) parenting and parenting advantage concepts for multi-business entities such as estates companies are used. An estates company of multiple estate managers has such a parent, which is responsible for the company's value delivering strategies.

The structure adopted for value delivering strategies is based on Lanning's (1998) delivering profitable value framework. The framework conceptualises elements such as value, resulting experiences, value propositions and the value delivery system necessary for developing competitive strategies. Such strategies are directed at choosing, providing and communicating a value proposition that will sustain the industrial estate system for which estate managers are responsible. Choosing-strategies are proposed that designate the intended customer; formulate the value proposition; and identify the prerequisites necessary for the customer to receive the value proposition. Structuring the services portfolio of estate managers enables them to become 1st tier suppliers of integrated solutions to their estates. A 1st tier supplier is the supplier of choice for all services, some of which may be accessed from other suppliers. Integrated solutions provided according to the four estate manager roles are the essence of the providing-strategies proposed. The company parent supports these roles with strategies aimed at improving estate utilization, customer orientation, interaction with external stakeholders and control of the estates' adverse impacts. A further strategy is directed at the key success factors common to all estates and estate manager roles. Stakeholders require communicating-strategies that advise them of the value proposition that will be provided and several such strategies are proposed.

TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS	i
SUMMARY	iii
TABLE OF CONTENTS	v
LIST OF TABLES.....	xi
LIST OF FIGURES.....	xiii
LIST OF ABBREVIATIONS	xiv
CHAPTER 1 INTRODUCTION	1
1.1 Research background	1
1.1.1 International perspective.....	1
1.1.2 South African perspective	1
1.1.3 South African chemical industry	2
1.1.4 Industrial estates	3
1.1.5 Research motivation	3
1.1.6 Conclusion.....	4
1.2 Research setting	4
1.2.1 Single industrial estate.....	4
1.2.2 Configuring multiple industrial estates.....	6
1.2.3 Competitive strategies for multiple estates.....	6
1.2.4 Research objective.....	9
1.3 Research problem.....	10
1.3.1 Research questions	10
1.3.2 Unit of analysis.....	11
1.4 Research design and methodology.....	14
1.4.1 Research design	14
1.4.2 Research method	14
1.5 Research outline.....	16
CHAPTER 2 LITERATURE REVIEW.....	19
2.1 The concept of industrial estates.....	19
2.1.1 Stakeholder identity.....	19
2.1.2 Stakeholder interests.....	20
2.1.3 Estate manager.....	25
2.1.4 Modelling estate dynamics	27
2.2 Designing a multiple estates organisation	29
2.2.1 Organisation concepts for multiple estates	29
2.2.2 Integrated estates	31
2.2.3 Affiliation of the estates company	32
2.2.4 The estates company.....	33

2.3	Value delivering strategies	35
2.3.1	Value Proposition	35
2.3.2	Value delivery system (VDS)	37
2.4	Conceptual Framework.....	39
2.4.1	Understanding industrial estates	39
2.4.2	Designing a multiple estates organisation.....	40
2.4.3	Value delivering strategies.....	41
2.5	Conclusion	41
CHAPTER 3 THEORY DEVELOPMENT		43
3.1	Industrial estates as a system	43
3.1.1	Industrial estate stakeholders identity.....	43
3.1.2	Industrial estate stakeholders requirements	44
3.1.3	The system of estate stakeholder interactions.....	50
3.1.4	Estate manager commercial orientation.....	55
3.1.5	Conclusion	58
3.2	Design of an estates company.....	59
3.2.1	Integration of multiple estates.....	59
3.2.2	Affiliation of the estates company	61
3.2.3	Ownership of an independent estates company	64
3.2.4	Estates company parent	66
3.2.5	Conclusion	68
3.3	Strategies for delivering stakeholder value.....	70
3.3.1	Choosing the value proposition	70
3.3.2	Providing the value proposition.....	74
3.3.3	Communicating the value proposition.....	76
3.4	Research Model.....	78
CHAPTER 4 INTRODUCTION TO THE CASE – CONTEXT, UNIT OF ANALYSIS AND RESEARCH DESIGN		81
4.1	The context of the case: AECI Ltd.....	81
4.1.1	Profile of the AECI group.....	81
4.1.2	AECI directorate	83
4.1.3	AECI centre	83
4.1.4	AECI group strategy	84
4.1.5	Conclusion	86
4.2	The unit of analysis: AOS Parent.....	87
4.2.1	Establishment of AOS	87
4.2.2	Composition of AOS Parent	87
4.2.3	Embedded elements	89
4.2.4	Unit of analysis	93
4.2.5	Conclusion	94
4.3	Data collection	94
4.3.1	Approach.....	94
4.3.2	Method.....	94
4.3.3	Establishing a database	96

4.4	Analysis	97
4.5	Validity verification	98
4.6	Conclusion	99
CHAPTER 5 AOS – CASE OF AN INDUSTRIAL ESTATE		101
5.1	Industrial estate stakeholders identity	101
5.1.1	Owner	101
5.1.2	Tenants	102
5.1.3	External stakeholders.....	104
5.2	Industrial estate stakeholders requirements	106
5.2.1	Owner’s requirements.....	106
5.2.2	Tenants’ requirements	109
5.2.3	External stakeholder requirements	111
5.3	The system of estate stakeholder interactions.....	112
5.3.1	Tenants reinforcing cycle	113
5.3.2	External stakeholders’ balancing cycle	113
5.3.3	Limiting condition	114
5.3.4	Owner's role.....	115
5.3.5	Estate manager roles.....	117
5.4	Estate manager commercial orientation	118
5.4.1	Owner	118
5.4.2	Tenants	120
5.4.3	External stakeholders.....	121
5.5	Conclusion	123
CHAPTER 6 AOS – CASE OF AN ESTATES COMPANY		125
6.1	Integration of multiple estates into an estates company	125
6.1.1	Owner	125
6.1.2	Tenants	129
6.1.3	External stakeholders.....	130
6.2	Affiliation of the estates company	131
6.2.1	Owner	131
6.2.2	Tenants	135
6.2.3	External stakeholders.....	136
6.3	Ownership of an independent estates company	137
6.4	Conclusion	140
CHAPTER 7 AOS - VALUE DELIVERING STRATEGIES FOR AN ESTATES COMPANY.....		143
7.1	Choosing the value proposition	143
7.1.1	Intended customer	143
7.1.2	High-level resulting experiences	144
7.1.3	Customer prerequisites	149
7.2	Providing the value proposition	152
7.2.1	Estates services portfolio	152
7.2.2	Supporting the estate managers	154
7.3	Communicating the value proposition.	172

7.3.1	Communicating the high-level resulting experiences	172
7.3.2	Assuring stakeholders it would happen	177
7.4	Conclusions.....	178
CHAPTER 8 ANALYSIS AND CONCLUSIONS		181
8.1	Research question 1: Key participants in industrial estates, their requirements and interactions	181
8.1.1	Stakeholder identity	181
8.1.2	Stakeholder requirements	182
8.1.3	Stakeholder interaction	186
8.1.4	Estate manager commercial orientation.....	190
8.2	Research question 2: The estates company configuration.....	192
8.2.1	Integration of multiple estates.....	192
8.2.2	Affiliation of the estates company	196
8.2.3	Ownership of an independent estates company	200
8.2.4	Parent of the estates company.....	201
8.3	Research question 3: Value delivering strategies for multiple estates	202
8.3.1	Choosing the value proposition	202
8.3.2	Providing the value proposition.....	205
8.3.3	Communicating the value proposition.....	211
8.4	Conclusions.....	213
8.4.1	The research problem.....	213
8.4.2	Confronting the literature.....	215
8.4.3	Deviating findings.....	216
8.4.4	Relevance for South Africa.....	216
8.4.5	Recommendations for further research.....	217
EPILOGUE		219
REFERENCES.....		221
APPENDIX 1 THEME REGISTER BY ID REFERENCE AND CATEGORIES.....		241
APPENDIX 2 SAMPLE OF DOCUMENT RECORDS IN ACCESS DATABASE		245
APPENDIX 3 EXAMPLE OF A DATA CAPTURE FORM FOR ACCESS DATABASE.....		247
APPENDIX 4 DATA ANALYSIS SCHEME		249
APPENDIX 5 ANALYSIS OF CUSTOMER PREREQUISITES		253
APPENDIX 6 PORTFOLIO STRUCTURING PROCESS FRAMEWORK		255
APPENDIX 7 ESTATE MANAGER ROLES IN THE INDUSTRIAL ESTATE SYSTEM.....		257
APPENDIX 8 KEY SUCCESS FACTORS		259
APPENDIX 9 ESTATES UTILIZATION STRATEGY.....		263

APPENDIX 10 PUBLIC INTERACTION STRATEGY265
APPENDIX 11 MONITORING ESTATE IMPACTS STRATEGY.....267
APPENDIX 12 COMMUNICATING RESULTING EXPERIENCES
STRATEGIES269

LIST OF TABLES

	Page
Table 3.1 Drivers of value for the owner of an industrial estate	46
Table 3.2 Drivers of value for the tenants of an industrial estate.....	48
Table 3.3 Drivers of value for the external stakeholders of an industrial estate	50
Table 3.4 Tenant’s reinforcing cycle indicators.....	51
Table 3.5 External stakeholders balancing cycle indicators	52
Table 3.6 Limiting condition indicators	53
Table 3.7 Owner’s indicators	54
Table 3.8 Indicators of estate manager roles.....	54
Table 3.9 Superior contributions by a commercially based estate manager to the owner’s value drivers	56
Table 3.10 Superior contributions by a commercially based estate manager to the tenants’ value drivers	57
Table 3.11 Superior contributions by a commercially based estate manager to the external stakeholders value drivers	57
Table 3.12 Superior contributions by an estates company to the owner’s value drivers	60
Table 3.13 Superior contributions by an estates company to the tenants’ value drivers.....	61
Table 3.14 Superior contributions by an estates company to the value drivers of the external stakeholders	61
Table 3.15 Superior contributions by an independent estates company to the owner’s value drivers.....	62
Table 3.16 Superior contributions by an independent estates company to the tenants’ value drivers.....	63
Table 3.17 Superior contributions by an independent estates company to the value drivers of the external stakeholders.....	63
Table 3.18 Drivers of value for the estates owner.....	64
Table 3.19 Drivers of value for the owner of the estates company	65
Table 3.20 High-level resulting experiences in the primary value proposition to tenants.....	72
Table 3.21 High-level resulting experiences supporting the estates owner and external stakeholders	73
Table 4.1 Subsidiary companies in the AECI group during the research timeframe ...	82
Table 4.2 Typical profile of Modderfontein occupiers, products and services during the research timeframe	90
Table 4.3 Typical profile of Somerset West occupiers, products and services during the research timeframe	91
Table 4.4 Typical profile of Umbogintwini occupiers, products and services during the research timeframe	92
Table 5.1 Process the estates company adopted for sales to AECI Ltd.....	104

Table 5.2	Prescribed financial reporting standards and procedures in the case.....	108
Table 5.3	Non-core functions or services required and outsourced by tenants in the case	110
Table 6.1	Owner’s financial requirements in the case.....	138
Table 7.1	System of key performance areas for estate managers in the case	156
Table 7.2	Elements of the Company Standard on leases in the case.....	157
Table 7.3	Shortcomings in services agreements of estate managers with tenants in the case.....	158
Table 7.4	Remediation projects undertaken by estate managers in the case.	162
Table 7.5	High-level tenant expectations of the estates company in the case	165
Table 7.6	Typical CAER Committee issues encountered in the case.....	166
Table 7.7	Typical elements of estate standards encountered in the case	171
Table 8.1	Generic expectations of an industrial estate’s key stakeholders.....	185

LIST OF FIGURES

	Page
Figure 1.1 ‘Value delivery’ and ‘Product supply’ systems contrasted	8
Figure 1.2 Research contribution in typology of principal research studies	10
Figure 1.3 Schematic representation of the research focus in the industrial estate domain	13
Figure 1.4 Scheme outlining the research approach	16
Figure 1.5 Diagrammatic outline of the research	18
Figure 2.1 Dimensions and levels of sustainability linked to quality of life improvement	22
Figure 2.2 Estate manager as a non-profit organisation.....	25
Figure 2.3 ‘Limits-to-growth’ archetype structure	28
Figure 2.4 ‘Little Daughter’ concept for multiple estates	29
Figure 2.5 The ‘Big Daughter’ concept for multiple estates	30
Figure 2.6 The ‘Stranger’ concept for multiple estates.....	31
Figure 2.7 Value delivery chain showing primary and supporting entities	37
Figure 2.8 Representation of business as a value delivery system (VDS).....	38
Figure 3.1 Representation of value, value drivers and indicators	44
Figure 3.2 Model of the dynamic system of industrial estate stakeholders	55
Figure 3.3 Research model outline for multiple industrial estates’ competitive strategies	79
Figure 4.1 Unit of analysis depicting embedded nature of AECI Ltd and estates	93
Figure 4.2 Construction of the theme register	96
Figure 4.3 Basic architecture of Access database.....	97
Figure 4.4 Data collection and analysis process.....	100
Figure 8.1 Target for services that enhance tenant focus.....	183
Figure 8.2 Model depicting the ‘peace of mind’ concept	185
Figure 8.3 Owner’s reinforcing cycle	188
Figure 8.4 Interaction model of key industrial estate stakeholders and the estate manager	189
Figure 8.5 The effect of service environment on estate manager’s stakeholder alignment	191
Figure 8.6 Integration modes from the case illustrated in a entity/outcome matrix	194
Figure 8.7 Independence and affiliation profile of an estates company	199
Figure 8.8 Complementary nature of the company owner and estates owner	201
Figure 8.9 Primary and supporting VDS’ in the balancing strategy.....	203
Figure 8.10 Framework for structuring the services portfolio of estate managers.....	207
Figure 8.11 Proposed organisation structure adopting the research model	208
Figure 8.12 Diagram of the ‘multi-level relationships building’ concept.....	212

LIST OF ABBREVIATIONS

AECI	Registered name of a South African chemical group of companies (formerly African Explosives & Chemical Industries)
AEL	African Explosives Ltd.
AMIC	Anglo American Industrial Corporation Ltd.
AOS	AECI Operations Services (Pty) Ltd.
ARONA	Adjusted Return on Net Assets
BVC	Business Value Created
CACG	Commonwealth Association for Corporate Governance
CAER	Community Awareness and Emergency Response
CAIA	Chemical and Allied Industries Association
CAP	Chloralkali and Plastics - an earlier AECI operating company
CEC	Capital Expenditure Committee
CEO	Chief executive officer
CFM	Company financial manager
CIC	Central Industrial Council
COSATU	Congress of South African Trade Unions
CRF	Critical Risk Factors
CSF	Critical Success Factors
CSR	Corporate social responsibility
EC	Executive Committee
ECC	Estate Coordinating Committee
E&C	Explosives and Chemicals - an earlier AECI operating company
EDC	Estates Development Committee
EIA	Environmental Impact Assessment
EIU	Economist Intelligence Unit
FM	Facilities Management
GDP	Gross Domestic Product
GM	General Manager – senior manager in an estate manager entity
HAZCHEM	Emergency response to chemical spills during transportation
HR	Human Resources
ICI	Imperial Chemical Industries plc
IDRC	International Development Research Council
IEM	Integrated Environmental Management
IES	Industrial Estate System
IP	Intellectual property
IR	Industrial relations
ISO	International Standards Organization
IT	Information technology

JV	Joint venture
KPA	Key Performance Area
MHI	Major Hazardous Installation
NBF	National Bargaining Forum
NOSA	National Occupational Safety Association
OHSA	Occupational Health and Safety Act
PVC	Polyvinyl chloride
QoL	Quality of life
RNBV	Restated net book value – asset book value corrected for inflation
RONA	Return on net assets
SA	South Africa
SABS	South African Bureau of Standards
SASOL	Registered name of a South African chemical group of companies
SBU	Strategic Business Unit
SHE	Safety, Health and Environment
SMC	Senior Management Committee of AECI
SME	Small and Medium Enterprises
SSO	Site Services Organization - AECI's designation for an estate manager before AOS was established
SU	Service unit - the service delivery entity of an estate manager
UNEP IE	The United Nations Environment Programme Industry and Environment
UNIDO	United Nations Industrial Development Organisation
US	United States of America
USD	United States Dollar
VDS	Value Delivery System
Y2K	Millennium compliance, requirement for IT systems
ZAR	South African Rand

CHAPTER 1 INTRODUCTION

1.1 Research background

1.1.1 International perspective

Industrial development has become increasingly important as a strategy to narrow the gap between rich and poor nations (UNIDO, 1997). It was estimated that in 1992, for example, industrial development made it possible for the earth to sustain 5 billion people (Willums and Golüke, 1992). However, this comes at a price because of the negative environmental and social consequences that often accompany industry and technology.

At the 1992 United Nations Conference on Environment and Development in Rio de Janeiro, sustainable development became a legally accepted term in international law. It refers to 'development which meets the needs of present generations without compromising the ability of future generations to meet their own needs'. The concept of sustainable development integrates the benefits of development while at the same time mitigating its threats. It is about 'learning to value, maintain and develop our environmental asset so that we live off its income not its capital' (Willums and Golüke, 1992). More recently, however, the concept has been simplified in a business context to mean the achievement of balanced and integrated economic, social and environmental performance. To this end the term 'triple bottom line' has been coined.

1.1.2 South African perspective

South Africa is a developing country with a complex blend of the first and third world. Its cultural diversity has impacted its political, economic and social development, as indicated by the prominence this has achieved in national and international debate. In 1994 the transition to a full democracy took place when the country held its first democratic elections and so emerged from a period of political isolation and instability. Consequently South Africa had to face globalisation as a new reality (Sander, 1996). Strategic industries in South Africa, for example, had been largely 'insulated from the variability of world markets and international prices by import controls and contractually determined supplier arrangements in the domestic market' (Relly, 1992).

Promises to the large number of first-time voters in the 1994 election created expectations that could only be met through development and growth (Relly, 1992). This would produce the employment opportunities and 'upliftment of the social fabric South African society so desperately needs' (Sander, 1994). Government was urged to promote a 'burgeoning and vital economy to address the need for development and growth by stimulating a vibrant export industry' with manufacturing at the forefront

(Sander, 1996). To prosper against the most effective producers in the world, local manufacture has to be internationally competitive in technology, quality, capital and operating cost (Relly, 1993). The EIU (1996) summarised the situation as: 'What South Africa needs are world-scale plants with good exports and a large domestic market; a high operating rate and a good skills base with a motivated labour force'. South African industry and particularly the manufacturing sites can therefore contribute to its international competitiveness.

International competitiveness concerns more issues than just costs. The 'new rules for the global economy demand manufacturers recognise safety, health and environmental (SHE) management/conservation as global issues and achieve world-class standards and practices in the same' (Tearle, 1993). With increasing international commitment to sustainable development, there has been further emphasis on SHE as a global concern (UNEP IE, 1997). Sustainable development was also adopted into South African law through the Constitution of the Republic of South Africa Act 108 of 1996. Moreover, the National Environmental Management Act 107 of 1998 and other related legislation embodies the triple bottom line. Company directors are obliged to exercise due diligence with respect to the impacts the companies they manage have or may have on the environment, health and safety (Coetzee, Raimondo and Visser, 2001).

Manufacturing that embraces sustainable development has, therefore, become a strategic imperative in the South Africa of today. Because manufacturing and industrial estates are intertwined, this imperative has serious implications for how South African industry manages its industrial estates. Furthermore, of all manufacturing industries globalisation has occurred most in the chemical industry (Booth, 2001). The significance of the chemical industry and its impact on SHE in South Africa and globally, provides a relevant context for this research.

1.1.3 South African chemical industry

The South African chemical industry is the oldest manufacturing industry in South Africa and one of the largest in Africa. The industry accounts for almost a quarter of manufacturing sales in the country, employing about 200 000 people and contributing around 5% of the country's Gross Domestic Product in 2001 (CAIA, 2002). Notwithstanding the impact of isolationism and protectionism, exports of chemical products in 1998 amounted to 3.4 million tons (US\$1.1 billion) (Lotter, 2001).

World-class competitiveness, however, is no longer purely a question of economics. Trading partners are increasingly keen to see their counterparts subject themselves to the same stringent standards they face (Lotter, 2001). This applies particularly to the environmental field where an increasing number of international conventions enforce a wide range of environmental objectives that influence a country's ability to export. The South African chemical industry, therefore, adopted stringent sustainable development standards along with the chemical industry worldwide.

Leading members of the global industry in 44 countries demonstrate their commitment to sustainable development through the 'Responsible Care' programme. In South Africa the Chemical and Allied Industries' Association (CAIA), established in 1994, is the custodian of the programme. This entails promoting the programme nationally and constantly adapting it to local circumstances.

During the 1990's the chemical industry in South Africa comprised an estimated 350 manufacturers and suppliers dominated by a few players: AECI, SASOL and Sentrachem. Most of the products were manufactured on local manufacturing sites. Each of the dominant manufacturers had a number of industrial estates, which accommodated a plethora of manufacturing units affiliated to different Strategic Business Units (SBU's). SBU's, as defined by the Boston Consulting Group, are economically distinct business areas that can be considered as a strategic entity for planning purposes. The industrial estates that accommodated these SBU's were, therefore, multiple business locations owned by the dominant manufacturers. Because of the contribution these multiple estates make to the national economy, improving their performance can have a significant impact on the country. Furthermore, as only a few owners control the multiple estates, focusing on those few makes it easier to effect changes to those estates.

1.1.4 Industrial estates

Clustering industries into industrial estates is practised internationally as an economic development strategy (UNEP IE, 1997). In general, industrial estates contribute to job creation and attract the expertise required by the development objectives of the strategy (Tang and Tang, 1999). With the increasing number of industrial estates, there is global competition as estates vie to locate industries on site (UNIDO, 1997). But industrial estates experience a major drawback by way of their potential SHE impact (UNEP IE, 1997). In urban communities industrial estates with chemical operations are increasingly exposed to SHE pressures that are aggravated by the public perception of the chemical industry. The risks associated with the manufacture, transport, storage and disposal of chemicals in the confines of an industrial estate are considered to be substantial (UNEP IE, 1997).

1.1.5 Research motivation

There is an under-utilised resource in the multiple industrial estates that exist in South Africa. As with any organisation, industrial estates are obliged to pursue strategies that satisfy the needs of their most important stakeholders in order to retain the support of those stakeholders (Hill and Jones, 1995). Stakeholders are understood to refer to those individuals or groups, either within or outside the organisation that have some claim on the organisation (Pearce, 1982). Therefore, to achieve their potential, multiple industrial estates must pursue strategies that retain the support of their key stakeholders. Such a

strategy must be based on relevant scientific information that considers the nature of multiple estates and the requirements for a successful multiple estate strategy.

The nature of multiple estates is premised on an understanding of what a single industrial estate entails. Besides the physical attributes of such an estate, the identification of key stakeholder groups and their interaction with an estate are cardinal. Multiple estates occur when a number of single estates are conglomerated. The implications when this happens must also be determined.

The notion of 'retaining the support of stakeholders' suggests that those stakeholders have alternatives from which to choose. Therefore, estates must compete by way of competitive strategies with whatever alternatives are available to stakeholders. Competitive implies that 'something is more attractive than others because of being good value' (Encarta Dictionary, 2001). In this context, therefore, industrial estate strategies are concerned with delivering value for key stakeholders especially in respect of a multiple estate entity as opposed to an individual estate.

1.1.6 Conclusion

Following a period of international isolation for South Africa, job creation and economic growth are national imperatives for ensuring future political stability in a new democracy. Exporting locally manufactured goods is an important component of the strategy to achieve this. The emphasis on manufacturing must not compromise sustainable development as required by the international community and enshrined in the country's constitution. The chemical industry is a significant component of South Africa's manufacturing capability. A few dominant players own a number of industrial estates each and undertake a major portion of the manufacturing. The development potential of these multiple chemical industrial estates are easier to leverage because they belong to a few, major operators. However, being chemical sites they entail greater SHE risk. Industrial estates that attain world class SHE standards and operating costs can promote South African development through export manufacturing.

There is, therefore, a compelling case to examine the operation of multiple industrial estates in the South African chemical industry, especially since the outcome can be compared with the situation in other countries.

1.2 Research setting

1.2.1 Single industrial estate

Peddle (1993) defined an industrial estate in its simplest form as:

"A large tract of land, sub-divided and developed for the use of several firms simultaneously, distinguished by its shareable infrastructure and close proximity of firms".

He also pointed out that estates are more than provision of a special zone where industries with compatible demands can locate. There is a management dimension to industrial estates that usually occurs through the provision of supervision and services. Furthermore, restrictions on tenants have to be enforced and aspects such as lot sizes, access and utilities have to be planned in detail. After examining industrial estates worldwide, UNEP IE (1996a) confirmed that the essential element of an industrial estate is the single authority that administers or manages it. It modified the definition of an industrial estate as:

"An industrial estate is a cluster of industries within a defined geographical area, administered and/or managed by a single authority having a defined jurisdiction with respect to tenant companies".

The UNEP IE definition highlights the internal relationships or dynamics of an industrial estate but provides no indication of the relationship the estate has with other stakeholders.

These definitions indicate that there are two distinct aspects to an industrial estate: physical and relational. The physical characteristics are the physical assets associated with an estate. Industrial estates are distinguished from other types of business and industrial locations by characteristics such as a large tract of land, facilities and services (UNEP IE, 1997). Estates range in size from a hectare or two to 10 000 hectares providing employment opportunities for anything from less than 100 to 65 000 people. The number of on-site tenants vary; one of the largest being Burnside Industrial Park in Nova Scotia, Canada, which accommodates 1 300 tenant businesses on site according to the IDRC (UNEP IE, 1996b). Land comprising estates accommodates buildings and factories as well as services such as utilities, telecommunications, transport networks, landscaping and sometimes amenities such as recreation and child care. UNIDO (1997) concludes that the physical attributes of estates are well documented.

As regards the relational characteristics of industrial estates it is imperative that the estate understands its stakeholders and their influence on the organisation in developing its strategy (Johnson and Scholes, 1993). An industrial estate has a single authority that orders the behaviour of the estate's tenants, which are typically businesses of an industrial nature (UNEP IE, 1996b). These tenants' activities can have significant off-site impacts (UNEP IE, 1997). The estate authority manages the estate by enforcing covenants and restrictions that will protect the investment of resident companies by: governing the behaviour of existing users; approving new entrants; and planning and promoting the long-term development of the estate (UNEP IE, 1996b). Restrictions include performance standards and specifications for aspects of the built environment as prescribed by detailed master planning. Besides being the estate authority, the estate

manager can provide tenants with services that are not core to tenants' operations. This is done typically in a business relationship between estate manager and tenants (UNIDO, 1997).

Not all industrial estates display all these characteristics as it depends on who develops them, their priorities and motivation (UNEP IE, 1997). The stage of economic development of the country in which the estate is located and the priority industrial estates are given in the country's national development strategy, will also affect their characteristics.

The conclusion is that existing definitions of an industrial estate are silent on its off-site relationships. These definitions also emphasise physical attributes and not relational dynamics. The key stakeholders of an industrial estate, the nature of an estate authority and its interaction with stakeholders are areas that require further documentation.

1.2.2 Configuring multiple industrial estates

Owners of multiple estates configure their estate managers according to an organisational design. Configuration is the need to match an organisation's detailed structure with its operating context (Johnson and Scholes, 1993). Configuring requires an understanding of the interaction of the various estate managers in a consolidated entity with key stakeholders. The structure of the multiple estate manager entity is crucial to the effectiveness of its strategy and vital for its ability to create value (Goold, Campbell and Alexander, 1994).

Van der Brugge and Verburg (1998) encountered limited information on an appropriate organisation for the consolidated entity of multiple estate managers. Their work focused on developing possible organisation concepts for servicing an industrial site and deciding how to select the optimal concept for a particular site. In developing a framework for organisational concepts they considered: the organisation of single or multiple estates; the ownership of the estate manager; and its relationship with the owner of the estates. When their framework was applied to the 12 estates they researched, they found that only four of the nine concepts developed were employed in practice. These concepts will be analysed in Chapter 2.

Configuring multiple estate authorities that belong to the same owner is, therefore, not trivial. The structure of multiple estates, its nature, ownership and relationships with stakeholders are real concerns that require additional research. For this reason the strategic implications of the configuration of multiple estates must be examined and understood.

1.2.3 Competitive strategies for multiple estates

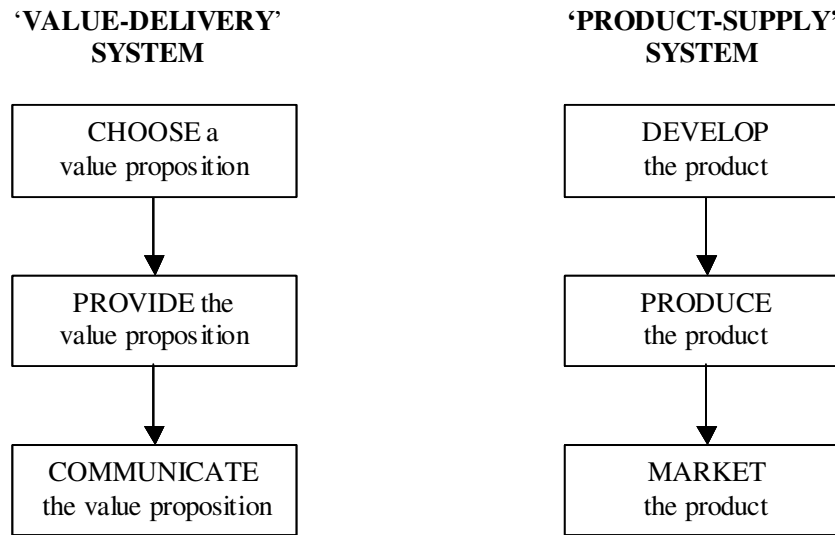
It was established in the research motivation that if an enterprise, such as a multiple industrial estates entity, consistently ignores the interests of any stakeholder group, it

becomes unviable. It follows that there is a minimum requirement for each stakeholder group to retain its involvement with the enterprise. Goold, Campbell and Alexander (1994) argue that value creation is the creation of a surplus over and above those minimum requirements. The purpose of multiple estates strategies is then to generate such surpluses by delivering value for key stakeholders in order to sustain their involvement.

Lanning (1998) holds in his 'delivering profitable value' framework that every interaction a stakeholder has with estates is associated with an 'event' that characterises the 'resulting experience' a stakeholder has. The combination of all stakeholders' resulting experiences, where price is considered one of them, delivers value if it is superior (the 'surplus') to the available alternatives (the minimum requirement). The combination of resulting experiences an enterprise proposes to deliver to each stakeholder constitutes a 'value proposition' for that stakeholder. A superior value proposition delivers 'net' experiences that are better than available alternatives. When a firm delivers a superior value proposition it wins stakeholders' preference and their revenues. If such a superior value proposition is delivered at a cost (including the cost of capital) below the price, that firm generates wealth. The delivering profitable value framework, therefore, conceives of a business as an integrated system entirely oriented around the profitable delivery of a chosen value proposition.

The term value as used by Lanning refers to value for stakeholders and specifically customers. He points out that when value is used in strategic frameworks for notions such as value added and value chain it is rooted in the view of business as a product-supply system. This traditional view of business focuses on the value of a product and of the processes and resources that supply that product to customers. This product-supply stance typically adopted by businesses, is at variance with the value delivery focus of the delivering profitable value framework. Lanning contrasts these two approaches as shown in Figure 1.1.

Figure 1.1
‘Value delivery’ and ‘Product supply’ systems contrasted



Adapted from Lanning, 1998

To ‘deliver’ a value proposition in the value-delivery system means causing, intentionally or not, a stakeholder to be aware of the experiences in that proposition. This delivery consists of three basic functions: ‘choosing’, ‘providing’ and ‘communicating’ the value proposition. To choose means to ‘make a deliberate decision to do something’ (Encarta Dictionary, 2001). Choosing a value proposition is the central strategic decision an organisation makes in articulating the essence of its business according to Lanning. Choosing defines ‘exactly and completely what the organisation fully intends to make happen in the customer’s life’ (Lanning, 1998). Providing the proposition means that stakeholders will actually have the resulting experiences in that proposition (including the price, when applicable) if and when they accept that proposition. Communicating that value proposition means that before, during and after accepting it, stakeholders understand, appreciate and believe they will have those resulting experiences (Lanning, 1998)

The product-supply system, on the other hand, understands business as a system of functions supplying a product. All the functions are focused on developing, producing and selling or marketing their products and services. The subject of the business is not a value proposition and how to deliver it, but rather a product and how to supply it. The value-delivery approach starts by choosing a superior value proposition, then providing and finally communicating it to the stakeholder in what is called a value-delivery system. In contrast, the product-supply system first develops and produces a product and then takes it to the market.

The issue for estates then becomes one of choosing the value proposition that will sustain stakeholders and deciding how to provide and communicate it profitably. Delivering the chosen value proposition profitably is the function of the value-delivery system (VDS). Corporate strategy is about the choice and design of the entity's primary VDS and the capabilities needed for them (Lanning, 1998).

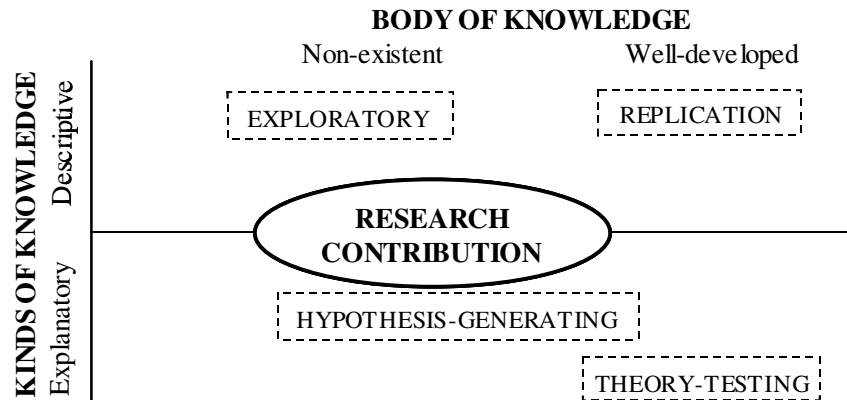
The delivering profitable value framework is a suitable basis for developing a competitive strategy for a multiple estates entity. According to this framework, the essence of a strategy that enables multiple estates to compete for ongoing stakeholder support depends on its VDS.

1.2.4 Research objective

Multiple estates imply that industrial estates are conglomerated. Multiple estate strategies that deliver stakeholder value are complex issues. The research should aim to describe the issues involved and identify the gaps in the available knowledge that can be addressed by way of qualitative exploratory research (Mouton, 1996). The purpose of the research is to contribute a theory on industrial estates that describe the areas of concern (Neuman, 2000). The research objective is to explore who are the key participants of an industrial estate and how they interact with a view to proposing a theory for multiple estate strategies that deliver stakeholder value.

This objective is illustrated diagrammatically in Figure 1.2 using a typology of research studies according to Mouton (1996). The body of knowledge contains a relatively limited number of publications about industrial estates. As regards 'kinds of knowledge', Van der Brugge and Verburg's (1998) descriptive study on the management of industrial estates is the only formal study encountered. A comprehensive review of the environmental management for industrial estates by UNEP IE (1997) confirmed this situation. Facilities management, a strategy for managing an industrial estate along with other facilities, is however an area that is widely explored. The literature about estate management is in the business domain and of a descriptive nature. In Mouton's typology, the research can be placed between an exploratory and hypothesis-generating study as illustrated in Figure 1.2.

Figure 1.2
Research contribution in typology of principal research studies



Adapted from Mouton, 1996

1.3 Research problem

The issue is to identify competitive strategies that would enable multiple estates to realise their potential through better key stakeholders' support. Multiple estates compete for stakeholder support by delivering superior value. It does so by considering the key stakeholders and their influences, which include the need for sustainable development. The strategies apply to a multiple estates entity and not an individual estate. The research problem is stated in the central research question:

What strategies can multiple estates employ to be competitive?

1.3.1 Research questions

An industrial estate competes with its stakeholders' minimum requirements to retain their support. The purpose of the research is to devise competitive strategies. This competition can be at two levels: industrial estates can compete with each other or compete with the alternatives that face potential occupiers of estates. Such an alternative may be for occupiers to establish themselves independently on their own sites in an industrial zone. The first level (competing with each other) is the classical notion of competition, the principles of which are well developed. It is the second level of competing with the alternatives occupiers have that is peculiar to industrial estates and presents the research challenge. When an occupier establishes itself on an estate, it does so on the basis of the expectation that originally attracted it to the estate. If those expectations, which now become its minimum requirements, are not met, it will become disgruntled, undermine the estate and perhaps even discourage other occupiers from coming. The strategies an industrial estate employs has to deliver value for stakeholders

in order to sustain their involvement. The central question, therefore, deals with 3 essential issues: an industrial estate including its key stakeholders and their requirements; multiple estates; and value delivering strategies

Question 1: Key stakeholders

Before any conclusions can be drawn about multiple estates, it is necessary to understand the nature of the basic component, an individual estate. Understanding an industrial estate depends on the identity of the key stakeholder groups, their requirements and how this affects their interaction with each other and the estate. Such a definition needs to reflect the inherent dynamics and complexity of a typical estate. A model can depict an industrial estate and explain the interaction of its stakeholders. To obtain this insight to industrial estates and to model their dynamics, the following sub-question will be addressed:

Who are the key participants in an industrial estate, what are their requirements and how can their interaction be modelled?

Question 2: Multiple estates

Multiple estates are a conglomeration of individual estates. There may be different ways an owner can configure its conglomerated estates. Each way may have different implications for delivering value to stakeholder groups. This gives rise to the second sub-question:

What are the implications of configuring multiple industrial estates for delivering stakeholder value?

Question 3: Value delivering strategy

Understanding industrial estate dynamics and how multiple estates should be configured provides the basis for identifying the key issues that impact the value multiple industrial estates deliver. The core of competitive strategy for multiple estates is the VDS they implement. A typical VDS consists of a number of elements. These elements must be defined for multiple estates and leads to the third sub-question:

What comprises the value delivery strategies for multiple estates?

1.3.2 Unit of analysis

The research problem points to the unit of analysis for this research being in the domain of industrial estates. Estates can be distinguished by internal and external features. These features provide the basis for defining the unit of analysis. Figure 1.3 depicts the

domain of industrial estates in a two dimensional matrix with internal features on the horizontal axis and external features on the vertical axis.

Internal features concern the occupiers (i.e. tenants) of an industrial estate. Van der Brugge and Verburg (1998) point out that the first internal feature of an industrial estate is 'the existence of several profit centres or businesses possibly linked by processes or the products they produce'. Some estates only accommodate a single business where the business tends to manage the estate as well. The emphasis in this research is on estate dynamics. Therefore, locations where an estate manager is required to service multiple tenants on the estate are indicated. This constitutes the first constraint in defining the unit of analysis. The second internal feature, according to Van der Brugge and Verburg, concerns the 'sharing of common services not core to the businesses of industrial estate tenants'. Shared services provided by the estate manager can be at two levels: minimum services such as the basic infrastructure services required by a tenant; or the basic services coupled with as many operational support services as a tenant requests. In the first instance the estates operate as a 'municipality' whereas in the second instance the estate's service offering is comprehensive and may entail partial outsourcing to external service providers. Therefore, estates can provide tenants with either the minimum infrastructure services or the maximum operational support services they require. In the interests of better understanding estate dynamics regarding tenants, estates providing the maximum support services should be considered. This provides a further constraint in defining the unit of analysis.

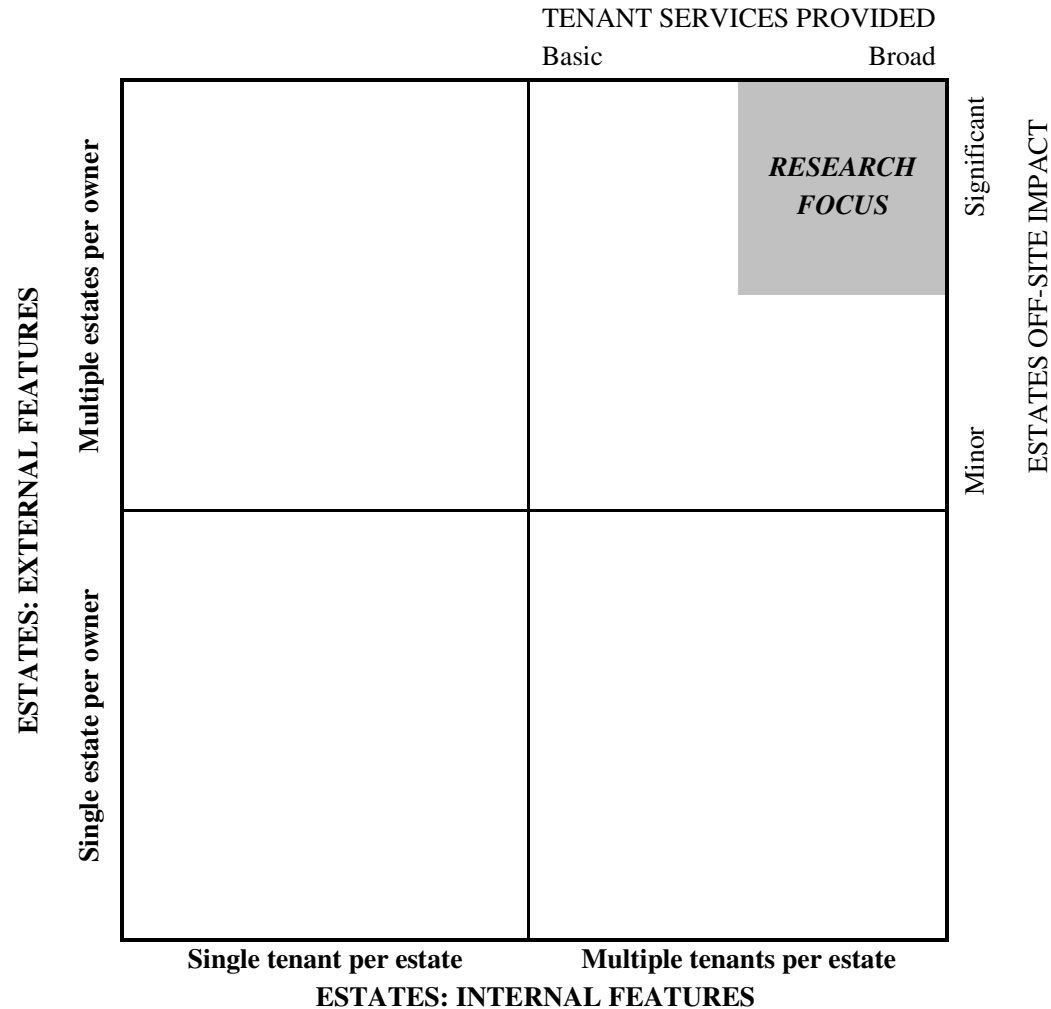
The horizontal axis of the matrix in Figure 1.3 depicting the internal features of estates, therefore, has two dimensions: number of tenants and the scope of estate services provided. Applying the constraints identified, the focus of the research would fall in the domain described by the last column of the matrix being estates having multiple tenants receiving the maximum in support services from the estates.

The external features are concerned with outside stakeholders such as the owner and surrounding communities. One aspect of ownership already identified is the number of estates for which an owner is responsible. The research problem has highlighted the area of concern to be ownership of multiple estates particularly as applied to the large chemical corporations in South Africa. Therefore, the unit of analysis is constrained to owners responsible for more than one industrial estate. A second external feature is the impact such an estate might have on surrounding communities. Industrial estates can accommodate any operation that results in 'the production and use of goods and services' (UNEP IE, 1997). This includes the more benign use of an industrial estate by small and medium enterprises (SME's), for example. They have a minor off-site impact. The industrial estates to be researched must hold some threat to the social and natural environment as can occur with chemical operations. Estates that have the potential for significant off-site impact (including SHE) on neighbouring communities pose such a

threat. The unit of analysis must therefore accommodate tenant operations with inherent SHE risk i.e. a significant off-site impact.

It follows that the vertical axis of the matrix in Figure 1.3 depicting the external features also has two dimensions: number of estates an owner has and the off-site impact of those estates. The first row of the matrix comprises the identified constraints and denotes the focus of the research to lie in the domain described by that row, namely owners with multiple estates that have a significant off-site impact.

Figure 1.3
Schematic representation of the research focus in the industrial estate domain



The intersection of the last column (internal features of interest) and the first row (external features of interest) of the matrix in Figure 1.3 diagrammatically positions the unit of analysis for this research in the overall industrial estate domain. The unit of

analysis can be described as multiple industrial estates that belong to the same owner and accommodate: (1) a number of discrete businesses on site having (2) activities with significant off-site impact and (3) requiring a comprehensive scope of services from the estate. This constitutes 'the set of entities to which the conclusions of the research can be applied'. (Mouton, 1996).

1.4 Research design and methodology

1.4.1 Research design

The approach in selecting a research design was to establish the relevant design criteria for case studies and to test them against the research objective.

Yin developed a set of criteria for assessing the suitability of a case study design (Yin, 1994). The form of the research question is a first criterion. A 'what' question, as contemplated in this research, designates an exploratory study and any of the research strategies would be appropriate. Because there is no control over the behaviour or events that has to be studied, a history or case study strategy is indicated. However, with contemporary events as the proposed focus, this points to a case study as the preferred research strategy.

The appropriateness of a case study strategy for the research is supported by Mouton (2001). He describes case study research as 'usually qualitative in nature with the aim to provide an in-depth description of a small number of cases. It is empirical and may employ data, which can be either textual or numeric. The researcher has low control in data generation. Case studies address exploratory and descriptive questions and are typically applied to companies or organisations (business studies)'. This outline matches the research objective and confirms the suitability of a case study strategy for this research.

Single case studies are the most suitable for research under certain conditions (Yin, 1994). Such conditions include the development of theory or analysis of phenomena previously inaccessible to scientific investigation. It is the expressed objective of this research to develop theory that elucidates industrial estate dynamics. In addition, the unit of analysis as defined has not been readily accessible for research as indicated by the dearth of scientific information. For those reasons, a single case study can be judged to be the suitable approach for addressing the research questions. The focus on developing theory and the opportunity in this instance to investigate a multiple estates entity in depth and in a longitudinal study further justifies a single case study.

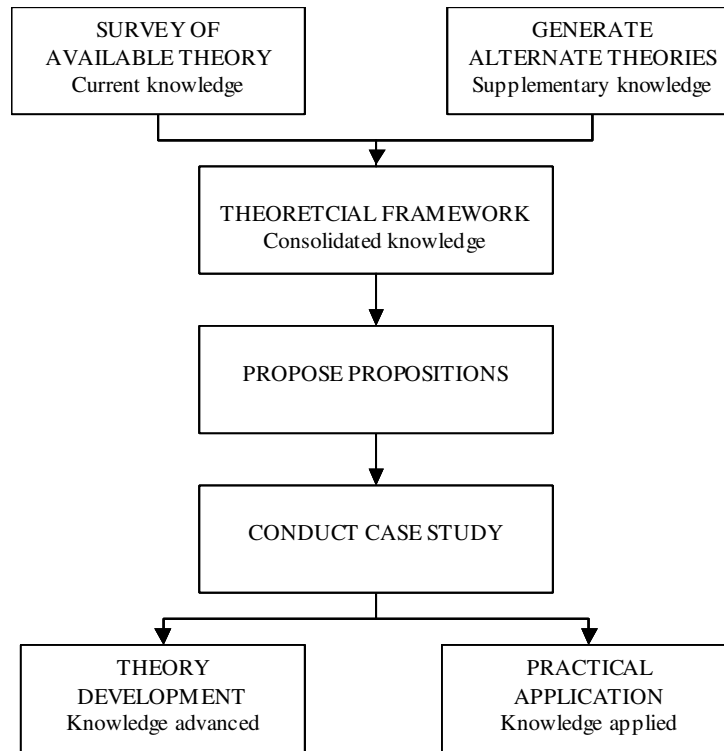
1.4.2 Research method

Steenhuis (2000) identified three approaches for developing theory: grounded theory (Glaser and Strauss, 1967 cited in Steenhuis, 2000), the case study (Yin, 1994) and the

progressive case study of Eisenhardt (1989). For case studies ‘the development of theory as part of the design phase is essential regardless as to whether the case study’s purpose is to develop or test theory’ (Yin, 1994). The approach the research adopted was to develop a theoretical framework for deriving propositions that could be tested in the case study. The theory is shaped by how well the propositions fit the data as well as through insights obtained during data collection and analysis.

The research process adopted is outlined in Figure 1.4. The theory is based on a combination of the knowledge obtained from the relevant scientific literature and any experience accessed during the research (Neuman, 2000). This consolidated knowledge created a theoretical framework from which a research model was derived. The results from a single case study was used to enhance the proposed theory relating to multiple industrial estates as well as provide practical recommendations for improving the competitiveness of industrial estates. The selection of the case had to conform to the stringent requirements of the unit of analysis. It also had to provide a comprehensive test of the formulated theory. The case presented a unique opportunity to access material not normally available for scientific study. Limitations of a single case study was partially offset by the depth of the study and duration of the period researched. Furthermore, the number of degrees of freedom associated with the case study was increased (Steenhuis, 2000) by applying data and method triangulation as outlined in Section 4.3.1.

Figure 1.4
Scheme outlining the research approach



Adapted from Jia, X., 1993

1.5 Research outline

In Chapter 1 the background derived from preliminary research focuses on the issues that specify the research problem. The sub-questions are derived as the framework for the study. A case study strategy is adopted as the appropriate design and an outline for the associated methodology developed. The chapter deals with the formulation of the problem.

Chapter 2 addresses the next stage of the research process as it identifies the key concepts embedded within the relevant body of knowledge. This chapter reviews the available literature in order to develop a theoretical framework. The key concepts underpinning the study are identified.

The research design and methodology is developed in a research model in Chapter 3. This constitutes the operationalisation stage of the research process. The focus here is on how the concepts are going to be measured. The research sub-questions are used as

the basic framework for the propositions, key concepts and variables required in the study.

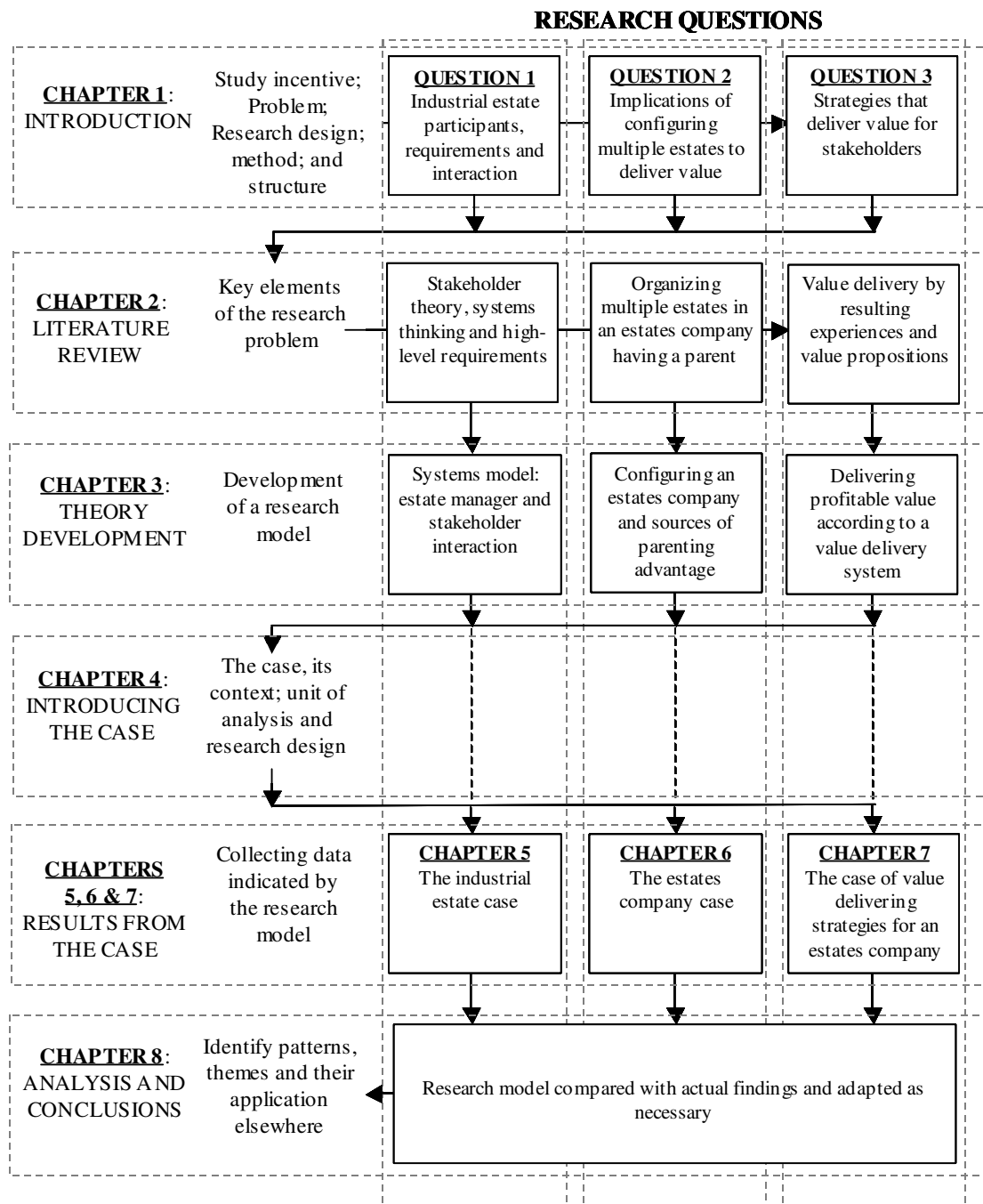
The case and its context are outlined in Chapter 4. The context summarises the operational context impacting the case and highlights the embedded units. Details of the process necessary for collecting the data and gaining access to the sources are outlined. This is followed by a description of the procedures used to capture and analyse the data. Limitations and sources of error are discussed as well as measures to mitigate these.

Chapters 5, 6 and 7 reflect the data captured from the case. The three research sub-questions are each dealt with in a dedicated chapter and constitute the data collection stage of the research process.

In Chapter 8 the findings of the study are presented and discussed in light of the previous chapters. The significance of these findings when compared with the initial propositions in the research model is highlighted. Additional findings are included together with the limitations encountered in the study. Anomalies are identified and the chapter is concluded with recommendations for future research.

The research outline is diagrammatically depicted in Figure 1.5.

Figure 1.5
Diagrammatic outline of the research



CHAPTER 2 LITERATURE REVIEW

2.1 The concept of industrial estates

2.1.1 Stakeholder identity

Consistently ignoring the interests of any stakeholder group can render an enterprise unviable (Goold, Campbell and Alexander, 1994). Sarbutts (2003) also points out that ‘the challenge for companies is to put aside organizational dogma and learn to adopt the mindset of stakeholders outside the business, for no more fundamental reason than that they, not the company, shape reputation’. Companies that are regarded as successful go further than merely considering stakeholders but have the satisfaction of stakeholders as a goal (Radder, 1998). Stakeholders can be individuals or groups ‘who can affect or be affected by the achievement of organisational objectives’ (Freeman, 1984; Sharman, 1994). They also ‘identify with the aims and ideals of others in that stakeholder group’ (Johnson and Scholes, 1993). Stakeholder groups tend to arise in reaction to occurrences associated with the facilities and services industrial estates provide as well as the financial, social and environmental impact they may have (Johnson and Scholes, 1993). This has led to organisations developing stakeholder strategies as the mechanism whereby they define their stakeholder goals, expectations, and commitments (LaBerge and Svendsen, 2000). ‘A stakeholder strategy is situation specific and, therefore, cannot be generic as it is based on the company's core values, overall business plan, information about the external environment, and dialogue with stakeholders’.

Freeman (1984) suggested that firms should identify their direct and indirect stakeholders, which terminology has been replaced by the use of primary and secondary stakeholders (Carroll, 1989; Wood, 1993 cited in Key, 1999). Primary stakeholders’ are those whose ‘influence is vital to the organization's survival’ (Sharman, 1994). On the other hand, secondary stakeholders ‘can influence or be influenced by the enterprise but are not engaged directly in business with it’. While Sharman holds the opinion that secondary stakeholders are not essential to the organization’s survival, Walker (2000) points out that failure to consider the wider collection of stakeholders can result in extraordinary risks being ignored. He concludes that it is not surprising many construction projects, for example, are subject to potentially crippling opposition from those not generally seen as the direct beneficiaries.

In addition to the primary and secondary classification of stakeholders, an organisation also has internal and external stakeholders both of who are equally important (Johnson and Scholes 1993).

Internal stakeholders include customers, owners and employees (Sharman, 1994). In the definition of industrial estates, UNEP IE (1997) denotes tenants as customers of

industrial estates and, therefore, an important stakeholder group. Owners that develop an industrial estate can be either government or private sector management companies (UNEP IE, 1997) and are a stakeholder that provides all or part of the necessary funds (UNIDO, 1997). Owners have a key function in that they procure the land, plan and establish the facilities, provide bulk services and transport routes as well as establishing operating policies (UNEP IE, 1997). At a macro level estate employees can be grouped with either the estate tenants or estate manager that employs them.

External stakeholders influence the organisation's strategy through links with internal stakeholders and typically include financial institutions, the customers of customers, suppliers, authorities and shareowners (Johnson and Scholes, 1993). Special interest groups and the media (secondary stakeholders) are additional external stakeholders (Sharman, 1994). Moodley (1999) identifies the community as a key stakeholder and maintains 'developers (owners) should serve them in the same way they serve their customers'. Community loyalty and trust obtained by 'engaging and building better relationships with stakeholders . . . will provide developers (owners) with a competitive edge'. Authorities at all levels interact with industrial estates throughout their existence and are an important constituent of the external stakeholder group (UNEP IE, 1997). Another external stakeholder is the institutions industrial estates access for the training and expertise required by tenants (UNIDO, 1997). Local financial institutions are also required by industrial estates especially when locating new occupiers on the estate (UNIDO, 1997). Furthermore, estates are dependent on social infrastructure such as hospitals, schools, housing and public transport (UNIDO, 1997). Estates also require external services that include transport, utilities and telecommunications (UNIDO, 1997). Bromley (2001 cited in Sarbutts, 2003) makes an important distinction between interest group and stakeholder group, the latter 'having a deeper involvement in an organization than the former, though they are fewer in number than interest groups'. However, in this research interest groups at the macro level will be considered a constituent element of the external stakeholder group.

2.1.2 Stakeholder interests

One of the distinguishing features of a stakeholder group is that members of the group share the same expectations of the organisation (Johnson and Scholes, 1993). These stakeholder expectations will affect what will be seen as acceptable in terms of any strategies that management advances. Therefore, a company can and should incorporate the claims of each key stakeholder group into the strategies it develops (Hill and Jones, 1995). Freeman (1984) categorizes the type of effects that stakeholders have on the organization or the organization has on stakeholders as economic, technological, social, political, and managerial.

The owner's interests are summarised by the requirements for good corporate governance (King, 1999). King (2002) points out that proper governance embraces

issues of performance (shareowners financial expectations) and conformance (interests of stakeholders). The owner is, therefore, accountable to shareowners (private or state) as well as the relevant stakeholders (CACG, 1999). Shareowners are concerned with the quality of their investment i.e. how the enterprise in which they are invested is regarded (Johnson and Scholes, 1993). This implies that boards, as the representative of the owner, have to consider the reputation of the enterprise (King, 1999). Both the quality of the shareowners' investment and the organisation's reputation can be measured by the triple bottom line. Triple bottom line demands economic prosperity, environmental quality and social justice from owners (Elkington, 1997). Therefore, a legitimate expectation of the estate for an estates owner is an improved triple bottom line.

The tenants of industrial estates are businesses of an industrial nature (UNEP IE, 1996a). At the heart of business performance in competitive markets is the issue of competitive advantage resulting from the business' cost leadership or differentiation ability (Porter, 1985) as determined by the financial performance of the business (Hill and Jones, 1995). Competitive advantage depends on four factors: superior efficiency, quality, innovation and customer responsiveness. Industrial estates that contribute to these factors enhance the competitive advantage of their tenants and contribute to the value tenants perceive (Johnson and Scholes, 1993). Besides the financial influence such factors have, tenants' financial performance also relates to the capital invested in on-site operations. Estates must, therefore, protect this investment by providing tenants with security of tenure on the site (UNEP IE, 1997). In addition to the financial performance of their on-site operations, tenants also consider the off-site impact their operations can have, especially when such impacts are significant (UNEP IE, 1996a). Such off-site impacts can detract from tenants' competitive advantage (Tearle, 1993). Industrial estates that are environmentally well managed contribute to the competitive advantage of tenants (UNEP IE, 1997). An enhanced competitive position for the business is the result of competitive advantage and, therefore, constitutes the overall requirement tenants have of the industrial estates they occupy.

It is clear from Chapter 1 that sustainable development, i.e. sustainability, is a key consideration for external stakeholders. Greenwood and Mueller (2000) view sustainability in conventional economic terms as 'development that preserves or enhances present day capital endowments that produce income and other quality of life measures'. Besides the physical capital owned by business, human capital (skills and knowledge), natural capital (resources), social capital and infrastructure is also an important part of the full endowment of capital used. Sutton (2000) shares this multi-faceted view of the sustainability concept as comprising the environment (ecological sustainability), society (social sustainability), the economy (economic sustainability) and organisations (organisational sustainability). He points out that when the term sustainability is used without qualification it means ecological and social and economic sustainability, a combination of the three. However, it is not possible to achieve a

desired level of ecological or social or economic sustainability separately without achieving at least a basic level of all three forms of sustainability simultaneously. This basic level of sustainability he termed survival sustainability. This involves ‘the maintenance of ecological life-support systems, the social capacity to solve major problems and the economic capacity to meet subsistence needs of the population’. There is a second level of sustainability, which Sutton relates to ‘the maintenance/restoration of the normally expected quality of life where this quality of life is beyond the level required for basic survival’. A third level entails efforts to create a higher level of quality of life, which goes beyond maintenance. It is furthermore possible to consider both local and global sustainability. Action taken to achieve local sustainability that is not combined with catalytic action to achieve global sustainability is doomed to failure. The dimensions and levels of sustainability and the link to improving quality of life are illustrated in Figure 2.1.

Figure 2.1
Dimensions and levels of sustainability linked to quality of life improvement

ECOLOGICAL	SOCIAL	ECONOMIC	
Survival sustainability			
Protection of life support systems	Capacity to solve serious problems	Subsistence	Local
Prevention of species extinction			↕
Maintaining quality of life			
Maintenance of decent environmental quality	Maintenance of decent social quality (e.g. vibrant community life)	Maintenance of decent standard of living	Local
			↕
Improving quality of life			
Improving environmental quality	Improving social quality	Improving standard of living	Local
			↕
			Global

Adapted from Sutton, 2000

The concepts of quality of life and standards of living deserve scrutiny. Robillard (2000) points out that ‘no generally accepted definition of quality of life (QoL) has

appeared in the extensive literature generated on this subject over the past thirty years.’ Lawford and Eiser (2001) agree that as yet there is no universally accepted definition of QoL but that the following definition provided by the World Health Organization is the most widely cited: ‘QoL is an individual’s physical health, psychological states, level of independence, social relationships and their relationship to salient features of their environment’ (World Health Organization, 1994). Robillard (2000) noted that other terms, such as social wellbeing, social welfare, and human development are often used as equivalent or analogous terms. In Robillard’s paper, the International Society for the Quality of Life Studies defines QoL as the ‘product of the interplay of the social, health, economic, and environmental conditions which affect human and social development’. The same organisation describes standard of living as a measure of the quantity and quality of goods and services available to people (International Society for Quality of Life Studies cited in Robillard, 2000). Whether QoL is the appropriate concept with which to gauge societal impacts, Robillard points out that QoL has been identified as the ‘common ground’ among stakeholders because it is seen to link and balance economic and social objectives. In the medical literature QoL is often used with respect to individuals (Lawford and Eiser, 2001; Burckhardt, 2000; Wolf and Schene, 1997). Jacobs (1999) indicates that the literature on QoL generally fails to distinguish between the quality of individual lives and the quality of the collective life of a society (or a place) as a whole. Attempts to measure QoL has involved an ‘inexorable slide towards a non-individual perspective . . . (with QoL) becoming for many researchers, a description of the collectively experienced conditions of a society or place, with only an indirect and contingent relationship to the subjective experience of wellbeing of individuals’.

Robillard (2000) highlights problems in measuring QoL in that ‘a theoretical or methodological consensus on QoL measurement has not yet emerged’. Social indicators for QoL are used to measure progress towards agreed goals. ‘The selection of such indicators is both science and art, since it inherently involves decisions on statistical questions as well as judgements about values.’ A QoL measurement and reporting system must ‘involve both experts and citizens in selecting, defining, and assigning value to the indicators, receiving and interpreting the results, and monitoring and fine-tuning the indicators over time’. An illustrative set of QoL indicators were identified by officials from Statistics Canada and the Treasury Board Secretariat according to three dimensions (Robillard, 2000): (1) health, environment and public safety; (2) economic opportunity and participation; and (3) social participation and inclusion. These show a strong resemblance to Sutton’s (2000) ecological, economic and social sustainability dimensions referred to previously. Because of the difficulties in defining measures, any attempt to define detailed generic indicators for such a complex concept as QoL is not recommended (Robillard, 2000).

This research adopts improved quality of life as the expectation external stakeholders value from industrial estates committed to sustainability and uses the following dimensions based on Robbillard (2000):

- Environment meaning the ‘surroundings within which humans exist as made up of the land, water and atmosphere of the earth; plant and animal life; as well as their properties and conditions as it influences human health and wellbeing’ (National Environmental Management Act, 1998). In keeping with common practice, the environment in this instance is seen to encompass health and safety issues (Bouma and Kamp-Roelands, 2000).
- Economy referring to the financial aspects of the estates interaction with its stakeholders (Coetzee, Raimondo and Visser, 2001).
- Social considers the estates’ involvement of the community in activities where people and society are the primary focus (Harrison, and St. John, 1996).

Notwithstanding the difficulties in defining generic indicators for the quality of life concept, the literature does indicate some specific external stakeholder expectations with regard to estates. Contribution to local economic development is a major consideration in establishing an industrial estate (UNIDO, 1997). There is a distinct expectation by communities that industrial estates should stimulate local development. This entails employment opportunities as well as the benefit suppliers and service providers expect from the wealth creation opportunities estates may offer (Johnson and Scholes, 1993). However, estates can pose safety, health and environmental risk on and off site (UNEP IE, 1996b). Therefore, society at large has definite environmental expectations of industrial estates (UNEP IE, 1997). Communities are also concerned about the social cost of an organisation's activities particularly as regards the pollution effects on the health and safety of people (Johnson and Scholes, 1993). Moreover, national, provincial and local authorities expect estates to comply with the relevant statutes, behave ethically and contribute to building capacity in the local communities (Coetzee, 1995b; UNEP IE, 1997). Besides minimising its impact on SHE, communities expect estates to be transparent in its dealings with them as well as committed to sustainable development and social upliftment (Coetzee, 1995b). Special interest groups expect the estates to participate in the activities of such groups, support their programmes as well as contribute resources and capabilities where necessary. The aforementioned denote constituents of the external stakeholder group as well as indicators of an improved quality of life. This is regarded as the high-level requirement external stakeholders have of the estates with which they are associated.

2.1.3 Estate manager

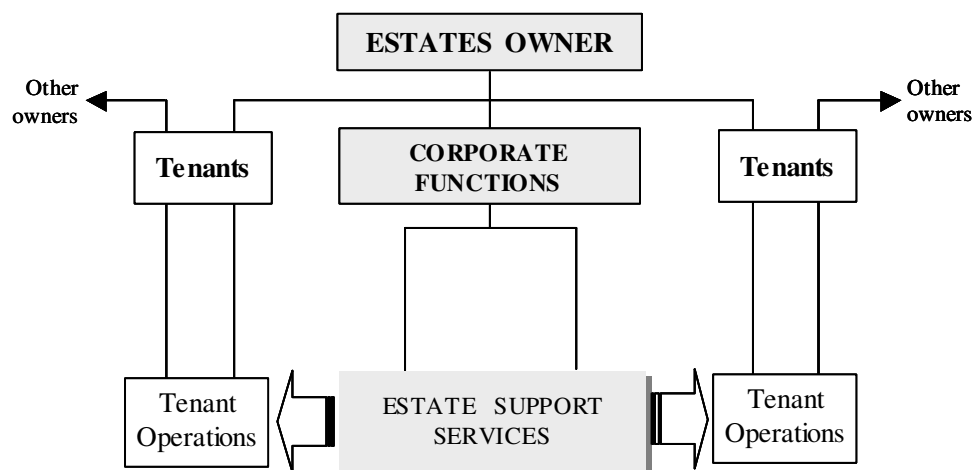
Commercial orientation

The owner of an industrial estate designates an estate manager for each estate (UNEP IE, 1996a). The estate manager is the single authority on an industrial estate and has defined jurisdiction with respect to tenants. It is also the representative of the industrial estate (UNIDO, 1997) and balances individual tenant and community interests by way of roles that will be described in this chapter (UNEP IE, 1997).

Estate managers should be considered a normal commercial operation charging an appropriate price for its goods or package of services (UNIDO, 1997). A commercial operation is understood to be a profit-making enterprise or business. Drucker (1968) considers businesses to be profit-making ventures with profit being the built-in self-regulating control mechanism that the market provides. A business is directed at satisfying customer needs and the market's requirements dominate.

Not all estates need to be profit-making operations (UNIDO, 1997). Users of a non-profit organisation are compelled to use its services otherwise it would not exist. Such an organisation has a functional relationship with its users (Huczynski and Buchanan, 1991). Functions develop different orientations to the organisation's problems and issues than businesses do (Hill and Jones, 1995). Functions also emphasise specialities and are intent on acquiring the knowledge and competence that pertains to those (Drucker, 1968). This makes it difficult for functions to focus on business performance. The non profit-making orientation of such an organisation deprives it of the self-regulating capacity described by Drucker.

Figure 2.2
Estate manager as a non-profit organisation



Adapted from Van der Brugge and Verborg, 1998

Van der Brugge and Verburg (1998) considered such a non-profit organisation in the organisational concept for an estate manager operating as a functional entity. This concept is depicted in Figure 2.2, which shows the estates owner providing tenants' operations with the necessary site and support services through staff functions that belong to it. Allocating the costs of the functions to the tenants, funds the estate manager's operation in this concept. Van der Brugge and Verburg did not favour this option because of the difficulty in allocating and controlling service costs. Incentives to encourage cost effectiveness and consensus on cost allocation strategies could mitigate the cost disadvantages. However, lack of market focus militates against tailoring services to suit individual customer needs. They point out that services such as knowledge-based services, having little or no capital to be rewarded from profits, would be most suited to this concept. Van der Brugge and Verburg concluded that organising the estate manager with the commercial orientation of an autonomous business is preferable to making it a non-profit staff function.

The conclusion is that an estate manager can be either a commercial operation or non-profit organisation. Profit-making organisations operate as businesses where the customer is prime and market forces prevail. Such an orientation for the estate manager is more likely, on balance, to be aligned with stakeholder requirements. However, a non-profit-making orientation for an estate manager cannot be discounted.

Functions and roles

The functions an estate manager employs to administer the estate are management, technical and commercial (UNIDO, 1997). One of the estate manager's management activities is to identify and select tenants for the estate. It then establishes and enforces covenants, controls and restrictions on tenant behaviour (UNEP IE, 1997). The management function also controls the development of the estate through the types of activity it permits, building restrictions, traffic, storage of chemicals and hazardous goods, safety and pollution management (UNIDO, 1997). Moreover, the policies and forward planning inherent in the management function directs this long-term development (UNEP IE, 1997) and promotion of the estates wherever necessary (UNIDO, 1997). The technical function provides the estate tenants with common services and amenities (UNIDO, 1997). It also integrates environmental concerns into the management of industrial estates (UNEP IE, 1996b) and extends this to providing cost-effective environmental management services for a number of companies on site as required (UNEP IE, 1997). The estate manager can assist with financing tenant establishment as part of its commercial function. Arranging agreements, including those with 3rd party suppliers, and providing estate services with financial support are additional activities of the commercial function (UNIDO, 1997). 3rd Party suppliers are suppliers drawn from entities other than the estate manager or tenant concerned.

As the industrial estate representative, the estate manager is the link between all stakeholders and, therefore, in a fiduciary position. A fiduciary is an entity that holds something in trust and as such is obliged to display the utmost good faith towards the company (the estate) and in any dealings done on its behalf (Van Dorsten, 1992). It is not surprising that Van der Brugge and Verburg (1998) had identified trust as a prerequisite for estate relationships. Besides being a fiduciary on the estate, the estate manager also sees that stakeholders obtain whatever services they require either by providing those themselves or accessing them from 3rd party providers. Van der Brugge and Verburg categorise the services estate managers provide in four typical roles: ‘Service Provider’, ‘Landlord’, ‘Liaison’ and ‘Monitor’. These roles incorporate the functions described above.

The Service Provider role entails the direct or indirect supply of services primarily to tenants who need them for their processes but do not wish to provide those themselves. Such services include utilities, site support (security, catering, basic office and administrative support) and technical support (workshops, laboratories). Landlord services comprise managing the estate infrastructure and marketing the estate to increase its benefits for all stakeholders. The activities of this role typically include: site planning and development; infrastructure establishment and maintenance; and managing leases and leased facilities. Many municipalities perform elements of this role. The Liaison role encompasses those activities required by the estate for communicating with external stakeholders and are performed on behalf of the estates owner(s) and tenants. Liaison services protect and enhance the image or reputation of the estate and, therefore, that of its internal stakeholders (the estates owner and tenants). The Monitor role has an internal site focus and, as Van der Brugge and Verburg point out, can be negatively perceived as a policing role. It is primarily concerned with the management of the covenants, controls and restrictions that order estate behaviour. Activities include communicating, interpreting and controlling the owner and estate’s local standards and policies as well as relevant legislation.

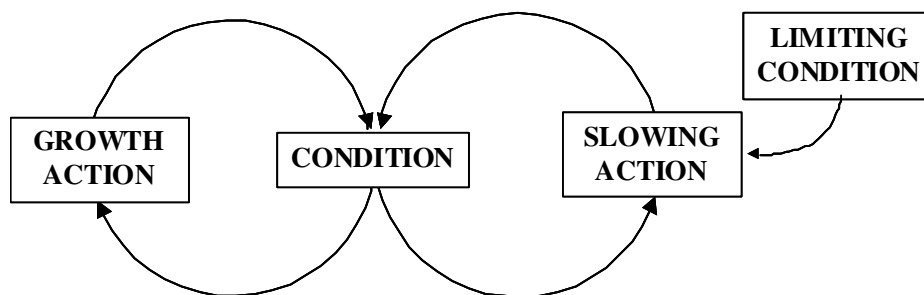
2.1.4 Modelling estate dynamics

Senge (1990) and Huczynski and Buchanan (1991) maintain that an enterprise can be considered as an open socio-technical system. Open systems are self-regulating, flexible and adaptable depending for survival on an exchange with their environment. Socio-technical systems are characterised by both material technology and a social organisation of people that interact with the material elements (Huczynski and Buchanan, 1991). The outline of industrial estates in Chapter 1 alludes to both physical and social elements. The material technology of industrial estates (their physical attributes) has been well documented (UNEP IE, 1997). Although the current definition alludes to interrelationship of stakeholders (the social elements) (UNEP IE, 1997), the social dimension of industrial estates has received less attention (Chapter 1).

Systems-thinking is a framework for seeing interrelationships between the social elements of an organisation and the processes associated with them (Senge, 1990). The interrelationships in a system concern behavioural variables rather than the people themselves. This means that a system enables people to see how their role interacts with the rest of the system. Systemic structure is concerned with the key interrelationships that influence behaviour over time. It can, therefore, be applied to industrial estates to model stakeholder dynamics so that their behaviour can be evaluated.

However, structure in human systems is subtle and not easily detectable. If the structures that underlie complex situations can be described, it would lead to understanding patterns of behaviour. According to Senge, systems-thinking encourages the notion for you to succeed others must succeed as well, which is also the essence of an industrial estate. This approach will, therefore, be adopted to capture the interdependency of industrial estate stakeholders. Certain behaviour patterns recur and can be depicted as system archetypes. Senge has proposed nine such archetypes. The relevant archetype for an industrial estate must reflect its development (growth) and the limiting effect of any off-site impacts that may occur. Senge's limits-to-growth archetype is defined as 'a reinforcing process, which is set in motion to produce a desired result. It creates a spiral of success but also creates inadvertent secondary effects manifested in a balancing process, which slows down the success. Eventually growth may slow down so much that the reinforcing spiral may turn around and run in reverse.' This archetype reflects the growth of an industrial estate as envisaged by an owner. However, this growth could be limited, or even reversed in the worst case, by the estate's off-site impact. Such a limits-to-growth archetype can be represented by the structure in Figure 2.3.

Figure 2.3
'Limits-to-growth' archetype structure



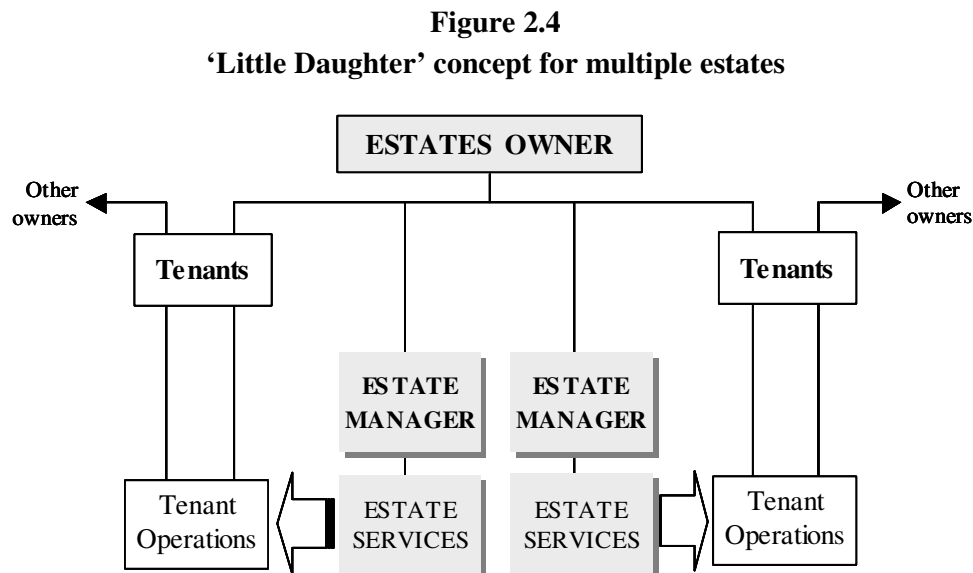
Adapted from Senge, 1990

2.2 Designing a multiple estates organisation

Van der Brugge and Verburg (1998) suggest a number of commercially orientated organisational concepts in their study of multiple estate managers. In arriving at these concepts, they examined two essential issues for multiple estate managers: the integration of multiple estate managers in an estates company; and the affiliation of such a company to any of the stakeholders.

2.2.1 Organisation concepts for multiple estates

Van der Brugge and Verburg (1998) termed their organisational preferences for multiple estate managers: 'Little Daughter', 'Big Daughter' and 'Stranger'.

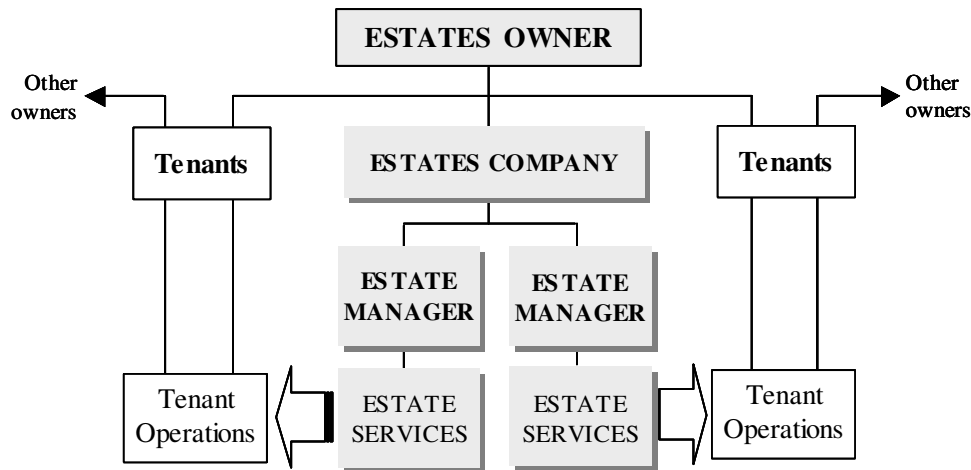


Adapted from Van der Brugge and Verburg, 1998

In the Little Daughter concept every estate manager reports separately into the estates owner together with any tenants who also belong to the estates owner. The estate manager in the model operates as a separate business unit but it can equally well be a staff function of the owner's organisation. The relevant estate manager manages the site and support services on each estate. Such an arrangement of multiple estates each with its tenants and their operations is schematically represented in Figure 2.4. When estates bear no similarity to each other, consistency is not an issue and this concept can work well. Furthermore, because such estates bear no resemblance to each other, shared learning from working closer together would not apply. An informal forum or communication body of representatives of estate managers may obviate some of the

disadvantages of estates operating independently. Such a forum could be the vehicle for sharing experiences and presenting the owner with a united voice on matters of common concern.

Figure 2.5
The ‘Big Daughter’ concept for multiple estates

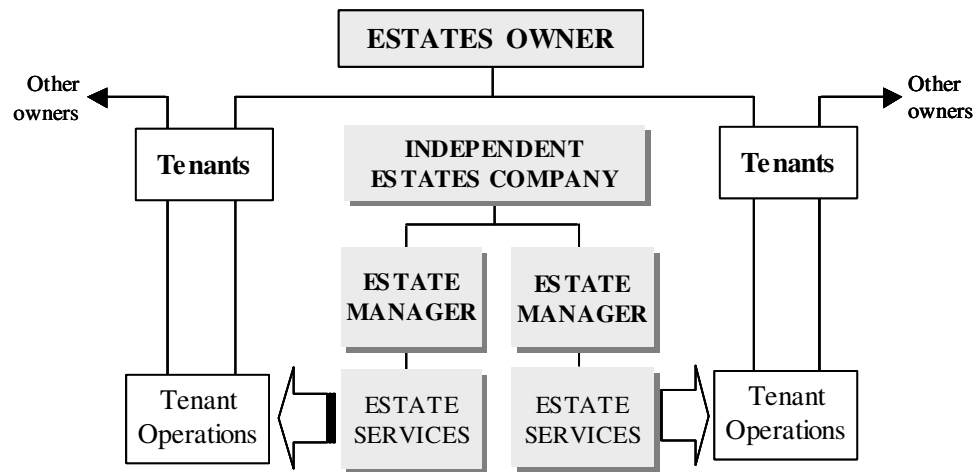


Adapted from Van der Brugge and Verburg, 1998

The Big Daughter concept entails a separate estates company responding as a SBU (profit centre) to the same holding company as a number of the tenants. The designated estates company operates as a business that services tenants on a number of estates. This means the estates company has to reward its assets with the profit it makes, respond to the market forces and compete for the tenants’ business. Therefore, tenants are free to choose their service supplier(s). The chart in Figure 2.5 depicts this concept.

Van der Brugge and Verburg point out that it is essential the Big Daughter’s services are competitive in both quality and price. The estates company should not hesitate to outsource services where this benefits the estate. The common ownership of (some) tenants and the estates company may lead to possible conflicts of interest. For example, it could be in the holding company’s (estates owner) best interest for the Big Daughter to provide certain services whereas sibling tenant companies may be reluctant to purchase them. This becomes a matter of policy, which the holding company has to resolve.

Figure 2.6
The 'Stranger' concept for multiple estates



Adapted from Van der Brugge and Verburg, 1998

The Stranger concept applies when an independent external business becomes the estates company that services several estates not necessarily belonging to the same owner. The Stranger does not own the estates and, therefore, eliminates the conflicts of interest possible with the Big Daughter concept. Figure 2.6 illustrates the organisation chart for the Stranger concept.

Van der Brugge and Verburg prefer this concept for 'supplying non-mission critical or non-core services to tenants'. The availability of suitable organisations to perform the Stranger role may vary from country to country. Individual services, which have been outsourced, cannot be considered as Strangers as they do not perform the estate management function *per se*. Facilities Management service providers, contracted as estate managers, would be classified as Strangers.

2.2.2 Integrated estates

Van der Brugge and Verburg argue that the decision to integrate estate authorities in a dedicated organisation depends on three factors:

- The need of the estates owner to coordinate the estate managers. This is a function of the dependency between estates and the estates owner's wish to standardize their operations.
- A need for consistency in approach. This is a need to deal with stakeholders, both internal and external, in a similar way. If the owner's image or brand is particularly important, then consistency in approach is essential.

- Opportunities for economies of scope and scale exist. Formally linking the estates by way of a dedicated organisation can optimally exploit such opportunities.

The Big Daughter and Stranger concepts are integrating concepts that offer distinct advantages for the owner when these factors apply. Under those circumstances multiple estate managers should be integrated in a multi-business estates company (Goold, Campbell and Alexander, 1994). The nature of such a company will be considered after establishing the effect of its affiliation to other stakeholders.

2.2.3 Affiliation of the estates company

The estates company is affiliated to tenants if its owner also owns those tenants. If the owner of the estates company is a state entity, the estates company can be affiliated to external stakeholders who are taxpayers/voters. The issue, therefore, is the estates company's affiliation with the estates owner who may also be related to some of the tenants or to external stakeholders as a state enterprise. An estates company can belong to the estates owner or be independent with no affiliation to the estates owner (Van der Brugge and Verburg, 1998). If the estates company belongs to the estates owner it is configured as the Big Daughter and as the Stranger if it is totally independent. Van der Brugge and Verburg found that prevailing strategic, technological and environmental contingencies determine whether an estates company should be affiliated to the owner. Considerations for strategic contingencies include the estates owner's vulnerability (for example, financial and reputation) to its estates; the criticality of the estates in the estates owner's strategy; or the necessity for owner's hands-on direction of estates. Technological contingencies include considerations such as the unique resources an owner possesses (for example, systems and procedures, central services, people and skills). These may be essential for estates and the estates owner in order to access international best practices. Examples of environmental contingencies include the estates company's need for rapid response to issues that arise; possibility of conflict of interests (real or perceived) on the estates; the nature of the estates culture; the type of social environment in which the estates are located and, finally, the availability of professional facilities management providers. Unless these factors indicate the contrary, the estates company should be independent of the owner and other stakeholders.

Outsourcing occurs when one company contracts with another company to 'perform one of the necessary value creation functions on its behalf' (Hill and Jones, 1995). It is a way of retaining the services of an entity, albeit an estates company or 3rd party service providers, without compromising that entity's independence. Focusing a company's resources only on the small set of critical core activities in which it has an edge, increases its competitiveness (Dratina, 1994). In this respect it is relevant to tenants of industrial estates given their requirement for an enhanced competitive position. The reason for increased competitiveness is that external vendors can offer advantages such as cost, flexibility and access to the latest technology. Outsourcing also aims to create

shareholder value by eliminating service overheads (Olesen, 1993). Facilities Management (FM) is a specific application of outsourcing that is particularly relevant to industrial estates. As a discipline in its own right it is concerned with 'managing groups of support services to provide the benefits of outsourcing' (Hoare, 1996).

FM has been defined as 'the process by which an organization achieves and sustains agreed levels of support service within a quality operational environment to meet strategic needs' (Cairns, 1994). It is about creating and managing the ideal support environment around a client's core business or activity in a cost effective manner (Pigott, 1999). An ideal environment improves productivity, job satisfaction and the client's bottom line. Total FM provides not only the non-core business services, but also property and estates management as well as taking financial decisions over acquisition and sale of buildings (Hoare, 1996). FM therefore describes the operation of an independent estates company.

2.2.4 The estates company

An estates company has the attributes of a normal company as 'a legal entity that exists separately from its shareowners and directors and has a defined nature and scope of powers' (Van Dorsten, 1992). The owner(s) of a company is its supreme governing organ and appoints the company's directors typically through a general meeting of shareowners. South African companies have only one board of directors, which can comprise executive and non-executive directors. Executive directors work full time for the company whereas non-executive directors are not employees of the company. A board's key purpose is to ensure the company prospers and meets the interests of its shareowners and relevant stakeholders (Renton, 1999; CACG, 1999). It does this by performing four key tasks: defining the company's vision, mission and values; establishing the company's strategy and structure; delegating the necessary authority and resources to management; and being accountable to shareowners and stakeholders (Renton, 1999).

Multi-business companies consist of: (a) businesses that could exist independently and (b) a corporate hierarchy of line managers, functions and staff outside those businesses. It is the corporate hierarchy that Goold, Campbell and Alexander (1994) refer to as the parent. The parent decides on the new businesses it wishes to support, structure of the corporation and corporate processes. The parent metaphor according to Goold, Campbell and Alexander indicates 'definitive influence over the businesses in the company'. They contend that the strength of the metaphor is in its implication that there are different roles within the family, for the parent as well as the businesses (children), and that the parent has great influence over the businesses (children). 'The metaphor is far from perfect. But we use metaphors to help us gain new insights about the things they describe, not because they are universally exact. Good metaphors are neither complete nor accurate, but they are suggestive' (Goold, Campbell and

Alexander, 1994). Those people the organisation uses that are outside its businesses constitute the parent. It is regarded successful when it creates significant value for its businesses. Such a parent has distinctive 'parenting characteristics' that comprise its resources (staff functions and individual skills) and capabilities (mental maps, systems, decentralisation philosophy). Businesses, too, have characteristics of their own and these 'business characteristics' include how the actual business is defined, the opportunities they present for their parent, and the success factors that apply to them.

The essence of successful 'parenting' and corporate strategy, by implication, is to create a fit between the way the parent operates (its parenting characteristics) and the improvement opportunities that the parent addresses (the business characteristics). The better the fit the more value the parent adds. When a parent achieves a closer fit with its businesses than a rival parent can, it is said to have a 'parenting advantage'. The achieving of fit is an ongoing dynamic process given the instability in the environment and entails decisions about both the parent and its businesses. A first level assessment of whether a parent offers any parenting advantage to its businesses focuses on the here and now. A second level of assessment considers how well the parenting characteristics are likely to adapt to changes in the business characteristics. Goold, Campbell and Alexander (1994) discovered that a successful strategy resulting from a close fit between parents and their businesses has the following unique features:

- Value creation insights describe the unusual insights parents have about how they can create value from opportunities that: (1) can unlock major value; and/or (2) have not been perceived by others; and/or (3) can be exploited by the parent.
- Distinctive parenting describes those characteristics some parents have that are unusually helpful in exploiting opportunities.
- Structure of their business portfolio is concerned about the businesses successful parents select for their portfolio. They employ criteria for shaping their portfolio or the scope of the businesses that expressly recognise their own parenting characteristics and the potential these have to create or destroy value.

Goold, Campbell and Alexander point out that the nature of these features is unique for each situation. They also lie at the heart of corporate strategy, which is 'deciding what businesses to be in and how the parent would relate to them'. Generic concerns that inform 'distinctive parenting' are related to organisational design.

Organisational design of a company encompasses: configuration; devolution; and management systems (Johnson and Scholes, 1993). Configuration is the need to match an organisation's detailed structure with its operating context. Mintzberg developed a number of organisational configurations of which the 'Diversified Organisation' most closely approximates the estates company (Mintzberg, Ahlstrand and Lampel, 1998). The strategic emphasis of this configuration is on key middle line and operating core positions; service level agreements; and skills development. It also favours devolution of operational responsibilities to individual units (estates). Devolution is the second

organisational design element and concerns the extent to which the centre of the organisation (the parent) releases its control of decision making to units and managers lower down in the hierarchy (Johnson and Scholes, 1993). For the preferred configuration, the parent is expected to handle: overall strategy; balancing the activities of the divisions and clarifying their roles; as well as providing organisational policies. To this end the parents' responsibilities include: business plans and budgets using a bottom-up process; key policies; allocation of resources; and assessment of performance. The strategic implications for the parent of such an approach are: an emphasis on assisting estates with business planning and performance measurement; setting guidelines for the budgets and approving them when submitted; defining and monitoring the implementation of key policies including risk and SHE; and, finally, allocating resources and monitoring how they are used. Individual estates should be allowed to control as much of their operational requirements as they can handle within prescribed management and control systems. Management and control systems are the third organisational design element and provide the means whereby lower levels in the organisation are held accountable for the responsibilities that are devolved to them (Hill and Jones, 1995). Control systems must align interests of stakeholders and managers at all levels through the information they collect and be linked to reward systems that reward managers accordingly. Again the strategic implications of management and control systems for corporate strategy are the need for: shareowner value measures; performance indicators; budgeting and business planning systems; standards and procedures; values and norms; performance management and rewards. The strategic implications of the three organisational design elements should be incorporated in the corporate strategy of a multi business company.

2.3 Value delivering strategies

Goold, Campbell and Alexander (1994) point out that all approaches to strategy presuppose some definition of value. Value in the delivering profitable value framework refers to value for customers as reflected in a value proposition where the delivery of such a proposition defines a business (Lanning, 1998). Even if an organisation is unaware of it, it delivers a *de facto* value proposition when it sells something. A business generates wealth when it delivers a profitable value proposition.

2.3.1 Value Proposition

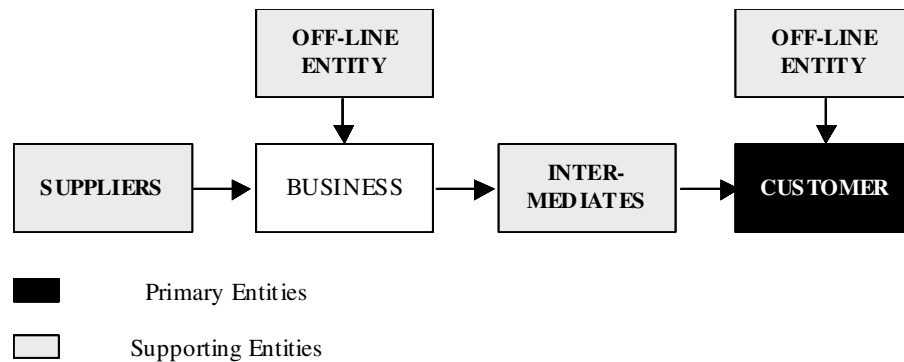
A value proposition, according to Lanning is 'the entire set of resulting experiences including some price that the organisation causes customers (stakeholders) to have'. It is also the essence of any business. A complete value proposition consists of a timeframe for delivering the proposition; the actual resulting experiences including equal or inferior ones the customer will have; the intended customer who will derive the

resulting experiences chosen in the proposition; what the customer must do in return for the experiences it will obtain (prerequisites) and, finally, the best competing alternative to the proposed resulting experiences available to the customer. Price is considered one of the resulting experiences. Of these value proposition elements, the following are generic and will be considered below: resulting experiences, intended customers and customer prerequisites for receiving the proposed resulting experiences.

A resulting experience includes one or a series of related physical or mental events that an organisation such as an industrial estate creates in the life of a customer (stakeholder). Each event has a consequence for the customer, which he/she compares to some real or perceived alternative experience in terms of the value it holds for them. The experience is thus superior, equal or inferior to that alternative experience, with the difference being the value to the customer. A resulting experience can consist of a number of events each with its consequence and relative value. In each instance it is necessary to describe the entire resulting experience comprising all the events with their consequences and associated value. It is quite possible for businesses to deliver a mixture of superior, equal and inferior resulting experiences. The desirability of the entire resulting experience depends on the net effect as perceived by the customer (stakeholder). Customer perception is important, as it is not always possible to describe with accuracy the real value of a resulting experience. Lanning believes the 'conventional business paradigm does not emphasise the concept of customer experiences' but uses related terms: benefit, need and requirement. However, given their rigorous definition in terms of events, consequences and relative value, resulting experiences mean more than those conventional terms. A winning value proposition is perceived by the customer to have a positive net value if superior experiences outweigh the inferior ones.

Intended customers are those entities for whom the combination of resulting experiences and price in a business' value proposition holds. A business can interact with a large number of entities (stakeholder groups) besides the customers. Lanning indicates that the entities of relevance to a business that deliver value to each other comprise a value delivery chain. Such entities include suppliers, intermediate customers, intended customers and off-line entities where an off-line entity is one that 'affects the organisations success but does not buy or use its products or services'.

Figure 2.7
Value delivery chain showing primary and supporting entities



Adapted from Lanning, 1998

A value delivery chain gives rise to primary and supporting entities. For each business, the customer entities at some point in the chain will be the most essential for the organization to understand. The proposition delivered to those customers determines the business' success even if they are not the immediate customers. These most essential customers Lanning called the primary entities and the proposition to them the primary value proposition. Primary entities make decisions that greatly impact the business' success, even if only indirectly. The other entities such as intermediate customers, suppliers and off-line agencies necessary in the delivery of that value proposition are supporting entities, which require supporting value propositions. Figure 2.7 above depicts a typical value delivery chain with primary and supporting entities

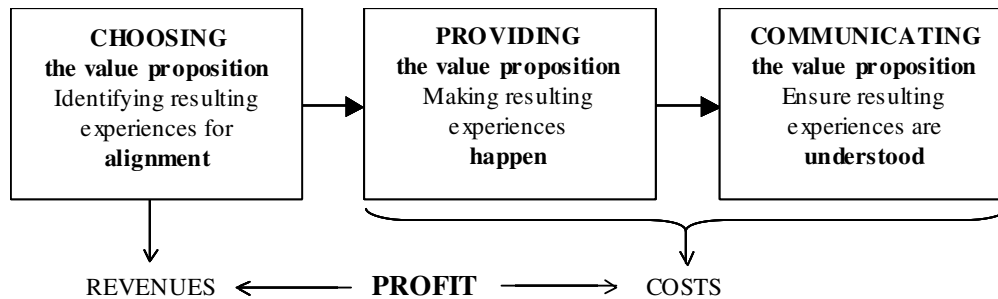
Customer prerequisites comprise those behaviours the intended customer must exhibit in return for the resulting experiences delivered to it. This includes the products or services the customer must buy or use and any changes to the customer's operations or procedures. Lanning points out 'this may entail asking the customer to do something that is difficult or uncomfortable for them'. In fact, 'moving the customer out of his comfort zone may present opportunities for a much enhanced value proposition'. Lanning concludes that deciding what an organisation wants the customer to do can be as important as understanding the customer's resulting experiences.

2.3.2 Value delivery system (VDS)

The 'value delivery system' (VDS) comprises the functions that aim to deliver a specific value proposition to the intended customer. The VDS constitutes a business in delivering profitable value terms and comprises choosing, providing and communicating a complete value proposition. This can be represented schematically in Figure 2.8. Besides showing the critical functions of managing a business to deliver a

specific value proposition, the diagram also shows the derivation of profit as the source of wealth. A business aims to deliver a winning value proposition at a total cost below the revenues it will obtain (Lanning, 1998).

Figure 2.8
Representation of business as a value delivery system (VDS)



Adapted from Lanning, 1998

Lanning maintains: ‘to choose a value proposition is to make the central decision of business strategy, for a value proposition defines the precise objective of a business’. Choosing a complete value proposition is only an internal articulation and not a communiqué to the customer. It is a specification by which to design and guide an entire business. Price is included in the resulting experiences and refers to the money a customer pays in order to obtain all the other resulting experiences in a value proposition. By considering price (i.e. revenues) as part of the value proposition it emphasises that price is value based and not cost based. Given the many facets of a value proposition, it requires ‘tough choices and disciplined thinking’ that Lanning believes ‘cannot be delegated to a single department’. ‘The real power of the value proposition for an organisation lies in its ability to align the whole organisation. Unless this is articulated upfront through a conscious decision at the highest level in the organisation, a value proposition will fail in its potential to mobilise the organisation’ (Lanning, 1998).

Providing a resulting experience causes the event(s) in that experience actually to happen for the intended customer. Any asset or process that influences or helps the event in a resulting experience to occur is considered a ‘providing vehicle’. The most important vehicle for providing a resulting experience is usually a product or service. As Lanning describes it: ‘Resulting experiences are not useful because they help to sell a product; products are useful because they help to provide resulting experiences’. Sometimes a product and other providing vehicles may not provide a chosen experience if the customer does not have the appropriate capabilities. In such a case less tangible providing vehicles such as customer information and education are equally important.

Lanning has identified a number of steps for deciding how to provide each resulting experience making up the value proposition: (1) the product attributes, features and characteristics required to cause the events actually to happen in the customers life; (2) the providing vehicles required for making these attributes happen; (3) the changes the customer must make in processes, resources, awareness and capabilities (i.e. the prerequisites); and (4) how these providing vehicles should be produced, by whom and with what implications’.

Communicating a resulting experience means ensuring the intended customer understands: (a) the resulting experiences the organisation believes will happen if the customer does as the business wants; and (b) the reason they should believe the resulting experiences will actually happen (Lanning, 1998). Typical communicating vehicles communicate some message to the customer and include sales presentations, promotional and advertising material, a product’s appearance, packaging, and word-of-mouth. The message communicates the resulting experience by bringing about some understanding of it, its value and the reason to believe it will be provided. The steps for deciding how to communicate each resulting experience making up the value proposition include: (1) the information, logic or evidence that must be conveyed so that the customer understands the proposed resulting experience and the reasons for believing those experiences will be provided; (2) the communicating vehicles like product design, packaging, presentations and advertising required to do so, how they will be produced, by whom and with what implications’.

An organization must deliberately choose and deliver the primary value proposition to the primary entities. The choice of that proposition shapes the design of the business. The primary VDS consists of the primary value proposition and all actions by the organisation and others to deliver it to the primary entity. This means the VDS for delivering the primary value proposition may be larger than any organization can control, or even own, because of the actions required on the part of the supporting entities. Making the primary VDS successful means motivating the supporting entities such as suppliers and off-line entities to play the role required by the primary VDS. This is done through supporting value propositions in supporting VDS’. Therefore, supporting VDS’, while directed at the supporting entities, are integral parts of the primary VDS. In essence, therefore, a business consists of only one VDS, the primary VDS, which incorporates the necessary supporting VDS’.

2.4 Conceptual Framework

2.4.1 Understanding industrial estates

Three broadly defined key stakeholders groups have been identified: owner, tenants and external stakeholders. The composition of external stakeholders depends on a particular occurrence on the estate and will be regarded as a single group for the purpose of this

research. Tenants' employees, suppliers and customers will be considered part of the tenant stakeholder group just as estate employees are part of the estate manager.

The generic (high-level) interests derived from the literature for each of the key stakeholder groups are: improvement in the estate's triple bottom line for the estates owner; an enhanced competitive position including security of tenure for tenants; and for external stakeholders, an improved quality of life.

While there are strong indications that an estate manager should be a business operating for profit, a non-profit making orientation cannot be discounted. The management, technical and commercial functions associated with an estate manager are incorporated in the four estate manager roles: Service Provider, Landlord, Liaison and Monitor that will be adopted in this research.

A systems-thinking approach enables the interrelationships of the key stakeholders and the estate manager to be modelled. Systems structure captures the essential behavioural elements in a model for which the limits-to-growth archetype is most suited. This archetype demonstrates how the growth of an industrial estate can be limited by its off-site impacts.

2.4.2 Designing a multiple estates organisation

When multiple industrial estate managers are conglomerated they can either report separately to the owner of all the estates (Little Daughter) or be integrated in an estates company (Big Daughter and Stranger). Conditions for integrating estate managers as a company are: the preferences of the owner; the need for consistent action by estates; and opportunities for economies of scope and scale.

If the estates company belongs to the estates owner (Big Daughter) it may also be affiliated to other stakeholders. That will be the case if the estates owner either owns a tenant(s) or is a state enterprise. In the absence of prevailing strategic, technological and environmental contingencies for the owner, the estates company should be independent (Stranger). Outsourcing management of the estates to an estates company is a way of realising that independence and at the same time providing the stakeholders with other benefits. Total FM describes the outsourcing of estates management to an independent estates company.

An integrated multi-business entity such as an estates company gives rise to a parent comprising the corporate hierarchy that exists outside the units and includes the company's board. The closer the characteristics of the parent fit those of its businesses (estate managers) the greater its parenting advantage and the more value it adds to the businesses. Parenting advantage helps its businesses to deliver value and is the essence of corporate strategy. It consists of value creation insights, distinctive parenting and structuring the company's business portfolio. Elements of organisational design form the substance of distinctive parenting, which leads to parenting advantage.

2.4.3 Value delivering strategies

The delivering profitable value framework considers a value proposition as the essence of a business. Resulting experiences, the intended customer and customer prerequisites for receiving the proposed resulting experiences are generic elements of a value proposition. The resulting experiences stakeholders receive determine the value they perceive in the value proposition. The value delivery chain concept clarifies how stakeholders relate to each other in the value proposition and identifies the intended customer as the entity that affords the greatest potential for delivering value profitably. Customer prerequisites are changes the customer has to make to his current *modus operandi* in order to receive the proposed value proposition. The absolute requirement for competition is that a value proposition must be superior to the customer's alternatives if it is to be successful.

A business, according to the delivering profitable value framework, is a VDS designed from choosing a value proposition all the way through to the resources and actions needed to provide and communicate it profitably. A firm's strategy consists of the choice and design of the primary VDS (includes supporting VDS') it will implement. It entails building capability in that business by creating the required providing and communicating vehicles. The VDS is the essence of estates strategy for delivering profitable value to multiple stakeholders.

2.5 Conclusion

The available literature on industrial estates by UNEP IE and UNIDO has tended to focus on the physical characteristics of a single estate. There has been no attempt to propose a theory that describes the relationships associated with an estate and its dynamics. As every estate is unique, the generic estate characteristics necessary for such a theory has to consider its macro or high-level properties. The evolution of stakeholder theory from the early work of Freeman (1984) is helpful in identifying the essential macro components of an estate. Systems-thinking pioneered by Senge (1990) further assists in defining the interaction of these components in a model that enables a better understanding of industrial estate dynamics. Given the lack of theory on an industrial estate, it is not surprising that the management of multiple estates has received scant attention. The exception is the organization concepts Van der Brugge and Verburg (1998) developed for multiple industrial estates that denote the estates company as a means to integrate multiple estates. Such a company is analogous to the multi-business organisation with its parenting concept outlined by Goold, Campbell and Alexander (1994). The parent has to add more value to the company than can any other parent or structural arrangement. To this end generic parenting strategies can be identified using Lanning's (1998) delivering profitable value framework. This framework defines value

in terms of resulting experiences the estates company provides stakeholders in a value proposition. The concept of a value delivery system for the stakeholders' value proposition can be used as the basis for estates company strategies.

CHAPTER 3 THEORY DEVELOPMENT

3.1 Industrial estates as a system

Besides the land it occupies, an industrial estate comprises the capital invested in infrastructure and facilities. An estate manager is designated as the resident authority responsible for this investment as well as the way it is used to fulfil the estate's purpose. The estate manager is an organisation with the necessary resources to execute this task. Besides the function of the estate manager, there are two issues that must be determined for an industrial estate: the identity of the essential stakeholders; and their expectations that determine the way they interact with each other and the industrial estate.

3.1.1 Industrial estate stakeholders identity

The operationalisation criteria that will be used to determine the identity of an industrial estate's stakeholders must be defined.

In Chapter 2 the stakeholder groups that have the greatest impact on an industrial estate were identified as the owner, tenants and the external stakeholders. These are considered the key stakeholder groups associated with an industrial estate. The external stakeholder group covers a broad spectrum comprising: neighbouring communities; local, regional and national authorities; special interest groups; suppliers and service providers to the estate that include institutions.

Criteria to identify the existence of each stakeholder group on an industrial estate are defined for the relevant stakeholder group: The owner's presence is manifested by the capital invested on an estate and the existence of owner's policies and objectives for the estate. Capital invested typically entails land, infrastructure and facilities. Owner's policies and objectives will be revealed in the constraints, prescriptions, and performance targets prescribed for the estate and specifically the estate manager. (UNIDO, 1997; Renton, 1999; King, 2002).

Tenants operate industrial processes and constitute the major customer group on industrial estates according to the existing definition (Chapter 1). Their presence is clearly manifested by on-site operations as identified by any of the following: leased sites; occupiers of those sites and their on-site facilities; industrial plants with possible off-site impacts; and purchased services. (Brat, 1996; UNIDO, 1997).

External stakeholders involvement with the estate is manifested by estate interaction with external stakeholders and commitments made to them. Estate interaction with external stakeholders occurs by way of meetings with any element of the group, approaches from the public by way of inquiries, requests or complaints and financial transactions with 3rd party suppliers. Estate commitments include: estate

policies, standards and restrictions that reflect concern for statutory requirements and the estate's off-site impacts. (Sharman, 1994; UNEP IE, 1997; Walker, 2000).

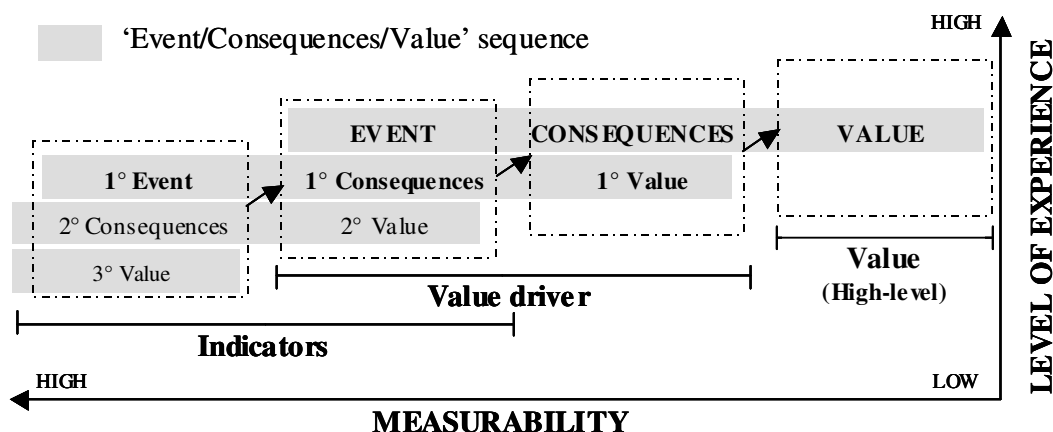
3.1.2 Industrial estate stakeholders requirements

The essence of the stakeholder concept is the demands on an enterprise such as an industrial estate (Chapter 2). These demands are based on the requirements of the different stakeholder groups and will differ given the differences in the value each group expects of an industrial estate.

Given Lanning's (1998) definition of value, different resulting experiences are required for the different value each stakeholder expects. While it is clear that different stakeholders have different value expectations, different levels in the same stakeholder group's organisational hierarchy can also give rise to 'high-level' and 'low-level' value expectations. This can be ascribed to the different concerns various hierarchical levels of the same stakeholder group, or constituents of a group, may have while at the same time being totally aligned with the overall or high-level value. High- and low-level value expectations are different magnifications of the same overall value expected by a stakeholder group, with the higher level value being more generic as it encompasses a broader scope. This research aims at providing generic insights to industrial estates and will concern itself with high-level value propositions as outlined in Chapter 2.

The issues that drive the high-level value component indicate sources of value (likely events and consequences according to Lanning) and are termed 'value drivers'. The value drivers themselves are the outcome of lower level experiences precipitated by relevant events that are measurable. Value drivers are, therefore, a useful construct to point to the events that operationalise value and hence stakeholders requirements. Such events will be considered indicators of value. Figure 3.1 represents the relationship between value (i.e. stakeholders' requirements), value drivers and indicators that operationalise value. The figure also illustrates the cascading of the event / consequence / value sequence at different levels in the organisation.

Figure 3.1
Representation of value, value drivers and indicators



Indicators of the value each stakeholder requires generically will be derived from the relevant value drivers to operationalise the applicable high-level value.

In Chapter 2 the value the owner expects is a return on his triple bottom line that is superior to any available alternative (Lanning, 1998). The triple bottom line is aligned to the concept of sustainability discussed in Chapter 2 and is defined as ‘managing a business to achieve a balanced and integrated economic, social and environmental performance’. As each of these three dimensions has to be actively managed, management provides a fourth dimension (Elkington, 1997; Coetzee, Raimondo and Visser, 2001). The superiority to available alternatives required by the definition of value will be designated by the term ‘improved’. The owner’s high-level expectation for the estate therefore, is an improved triple bottom line with value drivers and indicators that can be derived for each of the four dimensions as follows:

For the financial dimension, sustaining the viability of the estate is a value driver associated with the ongoing return an owner requires from his capital investment. Such a return depends on the utilisation of the estate and has to be commensurate with the risk incurred (King, 2002). A second financial element concerns the services an owner provides tenants and for which the services portfolio must be profitable (Ward, 1993). A service that is not profitable, or does not break even, inevitably runs at a loss and can only be sustained if the owner subsidises it and thereby incurs extra costs. An estate’s exposure to risk has financial consequences determined by how it is utilised and its licence to operate (Deegan, Rankin and Tobin, 2000). The notion of a licence to operate denotes the social contract or implicit agreement between an organization and society (Shocker and Sethi, 1974 cited in Deegan, Rankin and Tobin, 2000). Failure to act in accordance with the social contract is construed as being detrimental to the ongoing operation of the entity. Having identified the financial value drivers, the events (indicators) associated with each of those value drivers follows. The owner’s expectation of a financial return and objectives for estate utilisation are indicators for rewarding the investment and utilising assets both of which determine estate viability. Service agreements, financial transactions, business plans and objectives are indicators of an ability to compete profitably and produce a profitable services portfolio. Managing risk exposure is indicated primarily by the owner’s awareness of and response to the estate’s financial risk as result of its utilisation and impact on external stakeholders and their licence to operate (King, 2002; Pigott & Associates, 2001; UNEP IE, 1997).

Environmentally the owner expects the estates environmental impacts to be within statutory requirements and satisfy the external stakeholders that hold the estate's licence to operate (Chapter 2). By promoting the owner’s reputation for SHE commitment, the estates provide an important environmental value driver. Indicators for the environmental dimension of owner’s value are those events that demonstrate SHE

commitment such as the owner’s policies and objectives on environmental performance (Sampson, 2003; Bouma and Kamp-Roelands, 2000; UNEP IE, 1997).

The social value driver of owner’s value also entails the owner’s reputation, this time as a good corporate citizen (UNIDO, 1997; Sampson, 2003). The construct of corporate citizenship has been defined as ‘the extent to which businesses assume the economic, legal, ethical and discretionary responsibilities imposed on them by their various stakeholders (Maignan et al., 1998 as cited in Maignan and Ferrell, 2001). The licence to operate depends on external stakeholders support. This requires estates to be seen to contribute to quality of life of the community as outlined in Chapter 2 and not detract from their safety and health. Indicators or the events that lead to a reputation as a good corporate citizen include policies and objectives on (1) the role of the estates in the community and (2) the estate’s relationship with external stakeholders (Harrison and St. John, 1996; Elkington, 1997; Kilcullen and Kooistra, 1999).

The final dimension concerns the value the estate manager provides the owner in the way it manages the estate. The value driver is providing professional management processes to support the estate in delivering experiences that meet stakeholders’ requirements. Professional alludes to a high degree of competency and skill in devising and maintaining the necessary supporting processes. The events or indicators that result in this value driver typically comprise internal management policies and practices (UNEP IE, 1996b; UNEP IE, 1997; Lanning, 1998; Pigott, 1999).

The drivers of owner’s value can be summarised for each dimension in Table 3.1.

Table 3.1
Drivers of value for the owner of an industrial estate

VALUE DRIVER	DIMENSION	VALUE
Sustaining estate viability through securing and rewarding the owner’s investment and fully utilising estate assets	Financial	Improved triple bottom line
Achieving a profitable services portfolio that is able to compete and yield the required returns		
Managing the owner’s exposure to risk in the estate		
Promoting the owner’s reputation for SHE commitment and sound corporate citizenship	Environmental Social	
Providing professional management processes to support the estate	Management	

The value tenants expect is an enhanced competitive position as result of achieving competitive advantage for their businesses (Chapter 2). A competitive position arises from tenants being able either to differentiate themselves or lower their costs (Porter, 1985). The superiority to available alternatives required by the definition of value is

again reflected in the term ‘enhanced’. Tenants’ location on the estate and the cost effectiveness of services they receive are the relevant dimensions of tenant value as they lead to tenants’ differentiation or cost leadership ability (UNEP IE, 1997; Vos, 1997). The value drivers and indicators for enhancing tenants’ competitiveness is derived below for each dimension:

A tenant’s location on an estate that sustains a world-class operational environment positively impacts its reputation especially if its operations have an off-site impact (Chapters 1&2). Businesses believe that reputation is the most significant risk they face (Sarbutts, 2003). Tenant stakeholders such as employees, suppliers and customers value a location that provides a congenial operating environment that conforms to international best practice (world-class) (Brat, 1996; UNEP IE, 1997). A second location value driver concerns the reduced investment in infrastructure the estate already provides and which the tenant requires. This has positive implications for the tenants’ financial performance by way of an improved return on net assets (RONA) (UNIDO, 1997; UNEP IE, 1997). Financial performance can be further enhanced by the tenant’s proximity to resources and/or distribution networks that reduce costs (UNIDO, 1997). The events that lead to these value drivers are indicators for the location dimension of tenant value. In respect of contributing to tenants reputation they typically entail tenant concern for off-site impacts as well as support for estate efforts to maintain a congenial operating environment (McAdam and Leonard, 2003; UNEP IE, 1997). Improving tenants financial performance value driver indicators include long-term lease and service agreements with tenants (Pigott & Associates, 2001).

The second dimension of tenant value, cost effective services from the estate, also concerns the improving financial performance value driver. The comprehensive portfolio of services from which tenants may choose enable them to share in economies of scope and scale resulting in reduced service prices (UNEP IE, 1997). A further value driver for this dimension is the ‘increased focus on core business’ tenants receive as result of the services estates provide (Pigott & Associates, 2001). This enhances the competitiveness of tenants by allowing them to focus their resources on the small set of critical core activities. Indicators or events for the improving financial performance value driver are the services agreements and commercial transactions of tenants with the estate (UNEP IE, 1997). Outsourcing of support activities deemed non-core to tenant businesses are indicators of increasing focus on core business (Brat, 1996; Pigott & Associates, 2001).

Table 3.2 summarises the drivers of tenant value in terms of location and the cost effectiveness of services.

Table 3.2
Drivers of value for the tenants of an industrial estate

VALUE DRIVER	DIMENSION	VALUE
Contributing to tenants' reputation by providing a world-class operational environment	Location	Enhanced competitive position
Improving tenants' financial performance through increased profitability and superior RONA's	Cost effective services	
Increasing tenants' focus on core business		

The value external stakeholders expect from the estate has been defined in Chapter 2 as an improved quality of life. The dimensions associated with this value are environment, economy and social. The superiority of this value compared to available alternatives is designated by the term 'improved'. The value drivers for each dimension and their indicators are derived as follows:

Two value drivers, which concern the off-site impacts of the estate on the environment, have been identified. The first addresses external stakeholders desire for information on estates' off-site impacts. Provision of reliable information was 'deemed to be of critical importance by external stakeholders' in the study conducted by Bouma and Kamp-Roelands (2000). External stakeholders require environmental information 'to hold organizations accountable for their actions and compare the absolute levels of resource use and emissions'. The items of information they consider important cover the estate's 'environmental objectives, efforts to control environmental impacts, level of emissions and plans to reduce the same, handling and reduction of waste, incidents and occurrences of non-compliance with environmental legislation and developments of the estate'. Quality environmental information is determined by its usefulness for decision-making, accuracy, clarity and comparability. The second value driver is concerned about managing the estates' off-site impacts on the environment and external stakeholders' assets. Off-site impacts are those activities that are 'beneficial for, detrimental to or not in harmony with the social environment' (Deegan, Rankin and Tobin, 2000). Environmental impacts can be assessed in terms of pollution; adherence to standards and regulations; remediation efforts; awards received; and impact studies. The existence of a conservation ethic and the health and safety of employees were additional external stakeholder considerations in Deegan, Rankin and Tobin's investigation. Bouma and Kamp-Roelands (2000) pointed out that 'environmental indicators vary with the entity and depend on how the entity defines the environment in the context of the systems boundary the entity defined for itself'. The areas which were deemed to be of great importance to external stakeholders focused on: improving environmental performance; preventing environmental accidents; ensuring compliance

with legislation; control of waste handling; handling of complaints; and identifying risks from environmental impacts. In this regard Sadgrove (1994) recommends that ‘complaints must be handled promptly and efficiently and every complaint investigated and responded to’. Indicators that give rise to the receiving of information value driver include: (1) estates dealing with external stakeholders in an open and transparent way; and (2) requests for information on possible off-site impacts or future estate developments (LaBerge and Svendsen, 2000; Coyle, 1996; Bouma and Kamp-Roelands, 2000). For managing the estates’ off-site impacts on the environment and assets, possible indicators are the existence of statutory requirements, permits, pollution complaints as well as estate initiatives in that regard. (ISO, 1996; Deegan, Rankin and Tobin, 2000; Bouma and Kamp-Roelands, 2000).

Managing the estates off-site impacts on external stakeholders assets value driver also has an economy dimension in as much as those impacts may detract from asset and property values in the vicinity of the estate (Sadgrove, 1994; UNEP IE, 1997). Consequently the two areas of interest to external stakeholders in respect of this driver are handling of claims for compensation and identifying risks from environmental impacts (Deegan, Rankin and Tobin, 2000; Bouma and Kamp-Roelands, 2000). A second economy value driver is promoting reciprocally beneficial opportunities with external stakeholders. LaBerge and Svendsen (2000) maintain that ‘mutual benefit and reciprocity are the governing values of the most successful companies in North America today. The powerful relationships they have established with their stakeholders are governed by this concept of mutuality’. The opportunities estates create with local communities typically involve buying from local suppliers and subcontracting to perform functions that have traditionally been performed in-house (Harrison and St. John, 1996). Such opportunities are sustainable if they result in benefits to both the estates and external stakeholders. In giving suppliers and service providers a fair opportunity to do business with the estate, the estate adopts ethical business practices in its dealings with them (Moir, 2000; LaBerge and Svendsen, 2000). External stakeholders also expect that the estate honours its financial obligations such as rates, taxes and account settlements on time. Once again the events leading to these value drivers provide the necessary indicators. For the value driver managing the off-site impacts on external stakeholders assets, indicators include complaints, community concerns about the impact of the estate on assets and property values and claims for damages (Sadgrove, 1994; Coyle, 1996). The existence of 3rd party suppliers, procurement policies and commercial practices backed up by codes of ethics are indicators of reciprocally beneficial opportunities (Harrison and St. John, 1996; LaBerge and Svendsen, 2000).

The social dimension of external stakeholders value includes an expectation that estates should contribute to the development of local communities, institutions, small business enterprises and authorities. Creating such opportunities are part of estates’

corporate social responsibility (CSR), which some researchers claim is motivated by ‘enlightened self-interest that is concerned about avoidance of cost, regulation and litigation’ (Singer and Endreny, 1992 cited in Sarbutts, 2003). The fact that estates obtain benefits in exchange for the opportunities they create should not detract from an ‘underlying moral or ethical imperative for CSR’ (Moir, 2000). Hence the World Business Council for Sustainable Development (cited in Moir, 2000) defined CSR as ‘the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large’. Community involvement for an estate entails supporting its communities, holding itself to the highest ethical conduct and environmental responsibility, and listening to and communicating openly with the public (LaBerge and Svendsen, 2000). In practice this support may range from donations and aid (Deegan, Rankin and Tobin, 2000) to sponsoring events, and taking an active role in social activities such as clubs (Harrison and St. John, 1996). Furthermore, as Sadgrove (1994) suggests: ‘every company is a repository of skills – managerial, scientific, technical and even physical. These can be shared with the community in the form of staff time.’ Harrison and St. John (1996) also indicate that ‘participation in training programmes for the local community as well as local economic development initiatives involving authorities and business leaders’ are additional activities that produce reciprocal benefit for estates and external stakeholders. Promoting such opportunities for reciprocal benefit are therefore a driver of external stakeholder value. Indicators of this value driver are estate initiatives in community involvement and development as indicated above or requests for the same from the external stakeholders.

The value drivers for external stakeholders value is summarised in Table 3.3 for the relevant dimensions.

Table 3.3
Drivers of value for the external stakeholders of an industrial estate

VALUE DRIVER	DIMENSION	VALUE
Exchanging information on estates’ off-site impacts	Environment	Improved quality of life
Managing estates’ off-site impacts on the environment and stakeholders’ assets	Economy	
Promoting reciprocally beneficial opportunities with external stakeholders	Social	

3.1.3 The system of estate stakeholder interactions

The issue this research addresses is the interrelationship of stakeholders (the social elements) rather than the physical attributes (Chapter 2). Systems-thinking reflects the

interdependency of industrial estate stakeholders with a limits-to-growth systems archetype best depicting industrial estate dynamics. The key aspects of this archetype were introduced in Chapter 2 and entailed a reinforcing cycle, a balancing cycle and a limiting condition. Senge (1990) identifies two distinct types of feedback processes (as opposed to linear cause and effect processes) employed in systems: reinforcing and balancing cycles. A reinforcing cycle is an amplifying process that constitutes the engine of growth in a system. In contrast, a balancing cycle is the stabilizing process that operates whenever there is goal-oriented behaviour in a system. Such a goal can be explicit or implicit and constitutes the limiting condition that provides the slowing action in the balancing cycle.

Tenant behaviour is reflected in the reinforcing cycle that starts with the tenant's initial reaction to the estate. This reaction is driven by the tenants' strategy for achieving competitive advantage. The next element of the cycle is the influence on that strategy of business impacts such as markets, competitors, or industry requirements. These impacts combined with the tenant's requirements create opportunities for the estate to provide value in the next element of the cycle. It does so by responding with services and infrastructure that enhance tenants' competitiveness. The tenants' on-site operations benefit from this through increased economies of scale and scope and/or more advantageous raw material management. As result of such benefits there is a change in tenant operations on site with a commensurate off-site impact, being another element of the cycle. The estate becomes more competitive and existing or new tenants respond positively by coming on site or increasing their existing operations and the cycle grows as it repeats itself. Table 3.4 captures the indicators that have been derived for each element of the tenant's reinforcing cycle. (Hill and Jones, 1995; Johnson and Scholes, 1993; UNEP IE, 1997; UNIDO, 1997).

Table 3.4
Tenant's reinforcing cycle indicators

ELEMENT	INDICATORS
Tenants' reaction	Tenants on site, tenant strategies, tenant inquiries
Business impact	Competitive pressures, industry norms and benchmarks, industry associations, market share of tenants
Estate's response	Services, agreements, infrastructure, site standards, risk management
Operations impact	Overall performance against standards, information exchange about impacts, tenant operational performance

External stakeholders provide the balancing cycle as described in Chapter 2. They react in the first element of the balancing cycle to the off-site impact of the estate's operations. This reaction can be negative if the operations impact does not meet the

expectations of the external stakeholders. Those expectations are determined by the limiting condition that can, in turn, be influenced by the political environment (see limiting condition below). In the third element of the cycle the limiting condition causes the estate manager and external stakeholders to agree a response that will bring off-site impacts in line with external stakeholders' expectations. Such a response can include revised operational standards that moderate the operations impact as the last element of the balancing cycle, which is also common to the reinforcing cycle. Moderation exerts a braking influence on the reinforcing cycle and tenants respond to retain their licence to operate in the subsequent element of the reinforcing cycle. The new constraint on tenants is fed back into the industry in which the tenant operates as the next element of the cycle, impacting business environment. This feedback influences the rules of competition being those norms by which participants in a given market agree to operate. The next element of the reinforcing cycle gives rise to different demands for estate services. These additional or new services impact on the operations to bring them in line with the standards the external stakeholders expect. In this way the balancing cycle slows down the growth cycle in accordance with the characteristics of the limits-to-growth archetype outlined in Chapter 2. The elements in the external stakeholders balancing cycle have the indicators derived in Table 3.5. (Elkington, 1997; UNEP IE, 1997; UNIDO, 1997).

Table 3.5
External stakeholders balancing cycle indicators

ELEMENT	INDICATORS
External stakeholders react	Complaints, meeting outcomes, feedback from representatives and authorities, media
Impact compared to expectations	Environmental performance, best practices, information on impacts, supply of services and labour, statutory compliance, community development
Estate response agreed	Revised operational standards such as SHE requirements; emergency response standards; social contracts and agreements
Operations impact re-assessed	Overall triple bottom line performance, tenant feedback, external stakeholders feedback
Tenants react	Tenant modifications; tenant business performance
Business environment influenced	Industry response; industry standards; competition
Estate responds	Services to assist with standards compliance
Operations impact adjusted	Overall triple bottom line performance

The limiting condition is responsible for slowing down the growth in the reinforcing cycle through the balancing cycle (Chapter 2). In the balancing cycle, the limiting condition is the high-level value the external stakeholders require which has been defined as an improved quality of life. This value is not static but the result of trading-

off any new negative resulting experiences against new positive ones. The notion of trade-offs isn't new. Key (1999) points out that 'the basis of stakeholder relationships is utilitarianism; that is, a firm must make trade-offs between its goals and the goals of its stakeholders'. Different goals and resulting perspectives among the estates and its stakeholders are responsible for many disagreements that require judgment and trade-offs in order to resolve them (Harrison and St. John, 1996). One way of assessing these trade-offs is to identify the economic, technological, social, political, and managerial effects that stakeholders have on the organization and *vice versa* (Freeman, 1984). The first element of the limiting condition is that external stakeholders expectations change with changing circumstances such as off-site impacts or the political environment. The process of revising expectations is the second element and involves trade-offs by the external stakeholders. The final element of the limiting condition typically occurs as the external stakeholders engage the estate in discussion to exchange the necessary information between the estate and relevant constituents of the external stakeholder group. The revised external stakeholder requirements constitute the limiting condition and dictate the mutually agreed standards between estate and external stakeholders in the balancing cycle. The elements of the limiting condition and the associated indicators have been derived in Table 3.6. (Deegan, Rankin and Tobin, 2000; Key, 1999; Shell International, 1998; UNEP IE, 1997; UNIDO, 1997).

Table 3.6
Limiting condition indicators

ELEMENT	INDICATORS
Changes in stakeholder circumstances occurs	Politicians and their pronouncements at local, regional and national level; position of rate payers associations and non-governmental organisations; government policies
Stakeholders consider trade-offs	Enunciation of negative and positive resulting experiences
Estate engaged in discussion	Formally constituted meeting, meeting documentation, requests for information and information supplied

The owner's involvement with the estate also follows a process with the first element being the appointment of the estate manager as the representative of the estate acting on the owner's behalf. The next element entails the necessary resources, which the owner provides for the use of tenants, bearing in mind the value drivers in Table 3.1. Following the capital expenditure and risk incurred by investing in a sustainable estate, the owner expects a reciprocal response from the external stakeholders (LaBerge and Svendsen, 2000). This response is an endorsement of the estate in public support for and approval of the estate, where the public and external stakeholders are synonymous (Allen, 1990). One way of public endorsement is by way of recognition the owner

receives through the acknowledgement and appreciation of external stakeholders. Such an endorsement constitutes a further element in the process. In all instances the owner's interaction with the estates through what it provides and expects in return occurs primarily through the estate manager. The indicators for each stage of the owner's reinforcing cycle have been derived in Table 3.7. (UNEP IE, 1997; UNIDO, 1997).

Table 3.7
Owner's indicators

ELEMENT	INDICATORS
Estate manager mandated	Appointment of estate manager, objectives and operational guidelines
Resources provided	Estates, infrastructure, capital and policies
Stakeholder endorsement received	Publicity, owner's external stakeholder strategy, public statements and pronouncements affecting the estate

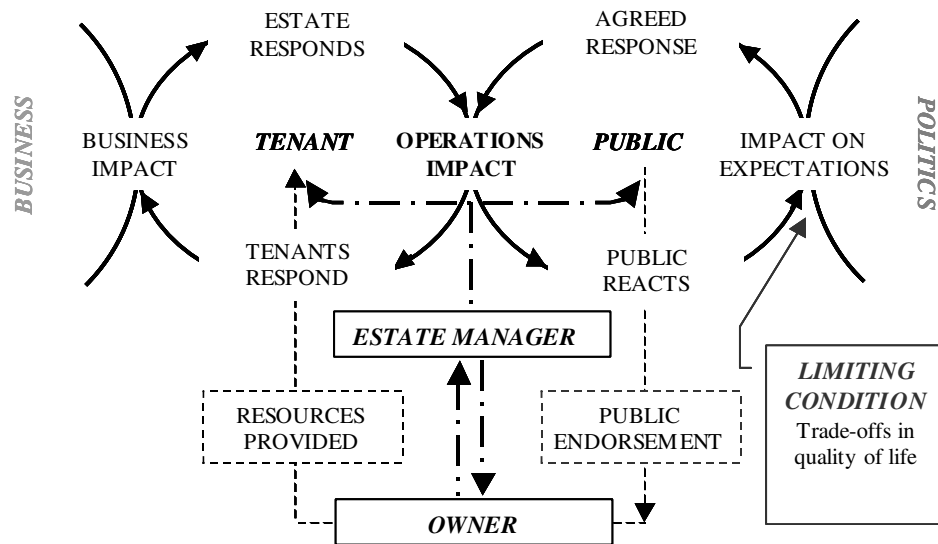
The various stakeholder groups direct their requirements at the estate manager that balances them as best it can through the four roles outlined in Chapter 2: Landlord; Service Provider; Liaison and Monitor. Indicators for the four estates manager roles are summarized in Table 3.8 (Van der Brugge and Verburg, 1998).

Table 3.8
Indicators of estate manager roles

ROLE	INDICATORS
Landlord	Services to the owner comprising activities such as: site planning and development; infrastructure establishment and maintenance; managing leases and leased facilities; estate marketing and development; lease agreements.
Service Provider	Services to tenants comprising activities such as: utilities, site support (security, catering, basic office and administrative support) and technical support (workshops, laboratories); services agreements.
Liaison	Services to external stakeholders comprising: all interactions with the external stakeholders such as addressing community concerns and participating in reciprocally beneficial opportunities; an external stakeholder agreement.
Monitor	Services directed at the system (all key stakeholders) through activities such as: the interpretation and implementation of policies, statutes, conventions and standards on the estate including the monitoring of operations.

The interaction of the various stakeholders and the estate manager can be depicted in Figure 3.2.

Figure 3.2
Model of the dynamic system of industrial estate stakeholders



3.1.4 Estate manager commercial orientation

The estate manager can run as an organisation operating not for profit or a business enterprise designed for profit (Chapter 2). The issue is whether an estate manager operating as a business can deliver superior value to key stakeholders than one not operating for profit.

The value each key stakeholder group will perceive from the sum of resulting experiences that a business orientated estate manager can provide will be identified. Superior (relative to available alternatives) resulting experiences depend on superior events. The value drivers developed previously will be considered for each stakeholder group in turn and the superior events and their consequences for the relevant value driver identified. Such events become the indicators for operationalising each key stakeholder's value drivers as outlined previously in Tables 3.1 to 3.3. By including the consequences in the formulation, the logic of the associated event can be assessed.

The owner's value drivers as offered by a commercial estate manager can be broken down in Table 3.9 into event / consequence sequences. (Van der Brugge and Verburg, 1998; Pigott & Associates, 2001).

Table 3.9
Superior contributions by a commercially based estate manager to the owner's value drivers

EVENT	CONSEQUENCES	VALUE DRIVER
Make estates more responsive to changes in the macro environment	Estate is more competitive; keeps existing and attracts new users more readily.	Sustaining estate viability
More customer-orientated services better satisfies tenants.		
Relevant cost elements considered in a commercial relationship with tenants.	Subsidization of tenants by default less likely	
Service offering governed by business relationship	Revenues determined by value added gives better profits at optimal cost	Achieving a profitable services portfolio
Capital justification based on market related hurdle rates	Projects will be commercially more viable	
Uncompetitive services eliminated	Services portfolio optimally structured.	
Market perception of risk adopted	Appropriate rewards targeted for risks incurred	Managing the owner's exposure to risk in the estate

The tenants' value drivers can be treated in the same way, giving rise to the event / consequence sequences a commercial estate manager will offer tenants in Table 3.10. (Van der Brug and Verburg, 1998; Pigott & Associates, 2001).

Table 3.10
Superior contributions by a commercially based estate manager to the tenants’ value drivers

EVENT	CONSEQUENCE	VALUE DRIVER
‘Willing buyer, willing seller’ principle provides freedom of choice	Tenants retain service provider of choice	Improving tenants’ financial performance
No cost allocation occurs	Services and/or costs are negotiated in a competitive environment	
Negotiated agreements underpin services	Customized service packages	
Payment occurs only on submission of invoices	Superior cost control	
Alive to new business opportunities in activities distracting tenants’ focus	Non-core activities identified and eliminated if viable	Increasing tenants’ focus on core business

Table 3.11 shows the superior events a commercial estate manager can offer for the value drivers of external stakeholders. (Pigott & Associates, 2001; Shell International, 1998; UNEP IE, 1997; UNIDO, 1997).

Table 3.11
Superior contributions by a commercially based estate manager to the external stakeholders value drivers

EVENT	CONSEQUENCE	VALUE DRIVER
Greater sensitivity to market (and therefore societal) perceptions exist	Estates appreciate more the vulnerability of their licence to operate	Exchanging information on estates’ off-site impacts
	Greater awareness for consultation with communities exists	Managing estates’ off-site impacts on the environment and stakeholders’ assets
SHE concerns embodied in lease agreements	Commercial forces encourage compliance with estate standards	Promoting reciprocally beneficial opportunities with external stakeholders
Greater sensitivity to viability of own services	Outsourcing to external service providers more likely	

3.1.5 Conclusion

The criteria for the involvement of an owner in industrial estates are: capital investment, owner's policies and objectives. An improved triple bottom line is what the owner values and the drivers of that value are: sustaining estate viability through securing and rewarding the owner's investment by fully utilising estate assets; achieving a profitable services portfolio that is able to compete and yield the required returns; managing the owner's exposure to risk in the estate; promoting the owner's reputation for SHE commitment and sound corporate citizenship; and providing professional management processes to support the estates.

The existence of on-site operations is the criterion for establishing customer or tenant involvement in an estate. Such customers value an enhanced competitive position as result of their location on the estate and cost effectiveness of services received. Drivers of such value for tenants are: contributing to tenants' reputation through the world-class operational environment provided; improving tenants' financial performance through increased profitability and superior RONA's; and increasing tenants' focus on core business.

Interactions with the estate and commitments given to the external stakeholders are criteria for involvement of the external stakeholders with an estate. The external stakeholders value an improved quality of life from estates with the major drivers being: exchanging information on estates' off-site impacts; managing estates' off-site impacts on the environment and stakeholders' assets; as well as promoting reciprocally beneficial opportunities with external stakeholders.

The limits-to-growth system archetype depicts essential behaviours of an industrial estate's key stakeholder groups. Indicators for the structure of such an industrial estate system are provided in terms of the tenant's reinforcing cycle, the external stakeholders' balancing cycle, a limiting condition that governs the balancing cycle and the owner's influence on both cycles through the estate manager. The owner interacts primarily with the estate manager that acts as custodian of the system by adopting four designated roles.

The indicators that will be adopted for demonstrating the superiority of a commercial estate manager to one not operating for profit were derived. This was based on the following events the commercial estate manager employs to deliver the relevant value drivers for each principal stakeholder group:

- For the owner: (1) Sustaining estate viability indicated by a greater responsiveness to change; more customer orientated services that better satisfies tenants; and the greater likelihood of considering the relevant cost elements of service packages in a commercial relationship with tenants. (2) Achieving a profitable services portfolio indicated by a business relationship that governs the estates service offering; justification of capital expenditure that is based on market related hurdle rates; and

uncompetitive services that are eliminated. (3) Managing the owner's exposure to risk indicated by estates adopting a market perception of risk in fixing returns.

- For the tenants: (1) Improving tenants' financial performance indicated by the freedom of choice provided by the 'willing buyer, willing seller' principle; no cost allocation occurs; negotiated agreements that underpin services exist; and payment occurs only on submission of invoices. (2) Increasing tenants' focus on core business indicated by the estate manager being alive to new business opportunities in activities that could distract tenants' focus.
- For the external stakeholders: (1) Exchanging information on estates' off-site impacts indicated by the increased sensitivity to market (and therefore societal) perceptions. (2) Managing estates' off-site impacts on the environment and stakeholders' assets indicated by the increased sensitivity to market (and therefore societal) perceptions; and SHE concerns that are embodied in lease agreements. (3) Promoting reciprocally beneficial opportunities with external stakeholders indicated by greater estate sensitivity to outsourcing own services.

3.2 Design of an estates company

This research addresses the integration of multiple estates in an estates company; the affiliation of such an estates company to the owner; the implications for value in separating ownership of the estates and estates company; and the nature of the estates company parent after configuration of an estates company (Chapter 2). The approach is similar to that adopted previously. The events and consequences that contribute to the drivers of superior (relative to the available alternatives) value for each stakeholder group will be determined. Such events then act as indicators of superior value.

3.2.1 Integration of multiple estates

Two options for multiple estates are possible: maintain discrete estate managers or integrate estate managers in an estates company (Chapter 2). There are distinct advantages for the owner in integrating industrial estate managers. The issue is to assess whether multiple estate managers integrated as an estates company can deliver superior value for all three key stakeholder groups. The events integrated multiple estate managers can deliver to produce superior value drivers for each key stakeholder will be considered as indicators.

Table 3.12 derives the superior events in event/consequence sequences that integrated multiple estate managers (an estates company) provide in terms of the owner's value drivers. (King, 2002; Pigott & Associates, 2001; UNEP IE, 1997; Ward, 1993).

Table 3.12
Superior contributions by an estates company to the owner's value drivers

EVENT	CONSEQUENCE	VALUE DRIVER
Uniform interpretation of owner's requirements in objectives, policies, practices	Alignment of estates and better control improves estates' performance	Sustaining estate viability
Exchange of experience and collective knowledge applied	Adoption of 'best in class' practices improve estates' performance	
Improved coordination of asset utilization policies and plans	Improved RONA	
Integrated SHE policy management on estates enhances SHE performance	Licence to operate preserved	Promoting the owner's reputation
Coordinated social responsibility policies and practices improve impact of money available for community projects.		
Owner's business requirements uniformly interpreted in focused objectives for estates	Better and integrated review of estates performance for maximum effectiveness	Achieving a profitable services portfolio
Single interface with multiple estates created	Less effort required to manage estates	Providing professional management processes
Policies and practices interpreted and implemented consistently across estates	Estates better aligned so that performance and corrective action can be reviewed based on collective experience	
Coordinated planning and implementation of owner-initiated interventions		

Tenant value drivers for integrated estates are supported by the events and consequences developed in Table 3.13. (UNEP IE, 1997; UNIDO, 1997; Pigott & Associates, 2001).

Table 3.13
Superior contributions by an estates company to the tenants' value drivers

EVENT	CONSEQUENCE	VALUE DRIVER
Sharing of service experiences among estates to identify benchmarks and improvement opportunities.	Where possible estate services leveraged to 'best in class'	Improving tenants' financial performance
Property development protocols established for estates using available strengths and resources	Development of the estates by the developer for improved user friendliness facilitated	
Annual negotiations coordinated, tracked and facilitated in terms of service agreements, with coaching of estates by the corporate parent as required	Better negotiation process improves efficiency and effectiveness in minimizing tenant distractions	Increasing tenants' focus on core business

Integrated estates' events and consequences necessary to enhance external stakeholders value drivers have been developed in Table 3.14. (UNEP IE, 1997; UNIDO, 1997).

Table 3.14
Superior contributions by an estates company to the value drivers of the external stakeholders

EVENT	CONSEQUENCE	VALUE DRIVER
Philosophy, policies and practices for estates' external interaction integrated	Greater confidence in estates as a result of consistent approaches, messages and responses	Exchanging information on estates' off-site impacts
Issues and experiences shared to promote cumulative learning and identification of 'best practice'	Greater effectiveness of supporting structures enhances community interaction.	
	Exchange and integration of data results in better information for estates and stakeholders	Managing estates' off-site impacts on the environment and stakeholders' assets

3.2.2 Affiliation of the estates company

An estates company has two affiliation options: it can be affiliated to one or more of the stakeholders; or it can be completely independent. If the contingencies as discussed in Chapter 2 are neutral with respect to both these options, the estates company should be independent of the estates owner and other stakeholders (Van der Brugge and Verburg,

1998). The issue is then to assess whether an independent estates company can deliver superior value for the key stakeholders. As before, the research will identify the events an independent estates company can deliver to cause superior resulting experiences for each key stakeholder in terms of their value drivers.

The superior events from an independent estates company in Table 3.15 support the owner's value drivers. (Pigott & Associates, 2001; UNEP IE, 1997). The contingencies to which the events refer have been described by Van der Brugge and Verburg (1998) and outlined in Chapter 2.

Table 3.15
Superior contributions by an independent estates company to the owner's value drivers

EVENT	CONSEQUENCE	VALUE DRIVER
Estates company owned by estates owner better identifies with owner's critical needs (strategic contingency)	Improved implementation of owner's critical strategies in an aggressive (unfriendly) environment	Sustaining estate viability
Independent estate manager (environmental contingency) set up in arms-length agreement eliminates 'legacy' issues carried over from previous dispensation.	Better resourced estate managers with defined business focus	
Estate standards better enforced by independent estate managers	Improved perception of estates and security of licence to operate	
Independent estate managers' service delivery not handicapped by imposed policies and practices.	More competitive estate managers with suitable measures of performance in place	Achieving a profitable services portfolio
Estates company owned by estates owner readily accesses owner's support services (technological contingency)	Better meet owner's needs with services not available elsewhere	Promoting the owner's reputation

The superior events supporting tenants' value drivers have been derived in Table 3.16. (UNIDO, 1997; Van der Brugge and Verburg, 1998).

Table 3.16
Superior contributions by an independent estates company to the tenants' value drivers

EVENT	CONSEQUENCE	VALUE DRIVER
Independent estate managers introduce improvement initiatives	Increases likelihood of initiatives being accepted as in the best interests of all stakeholders	Contributing to tenants' reputation / world-class operational environment
Estates company owned by estates owner readily accesses owner's support services	Able to meet tenants needs with services not available elsewhere	
Arms-length agreement by independent estate managers to sell goods and services	Promotes professional commercial relationship with tenants	Improving tenants' financial performance
Independent estate managers with no perceived conflict of interests enforce standards		

Table 3.17 derives events that contribute to superior value drivers for the external stakeholders. (UNIDO, 1997; Van der Brugge and Verburg, 1998).

Table 3.17
Superior contributions by an independent estates company to the value drivers of the external stakeholders

EVENT	CONSEQUENCE	VALUE DRIVER
Estate management by independent estate managers less likely to be partisan and politicized	Less interference in professional management of estates	Exchanging information on estates' off-site impacts
	Reduces conflict of interests and bias in estate decisions and actions	Promoting reciprocally beneficial opportunities with external stakeholders
Estates company owned by estates owner readily accesses owner's support services	Meet external stakeholders needs with services not available elsewhere	Managing estates' off-site impacts on the environment and stakeholders' assets

3.2.3 Ownership of an independent estates company

When the estates company is independent it will have a separate owner. The question of separate ownership for the estates company and its implications on the industrial estate has to be addressed.

The first issue is whether the owner of the estates company is another industrial estate stakeholder. Each stakeholder group can have an owner (the estates owner may have a principal; tenants will have their owners; and constituents of the external stakeholders can even have theirs). These owners are considered internal stakeholders of each stakeholder group much as customers and employees are internal stakeholders of tenants (Chapter 2). The same applies to the owner of the estates company, which would, therefore, not be considered a separate stakeholder of the estate.

The second issue concerns the applicability of the estates owner's value drivers to the owner of the estates company when distinguishing between the two owners. Reverting to first principles and establishing the distinguishing criteria between estates owner and owner of the estates company, their respective value expectation and required value drivers addresses this issue.

Estates owner involvement is manifested by the same criteria identified in Section 3.1.1: the capital invested in the land, estate infrastructure and facilities; and policies and objectives as to how this investment should be employed. The estates owner's expectation of an improved triple bottom line is also unchanged.

The estates owner's value drivers, therefore, will be concerned only with the estate and can be derived in Table 3.18. (King, 2002; Pigott & Associates, 2001; UNEP IE, 1997).

Table 3.18
Drivers of value for the estates owner

VALUE DRIVER	DIMENSION	VALUE
Sustaining estate viability through securing and rewarding the owner's investment and fully utilising estate assets	Financial	Enhanced triple bottom line
Managing the owner's exposure to risk in the estate	Environmental	
Promoting the owner's reputation for SHE commitment and sound corporate citizenship	Social	

The value drivers for the estates owner have the same dimensions as before and entail: sustaining estate viability; managing the owner's exposure to risk; promoting the owner's reputation for SHE commitment and good corporate citizenship. These value

drivers have been operationalised in Section 3.1.2 giving rise to the relevant indicators identified at that point.

The involvement of the owner of an estates company is manifested by: services the estates company provides at each estate and the investment associated with those services; and management policies and practices directed at providing the services rather than the way the estate is utilised. Criteria for services and the associated investment are: services agreements; commercial transactions; assets and any resources the provision of such services may require. Management policies and practices will be indicated by: documents; guidelines; directives; standards; and procedures. (Pigott & Associates, 2001; UNEP IE, 1997; UNIDO, 1997).

Value for the owner of an estates company is found in improved corporate effectiveness. Corporate effectiveness refers to the ability of the company to meet the owner’s financial and managerial requirements in every respect. The value drivers for the financial and management dimensions are in Table 3.19.

Table 3.19
Drivers of value for the owner of the estates company

VALUE DRIVER	DIMENSION	VALUE
Achieving a profitable services portfolio that is able to compete and yield the required returns	Financial	Improved corporate effectiveness
Managing the owner’s business risk exposure	Management	
Providing professional management processes to support the estates		
Promoting the estates company’s professional reputation		

Achieving a profitable services portfolio and managing the owner’s business risk exposure are the financial value drivers. The achieving a profitable services portfolio value driver has the same indicators as in Section 3.1.2. Managing the owner’s business risk exposure is indicated by: risk management processes; business risk factors; risk mitigating actions; and risk-based returns. The management dimension entails providing professional management processes to support the estates’ as a value driver with the same indicators as in Section 3.1.2. A further part of the management dimension is the estates company owner’s concern about its reputation, but specifically its reputation as a professional estates company (Sampson, 2003; Sarbutts, 2003). This results in the value driver: promoting the estates company’s professional reputation. The relevant indicators are: adoption of highest standards of estate management; formal standards and procedures; acknowledgement of broader stakeholder interests; internal and external audits; and code of ethics (Key, 1999; Moir, 2001; King, 2002).

The owner's value drivers previously derived in Table 3.1 is, therefore, an aggregate of the estates owner and owner of estates company's value drivers. It follows that when a distinction between estates owner and owner of the estates company is required as in the instance of an independent estates company, the theory developed for the owner as key stakeholder in Section 3.1.2 still holds.

3.2.4 Estates company parent

A corporate parent arises when multiple estates are integrated into a single company (Chapter 2). Goold, Campbell and Alexander (1994) argue that such a parent has to compete with any feasible alternative such as another parent by adding more value to its estates than the alternative could. The competitive advantage it has over other parents lies in its parenting advantage (Chapter 2). The parent who parents for value can be described in terms of its composition and task.

The composition of the estates company is similar to that of any other company with a board of directors and owner or shareowners. Besides the chairman, the board comprises executive and non-executive directors. The company establishes a head office consisting of the essential functions required to support the parent. The executive directors under the leadership of the managing director or chief executive officer determines the relationship of the board and head office to each of the estates (Van Dorsten, 1992). Because of this relationship with the estates it is possible to obtain a different perspective of all the estates by viewing them through the parent rather than in isolation.

The task of parenting for value is to identify and develop the parent's parenting advantage and ensure it creates more value for the company than any rival parent can. The fact that every company has a unique parenting advantage should not detract from the possibility of developing generic traits for industrial estates companies. It was established in Chapter 2 that parenting advantage arises from a dynamic fit-refining process between the parent's parenting characteristics and its estate managers' business characteristics.

The parenting characteristics comprise the parent's resources including its staff functions and individual skills as well as capabilities such as the mental maps, systems and the way the parent devolves authority to its estate managers (Chapter 2). Additional resources are the generic functions and skills a parent cultivates that typically entail financial and commercial expertise in support of its estate managers business operations (Goold, Campbell and Alexander, 1994). Such functions will be accommodated in a head office. The parent also uses its brand or reputation as well as networks both within and outside the company. These networks access business and political resources required by the estate managers (Johnson and Scholes, 1993). The parent's capabilities are determined by organisational design considerations. The literature indicates that for organisations like the typical estates company the selection of middle management and

skills development of the operating core constitute priorities (Chapter 2). Furthermore business planning, budgeting, performance measurement and policy formulation are key parenting areas. In addition, parents are likely to be strong in management systems and controls according to Chapter 2. They also possess an acute business sense that includes benchmarking, information/measurement systems, risk management, and a particular approach to devolution of authority (Scholes, 1991).

Estate managers' business characteristics that provide the parenting opportunities entail defining the businesses, their parenting opportunities and success factors. The literature recommends that individual estate managers be allowed as much operational scope as the strategic framework and estate managers' capabilities permit (Chapter 2). This implies that a competency in business planning and business expertise is required at estate manager level. Further key considerations include service level agreements, the effectiveness of core operations, systems and procedures. In the delivering profitable value framework the definition of the estate manager's business depends on the primary VDS, which will be examined later. Other areas where estate managers are likely to require support from the parent are derived from the parenting characteristics. These include the establishment of a business culture, managing the estates' off-site impacts and promoting the utilisation of estate assets. Establishing a business culture typically includes training and development in the basics of commercial practice, inculcating an entrepreneurial spirit as well as a culture of continuous improvement. Asset utilisation focuses on sustaining the estate infrastructure, estate development and rehabilitation of used land and facilities. The final parenting opportunity area are key success factors for estate managers which typically include: contracts and agreements; team and individual empowerment; and systems and procedures. Empowering teams and individuals entail professionally managing the employment cycle. Such a cycle includes a job description for each position, recruitment and selection followed by training and development. The cycle culminates in managing the performance and reward of incumbents. (Pigott & Associates, 2001; Shell International Ltd, 1998; UNEP IE, 1997; UNIDO, 1997).

Operationalising parenting advantage involves addressing the gaps that arise as parenting and business characteristics are matched. Given the generic nature of the parenting and estate managers' business characteristics derived above, refining the fit between these leads to generic parenting advantage factors for industrial estate companies. These factors form the strategic elements that a parent can access in delivering value for estate stakeholders. Parenting advantage consists of three dimensions: value creation insights, distinctive parenting and structure of the business portfolio of the businesses.

Structuring and resourcing estate manager organisations; linking estate managers with each other; and balancing stakeholder expectations at a high level; count among the value creation insights a parent has. Indicators for structuring and resourcing estate managers are: estate manager organisations; key personnel appointments; decisions on

scarce resources and major capital investments. Linking estate managers are indicated by: coordinating mechanisms; initiatives to promote sharing of experiences and learning; and establishing a company identity. Indicators for balancing stakeholder expectations include: the existence of joint forums in which estates meet with stakeholders to discuss common concerns; interaction with authorities and external stakeholders on behalf of the estates regarding issues of mutual interest; as well as plans and programmes that address the stakeholders' interests arising from such meetings and interactions. (Goold, Campbell, and Alexander, 1994; Hill and Jones, 1995).

Distinctive parenting covers issues such as estate utilisation; business development; relationships with the external stakeholders; monitoring off-site impacts and promoting the incorporation of key success factors. Indicators for estate utilisation are: estate development and renewal; and marketing of the estate. Indicators of business improvement are: customer service; and devolution of authority to estate managers. Relationships with the external stakeholders are indicated by: requests for information; mechanisms for sharing information; instances of community empowerment by estates; concerns about off-site impacts; and business dealings with external service providers. Indicators for monitoring off-site impacts are: monitoring of the estates' SHE performance; and managing estate risk. Indicators for success factors include: typical elements of the employment cycle described previously; contracts with outside suppliers and agreements with stakeholders; and the whole gamut of management and information systems found in organisations including a process for business plans and strategies. (Johnson and Scholes, 1993; Shell International Ltd, 1998).

Structuring the business portfolio is concerned with the services portfolios estate managers develop and will be indicated by: identifying customer service requirements; the business performance of the services units making up the portfolio; outsourcing activities that will not be done in-house; retrenchments of employees in service units that are not viable; collaboration with outside businesses or purchasing from 3rd parties in providing the services in the portfolio (Pigott & Associates, 2001).

3.2.5 Conclusion

Key stakeholders' interests are best served when multiple estates are integrated in an estates company that is strategically focused on delivering value for those stakeholders. The following events were derived to demonstrate the relevant indicators for each stakeholder group:

- For the owner: (1) Sustaining estate viability is indicated by uniform interpretation of owner's requirements in the objectives, policies and practices of all estates; estates exchanging experience and applying their collective knowledge; and coordination of asset utilization policies and plans. (2) Promoting the owner's reputation is indicated by integrating SHE policy management on estates for enhanced SHE performance; and coordinated social responsibility policies and practices that improves the impact

of the money available for community projects. (3) Achieving a profitable services portfolio is indicated by uniform interpretation of owner's business requirements in focused objectives for estates. (4) Providing professional management processes are also indicated by uniform interpretation of owner's business requirements in focused objectives for estates; the existence of a single interface with multiple estates; consistent interpretation and implementation of policies and practices across estates; and coordinated planning and implementation of owner-initiated interventions.

- For the tenants: (1) Improving tenants' financial performance indicated by sharing of service experiences among estates to identify benchmarks and improvement opportunities; and property development protocols based on pooled strengths and resources established for estates. (2) Increasing tenants' focus on core business indicated by annual negotiations that are coordinated, tracked and facilitated in terms of service agreements, with coaching of estates by the estates company parent as required.
- For the external stakeholders: (1) Exchanging information on estates' off-site impacts indicated by integrated philosophy, policies and practices for estates' external interaction; and issues and experiences are shared among estates to promote cumulative learning and identification of best practice. (2) Managing estates' off-site impacts on the environment and stakeholders' assets indicated by issues and experiences that are shared among estates to promote cumulative learning and identification of best practice.

The estates company's degree of independence is determined by prevailing strategic, environmental and technological contingencies. The following events serve as indicators of how an independent estates company enhances the value drivers of the relevant stakeholder group:

- For the owner: (1) Sustaining estate viability is indicated by the greater identification with the owner's critical needs of an estates company belonging to the estates owner (strategic contingency); elimination of legacy issues when an independent estate manager is set up at arms-length; and superior enforcement of estate standards by independent estate managers. (2) Achieving a profitable services portfolio indicated by the absence of policies and practices imposed on independent estate managers that handicap service delivery. (3) Promoting the owner's reputation indicated by ready access to estates owner's support services when an estates company belongs to the estates owner (technological contingency).
- For the tenants: (1) Contributing to tenants' reputation indicated by improvement initiatives introduced by independent estate managers; and ready access to owner's extensive support services that are of value to estates by an estates company belonging to the owner (technological contingency). (2) Improving tenants' financial performance indicated by arms-length agreement by independent estate managers to sell goods and services; and no perceived conflict of interests when independent

estate managers enforce standards. (3) Increasing tenants' focus on core business also indicated by no perceived conflict of interests when independent estate managers enforce standards.

- For the external stakeholders: (1) Exchanging information on estates' off-site impacts indicated by non-partisan and non-politicised estate management from independent estate managers. (2) Promoting reciprocally beneficial opportunities with external stakeholders indicated by non-partisan and non-politicised estate management from independent estate managers. (3) Managing estates' off-site impacts on the environment and stakeholders' assets indicated by ready access to owner's extensive support services that are of value to estates by an estates company belonging to the owner (technological contingency).

Separate ownership of an estates company implies that the owner of the estates company is an internal stakeholder of the estates company and not a separate estate stakeholder. Having established the criteria for the existence of an estates company owner, the value it requires from the estates company is improved corporate effectiveness. Furthermore, when a distinction between estates owner and owner of the estates company is required as in the instance of an independent estates company, the theory developed for the owner as key stakeholder pertains.

A parent necessarily exists in an estates company and bridges the divide between company owner and the estate managers. The parent is responsible for directing value delivery in the company. The parent's ability to deliver value is reflected in its parenting advantage derived from fitting its parenting characteristics to those of the estate. Generic parenting advantage traits for an estates company parent are suggested by way of value creation insights, distinctive parenting and definition of the estates business portfolio

3.3 Strategies for delivering stakeholder value

3.3.1 Choosing the value proposition

Choosing a complete value proposition means identifying a number of elements of which two, timeframe and the price, are situation specific. For that reason they will not be considered in developing generic strategies. The remaining elements according to Chapter 2 are: the intended customer, its proposed resulting experiences and what it must do to receive them, which is referred to as customer prerequisites.

Strategies for the intended customer

The intended customer is operationalised using the value delivery chain in which the key stakeholders are the elements (Chapter 2). Identifying the position of key stakeholders relative to each other and their commercial relationship with the estate manager is cardinal in order for the estates company to balance stakeholders' interests.

Key elements of the value delivery chain are the primary and supporting entities, with the primary entity being the intended customer (Lanning, 1998). The primary entity in the estate value delivery chain is the tenant group because it conforms to Lanning's requirement for a primary entity by having 'the greatest potential for delivering value profitably in the value delivery chain'. Increasing the number of tenants and scope of services to them leads to improved profitability of the estates company (UNIDO, 1997). The intended customer, being the primary entity, is indicated by: revenues to the estate; commercially based services and lease agreements; and potential for profitability (Pigott & Associates, 2001). The owner of the estates and the external stakeholders are supporting entities in the chain. The estates owner can be considered as a supplier of the estate land, infrastructure and facilities with the external stakeholders being an off-line entity holding the estates licence to operate (UNEP IE, 1997).

A balancing strategy in which the parent balances the diverse interests of stakeholders and ensures consistency among estates results if tenants are the primary entity and therefore the intended customer. In addition the estates owner and external stakeholders are supporting entities in the same value delivery chain.

Strategies for high-level resulting experiences

As pointed out previously, this research considers each stakeholder group as an entity and therefore concerns itself with the macro or high-level issues pertaining to such an entity. In Section 3.1.1, for instance, the requirement of each key stakeholder group was expressed as a high-level value. As value is an essential component of resulting experiences, it follows that successful strategies should be aimed at delivering high-level resulting experiences that produce the required high-level value. Operationalising high-level experiences is determined by the choice of the primary value proposition which shapes the design of the business. The primary VDS depends on the actions and resources of the supporting entities which are motivated to do this through supporting value propositions (Chapter 2). Both primary and supporting value propositions are based on what was previously indicated as the outcomes key stakeholders value. The parent formulates high-level resulting experiences for the primary and supporting entities. The use of such high-level resulting experiences will be indicated by: communication of the parent with stakeholders at a high level; the operating framework parents provide estate managers; and the benefits estates managers believe key stakeholders would derive at a macro level from their interaction with the estates. (Lanning, 1998; Shell International Ltd, 1998).

The primary high-level resulting experiences for tenants are key elements of the primary value proposition an estates company can offer and are summarised in Table 3.20. It summarises the resulting experiences at a high level that the estates owner, external stakeholders and the estate manager provide. (Pigott & Associates, 2001; Shell International Ltd, 1998; UNEP IE, 1997; UNIDO, 1997).

Table 3.20
High-level resulting experiences in the primary value proposition to tenants

RESPONSIBLE ENTITIES	TENANT RESULTING EXPERIENCES		
	EVENT	CONSEQUENCE	VALUE
Estates owner	Serviced sites that are fit for tenants' purpose	Reduce investment necessary by tenants and improve return on net assets (RONA)	Enhanced competitive position for tenants
Estates owner and external stakeholders	Security of tenure on site for tenants	Maximise term for asset utilization and improve return on net assets (RONA)	
Estates owner and estate manager	Improved operating climate and image by more congenial work environment	Improved worker and visitor morale leading to greater tenant productivity	
Estate manager	Reduce tenant distractions on peripheral issues	Greater tenant focus on core business	
Estate manager (outsourcing to 3 rd parties possible)	More cost effective service packages provided	Improved tenant profitability	

The ultimate or high-level value tenants derive from the combined experiences in this value proposition is an enhanced ability to compete where superiority to available alternatives is denoted by the term 'enhanced'. This is the consequence of the combined actions and resources of the estates owner, external stakeholders and estate manager supported by the estates company. The high-level events are also the indicators that operationalise tenant value and entail: serviced sites that are fit for tenants' purpose; security of tenure for tenants on the estates; operating environment that is conducive to tenants reputation; minimisation of distractions for the tenants; and cost effective service packages.

Supporting resulting experiences for estates owner and the external stakeholders that make up the supporting value proposition are as important as the primary value proposition because without the supporting value proposition the primary value proposition cannot be delivered. Based on the preceding analysis the estates company provides the estates owner and external stakeholders who are the supporting entities with the supporting resulting experiences outlined in Table 3.21. (King, 2002; Shell International Ltd, 1998; UNEP IE, 1997; UNIDO, 1997).

Table 3.21
High-level resulting experiences supporting the estates owner and external stakeholders

SUPPORTING ENTITY	ESTATES OWNER AND EXTERNAL STAKEHOLDERS RESULTING EXPERIENCES		
	EVENT	CONSEQUENCE	VALUE
Estates owner	Improved utilization of land and facilities on the estates	Increased commercial viability	Improved triple bottom line
	All stakeholders have a greater appreciation of estates' net benefits		
	Reduced risk to reputation and capital investment in estates	Greater long term security of estates	
External stakeholders	Community concerns are better identified and addressed	Greater exchange of information and reduced environmental impact	Improved quality of life
	Better participation in agreed opportunities for reciprocal benefit	Increased evidence that communities benefit from estates	

The high-level value an estates owner expects from the estates company is an improved triple bottom line where 'improved' again denotes superiority of the value to available alternatives. Notwithstanding the diverse array of interested and affected parties that comprise the external stakeholders group, the value of their experiences have been summarised in Section 3.1.2 as improved quality of life. In this instance 'improved' denotes superiority of the value to available alternatives. The high-level events that drive and therefore indicate the owner's high-level value comprises: utilization of land and facilities; the view stakeholders have of the estates; and reduced risk to reputation and capital investment in estates. Indicators, being the high-level events, of external stakeholders value include: external stakeholder concerns identified and addressed; and participation in agreed reciprocally beneficial opportunities with external stakeholders.

Strategies for customer prerequisites

These are the things customers (tenants) must do to enable the estates company to deliver the suggested resulting experiences (Lanning, 1998). The parent uses such prerequisites in the same way as value propositions: communicating at a high level with

the stakeholder groups and complementing the operating framework required by individual estates.

The estate manager (company) delivers resulting experiences in accordance with the industrial estates system (IES) model developed earlier. Customers must behave according to the requirements of the model, which entails respect for: the system and what they must do to sustain it; the position of the estate manager in the system; and the agreements formalising the relationship depicted by the model (Section 3.1.3).

As regards the first element of respect for the estate system, tenants should contribute to estates viability by acknowledging other key stakeholders interests; participating in relevant forums, providing necessary information and sharing necessary resources; and help minimise estate risk through active support of the estate manager's risk management efforts. The second is respect for the estate manager which requires tenants to: recognise the authority of the estates company on the estates; accept the estates company as a business; and outsource non-core activities preferably to the estate manager. When the estate manager is regarded as the supplier of choice for all outsourced services and it, in turn, accesses those services from other suppliers it is regarded as a 1st tier supplier. The third element concerns the on-site relationship, which should be formalised by lease and services agreements with tenants; abiding by the conditions of such agreements; and professionally negotiating them with estate managers. (Pigott & Associates, 2001; UNEP IE, 1997; UNIDO, 1997).

Conclusion

Three high-level strategies for choosing the value proposition are proposed: (1) a balancing strategy that considers tenants as the primary entity and the owner and external stakeholders as supporting entities; (2) strategies formulating high-level resulting experiences required by each of the key stakeholder groups for a primary and supporting value proposition; and (3) a tenant prerequisite strategy that identifies at a high-level what tenants must do before they can receive the primary value proposition. Such high-level strategies enable the parent to communicate to the principals of the intended recipients the value the estates company can deliver. It also provides estate managers with an operating framework to cascade lower-level value propositions tailored to the unique circumstances of each estate.

3.3.2 Providing the value proposition

The responsibility for providing primary and supporting value propositions is determined by each estate. Estate managers are responsible for the detailed providing-vehicles using the typical providing steps that have been outlined by Lanning (1998). Providing-vehicles have been defined in Chapter 2 as 'any asset or process that influences or helps the event in a resulting experience to occur'. A detailed investigation of these vehicles for multiple industrial estates is beyond the scope of this research. The

parent's role is determined by its parenting advantage and entails identifying strategies it can employ in support of individual estate managers. High-level providing steps that will focus these strategies comprise structuring estates' services portfolio and supporting estate managers in providing those services.

Strategies for structuring the estates' services portfolio

Structuring the business portfolio is one of the dimensions of parenting advantage and the generic insight the parent has about structuring the services portfolio apply. The notion of tenants outsourcing their non-core services to estate managers who act as 1st tier suppliers has been discussed. Estate managers may elect to retain some of these services (own the services); collaborate with outside suppliers to provide other services (partner to provide the services); or procure the remainder from 3rd party providers (Pigott & Associates, 2001). In none of the cases would it relinquish responsibility as 1st tier supplier of the service. The strategy of the estates company in supporting estate managers in structuring a services portfolio is indicated by: processes for owning, partnering or procuring required services; outsourcing; and retrenchment.

Strategies for supporting estate managers

Estate managers are the high level providing vehicles, which the parent establishes to fulfil the requirements of the IES model. According to this model the owner works through the estate managers who, in turn, perform four roles in discharging their responsibilities: Landlord; Service Provider; Liaison; and Monitor. The estates company, furthermore, bases its supporting strategies on its distinctive parenting characteristics that were derived earlier and include estate utilisation; business development; relationships with external stakeholders; monitoring off-site impacts and promoting the incorporation of key success factors. These supporting strategies must be incorporated in the four roles with the implementation of the key success factors as applicable to all four roles.

The key success factors are considered fundamental to the estate managers' performance and gives rise to an operating fundamentals strategy that embodies the empowerment of individuals and teams in the businesses; contracts and agreements; and systems.

For the Landlord role strategies for estate development and renewal as well as marketing of the estates are required. These form part of an estates utilisation strategy. As a Service Provider estate managers require a business effectiveness strategy to assist them especially with customer service. The Liaison role responds to requests for information from external stakeholders, develops information sharing mechanisms and empowers special interest groups according to a public interaction strategy. In the Monitor role a monitoring strategy is required to manage estate risk, develop an operational impact philosophy and manage off-site impacts.

Conclusion

The estates company employs a portfolio structuring strategy and an operating fundamentals strategy to assist estate managers in respectively defining their businesses and equipping them with the essentials for operational effectiveness. There is also a strategy to support estate managers in each of their four providing roles. The Landlord role employs an estates utilisation strategy; the Service Provider role a business effectiveness strategy; a public interaction strategy supports the Liaison role; and, finally, a monitoring strategy the Monitor role.

3.3.3 Communicating the value proposition

The literature shows that this is an area where estates are likely to be weak and parent support very necessary (Chapter 2). The customer requires information to understand the high-level resulting experiences he can expect and reasons for believing it will be provided. These are the two essential communicating steps that require high-level strategies to help convey the high-level value propositions chosen previously.

Strategies for communicating high-level resulting experiences

Communicating-vehicles are 'the means by which a resulting experience is communicated' (Lanning, 1998). In these strategies typical communicating-vehicles include agreements and reviews; forums; formal presentations; reports and invoices; a complaint system; and word-of-mouth communication.

Agreements and reviews stipulate what estate managers and stakeholders will do to provide the experiences; capture the outcome of prior negotiations; offer stakeholders confidence of delivery; and specify a review mechanism. Forums establish a formal interface between the estates company (manager) and any stakeholder. This strategy provides the estates company with an opportunity to remind stakeholders of the superior experiences on offer. A formal presentation is a specific strategy for communicating high-level information normally in an established forum. Reports and invoices are ways in which the estates company periodically communicates in writing with stakeholders to indicate how it is performing against prior undertakings or to elicit support for a proposal. This includes media reports of a newsworthy event that is particularly relevant to owner or external stakeholders. The complaint system provides individual members of a stakeholder group with a formal voice that conveys any dissatisfaction to the estate manager. To encourage airing of grievances, the estates company provides a complaint system that is user-friendly. Such a system can be turned into an opportunity to improve and communicate resulting experiences. Word-of-mouth is a strategy whereby stakeholders tell others of their actual experiences concerning the estates. Such reports have high credibility but entail high risk if they reflect negative experiences with an

estate manager. While word-of-mouth communication is difficult to manage, negative reports can be anticipated if the complaint system and personal relationships are intact.

Strategies for assuring stakeholders the resulting experiences will happen

Each of the key stakeholder groups requires a different high-level strategy to assure it that the estates company can deliver the identified resulting experiences (Warren, 2003). Tenants require assurances that the value drivers for making them more competitive are in place. The philosophy, constraints and objectives underpinning the management of the estates provide tenants with such assurances. This can be included in an agreement the estates owner has with the estates company in which its policies and practices as well as the high level outcomes it requires from the estates company are outlined. External stakeholders can also benefit from a similar agreement and the assurances it provides. However, it will be the owner's public commitments to drivers of external stakeholders quality of life that will establish its *bona fides*. Such public commitments, when often and consistently repeated by both estates owner and estates company, will enhance the credibility of the agreement between estates owner and estates company. The owner's concern for its triple bottom line demands assurances about the relevant value drivers. These have to be identified and specified in an agreement the owner has with the estates company. A specification of outcomes from the estates that clearly defines the owner's requirements and includes any constraints he wishes to impose is part of that agreement. Such an agreement also defines the necessary structures to monitor the performance of the estates company. This agreement is termed a stewardship agreement where stewardship is defined as holding something in trust for another (Block, 1993).

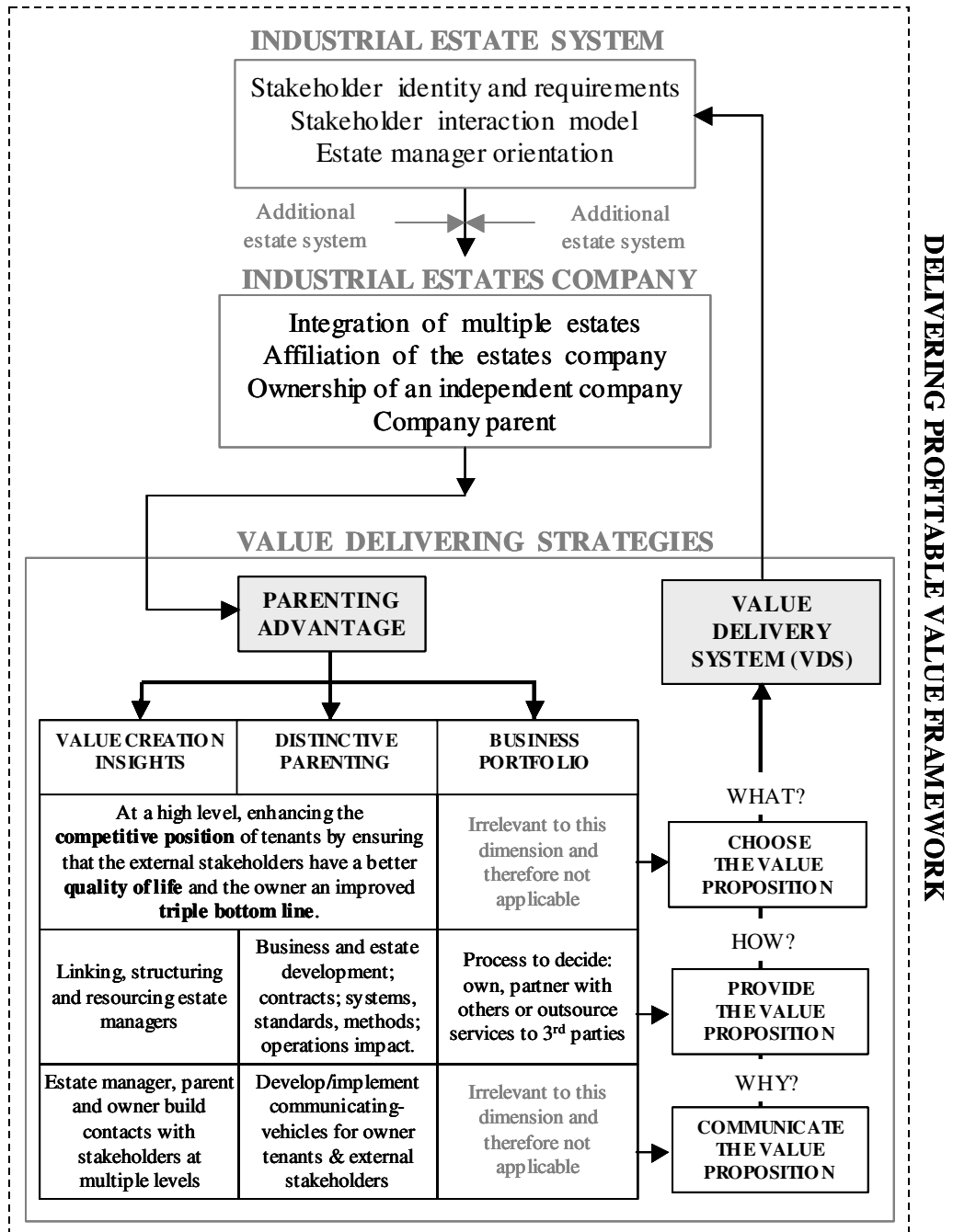
Conclusion

Tenants expect an emphasis on the owner's operating philosophy, constraints and objectives; the external stakeholders on repeated public pronouncements regarding the estates commitments to the external stakeholders' interests; and the owner on a specification of the outcomes required from the estates company. The stewardship agreement the estates owner has with the estates company is a key element of the estates company strategy to assure stakeholders that the promised experiences will happen. Such an agreement includes the owner's requirements regarding the estates interaction with tenants and external stakeholders.

3.4 Research Model

The theory developed in this chapter can be diagrammatically depicted in the research model (Figure 3.3), which depicts the estates as an industrial estates system (IES) with an estate manager as custodian. The estate managers of multiple estates are integrated in an estates company. The parent of the company has to add value to the company by virtue of its parenting advantage, which is determined by the degree of fit between the parent and estates' characteristics. Parenting advantage consists of value creation insights, distinctive parenting and structuring the business portfolio of estate managers. The factors within each of these parenting advantage dimensions are the strategic elements required to define the value delivery system (VDS) for the company at a high level. The VDS consists of choosing, providing and communicating a high-level value proposition and together describe the parent's competitive strategies, i.e. delivers more value to stakeholders. These strategies cover 'what' value the company delivers for its stakeholders, 'how' it intends doing this and 'why' the stakeholders should be assured it provides them with value.

Figure 3.3
Research model outline for multiple industrial estates' competitive strategies



CHAPTER 4 INTRODUCTION TO THE CASE – CONTEXT, UNIT OF ANALYSIS AND RESEARCH DESIGN

4.1 The context of the case: AECI Ltd.

4.1.1 Profile of the AECI group

AECI Operations Services (Pty) Ltd (AOS), the case selected for this study, operates as a wholly owned subsidiary of AECI Ltd (the 'group').

AECI Ltd founded the chemical industry in South Africa (CAIA, 2001). It continues to be one of dominant players in the industry with products and services in all significant market sectors. In 1992, the year in which AECI decided to establish AOS, the market capitalisation of AECI's ordinary shares was ZAR 900 million (Relly, 1993). Anglo American Industrial Corporation Limited owned 40% and the Imperial Chemical Industries Group (ICI) 38% of the equity. At the time Anglo American Corporation was the dominant industrial conglomerate in South Africa and a global player in its own right. In 1994, ICI exchanged 25% effective interest in AECI for a 51% share in AECI's explosives and accessories business and after 70 years ceased to be the joint controlling shareholder of AECI (Sander, 1995). Anglo American Industrial Corporation maintained control with an effective interest of 52,6%. In addition to the international standing endowed by its principal shareowners, foreign investors also held 6% (in 1996) of AECI Ltd shares (Sander, 1997). In 1998, Anglo American Corporation restructured its business portfolio and decided to exit non-core businesses such as AECI Ltd (Trahar, 1998). As a result AECI bought back 40% of its own shares from Anglo American in January 2001 thereby ending 76 years of ownership by one or other industrial giant (CAIA, 2001).

'AECI was the first major industrial manufacturing venture in sub-Saharan Africa and its fortunes have been almost entirely linked to developments on this often troubled continent' (Sander, 1997). Modderfontein was established as an explosives factory in 1896 and formed the origins of AECI (Sewell, 1985). Merging of de Beers and Nobel Industries (later ICI) gave rise to 3 manufacturing estates in 1924. AECI established the first ammonia plant in the southern hemisphere in 1932, which heralded its expansion into phosphatic fertilisers and heavy chemicals. In 1964 AECI established the Midland site in Sasolburg that specialised in chloralkali chemicals and plastics. At the end of 1992 the group rationalised its operations and restructured them in separate, autonomous subsidiaries aligned with its strategy (Relly, 1993). The abortive attempt by

SASOL to take over AECI in 1999 heralded a major turning point in the direction of the AECI group (CAIA, 2001).

At the time of AOS' establishment AECI was dominant in diverse products such as: commercial explosives and blasting accessories; polyvinyl chloride, low-density polyethylene and synthetic fibres; industrial chemicals; speciality chemicals; fertilizers; the plastics conversion industry; and paints (AOS Introduction, 1997). In producing these products it operated from more than 80 locations employing 22 000 people to generate a turnover of ZAR 5400 million. The larger more complex operations were located on its 'traditional' sites at Modderfontein, Somerset West and Umbogintwini. With such strong manufacturing roots it became necessary for AECI to adopt 'a greater market orientation using technology and people to provide the products and services its customers and markets needed'. The re-structuring that followed resulted in a number of subsidiaries reflected in Table 4.1 (AOS Introduction, 1997).

Table 4.1
Subsidiary companies in the AECI group during the research timeframe

COMPANY	PRODUCTS AND MARKETS
Major operating companies: Chemical Services Ltd	Speciality chemicals and chemical raw materials.
Dulux (Pty) Ltd	Paints and coatings for decorative, automotive, industrial and marine uses.
Kynoch Ltd.	Fertilizers and fertilizer chemicals, animal feeds, crop protection products, veterinary and public health products, plant tissue cultures, resins and industrial chemicals
SANS Fibres (Pty) Ltd	Polyester polymers, synthetic yarns for fabrics and other industrial applications, and PET bottle polymers.
Joint ventures: AECI Bioproducts (Pty) Ltd	Lysine, an amino acid for animal feeds.
AECI Explosives Ltd	Explosives and blasting accessories for mining and other commercial uses.
Polifin Ltd	Plastics raw materials, chloralkali chemicals and mining reagents, downstream plastic conversion.
Tioxide SA (Pty) Ltd	Pigments mainly for the paint and paper industries, gypsum and water treatment chemicals.

COMPANY	PRODUCTS AND MARKETS
Speciality chemical and service companies: Acrylic Products (Pty) Ltd	Acrylic sheet mainly for the sanitary ware and signage markets
AECI Aroma and Fine Chemicals (Pty) Ltd	Chemicals for the food industry.
AECI Engineering (Pty) Ltd	Plant design and project management..
Autoplastic (Pty) Ltd	Automotive trim components.
Industrial Urethanes (Pty) Ltd	Polyurethane elastomers and foams.
AECI Operations Services (Pty) Ltd	Site services and management of the community interface on behalf of AECI Ltd at its estates.

The traditional sites became industrial estates having as tenants a number of these autonomous subsidiaries, which established new operations on the estates as the need arose (Sewell, 1985). Furthermore, the strategies for many of these subsidiaries focused on increasing their exports (AOS Introduction, 1997).

4.1.2 AECI directorate

The AECI board of directors (Main Board) is responsible for the group. It comprises executive and non-executive directors with a non-executive chairman. The executive directors, lead by the AECI managing director, constitute the Executive Committee (EC) on which certain AECI senior managers are co-opted. The EC has delegated authority for operational issues within the group and makes recommendations to the Main Board on those issues outside its authority. Every group subsidiary as well as functions at the group centre report to the EC through individual EC members who are assigned as chairmen of the respective subsidiary boards. Owner's directives are issued by way of policy statements and through the chairmen of subsidiary boards.

4.1.3 AECI centre

The directorate centralised the corporate functions necessary to support the subsidiaries in an AECI head office at Woodlands, Johannesburg and in the Pinelands technical park at Modderfontein, on the outskirts of Johannesburg. At the time of AOS' establishment the AECI head office comprised 250 people employed in typical head office activities that include finance and administration, human resources (HR), group planning and public relations, also referred to as 'group communications'. They facilitate and monitor the implementation by the subsidiary companies of AECI policies (AECI, 1992). The AECI group centralised its technology functions such as the group research and development department, engineering department and information technology department at Pinelands, Modderfontein. The technology functions support all the group

subsidiaries and are 'well equipped to set a standard for the industry' (AECI, 1992). Together these departments, having a staff complement of 550, provide the AECI group with a large bank of technological knowledge and expertise as well as the ability to call on ICI's resources.

The finance, HR, group planning and group communications functions operate on behalf of the owner and had the greatest impact on AOS. The finance function sets the standards for financial reporting and collates the subsidiaries' financial reports, budgets and any returns requested by the directorate. While much of the HR management was decentralised to subsidiaries during 1993, the HR function retained functions of strategic significance such as obligatory minimum HR standards and practices for subsidiaries (Sander, 1994). It also coordinates 'issues of statutory or political significance' (Sander, 1995). Standardised conditions of employment are crucial to the AECI group, which had recognised eight unions in the Central Industrial Council (CIC) coordinated by the HR function (Sander, 1994). This statutory body was dedicated to AECI and acted as a collective bargaining forum before a bargaining council for the chemical industry superseded it (Sander, 1997). The HR function also manages the group wide social responsibility initiatives funded by the 'quality of life' budget, which the HR function administers (Relly, 1993). Other HR function activities comprise: industrial relations support; remuneration policy and practices; safety, health and environmental matters; medical aid; and pensions (Sander, 1994). Subsidiaries align their own HR policies and practices with their trading circumstances in accordance with group guidelines. The group planning function is a professional resource for the EC and operating companies (subsidiaries) (AECI, 1992). It initiates, facilitates, integrates and contributes to strategic management processes in the group ensuring these are aligned with group strategy. As a function it features prominently in many of AECI's standing committees especially the capital expenditure committee, which it leads. Group communications are prominent in supporting subsidiaries during the announcement of new initiatives and management of crises.

4.1.4 AECI group strategy

AECI strategy is 'to deliver shareholder value through a diversified, robust portfolio of chemical related businesses with a growing proportion of higher value added activities' (Boyd, 1998). The strategy entails a number of elements such as: international competitiveness; eliminating under-performing businesses; in-house development of technology; establishing alliances or joint ventures; and keeping the central functions small.

The AECI group's position on international competitiveness was formulated by Sander (1994). He indicated that 'it was the group's strategic intent to drive each component of its business portfolio to an internationally competitive and sustainable position'. Over time this encompassed 'attainment of world-class standards and practice

in quality, customer service, employee relations, safety and health, social responsibility, environmental impact and real after tax return on funds invested' (Sander, 1996). These group aspirations had implications for AECI's industrial estates and AOS was expected to support AECI subsidiaries in becoming internationally competitive through its endeavours. Consistent under performance of certain businesses, the second strategic element, arose due to either an inability to command sufficient revenues or an uncompetitive cost base. Depressed commodity prices were often cited as the reason for inadequate revenues in these businesses (Van Vught, 1998). Despite 'relentless action' over years to reduce manufacturing costs in AECI's underperforming businesses, 'internationally competitive unit costs remained elusive' in many cases (Sander, 1997; Relly, 1992). Operating cost was a significant driving force in the establishment of AOS. Throughout its existence cost pressure remained a major factor for AOS and its customers, the AECI subsidiaries located on its estates. The third strategic element concerned the in-house development of technology. Sander (1996) indicated that the group intended 'to enter new chemical speciality businesses through own research or acquisition and thereby extend the portfolio of high performance advanced product operations'. Lysine was the first such development into what Relly (1993) had described earlier as 'the unexploited field of biotechnology that offers many potentially rewarding investment opportunities in nutrition, plant protection and healthcare'. Development of this technology was largely in-house resulting in the lysine operation being established at the Umbogintwini industrial estate. No new freestanding plants were erected after the investment in Lysine and Aroma and Fine Chemicals (Sewell, 1985). Because AECI's 'capital investment in chemical plant was at an all time low', little further development occurred on any of AECI's estates. While AOS had received an additional tenant as result of this strategy, the fact that AECI curtailed capital investment had significant implications for the estates. AOS now had to look outside the AECI group for improving the utilization of its estates. The investment in the lysine plant had been a joint venture (JV) with the Industrial Development Corporation (Sander, 1994). It was one of a number of alliances and JV's that impacted AOS in terms of this element of the group strategy.

The group had negotiated two other transactions of fundamental significance during the course of 1993 for implementation on 1 January 1994. The first was the joint venture with ICI in the explosives business. The second transaction involved the merger of AECI Chloralkali and Plastics Ltd with some of the operations of SASOL Ltd. The Midland site became part of this joint venture. The effect on AOS was that the estate managers, where JV operations were located, now had to respond to new tenant demands from outside the AECI group as the estates' multi-business character evolved. The last strategic element concerned the size of the central functions. The essential components of these functions were described in Section 4.1.3. AECI did examine the necessity for these functions if it decentralised further into fully autonomous

subsidiaries. However, it did not believe in a total unbundling and therefore felt it was strategically necessary to maintain central functions to serve its 'technology-related portfolio of businesses' (Boyd, 1998). The central functions, representing both the estates owner and a significant shareowner of many of AOS' tenants on the estates, continued to exert a dominant influence on AOS.

Besides these specific strategic elements, AECI remained actively involved in many government initiatives (Sander, 1997). This was particularly relevant after 1994 when the new South African government started developing policy and legislation. The areas of concern were trade, industry and labour that included 'employment equity' and SHE. Where new laws and policies impacted on the estates, AOS inevitably became embroiled in interactions with authorities especially at the provincial and local level.

All the strategic elements of the AECI group strategy impacted on AOS in one way or another. The group's commitment to international competitiveness required AOS to manage the estates to world-class standards with quality of services, employee relations, SHE, social responsibility and real after tax returns on investment being the major issues. AECI's position on underperforming businesses placed AOS under continuous pressure to reduce cost of services to those businesses that were estate tenants and eliminate underperforming businesses in AOS' own business portfolio. While AOS benefited from the establishment of one operation resulting from AECI's in-house development strategy, the group's lack of appetite for new capital expenditure on the estates obliged AOS to look for growth outside the group. The JV's that occurred as result of the group strategy developed the multi-business character of the estates with the influx of new shareowners for tenant operations. The central functions were an essential part of the group strategy and influenced AOS and AECI subsidiaries as these functions acted on behalf of the estates owner and principal shareowner. The group's expressed political involvement with the government of the day also had repercussions for AOS particularly at provincial and local government level.

4.1.5 Conclusion

Industrial giants, with global reputations to maintain, exercised a dominant shareowner influence throughout AECI's 100-year existence. Shareowners appointed a Main Board to direct the AECI group with an EC responsible to the Main Board for operational issues. AECI (the owner) issued directives to subsidiaries by means of policy statements and through their board chairmen, who were members of the EC. Group policy was formulated and supported by corporate functions at the AECI centre. It provided subsidiaries with standards, guidelines and compliance monitoring. AECI's involvement in government initiatives had implications for industrial estates. As a leading chemical manufacturer AECI served local and international markets with diverse products produced by autonomous subsidiary companies. The more complex and higher risk operations belonging to several different subsidiaries were located on three industrial

estates. Tenants were autonomous but often affiliated to AECI. Tenant relationship with the estates became increasingly arms-length as they acquired non-AECI principals through alliances and JV's. International competitiveness especially in costs, SHE and social responsibility was part of group strategy and placed pressure on industrial estates. Lysine, the result of in-house development strategy, was the only new plant of significance on AECI's industrial estates during the 90's.

4.2 The unit of analysis: AOS Parent

4.2.1 Establishment of AOS

Before AOS was established, AECI's estates were single-business sites integrated under a factory manager and run by one or other of the group's major operating companies (Coetzee et al, 1992). Restructuring of AECI group in 1992 was to allow 'each component of the business portfolio to become internationally competitive and sustainable' (Reilly, 1993). This required AECI to reassess the organisation of its industrial estates (Coetzee et al, 1992). As a result of the restructuring proposals, multi-business sites were created at Modderfontein, Somerset West and Umbogintwini. As a consequence several issues arose such as who will assume responsibility for the infrastructure, common facilities and services on each multi-business site as well as manage the interaction with outsiders. Tenants were either unwilling to assume this role themselves or reluctant for other tenants to do so particularly as regarded the provision of cost effective services. It was felt these common functions had to be performed by an independent party without possible conflicts of interests and this disqualified any tenant from being a service provider. AECI adopted the recommendations of a task group assigned to examine these issues and created a site services organisation (SSO) for each multi-business site as an independent business reporting centrally to group. The AECI centre provided relevant standards for the SSO's and monitored the uneconomic utilisation of resources on multi-business sites (Coetzee et al, 1992). The group objective was to make each estate attractive/competitive for present and future estate occupiers as well as to promote AECI's interests locally. Subsequently, the three SSO's were combined into a single operating company, AECI Operations Services (AOS) (the 'Company') (AOS Introduction, 1997).

4.2.2 Composition of AOS Parent

The AOS board (the 'board') and AOS executive (the 'executive') with its head office represented the AOS parent.

The board consisted of a non-executive chairman from the EC, a full-time chief executive officer (CEO) and 2 non-executive directors assigned by AECI Ltd. Its function can be outlined as (AOS Executive, 29/07/1993): 'meeting legal requirements; providing the link between shareholders and management; setting strategy and policy;

delivering shareholders expectations; assuming responsibility for the Company's assets and financial health; ensuring appropriate controls and management of risks; and setting functional standards'. These are typical board functions necessary for good corporate governance (King, 2002). At its quarterly meetings the board focused particularly on SHE performance, historical and projected financial performance and strategic issues affecting the estates (AOS Executive, 08/06/1993). Board papers covering these topics were prepared and issued to the directors prior to meetings (AOS Executive, 21/10/1993). A statutory record of all meetings was maintained and these minutes were confirmed at subsequent meetings (AOS Executive, 08/06/1993). Estate GM's and the company financial manager (CFM) also attended board meetings (AOS Executive, 21/01/1993). The board also established an audit review committee with a sub-committee at each estate (AOS Executive, 25/04/1996). The audit review committee was chaired by a non-executive director and assisted the board in 'ensuring appropriate controls and management of risks' in the Company. It also reviewed the functional standards for the accountancy function in the Company. A major task of the committee and its sub-committees was to review audit reports on the efficacy of controls within the Company as generated by external and internal auditors. The committee also agreed and monitored the implementation of any corrective action necessary and provided written assurances as requested by the board or shareowners regarding the condition of internal controls. Where new systems or structures with the potential for additional risk were introduced, the committee monitored and, where necessary, facilitated the integration of these into the Company.

The executive comprises the CEO, CFM and estate GM's (AOS Executive, 21/01/1993). Functional experts from the estates are invited to participate when specialist input is required (AOS Executive, 23/07/1998). The executive meets monthly on a rotational basis at different estates (AOS Executive, 29/11/1993). The executive is responsible for the input to the board meetings and develops the strategic issues requiring the board's attention. It is also the estates first line of support and attends to general issues applicable to all estates or with which an estate GM needs help (AOS Executive, 21/01/1993). A record of all meetings was maintained and confirmed at each subsequent meeting (AOS Executive, 26/06/1997). The executive assigned the lead of certain key portfolios such as SHE and HR to one of its number (AOS Board, 20/11/1997) but tackled urgent issues as a collective (AOS Board, 18/05/1998).

The AOS head office is a small organisation comprising the CEO, CFM and those full-time administrative resources, such as a financial officer and personal assistants, needed to effect the integration of the estates (AOS Board, 26/02/1997). Specialist resources such as marketing and strategic planning specialists were accessed on a project basis (AOS Executive, 20/10/1994). Part-time resources necessary for HR management and public relations were shared with the Modderfontein estate.

4.2.3 Embedded elements

The embedded elements comprise the AECI resources that the AOS parent (the 'parent') accesses and the industrial estates for which the parent was responsible.

The parent used AECI specialist resources such as communications, legal and planning experts besides the more typical departments of human resources, finance and internal audit. The safety, health and environmental consultants available to the parent were particularly valuable in providing SHE standards, clarifying and adapting group policy for estates when necessary, accessing examples of good SHE practices, and auditing compliance with group requirements. The research and engineering departments were also accessed to support the estates as part of the executive's parenting efforts. AOS consciously adopted reference to the AECI name and logo in its own corporate identity. There is evidence that the Company considered AECI's reputation as a valuable resource given the benefits of professionalism and social responsibility with which many external stakeholders associated the AECI brand (Coetzee, 1995a). AECI had a long association with the communities in which the estates were located and was seen to be a powerful presence by virtue of its size and the international standing of its shareowners. The group also subscribed to the highest ethical standards in all its dealings and openly espoused its commitment to people and the environment ('Towards 2002', 1992; Smith, 1997).

The second embedded element is the AECI estates for which the parent was responsible: Modderfontein, Somerset West and Umbogintwini. Each estate can be characterised in terms that reveals its nature and potential off-site impact. The estates' general attributes such as size, age, location and numbers of people working on them are described. This is followed by the financial contribution each estate makes to the local and national economy. The names of estate occupiers and the products they manufacture together with a description of bulk materials and services consumed on site indicate the estate's potential impact on SHE and the local infrastructure. These statistics were first published in 1996. As this was a typical year midway in the timeframe adopted for this research, it was selected and used for characterising and comparing the estates.

Modderfontein

Modderfontein is the largest of AECI's industrial estates, with an area of over 4 000 hectares (Larson, 1997a). It was established in 1896 for explosives manufacture and was the first major industrial manufacturing venture in sub-Saharan Africa. The estate is located on the outskirts of Johannesburg where it employs some 5600 people and about 500 contractors. The contractors are people not employed full time by the estate or any tenant. They typically include specialist service providers accessed as required; service providers to whom specific tasks were outsourced on an ongoing basis; and labour

required on a part-time basis. In 1996, midway in the research timeframe, the estate contributed a total of ZAR 1100 million¹ to the local and national economy.

Table 4.2
Typical profile of Modderfontein occupiers, products and services during the research timeframe

COMPANY	ACTIVITY
AECI Explosives Limited (AEL)	Wide range of water-based packaged and bulk explosives together with blasting accessories such as fuse and detonators. Its products are used in the mining and construction industries throughout sub-Saharan Africa.
AECI Operations Services (AOS)	In addition to its overall site management responsibilities, AOS has five subsidiaries. These are an Engineering Division, Safety and Health Care Services, Remediation Services, Technical and Vocational Training Services and ACT Personnel Services.
Kynoch Modderfontein	Operated the industrial 'heart' of Modderfontein, the ammonia plant. The company used ammonia to produce nitric acid, urea and ammonium nitrate solution, which was used to manufacture limestone ammonium nitrate and ammonium nitrate. Other products included methanol, carbon dioxide and a broad range of fertilizers.
Kynochem.	Manufactured and traded in industrial chemicals, producing over 30 different products, many of them at Modderfontein. These range from water treatment chemicals to battery acid, and industrial chemicals

The Modderfontein estate also has many non-AECI tenants on site. Their businesses include a restaurant, travel agency, insurance agencies, light engineering, civil contractors, graphics and photography.

Modderfontein's operations are based on ammonia, which means that the vast majority of chemical end-products have ammonia as a basic building block in their chemical structure. Examples are nitric acid, ammonium nitrate and urea. These raw materials are then used for a variety of other products, notably explosives and fertilizers. Ammonia is produced by a complex chemical route that starts with the burning of pulverized coal. The process is a 24-hour per day operation and consumes over 1000t of coal a day. Coal is also used to generate steam required in various processes.

¹ Exchange rate in 1996: 1 US dollar = 4.3 South African Rand

Somerset West

The site of about 900 hectares is located on the False Bay coast in the Helderberg Basin which is within the Cape metropolitan region, some 50 km from Cape Town (Traut, 1997). It accommodates several group and joint venture companies, which had been involved in chemical and explosives manufacturing for almost a century. The Somerset West factory was established in 1903 and has since made a significant contribution to the area, both socially and economically. About 500 people and 100 contractors are employed on the estate. The estate's contribution in 1996 to the national and local economy amounted to ZAR 500 million²

Table 4.3
Typical profile of Somerset West occupiers, products and services during the research timeframe

COMPANY	ACTIVITY
AECI Explosives Limited (AEL)	Ceased operations on site in June 1996.
AECI Operations Services (AOS)	Provides on-site services and utilities.
AECI Properties.	Manages the use of all AECI properties in the Helderberg Basin
Kynoch Agrochemicals (Pty) Ltd.	Range of agricultural and industrial chemicals
Kychnoch Fertilizer (Pty) Ltd.	Blends and bags fertilizer products
Vynide (Pty) Limited	Makes a range of vinyl products for end uses such as wallpapers, book coverings, automotive trim, footwear uppers, linings, tarpaulins and signage.

The major raw material inputs were: coal, electricity, water for estate utilities; sulphur, phenyl ethylene oxide, methylated spirits, ammonia solution, mineral oil, insecticide, organic acids, and sugar for agrochemicals; limestone ammonium nitrate, ammonium phosphate, calcium phosphate, potassium chloride, potassium nitrate, and potassium sulphate for fertilizers; and polyvinyl chloride (PVC) polymer, pigment fillers, stabilizers and plasticisers for vinyl film.

Umbogintwini

In 1906 Kynoch, a British Company manufacturing explosives, established the Umbogintwini estate (Court, 1997). The activities were amalgamated in 1924 with de Beers of Somerset West and Nobel of Modderfontein to form African Explosives

² Exchange rate in 1996: 1 US dollar = 4.3 South African Rand

Industries Limited, later to become AECl. Explosives production ceased at Umbogintwini in 1923 and the site developed into an industrial chemicals complex manufacturing a wide range of products. The estate is located on the outskirts of Durban where it employs about 2300 people directly, in addition to approximately 300 contractors. Over ZAR 1000 million³ was contributed to the local and national economy in 1996.

There were 15 companies manufacturing a wide range of products at the Umbogintwini estate. With the exception of Dulux paints, the estate's products were not consumer products but essential raw materials for everyday commodities such as plastics, fertilizers, soap, paper, toothpaste and the purification of drinking water.

Table 4.4
Typical profile of Umbogintwini occupiers, products and services during the research timeframe

COMPANY	ACTIVITY
Acrylic Products	“Perspex” acrylic sheet
AECl Bioproducts	Lysine, an amino acid for animal feed
AECl Operations Services (AOS)	Supports on-site operations with water, steam, electricity, laboratory facilities, security, rail, warehousing, medical facilities, engineering workshops, effluent disposal and community interface.
Alliance Peroxide	Chemicals for water treatment and paper manufacture
Anikem	Speciality water treatment chemicals
Autoplastics	Motor car trim, such as door panels, dashboards and sunvisors
Chemserve	Speciality chemicals, such as car engine cleaners
Dulux	Household and industrial paints
Kynoch Agrochemicals	Agricultural pesticides, weed killers and veterinary products
Kynochem	Industrial chemicals, such as sulphuric acid, and water treatment chemicals
Kynoch Fertilizer	Fertilizer and animal feeds
Polifin	Chlorine, a water purification chemical, and caustic soda for paper and soap manufacture
Polyol Chemicals	Chemicals for polyurethane manufacture
Tioxide SA	White pigments used in paper, paints, plastics, food and textiles

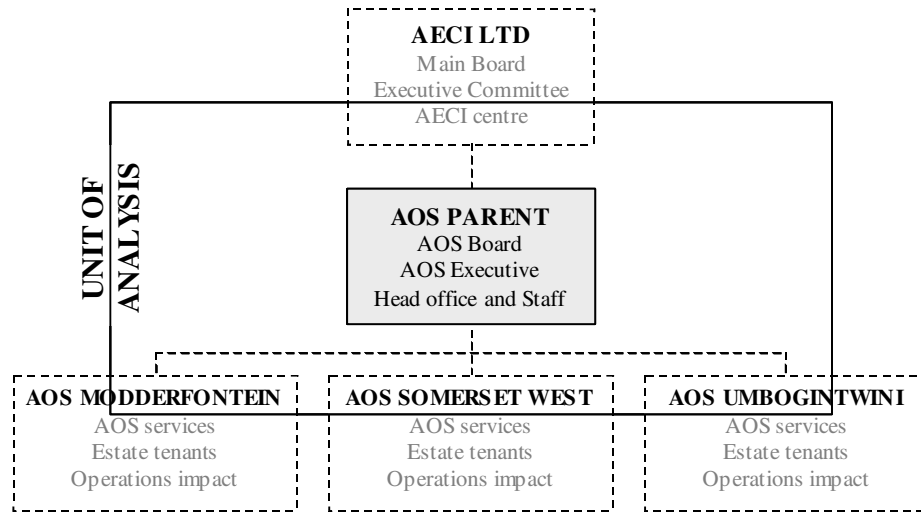
³ Exchange rate in 1996: 1 US dollar = 4.3 South African Rand

The major inputs to the various companies on site are: titanium (Tioxide SA); sulphur (Kynochem); salt (Polifin); molasses (Bioproducts and Kynoch Fertilizer); corn steep liquor (Bioproducts); coal (Tioxide and AOS); water and electricity.

4.2.4 Unit of analysis

The unit of analysis in this research is the parent with its elements defined above. Embedded elements with which the parent interacted intimately include the EC, the centralised functions in AECI Ltd and the three industrial estates. The estates are represented by their estate managers through whom the Company delivers services to estate occupiers and external stakeholders.

Figure 4.1
Unit of analysis depicting embedded nature of AECI Ltd and estates



The unit of analysis and its principal relationship with embedded entities is illustrated in Figure 4.1. The boundary encapsulates the parent as a whole and overlaps the embedded elements of AECI Ltd as well as the estates at Modderfontein, Somerset West and Umbogintwini.

This research is restricted to a 6-year timeframe, which commences with the decision in 1992 to establish AOS and culminates in the restructuring of the AECI group at the end of 1998. At a meeting on 16 October 1998, the AECI Main Board agreed to ‘a wide-ranging transformation strategy for the group (based on) the exit from high capital, large-scale, continuous process commodity chemical businesses’ (Blizzard, 1998). This entailed the cessation and rationalisation of a number of operations on the estates and the demise of various tenants. The scale and impact of this intervention by an estates owner for reasons unconnected with industrial estates was considered an aberration and the research terminated accordingly.

4.2.5 Conclusion

AOS evolved as an estates company to manage AECI's three traditional industrial estates. It was established with 'baggage' from the unbundling of each of the estates at the time of AECI's restructuring. The scope of the board and executive (including the head office) provide adequate insight to the operation of the estates company. The board and executive constitute the parent together with any resources they accessed from the AECI centre, the estates and externally. All three estates have the potential for significant SHE impact and offer a comprehensive range of services to tenants. The AECI estates therefore conform to the research focus outlined in Figure 1.3. The focus was described as multiple estates with significant off-site impact accommodating multiple tenants receiving a comprehensive range of services. The parent as defined complies with the requirements for the unit of analysis in this research. The time frame for the research extends from the decision to establish AOS in 1992 to the end of 1998 when the construct was abolished.

4.3 Data collection

4.3.1 Approach

Given that the board and executive are the principal components of the parent, the board and executive meetings provide distilled and focused information required by the research. Minutes of these meetings capture the most important estates company issues. This includes the key interactions of the parent and all strategic and major decisions taken. The information is reliable because it is verified at subsequent meetings. Executive minutes complement the board minutes and provide an alternative data source that confirms or refutes evidence from the board minutes. Significant issues identified by means of these minutes provided a springboard for new issues or the need for supporting evidence from other data sources. It also provided the entry point for applying the data and method triangulation referred to in Section 1.4.2. Data triangulation was possible through the variety of data sources accessed such as reports, memoranda, presentations and relevant publications. Besides the use of documentary sources, other methods used included participant observation and semi-structured interviews.

4.3.2 Method

The dates of all board and executive meetings during the period of interest, 1992 to 1998, were established. The relevant minutes for each meeting were retrieved and assigned a unique reference number to identify each document (set of minutes) for the database. Other documents including observations and notes from interviews were treated in the same way. Each document comprised a number of data elements such as

each individual minute. A document analysis form was used to capture the document reference number, document description and description of each data element in every document. Document description entailed: document location; file reference; type of document (e.g. minute, memorandum, report, note from interview or observation, etc); originator; date; and title. The description of a data element entailed capturing a complete extract or entry; the page or paragraph number; the data element topic; and whether follow-up is required in, for example, finding additional data sources or conducting an interview. If a data element concerned more than one topic a duplicate element was entered under the separate topic. 18 sets of board minutes and 36 sets of executive minutes were analysed and every data element in them captured and categorised.

Qualitative coding is an integral part of data analysis and comprises two simultaneous activities: mechanical data reduction and analytical categorization of data into themes. The research question and the theoretical framework guided the coding process. Strauss (1987) defined three qualitative data coding processes that entail reviews of the same raw data in three passes using a different coding process each time: open coding, axial coding and selective coding.

Open coding is performed during the first pass through the collected data. During open coding the focus is on the actual data and assigning topic labels. Topics constituted the initial code or label as a first attempt to condense the mass of data into groups of themes (Neuman, 2000). There is no concern for making connections between topics or elaborating the concepts they represent at this stage. The topic that was entered for each data element in the document analysis form constituted the initial code or label as a first attempt to condense the mass of data into theme groups. Topics are at a low level of abstraction based on concepts from literature, terms in the case setting and ideas from immersion in the data. After open coding all the data elements, topics were listed in a topics register that served three purposes: (1) it displayed emerging topics at a glance; (2) it acted as a topics dictionary for defining topics in future open coding; (3) it enabled the building of what Strauss called a universe of all themes (topics) in the study for re-organising, sorting, combining, discarding or extending in subsequent analysis.

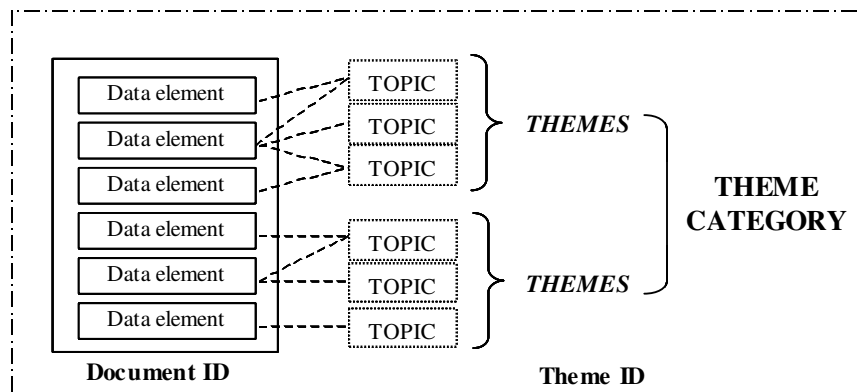
The board and executive topics were recorded in separate registers using the same topic framework.

Axial coding is the second process of data analysis when the initial codes or preliminary concepts are consolidated into themes i.e. the focus is on the initial coded topics more than on the data (Neuman, 2000). Research questions and the research model prompted the selection of themes. During axial coding, a researcher asks about causes and consequences, conditions and interactions, strategies and processes and looks for categories or concepts that cluster together. Axial coding stimulates thinking about linkages between concepts or topics but also raises new questions that should be

examined in depth. Appreciation of data support for themes evolves during this step and core themes emerge. Axial coding consolidated the topics into 20 theme categories.

Selective coding involves scanning data and previous codes in a last pass through the data. During this step major themes are identified and possible re-organisation of themes occurs (Neuman, 2000). Themes are examined for instances requiring confirmation from other data sources, which included observations and notes from interviews. Similarly, apparent conflicts between themes are investigated at this stage. This step enabled a comprehensive themes register to be compiled. This register displayed themes, their identity codes, and theme categories (see Appendix 1). The make up of the themes register is diagrammatically illustrated in Figure 4.2 below.

Figure 4.2
Construction of the theme register



4.3.3 Establishing a database

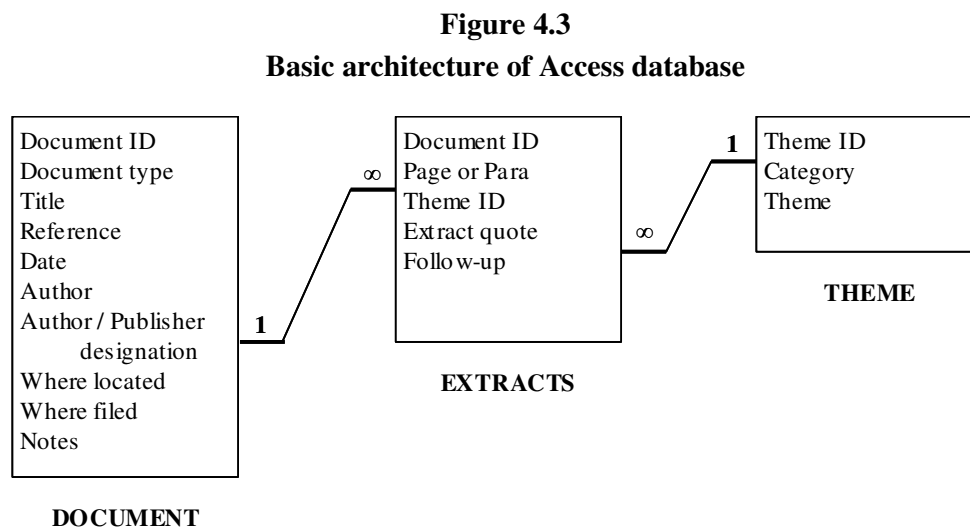
The sheer volume of data demanded the establishment of a database. A Microsoft Access database was created comprising a total of 1634 extracts or data elements. This form of data storage and retrieval facilitated the data manipulation.

The database was designed around three tables: documents, extracts and topics. For each document in the documents table a unique document identity was given, a description of the type of document, a title where appropriate, its reference, date and author. Document types included: articles, annual reports, memoranda, papers, presentations, minutes (executive and board), surveys, photographs, agreements, standards, management reports, annual SHE reports, media statements, observations and interviews. Where authors or those interviewed were AECI employees, their position in the group was noted. If not, the organisation with which they were associated or the publisher of the document (whichever was relevant) was identified. The location where the document was retrieved and where it is now filed was noted, as was the need for any

follow-up required. A sample of entries in the documents table is displayed in Appendix 2. Information from 90 different sources was captured in this way.

The data capture form in Appendix 3 was used to populate the extracts table. Besides quoting each extract in full on the form, the identity code of the source document, the page or paragraph where it was located and the theme with which it is identified was noted. The form was used to capture all the data elements from the minutes as well as subsequent information gleaned from additional and complementary data sources during selective coding.

The third table is the themes register referred to in Appendix 1. The database architecture is depicted in Figure 4.3:



The full reference base of the data as described can be found in three separate constructed documents (Coetzee, 2004a, 2004b, 2004c).

4.4 Analysis

Yin describes two general analytical strategies for analysing case study evidence: relying on theoretical propositions; or developing a case description (Yin, 1994). This research adopted the first strategy, which entailed following the theoretical propositions that led to the case study. The illustrative method of analysis described by Bonnell (1980) and Skocpol (1984) supports this strategy and was adopted. In it evidence from the database is used to illustrate the theory developed in Chapter 3. Data gathered from the case is incorporated into the format of the construct provided by the research model. Matching the evidence to the research model confirms or rejects the theory (Neuman,

2000). For the process of filling in the research data in the constructed research model, a data analysis scheme was used (see Appendix 4).

The key constructs for each of the research questions, the case study context and unit of analysis were identified as the empty boxes. The data for filling the boxes were the evidence indicated by the relevant theme with certain themes applicable to more than one construct. Some data elements were incorporated in the analysis without using the scheme. Following the data collection and analysis, the initial report was drafted. Informants and former employees familiar with the case were asked to review the facts presented. This helped corroborate essential facts and evidence presented in the report.

4.5 Validity verification

The research design has to maximise the validity of the results (Mouton, 1996). Having described the data collection and analysis process, it is possible to identify aspects that could detract from the validity of the research.

Yin identifies the key dimensions of validity and plans necessary to minimise or eliminate foreseeable threats to validity in the research process. Four dimensions or tests of validity in case studies have been identified: construct validity, internal validity, external validity, and reliability (Yin, 1994).

Construct validity is about establishing correct operational measures for the concepts being studied. The theoretical frameworks developed for each of the research questions in the previous chapters have dwelt on the criteria and indicators for measuring the relevant concepts. Yin suggests that the following actions should be incorporated to enhance construct validity: (1) Use of multiple sources of evidence during data collection. (2) Establishing a chain of evidence during data collection. (3) Having key informants review the findings after completing the data analysis. Internal validity is of particular concern for explanatory studies where causal relationships are at stake. Yin argues that this test does not apply to descriptive or exploratory studies such as this one and internal validity was not considered a major threat. External validity deals with knowing whether a study's findings can be generalized beyond the immediate case study. Yin points out that when analytical generalization is used in a case study, the investigator tries to generalize the findings to some broader theory. The theory then becomes the target to which results are generalised in a single case study such as this one. The issue becomes one of testing the theory through replication of the findings in a second or even third case study, which is beyond the scope of this research. 'Reliability is consistency over time' (Mouton, 1996) and entails documenting the case study research procedures in such a way that later investigators using the same procedures arrive at the same conclusions. The test relates to the planning of the data collection where every effort must be made to use a case study protocol and develop a case study database (Yin, 1994).

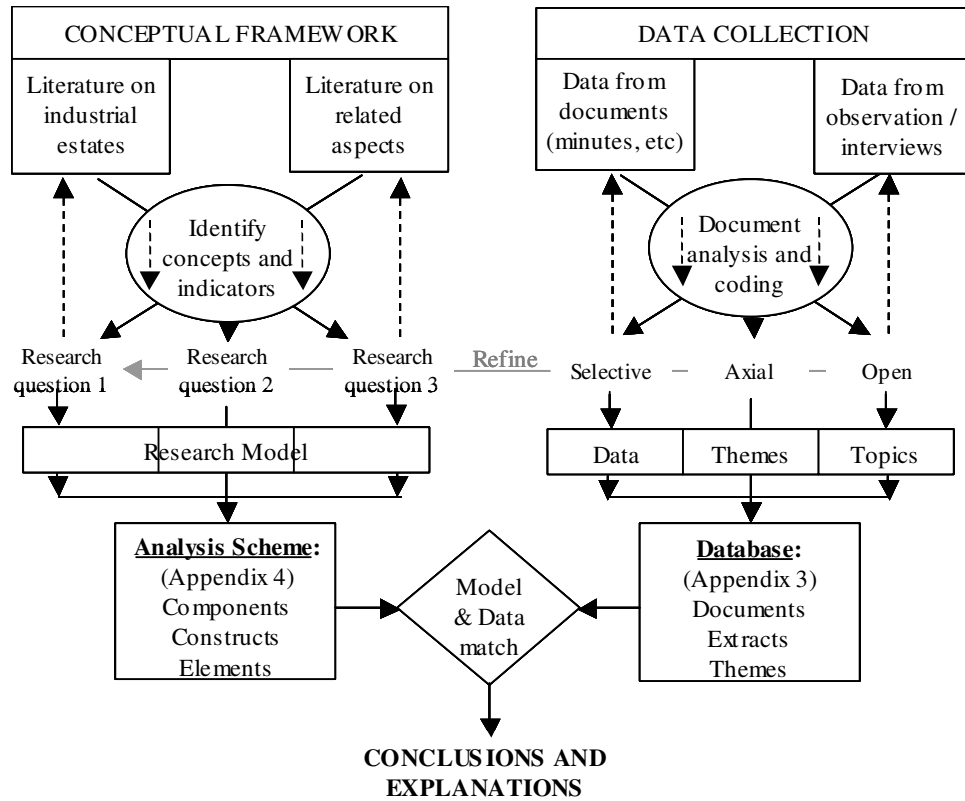
Threats to validity in this research lie in construct validity and reliability. The research is most vulnerable in the data collection phase of the study. That is why precautionary measures focused on data collection methodology and incorporated a variety of information sources, a chain of evidence and a case study database. Informants and former estates company employees reviewed the findings.

4.6 Conclusion

The board and executive minutes provide the entry point for data collection. All data from the minutes were captured systematically and coded using a three step coding process. A register of themes was produced. The coding process highlighted areas requiring enlightenment from other data sources and these were pursued using the variety of methods outlined. All data elements were captured in an Access database that indicated the documents used, the data elements extracted and themes developed. This approach incorporated the three principles of data collection: multiple sources of evidence, a structured database and chain of evidence (Yin, 1994). The illustrative method of analysis was adopted in which data elements were fitted to constructs from the research model. Informants and former employees corroborated the facts presented through a review of a draft report.

The data collection and analysis process is represented in Figure 4.4.

Figure 4.4
Data collection and analysis process



CHAPTER 5 AOS – CASE OF AN INDUSTRIAL ESTATE⁴

This chapter identifies the data in the case that supports the research model, in which three characteristics of an industrial estate were highlighted: the identity and requirements of the estate stakeholders, the interaction of these stakeholders with each other and the estate manager and the commercial nature of the estate manager.

5.1 Industrial estate stakeholders identity

5.1.1 Owner

The involvement of the owner in an industrial estate will be assessed as indicated in Section 3.1.1.

Capital invested

AECI Ltd owned the Modderfontein, Somerset West and Umbogintwini industrial estates. The estates comprised land and the necessary infrastructure to support estate occupiers. This included commercial facilities such as offices, warehouses and general workshops that were not dedicated to an occupier's operation. Each estate had large areas of property only some of which was required to support current and future operations on the estates. The executive designated the land reserved for on-site operations on each estate as the operations envelope. The operations envelope included the actual operational sites as well as land necessary for storage of product (including explosives magazines), raw materials such as coal stockpiles and waste in effluent dams or waste dumps. Servitudes, estate infrastructure services, access routes and the like were also included. The operations envelope also made provision for an appropriate buffer area between operations and the estate's neighbours. The actual envelope or operational boundaries were defined for each estate on site drawings and submitted to the executive for approval.

Owner's policies and objectives

The estates company had to ensure that AECI policies and practices were implemented. One way in which the estates protected AECI's interests (risks) in its interaction with estate occupiers and external stakeholders was through its policies. These included financial, human resources (HR) and safety, health and environment (SHE) policies. The AECI centre typically prescribed financial standards and controls for all its subsidiaries, including its estates company. Similarly, from time to time, the EC

⁴ This chapter was constructed according to the procedures described in Section 4.3. The full references to the individual documents are provided in Coetzee (2004a)

imposed financial directives such as cost reduction initiatives or working capital controls on all subsidiaries. HR practices were also largely controlled from the AECI centre as a result of the propensity by the South African government for new and more restrictive labour legislation. Recruitment and selection, for example, was governed by policies from the AECI centre as was remuneration practices such as job appraisal, fringe benefits and bonuses. AECI also had a group SHE policy and management standards, which each company in the group had to implement by way of a SHE management system comprising local procedures and practices.

The objectives AECI prescribed for AOS focused on SHE and financial performance. It had to adhere to a set of well-defined and measurable SHE improvement targets, which covered employee and contractor safety, occupational health and the environment. The Company's safety performance relative to the group's expectations was a particular concern for AECI. In the environmental field the targets aimed at 'reducing the volume of liquid, solid and gaseous waste produced, the more efficient use of natural resources and the clean up of sites if required'.

AECI's principal financial measure was an adjusted return on net assets (ARONA). This was a return on the net asset value of a business adjusted for the affect of inflation. The estates company was required to adopt this measure from the outset. A nil ARONA was acceptable as an interim target but real returns had to be the longer-term objective. As a first step to earning the required returns, the Company was expected to achieve cash neutrality by the end of 1993. Working capital targets, including debtors' days and stock cover, were also provided for it.

5.1.2 Tenants

The research model in Section 3.1.1 predicts the indicators that reflect tenant participation in the estates. These indicators were evident in the manufacturing processes that constituted the most prominent category of estate occupiers or tenants. As on-site operations they manifested all the listed indicators. Two other categories of estate occupiers that mostly purchased services were identified in the case: AECI Property Department and the EC representing the owner, AECI Ltd.

On-site operations

Each AECI estate, according to Chapter 4, accommodated a number of occupiers that typically operated chemical processes on site. These were either capital-intensive operations such as the ammonia plant at Modderfontein and the chlorine plant at Umbogintwini or labour intensive processes such as the capped fuse and detonator plants at Modderfontein. The vynide operation at Somerset West was an example where both capital and labour intensity were combined. All these processes entailed the operation of manufacturing plants with some off-site impact, albeit to differing degrees. Such impacts could be environmental as indicated by their emissions and effluents,

aesthetical in terms of their appearance or social by way of the labour or business opportunities they offered. These estate occupiers were separate businesses. The dominant occupier group on the AECI estates was the SBU's that AECI unbundled into market focused entities. It was AECI's intention that those SBU's respond quickly and flexibly to changes in their business environments with a view to strategic alliances and improved competitiveness. The key was to create operations that could focus on their core activities with minimum distractions. Besides the sites on which such process operations were established, the estates also accommodated tenants in commercial facilities such as offices, warehouses and general workshops that were not part of a process operation. In fact, the estates made every effort to encourage the use of any unoccupied facilities.

AECI Property Department

The land outside the operations envelope was not necessary to support tenants' operations. However, given that the estates were located in prime areas, AECI felt it had to manage responsibly any surplus land bearing in mind the interests of other stakeholders. AECI recognized that 'the development of such a valuable resource as this real estate required focused effort of a dedicated team' and established a Property Department at the AECI centre. In due course this department evolved into a subsidiary company under the chairmanship of the executive director responsible for property development in AECI. When any part of the estate surplus to its operational requirements was ready for commercial exploitation, it was excised and allocated to AECI Property Department. However, Property Department required continued support from the estates such as interfacing with communities on development related issues. Property Department was, therefore, an important estate occupier during such development activities, which were moderated by the EDC.

AECI Executive Committee (EC)

AECI Ltd as represented by the EC was also an occupier of the estates in addition to being the owner. Notwithstanding the development initiatives by Property Department, the size of AECI's estates resulted in a significant portion of the land being surplus to operational requirements and also not ready for development. Clearly such areas could not be exploited by AECI's estates company or by Property Department. The owner, AECI Ltd, agreed to fund the maintenance expenditure associated with those areas. In order not to detract from the commercial principles employed in establishing AOS, the allocation of such maintenance costs to AECI Ltd was considered taboo. Instead AECI Ltd became an estate occupier in its own right for those services that were not to any estate tenant's direct advantage. The owner's interaction with the estates company was distinctly different in its occupier role. To create a normal customer relationship and encourage the action of market forces, the EC became the customer face of AECI Ltd.

The elaborate process outlined in Table 5.1 was developed to ensure that both the nature and price of what was called ‘sales to AECI Ltd’ was fully justified.

Table 5.1
Process the estates company adopted for sales to AECI Ltd.

Each estate had to detail the nature of the service and associated cost for each element identified as an AECI Ltd responsibility.
Justification for the level of costs and why they were considered to be group costs was required. Where appropriate, proposals for alternative ways of handling group costs had to be submitted.
Summary of costs and justifications were reviewed by AOS CFM and AOS chief executive after approval by estate GM’s.
This summary had to be discussed with the AOS chairman who represented the EC. He identified a contact person from the AECI centre for each service element.
The service level and costs for each element were then agreed between the designated AECI centre contact (or custodian) and each estate. With regard to site remediation, for example, the SHE function at the AECI centre was the custodian on behalf of the EC.
In due course the agreement was formalized in a services specification, similar in principle but less formal than those concluded with other AOS customers.
Once these proposals were accepted, they constituted sales to AECI Ltd and were separately identified in the detailed monthly trading accounts. This process was also adopted as part of every year’s budgeting cycle.

The potential for abuse in this category of its services was soon recognised by the estates company. It consequently went to considerable trouble to control the costs associated with the service and ensure that the relevant principles were respected. Fixed charges were tolerated only for specific items such as municipal rates.

Estate occupiers, therefore, comprised three categories in the case: tenants’ on-site operations, AECI Property Department and AECI Ltd.

5.1.3 External stakeholders

External stakeholders involvement with the estates is also manifested in Section 3.1.1 of the research model.

Estate interactions

The Umbogintwini estate conducted a survey of households, schools and businesses within three kilometres of the estate. Respondents indicated that when they had concerns they contacted either the estate directly or the local authority. Group communications assisted in a subsequent survey to establish the neighbour's view of the

estate. Complaints about, for example, unpleasant odours emanating from the estate were received. Ongoing interaction with local authorities such as the Durban metropolitan council occurred on a variety of issues. The estates regularly interacted with local communities in forums such as Community Awareness and Emergency Response (CAER) committees. Conferences such as the CAER chairmen's conference were arranged to support those committees. Meetings and workshops were held involving a wide range of public, government, and local interest groups to apprise them of estate developments such as the liquid effluent project. *Ad hoc* committees with various external stakeholders were established as the need arose. The strategic planning committee of the Umbogintwini Club, in which the estate featured prominently, was a case in point. Interaction with the clubs at Modderfontein, Somerset West and Umbogintwini took place regularly. Estates also got involved in local politics through: (1) the Local Government Forums that were looking at new local authority structures and boundaries and (2) the Local Economic Development Forums aimed at stimulating local economies. Judging by these interactions local external stakeholders comprised: local businesses; local authorities; and communities in the vicinity of the estates that included residents, special interest groups, community facilities like clubs as well as institutions such as schools. On a broader front, the estates company was also expected to liaise with the press on behalf of each estate. In addition to managing media relations, it used a part-time public relations officer to organize presentations, exhibitions, functions and the like. Business and non-governmental organizations as well as the local communities were involved. Annual estate SHE performance reports were produced by each estate for the communities and special interest groups. Estates facilitated the interaction with authorities for the effluent and emission permits required by tenants' for their operations. Estates also managed negotiations with suppliers of bulk services (utilities) required by the estates as well as the interaction with estate contractors, suppliers and service providers. Such interactions occurred daily and included visitors to the estate such as tenants' customers. The external stakeholders further a field, therefore, comprised national and provincial authorities, the media, non-governmental organizations, suppliers of bulk services and materials as well as other service providers.

Estate commitments

Commitments to external stakeholders took place in a number of ways. As a signatory to the chemical industry's Responsible Care initiative, it was AECI policy to introduce appropriate CAER structures and individual SHE reports at its estates. This was part of its commitment to self-regulation, public disclosure and community involvement. The CAER committees set up at each estate constituted such a structure and developed a Charter with the local community to make public the Company's commitments to addressing community concerns. The other element was the estates' emergency

response to any incident that could have an adverse impact internally or externally and which the estates company coordinated on behalf of the group. To that end the Company committed itself to having well-rehearsed plans in place at each estate. These plans had been developed and refined in conjunction with the relevant local authorities culminating in an emergency services agreement as a commitment by each estate and the relevant local authority. These commitments were directed primarily at the estates' 'footprint' area consisting of local authorities and communities comprising neighbouring residents, institutions, businesses and special interest groups

The second major commitment by the estates was directed at a larger external stakeholder group, namely the public at large comprising the provincial and national authorities; non-governmental organizations; organized business, labour and industry groups as well as the 'man in the street'. Like all other companies in the AECI group, the estates company had to adhere to a set of well defined and measurable SHE improvement targets, endorsed by AECI Ltd's managing director. The targets covered a broad spectrum of issues in the areas of employee and contractor safety, occupational health and the environment. The aim was to eliminate or at least minimize injuries and occupational related illnesses in the workplace. On the environmental front there were targets for reducing the volume of liquid, solid and gaseous waste produced, the more efficient use of natural resources and the clean-up of sites if required. AECI reiterated its commitment to report annually on emission levels for those substances that were recognized as having potential environmental impact, as well as those of concern to the general public. The estates also established procurement and supply principles and procedures for contractors, suppliers and service providers to adopt in their interaction with the estates.

5.2 Industrial estate stakeholders requirements

5.2.1 Owner's requirements

The owner's requirements in terms of the research model were identified in the data using the indicators derived for Table 3.1.

Estate viability

AOS had a responsibility for the whole property, including land outside the operations envelope as it was on site and best placed to attend the ongoing maintenance needs of all properties. Therefore, it had to ensure the long-term viability of the estate by employing assets entrusted to it in a way that addressed key stakeholders' concerns. This included the utilization of assets in the operations envelope. These assets, which were reflected in the estates company's books, comprised both the available land and facilities. Where assets were under-utilised, the Company had to encourage new users to establish themselves on the estates.

Owner's risk exposure

The risks associated with the estates included addressing stakeholders' concerns. AECI believed that external stakeholders could affect the way estates conduct their operations and referred to this influence as the estates' licence to operate. Estate managers were required to protect AECI's interests in their interaction with occupiers and external stakeholders through the implementation of AECI's policies. The prime location and size of estates made them particularly vulnerable to unauthorised occupation by communities or expropriation by authorities.

Owner's reputation

The owner's reputation was derived from its significant international connections and prominence in the chemical industry. AECI had to ensure the requirements of the Responsible Care codes of practice and ISO 14001 environmental management system specification were implemented on its estates. To this end the group developed a formal and comprehensive SHE management system with which estates were expected to comply. Furthermore, the AOS managing director was required to produce an annual 'statement of performance' for the EC, reporting compliance with the group SHE policy and management standards and identifying any improvement opportunities. AECI also expected the estates company to promote the benefit estates hold for surrounding communities and their 'commitment to a high standard of honesty and integrity in business' as embodied in AECI's code of ethics.

Services portfolio profitability

The portfolio of services the estates managed had to be profitable. When AOS was established, the functions and activities not required by estate occupiers were grouped into services units (SU's) that were expected to be profitable and reward their capital (plant, equipment and tools) as follows:

- For new business or capital, a 6% real return was required in keeping with AECI policy. Existing businesses had to aim in the short term for a rate of return at least equivalent to inflation, moving to real returns in the longer term.
- SU's that had no or very small asset bases and relied on their intellectual property, had to provide services at market related rates and show market related returns.

Where an SU had no prospect of meeting the required rate of return and failed to respond to corrective action, the activity had to be discontinued or contracted out during 1994. By exception an activity could be continued for strategic reasons indicated by the board.

Management processes

The internal management policies and practices in the case were directed at financial and HR management. The estates company had to adopt the financial practices AECI prescribed in monitoring internal controls, authorising capital expenditure, reporting financial performance including any information the AECI centre may require on behalf of the EC (e.g. financial forecasts). Internal controls were monitored using an annual 'letter of assurance' from the chief executive of each AECI subsidiary. The Company had to report on the health of its internal controls as specified by the AECI audit committee. Incidents of fraud were also summarized in the letter. The letter of assurance was also used to review millennium compliance of all information systems (Y2K). As regards capital expenditure, the Company had to compete with the rest of the group for new capital, which was expected to earn the required real return of 6% at the time. Minor capital projects (less than ZAR 1 million) had to meet the required returns as well but be funded from within the trading budget. Table 5.2 outlines some of the financial reporting standards and procedures the AECI centre prescribed for the estates company.

Table 5.2
Prescribed financial reporting standards and procedures in the case

Development of a balance sheet.
Five-year forecasts which were revised annually.
Annual operating and capital budgets prepared according to a specified timetable and format.
Quarterly financial packs outlining year-to-date performance and year-end forecasts compared to current budget and previous forecasts.
Monthly financial packs also outlining year-to-date performance and year-end forecasts compared to current budget and previous forecasts.

HR policies and practices that had the most significant impact on the estates company covered conditions of employment and remuneration. The AECI group negotiated conditions of employment and annual wage increases with union representatives in a central national bargaining forum of which the Company was part. This resulted in remuneration practices such as job appraisal, fringe benefits, and bonuses being prescribed centrally. The guidelines provided by the AECI centre determined the recruitment and selection as well as salaries of Company staff. The HR department at the AECI centre also monitored the safety performance of subsidiaries such as the estates company according to targets it prescribed in line with international standards.

5.2.2 Tenants' requirements

The indicators derived for Table 3.2 were adopted in examining the data for estate occupiers' (tenants) requirements.

Financial performance

Tenants owned the facilities, plant and equipment they operated on a site and were themselves responsible for appropriate returns on those assets. Typically, tenants did not own the land or the general-purpose facilities they required. This decreased the capital investment necessary to establish tenant operations on site. The land and facilities were leased from the estates in terms of lease agreements the terms of which had to be competitive in order not to impact on the viability of existing tenants. Becoming a low cost producer was a strategic imperative for many of AECI's SBU's located on the estates. This cost sensitivity by tenants was a major and ongoing issue especially in light of international competition. At Modderfontein some tenants appointed an independent consultant, Gemini, to examine how they could effect cost savings in their on-site operations. As a significant provider of services to those tenants, the estate manager's charges were scrutinized and challenged. Prices were agreed by negotiations that preceded the initial establishment of the estates company. Such negotiations continued to occur annually as an integral part of the budget preparation process on each estate. Negotiations weren't limited to on-site operations but also involved Property Department and the AECI centre custodians nominated for the different elements of the sales to AECI Ltd. The negotiations typically culminated in service agreements and specifications or modifications to such agreements. Estate customers were able to scrutinize the services and associated charges they received in monthly invoices the estates issued.

Focus on core business

The estates helped tenants focus on their core business by catering for the following 'fundamental needs': specialist services for specific operations; and 'minimising distractions' from their core or strategic activities. Specialist services were determined by the specialist requirements of each plant and these were inevitably outsourced to specialist service providers, if available. Estates only considered providing such services when they were not available externally. The AECI Engineering Company was a typical example of such a specialist service provider. It was up to the tenant to determine the nature and standards of such services. Potential distractions for tenants lay either in the facilities shared with others or in functions which were not core to their operations. Shared facilities were categorised as follows:

- Estate infrastructure such as road, rail, bridges, access control, drains, dams, raw material stockpiles and waste dumps. The estates company also provided telecommunications and data transmission networks.
- Accommodation. Besides offices and warehouses, the estates also provided and maintained employee housing, hostels, and single quarters.

Non-core functions or services required by typical tenants and outsourced by them are listed in Table 5.3.

Table 5.3
Non-core functions or services required and outsourced by tenants in the case

Utilities	Electricity, water, steam and compressed air as well as effluent and waste disposal.
Commercial	Procurement and stores management, cashiers and payroll disbursements, printing and reprographic.
Personnel	Recruitment and selection, labour broking, employee assistance such as welfare and counselling, wages administration, and occupational medicine.
Technical services	Engineering workshops, analytical laboratories, quality assurance, safety, health and environment, security and fire as well as technical training.
Estate management	Intra-estate coordination, estate planning and development, remediation, marketing of the estate, community interfacing, emergency response, community relations including media, statutory (e.g. effluent and emissions permits as well as licenses).

Tenant reputation

All reputable chemical manufacturers adopted the Responsible Care programme. AECI was committed to operating its business in accordance with the programme's guiding principles, which, in turn, bound those tenants who were AECI SBU's. Besides the implementation of appropriate operating standards, AECI operating companies had to commit to communication and dialogue with the public. This required each AECI company to report annually on emission levels for those substances recognized as having potential environmental impact, as well as those which were of concern to the general public. CEO's of operating companies had to report compliance with the AECI SHE guidelines that embodied these principles and aimed to achieve performance levels equivalent to best world practice. These CEO's expected their plant and business managers on the estates to operate to the AECI standards. AECI was also committed to applying a formal integrated SHE management process to all new projects in order to

assess their SHE impact prior to approval. The Modderfontein estate assisted tenants with this process as illustrated by the planned reduction of emissions from the urea plant and ongoing design work on an improved effluent treatment system. AOS, therefore, saw the premium it placed on SHE performance as supporting estate tenants. Tenants were not only concerned about their off-site impact but also about how other on-site operations affected their own operating environment. This was indicated by the concern the black powder plant at Modderfontein mooted regarding the possible impact a breach in the wall of ash dam 6 may have on it.

5.2.3 External stakeholder requirements

External stakeholders' requirements in the research model are identified in the data by adopting the indicators derived for Table 3.3.

Exchanging information

In an Umbogintwini survey there was a strong (85%) call for ongoing communication with the estate through preferably local newspapers (32%) and newsletters (19%). The majority (59%) was in favour of communicating with the estate as an entity rather than with the individual companies on the estate (20%). Three quarters (74%) of respondents said they would feel safe visiting the estate. Respondents were eager to receive information, the highest call being for emergency procedures in the form of booklets, charts, telephone lists and calendars. A large majority (70%) favoured structured emergency procedures and was prepared to participate in emergency exercises. Just over half (52%) were in favour of warning sirens, the others being concerned about the possible nuisance value of a regular siren test and/or the effectiveness of such sirens. However, only 4% considered them unnecessary. Over 80% said that they would take shelter if advised to do so, with only 14% saying they would evacuate. Also, three quarters (72%) said that they would like spills and emissions quantified and publicized. Among schools, almost all parents (95%) said that the estate should conduct safety lectures at schools and requested home information on treating health problems. A high proportion (80%) was in favour of their children visiting the estate.

Managing off-site impacts

Off-site impacts and their consequences exposed external stakeholders to risks, which were of concern to them. The survey also showed that more than half the neighbours experienced incidents of unpleasant odours during the previous 6 months and were concerned about the associated health hazards. A third of these complained to the estate; a third to the local authority and the remaining third did not react at all. Somerset West also received complaints from the public as in the instance of a chicken manure odour emanating from the fertilizer plant. When the tenant's management was advised, it implemented corrective action. As an inland estate, Modderfontein was particularly

concerned that its effluent should not impact external stakeholders. It regularly monitored the quality of the watercourse running through the estate. A team of specialists investigated the reported deviations and recommended appropriate corrective action.

Promoting reciprocally beneficial opportunities

Reciprocally beneficial opportunities were an important consideration as indicated by the survey. Neighbours felt the estates were beneficial to the community because of the jobs the estate provides with only 12% citing useful products as a benefit. The communities, especially those in which families of the estate's workforce were concentrated, special interest groups, industry bodies, trade unions and educational institutions had expectations regarding: wealth creation by way of employment; the supply of goods and services to tenants on site; and access to estate resources such as expertise, funds and property. In essence, the way people were viewed and treated by the estates was of particular concern to external stakeholders. They had two essential demands: firstly, to instil skills in both the workforce and the community; and secondly to build management capacity in local government and non-governmental organizational structures. Suppliers were an important component of the external stakeholder group and could be divided into: (a) Utility companies (parastatal entities or local authorities), which provided power, water and telecommunications; (b) Contractors of services to the estate and its tenants; and (c) Suppliers of materials, spares and components.

The estates were seen as a significant source of revenue for all these suppliers. Estates were highly regarded by providers of utilities. Because of the significant lead times necessary to ensure continuity of supply, they also insisted on planning data derived from the estate's development plans. Access to business opportunities was important for normal contractors and suppliers. So was ethical purchasing practices that ensured fair treatment of all suppliers capable of delivering goods and services to the specified standards.

5.3 The system of estate stakeholder interactions

The data for establishing a new plant on an estate will be examined to assess the dynamics of a typical stakeholder interaction with each other and the estate manager according to the research model in Chapter 3. The plant selected from the case was the new biotechnology fermentation plant. The waste discharges from the plant constitute the off-site impacts that drive the system and will, therefore, be the focus for examining the cycles in the model.

5.3.1 Tenants reinforcing cycle

The tenant's reinforcing cycle in the research model comprises the elements and indicators outlined in Table 3.4.

Tenant's reaction was in keeping with estate requirements for tenants who wished to establish new plants or modify existing plants. The new biotechnology fermentation plant adopted the prescribed integrated environmental management principles during the design phase of the project. In this way it minimised wastes by recycling and conversion into saleable products. The tenant reported that the 'project was proceeding within budget and on schedule' and was being commissioned as planned. The impact of the business environment was the demand that the plant be internationally competitive. While input costs were an important consideration in this regard, the plant also had to operate according to best international practice, especially as regards environmental performance. The new biotechnology fermentation project was committed to the industry's norms of Responsible Care through AECI's SHE policy and the International Chamber of Commerce's 'Charter for Sustainable Development'. The tenant was concerned about SHE issues and the support it could receive from the estate manager to honour its obligations. This prompted the following response from the estate. After the project was approved, the estate arranged all communication with stakeholders to advise them of the plant and its off-site impacts. Impact of operations occurred when the effluent from the new biotechnology fermentation plant was discharged with other site effluents in the estate's effluent system that had a permit for such disposal. AOS monitored the commissioning process and alerted the plant to excursions that occurred outside design limits and subsequent off-site impacts.

5.3.2 External stakeholders' balancing cycle

While the focus of this paragraph is on the external stakeholders' balancing cycle as indicated by the research model, it also demonstrates the subsequent affect of the balancing cycle on the tenants reinforcing cycle.

Research model applied

The elements and the indicators for this cycle were outlined in Table 3.5.

Public reaction to off-site impacts after the commissioning of the biotechnology fermentation plant was manifested in the complaints the estate received from the communities. The expectations of external stakeholders were based on their knowledge of the estate's effluent discharge system and the results of the plant EIA that had been shared with them previously. They expected the plant to have little impact on the environment under normal operating conditions. The public and the estate agreed to revised operating standards following the workshops the estate arranged to discuss the off-site impacts on the community. The tenant, community representatives and

specialist consultants participated in the workshop that the estate manager led. While the problems could not be ascribed with certainty to the new biotechnology fermentation plant, it was pointed out that discharges from the plant could occur under upset operating conditions but would not be detrimental to human or environmental health. The impact on operations of these higher discharge standards was that the estate had either to review the characteristics of its effluent discharges or modify its discharge process.

Affect on reinforcing cycle

Adopting the same indicators as used for this cycle in Section 5.3.1 above, the case demonstrated the following affect of the balancing cycle on the tenant reinforcing cycle:

Tenant reaction to the impact of the tighter standards on the new biotechnology fermentation plant was to either modify the manufacturing process or re-negotiate the agreement the tenant had with the estate for managing discharges. In evaluating the business impact, the tenant had to consider the business implications of this decision given that the discharges could jeopardise future expansion of the plant on economic or environmental grounds. The estate responded to the tenant's request for assistance and modified its effluent discharge process in order to eliminate the adverse impact of operations on the communities.

5.3.3 Limiting condition

The research model in Table 3.6 provide the elements and indicators of the limiting condition that governs the balancing cycle.

Changes in stakeholder circumstances in the case occurred on a political level as South Africa had adopted the principle of sustainable development in its law through the Constitution of the Republic of South Africa Act 108 of 1996 and the National Environmental Management Act 107 of 1998. This strengthened the position of the local community who was already sensitive to the condition of the environment. Such pressure led the authorities to tighten the permit levels of the discharge process. In the case external stakeholders had to trade-off the benefits of the plant to the local economy with the estate's efforts to control discharges that were innocuous. This resulted in external stakeholders engaging the estate in discussions to address their concerns through a series of public workshops. During the workshops the estate explained the issues and helped communities with the trade-offs to arrive at an informed limiting condition. The outcome of the workshops was that the estate commissioned a study by the national Council for Scientific and Industrial Research to investigate the off-site impact and make recommendations. The investigation concluded that discharges from the new biotechnology fermentation plant were the most likely cause of the impacts experienced by the communities. As result of this public pressure, the authorities tightened operational standards for discharges from the estate's effluent system.

5.3.4 Owner's role

This section identifies indicators of the owner's role according to the research model as well as any additional actions and influences revealed by the data in the case.

Research model applied

The elements and indicators of the owner's role in the research model are summarised in Table 3.7.

Mandating the estate manager occurred when the estates company was appointed the estate manager of the estate that the new biotechnology fermentation project selected for the location of its plant. The estates owner held the Company responsible for the whole property including the facilities and infrastructure on site. AECI prescribed a set of well-defined and measurable SHE improvement targets for the estates company. In addition, it had to ensure that AECI policies and practices were implemented. AECI Ltd provided the estate with the necessary resources by way of the land and infrastructure on the estate that accommodated the new biotechnology fermentation plant. This included the system, which the estate used for discharging on-site effluents under permit. AECI also provided resources from the AECI centre to exploit the field of biotechnology as it offered many potentially rewarding avenues for investment. The group's comprehensive SHE management system and commitment that it would not detract from the communities' current quality of life were important guidelines in implementing such a project. As owner of the estate, AECI pledged the necessary ZAR 3 million for site and infrastructure preparation should the project be established on the estate. In terms of receiving public endorsement the announcement of the new biotechnology fermentation plant had a positive impact on AECI's reputation as the project was perceived to be world-class and heralded a new phase in the estate's development. The reaction of the external stakeholders enhanced AECI's reputation as a 'chemical giant' and that of the estate. The national and local benefits associated with the project reflected positively on the estate.

Additional actions and influences

The example of the new biotechnology fermentation plant also indicated other actions by and influences on the owner not anticipated by the research model.

AECI's shareowners were committed to the long-term viability of the estate through using estate assets to best advantage. Viability meant that the estates had to address stakeholders concerns and manage the risks to the estate. This was in keeping with the shareowners international standing and the owner's prominence in the chemical industry. In practice it meant estates had to deliver as follows against AECI's triple bottom line expectations: financial return from the utilization of estate assets, good corporate citizenship and responsible SHE behaviour. The AECI shareowners

encouraged the location of the new biotechnology fermentation plant on its estate given that it would contribute to these expectations. The way the tenant reacted was to establish a new AECI subsidiary to exploit the biotechnology fermentation opportunity as a joint venture between AECI and the Industrial Development Corporation. The tenant had developed particular expertise in biotechnology on which a plant could be based. This enabled it to establish a world-class biotechnology fermentation plant to provide the basis for expanding into other products. To this end the tenant selected an AOS estate as the preferred location for the new plant due to proximity of raw materials, an export port for its products and the availability of estate infrastructure and services. It requested: a land reserve of 5 to 10 hA; infrastructure; utilities (power, water and steam); raw materials from other site operations (ammonia, hydrochloric acid, phosphoric acid, caustic soda and ammonium sulphate); and SHE management support. In accordance with the estates environmental policy and standards, the tenant carried out an environmental impact assessment. The impact of the proposed operation was that the project signified the start of a redevelopment of the estate with overall socio-economic benefits that could be significant. South Africa would save about USD 10 million in imports annually using South African raw materials purchased locally. Although capital-intensive, the operation would create about 80 jobs. The project was expected to have significant spin-off effects for the region and the country. About 300 people would be employed during construction with benefits for the agriculture and transport industries in particular. Construction materials would be largely stainless steel and the project would provide much needed work for local stainless steel manufacturers and fabricators. The plant would replace imports, generate foreign exchange and boost the labour intensive agricultural industry. Public endorsement was evident in the media that reflected the reaction of external stakeholders as follows: 'A major new high technology industry is to be developed following a decision announced today by chemical giant AECI to build a ZAR 300 million factory'. The report emphasised the export orientation of the plant and its use of local basic raw materials. It went on to mention that the plant was only the second of its kind in the southern hemisphere and extensions could amount to further investment of ZAR 700 to 800 million. The high technology nature of the project was positively received in the report as it indicated a redevelopment of the estate from traditional explosives and chemicals to high technology products. It also pointed out that new techniques for welding stainless steel will be needed and that overall benefits for the region would be substantial. The owner's (AECI) response was to sanction the capital necessary for site and infrastructure preparation upon approval of the project. It subsequently went on to support the estates efforts to prepare for a possible plant expansion. This entailed increasing the estate's steam generation capacity as well as developing a precinct for a product cluster. The owner, furthermore, actively participated in the studies to determine the options available for increasing steam output to accommodate the new biotechnology

fermentation plant expansion. It also supported estate proposals to deal with the effluent problem of the new biotechnology fermentation plant.

In summary the unexpected owner's elements include: the affect of the shareowners environment on the owner's decisions; the reaction of the tenant to the estates owner's initiatives; the initial impact of the new plant's announcement; the reaction of the external stakeholders to the announcement; and the owner's response to the impact the project had on its reputation.

5.3.5 Estate manager roles

In Table 3.8 the research model identified the four service roles and indicators, which could be applied to the new biotechnology fermentation plant example.

Landlord

In the Landlord role the estate manager negotiated a site for the plant, access thereto and requirements for site infrastructure with the prospective tenant. It obtained capital from the owner for rehabilitation of the designated site and provision of the necessary infrastructure. The estate then rehabilitated the plant site and arranged access, a construction area and facilities. Looking at the longer term, the estates company also commenced the conceptualization and design of a biotechnology cluster and dedicated the necessary resources to progressing the same. A lease agreement was signed with the tenant. There was no formal agreement with the owner who mandated the estate by way of the AOS board.

Service Provider

As the service provider, the estates manager prepared the site for the project, provided access control, general site services, utilities and support services. It also provided water, sewage treatment, power, and steam to the plant. The steam was a particularly sensitive component of the utilities package. A reliable supply of steam at the right quality and world competitive steam price was essential for the economic viability of the plant. The support services the estate manager provided comprised personnel and medical services, a materials management service, accounting, security and fire as well as a laboratory and effluent disposal service. The provision of these services was formalised in a services agreement.

Liaison

When the estate manager coordinated the communication of the initial announcement of the project to the external stakeholders it performed the Liaison role. Prior to the establishment of the plant, the estate manager enlisted the support of the CAER committee for the project. Undertakings about performance levels were given to the committee. The estate manager also monitored community reaction both in the CAER

committee and through the complaint system. This resulted in the estate manager and plant management jointly addressing community concerns. The new biotechnology fermentation plant was party to the CAER Charter, which was adopted by the estate and the communities.

Monitor

The Monitor role depended on the specific pollution levels that were agreed for plant emissions and effluents with the relevant authorities and the estate manager. Any modifications to the agreed levels were re-negotiated with the assistance of the estate manager. The new biotechnology fermentation plant was required to abide by the estate operating standards, which the estate manager had prepared with the knowledge of the CAER committee and tenants on site. The ECC at the estate monitored compliance with these standards. The necessary permits for the new biotechnology fermentation plant were negotiated and obtained with the help of the estate manager.

5.4 Estate manager commercial orientation

The estate manager orientation on commercial aspects will be assessed by the impact this orientation had on each stakeholder group in the case.

5.4.1 Owner

The impact a commercially orientated estate will have on value for the owner can be assessed according to the research model in Table 3.9.

Sustaining estate viability

As regards commercial estates being more responsive to change, the estates company in the case was established as a business to ensure it would be exposed to market forces and be responsive to changes in customer needs. The strategy confirmed this philosophy in a behaviour norm of listening and responding to customers. This was explained as: 'We need to assimilate the information we obtain by listening to stakeholders and respond efficiently and effectively to meet their current and future needs. By managing this loop better than others, AOS can achieve a significant competitive advantage in the marketplace'. Other examples of estate managers' responsiveness were: Modderfontein reacted with positive results to the downturn in the economy and property market by engaging property brokers to lease facilities. Somerset West responded to AEL's withdrawal from the estate, by looking at alternative uses for the buildings AEL vacated. The estates company also developed mechanisms that enabled it to respond better to changes through the creation of a site development fund that could be partially funded from rental income. This was extended to a mechanism for funding facilities and services for new tenants that could be rewarded in the rate charged for those services.

A greater customer orientation was achieved by exposing the business to market forces given the expectation it would be more service orientated. Estate managers had to make every effort to encourage outsiders to the estate in order to occupy vacant land and underutilized facilities. It was equally important to convince existing customers that the estates company was providing them with good value. Safety efforts, for example, were specifically aimed at retaining customers whose operations relied upon high safety standards. Two initiatives were specifically aimed at retaining existing tenants and improving estate managers' relationship with them: AIC was a common tenant of all three estates and its chief executive was invited to indicate how the Company could become more customer orientated. He recommended that it should consider an account executive for major group companies on each estate; develop a customer care culture as outlined in its customer care policy; and get to know the business of each customer intimately as every supplier depends upon its customer's success. The second initiative involved a customer attitude survey by independent marketing consultants to assess customer perceptions of the Company, its service and its products among 22 of its customers on all three estates. The respondents indicated the estates had been enhanced and contributed to their (customers') business success. AOS was also handling SHE issues and public interaction well but fell short in the security, engineering and warehousing services they were providing on the estates.

More accurate costing of services occurred because there was no scope for cross-subsidisation or hidden costs of services as the viability of each SU had to be assessed individually. One of the arguments in favour of leases, for example, was that AECI tenants, who had not paid rent previously, would then be better aware of the true costs of doing business. It was evident that service costs were scrutinised by tenants given that service costs were frequent sticking points during the annual negotiations. This obliged SU's to ensure that their costing was accurate. The work that the consultants, Gemini, did at Modderfontein also ensured that charges were accurate.

Achieving a profitable services portfolio

The estates company offered its services in a business relationship is apparent from the profit objectives AOS was given to imply that it operated as a business. As is typical of any business relationship, it negotiated prices, invoiced customers for its services and had to manage the resulting debtors. These practices will be outlined below in improved financial performance of its tenants. As a business it was also able to collaborate with other businesses. At Umbogintwini the estate manager's analytical business attempted to procure new business with the support of the SABS (South African Bureau of Standards). In the same way Health Care Services at Modderfontein investigated the viability of forming a joint venture with Linksfield Park Clinic.

The treatment of capital in AECI required a 6% minimum real return as prescribed by the market with depreciation of plant and equipment over a 10-year

period. When the Umbogintwini estate proposed a new effluent plant, these financial standards would have resulted in a significant charge to estate occupiers in order to justify the project. On a recommendation of the estates company board, the EC accepted a real return of 3% and depreciation over 20 years, being the useful life of the plant. This resulted in the charges for estate occupiers being halved.

The elimination of uncompetitive services was determined by AECI's profitability requirements. Accordingly each SU had to recover its total costs, including all direct and notional overheads. In addition, if it had fixed assets and working capital, it had to earn an appropriate return through its trading activities. Operations (SU's) that did not have the potential to become competitive and viable were either closed down or contracted out. Where businesses were closed down or contracted out, it inevitably resulted in the displacement of people. Retrenchments occurred at Somerset West and Umbogintwini.

Managing owner's risk exposure

In this instance the research model identified only one event in Table 3.9. The investment market requires financial returns to be determined by a business activity's risk exposure. When petitioned by AOS, AECI indicated it would expect a lower ARONA from utilities like power stations because of the lower risk the financial market associates with such operations. ARONA targets were not assigned to estates but were uniquely synthesized for each estate based on its specific services portfolio and capital employed. The ARONA target for the estates company was in turn aggregated from those of each estate.

5.4.2 Tenants

The value drivers and events from Table 3.10 in the research model determine value for tenants of a commercially orientated estate.

Improving tenants' financial performance

The willing buyer, willing seller principle was evident when the estates company was established to give the customer the freedom of choice normally associated with a competitive business environment. It was AECI's intention that, as far as possible, services should be sold at negotiated commercial rates to further entrench the willing buyer, willing seller principle in a business relationship. As a consequence negotiations with its tenants were to become a dominant feature of the Company's interaction with them. Given tenants' freedom of choice, each SU had to develop its own marketing focus.

To avoid cost allocation the Company was established as a business that allowed customers to pay competitive rates on a use-basis. This was a direct consequence of operating companies often disputing allocated site costs. It, therefore, became part of

the estates company's commitment to a movement away from the allocation of costs in favour of negotiated rates. Even when it was under severe pressure from the AECI imposed wage and salary increases, customers showed no sympathy if the revenues AOS could negotiate was insufficient to offset such costs escalations. The estates company had to either decline the business or refine its costs to ensure profitably. The Gemini intervention at Modderfontien confirmed the absence of cost allocations. The commitment to not allocating estate costs to occupiers is further illustrated by charging the owner, AECI Ltd, for services rendered as with any other customer. Negotiation of services took place at both estate and company level, for those customers with whom the Company had an interface on more than one estate. These negotiations were at times acrimonious with service costs being a frequent sticking point. There was clearly concern about both the professionalism with which negotiations were conducted and the quality of the agreements concluded.

Payment only on submission of invoices was an important feature of the relationship with customers and the Company introduced formal procedures to cater for customer's invoicing needs. Notwithstanding these efforts, customers weren't always satisfied with the detail provided on the invoices. Furthermore, when customers changed their IT systems they wanted the invoicing procedures to be adjusted accordingly. Debtors are a consequence of invoicing and are further evidence of invoicing practices. Outstanding debtor balances in excess of sixty days became a major cause for concern, particularly at Modderfontein. As a result working capital targets were prescribed and the ongoing management of working capital in the Company remained a priority. Estate managers were eventually urged to consider charging interest on late payments.

Increasing tenant focus on core business

When AEL was obliged to curtail its operations at Somerset West, AOS agreed to combine AEL's residual activities with its own. The handling of certain wastes and by-products from their Modderfontein operations became a burden for the tenants concerned. The estates company contracted to manage such waste material on behalf of the tenant by beneficiating the wastes in partnership with outside specialists.

5.4.3 External stakeholders

The drivers of value for external stakeholders and the associated events are outlined by the research model in Table 3.11.

Exchanging information

Sensitivity to societal perceptions arose from the Responsible Care programme, which committed the owner and tenants with chemical operations to certain operating principles. The estates company was sensitive to this as a business imperative. The

proximity of neighbours present estates with challenges and opportunities, which can be maximized to everyone's benefit if correctly managed. Liaison with neighbours assists the Company in ensuring that it meets its responsibilities in a balanced, sensitive manner that acknowledges the input of those beyond current site boundaries. This sensitivity to communities' need for information led to the establishment of CAER committees and a CAER Charter with them in keeping with the Responsible Care programme. Tenants involvement in these initiatives was assured by way of a commercial arrangement (lease agreements) that will be examined below. Estates also respected the communities right to know by consulting them and other stakeholders in the development plans produced for each estate.

Managing off-site impacts

From the outset, AOS was concerned about the adverse impact of operations on the image of the estates and the owner. It felt it was best placed to manage off-site impacts on behalf of the estate. This, too, was in keeping with the Responsible Care commitments of both the estate tenants and the owner. It ensured that the estate managers honoured their commitments to tenants (lease agreements) and the communities (CAER Charter). It did so through the standards it developed to communicate identified risks to both employees and members of the community in an easily understandable format. Groundwater contamination was included among the potential off-site impacts that had to be identified. The implication was that the Company coordinated plans to involve interested and affected parties in understanding the implications and, if necessary, developing strategies to counter any inherent health threats from groundwater contamination.

The estates' SHE concerns were embodied in commercial agreements as evident from the Company Standard on estate leases. Leases covered environmental impacts and restraints on activities as well as the requirement for tenants to rehabilitate sites to the condition in which they received it at the termination of the lease. Somerset West's remediation experience emphasised the importance of addressing this issue in lease agreements. The Company subsequently proposed that tenants also make provision for remediation costs during the lifetime of their operations.

Promoting reciprocally beneficial opportunities

The estates company reported that its operations, which did not have the potential to become competitive and viable, were either closed down or contracted out. It developed a process to deal with non-core businesses and used it to decide which Technical Division businesses were core and should be retained. Subsequently the Engineering Division at Modderfontein was investigated to determine whether to outsource some services or to continue to provide those in house. Typical examples where external suppliers were contracted instead of supplying the services in-house included: catering

and security services at Somerset West, security services at Umbogintwini and the Umbogintwini mechanical workshops.

5.5 Conclusion

There was general support in the case for the industrial estate characteristics outlined by the research model in Chapter 3. The predicted indicators were successfully applied to identify the estate stakeholders and their requirements, their interaction with each other and the estate manager, and the commercial nature of the estate manager in the case. The value driver concept developed in Chapter 3 was particularly useful for denoting high-level stakeholder value in each instance as well as prompting specific events that could be used as indicators for data analysis. The principles used in establishing AOS provided valuable data for identifying the intent of the estates company with respect to each of the estates' key stakeholders. This data recurred frequently in the chapter besides the other data that specifically supported the capital, policies and procedures that identified the owner in terms of the research model. Tenants' on-site operations and the existence of Property Department and the EC as estate customers were also indicated. Data concerned with the estates' interactions and commitments to external stakeholders endorsed their identity in accordance with the research model. The owner and tenant requirements were also informed by the establishment principles for the estates company alluded to earlier. These and data from other sources supported the owner's requirements in terms of estate viability, owner's risk exposure, owner's reputation, services profitability and management processes. Those of the tenants were demonstrated in data concerning financial performance; focus on core business; and tenant reputation. The survey conducted at Umbogintwini provided a body of data for identifying external stakeholders requirements. This data alluded to exchanging information, managing off-site impacts and promoting reciprocal opportunities. The events associated with the new biotechnology fermentation plant project and the roles of the different stakeholders and estate managers therein, provided coherent data to illustrate the research model's stakeholder interaction. The reinforcing and balancing cycles together with the limiting condition formed the framework for collecting this data. The owner's role in mandating the estate managers, resourcing the estates and accepting public endorsement for its actions was also supported by case data. However, additional data were encountered revealing information about the owner's interaction with key stakeholders that was not predicted by the research model. This aspect will be analyzed in Chapter 8 together with the other findings from this chapter. Finally, the data used to determine the commercial orientation of the estates company in the case came from a variety of data sources illustrating the broad base of AOS' business activities. The research model indicated a preference for an estates company to be a business by the value it delivers key stakeholders. Data supporting the owner's

requirement for estate viability, profitable services and managed risk; the tenants' for financial performance and business focus; and the external stakeholders' for exchanging information, managing off-site impacts and reciprocally beneficial opportunities endorsed this preference.

CHAPTER 6 AOS – CASE OF AN ESTATES COMPANY⁵

6.1 Integration of multiple estates into an estates company

Integration is the means by which a company seeks to coordinate people and functions to accomplish organisational tasks (Galbraith, 1973). It refers to the way in which parts of the organisation are combined to create value through its chosen strategies (Hill and Jones, 1995). The integration activities, which AOS undertook as an estates company, were based on estates' needs and requests for assistance. These and other integrating opportunities for AOS will be examined with respect to the key stakeholder groups in the research model: the owner, tenants and external stakeholders. The relevant value drivers and events that indicate their existence will be adopted to capture the evidence for each stakeholder group

6.1.1 Owner

The owner's value drivers were presented in Table 3.12.

Sustaining estate viability

Uniform interpretation of owner's requirements for estates viability was promoted by the concept of the operations envelope. The executive had developed this concept to provide estates with a common focus for managing the utilization of their land. The executive also represented the estates' interests at the EDC where common ground rules for local interfacing with Property Department were established. The Company's estate utilization philosophy incorporating concepts such as estate standards and lease agreements gave direction to the estates. The parameters for implementing this philosophy were negotiated by the executive and included principles such as: AECI will retain ownership of the land; AECI subsidiaries would be expected to enter into lease agreements with the estates company; and sites and facilities may be leased to outside tenants. It also negotiated a basis on which the owner would consider funds for new infrastructure or facilities and a mechanism for approving the same on behalf of the estates.

Managing off-site impacts was one of the owner's major requirements for promoting estate viability. Modderfontein and Umbogintwini had both initiated similar projects aimed at improving their off-site impact. The executive used these projects to exchange experience and apply the Company's collective knowledge among its estates. In a second example of exchanging estate experiences, the executive coordinated efforts

⁵ This chapter was constructed according to the procedure described in Section 4.3. The full references to the individual documents are provided in Coetzee (2004b)

to improve the utilisation of hostel facilities at both Modderfontein and Somerset West. In this way each was able to benefit from the other's experiences especially as regarded the removal of remaining hostel residents and conversion of the buildings to alternative uses.

Coordination of asset utilization in the estates company flowed from a request by the estate managers. They asked for executive assistance to optimise the utilisation of the land under their control and deal with redundant and under-utilised assets. There were also questions as to individual estate's roles and responsibilities with respect to Property Department when it came to leasing and estate development. The executive decided estate developments should be governed by a master plan in which the necessary provision for expanding services and utilities could be made. Much of the land on all three estates was contaminated by many decades of operations. This required extensive work to measure and, if necessary, counteract the impact of the contamination. Furthermore, on some estates such as Somerset West, occupiers were discontinuing operations and withdrawing from the estate. Before such an estate could attempt to attract appropriate activities on site, it first had to establish what land uses were possible given the prevailing market conditions in that region. The executive, therefore, assisted estates with master planning, site remediation and market research to improve asset utilization of the estates.

Promoting the owner's reputation

Integrated SHE management was necessary to counter the significant risk to the estates and their viability posed by the on site behaviour of occupiers. The executive developed a risk management process for all estates. The AECI SHE policy and management standards were important risk control measures with which the executive had to assist estates. The SHE programme developed was aligned with the requirements of the owner's policies and standards and assisted estate GM's to manage all aspects of SHE holistically. The owner monitored compliance with its policy and standards by way of an annual statement of performance. The executive prescribed a format for the statement of performance from each estate GM and then integrated them in a submission to the EC. The GM's welcomed the discipline required by the process, which included a SHE improvement plan focused on compliance with the AECI standards and targets. Once all statements of performance had been submitted to the AECI centre, a consolidated group statement was fed back to the estates.

Coordinated external interfacing was demonstrated in the CAER programme that implemented AECI's commitment to Responsible Care at each estate. The programme was developed and coordinated by the executive to ensure consistent interpretation and implementation. The executive also encouraged the exchange of experience and best practice among the CAER committees through an annual CAER chairmen conference. The estate development strategies developed by the executive also ensured that estates

considered the impact of development plans on their neighbours through appropriate consultation. It also emphasised the inputs and approvals of local and provincial authorities in any planning endeavour.

Achieving a profitable services portfolio

Uniform interpretation of owner's financial requirements occurred when the executive integrated the estates' efforts to implement the owner's financial requirements in the following instances:

- Business Value Created (BVC) was a measure AECI adopted for calculating the shareholder value its businesses created. To assist SU's, estates and the Company in monitoring this measure routinely, the executive developed a computer model for this purpose. Use of the model depended on an accurate assessment of the assets employed by a business. Therefore, the executive arranged for fixed asset registers to be split down to SU level and validated before BVC could be introduced.
- Financial forecasts were an AECI centre requirement for all AECI companies. The executive aggregated the forecast from each estate's inputs and tested any inconsistencies and/or anomalies in the submissions. The estates company regularly presented such an integrated plan that formed the basis for the annual trading budget of its estates.
- Annual budgets entailed a drawn out and complex process involving coordination of negotiations and interfaces with the AECI centre and customers. The executive managed the budgeting process according to a timetable that had to be aligned with the AECI centre timetable and tightly controlled according to the deadlines. Joint venture companies and non-AECI tenants had different schedules to which the estates company had to respond separately. Furthermore, tenants with operations on more than one estate required a coordinated approach. Where tenants were unable to provide their service requirements, the executive also had to interpret them as best it could for the estate in question. Profit targets had to be set for each estate and escalation factors applied to costs and revenues. Escalation factors required the executive to take a view on the outcome of the year-end wage negotiations for the AECI group. The budget went through a number of iterations till it met the board's expectations. SU's whose budgets fell short of expectations required executive intervention to rectify their performance or discontinue business. Businesses breaking even or showing a profit also had to be scrutinised for potential cost savings or additional profits. The AOS budget process entailed more than just the financials as estates were required to submit drawings defining operations envelopes and battery limits, lease registers, statutory appointments and a SHE audit schedule for the ensuing year. The operations envelope was subdivided into sites that could be allocated to tenants. A tenant's reserve may comprise a number of sites and the boundary of his reserve was called his 'battery limits'.

Providing professional management processes

The executive also provided processes for uniformly interpreting the owner's requirements for each of the key areas like estate utilisation, services profitability, and implementation of policies and practices. These were incorporated in objectives for the Company and its estates. They were then prioritised, phased and incorporated in a schedule according to owner's requirements. The executive reviewed progress at each executive meeting and revised the corporate and estate objectives annually. Using the corporate objectives, estate GM's cascaded their estate objectives followed by objectives for their individual managers and their subordinates. In this way the executive ensured that corporate, estate and individual goals were consistently aligned with AECI's expectations across all estates. The owner was unable to specify the precise return on investment (ARONA) it expected from its estates company, which was a services company unlike its chemical manufacturing or trading siblings. To interpret a target for a market related return, the executive commissioned a study. This was based on first principles and resulted in the following recommendations: 3% targeted real return for the Company based on a wide-ranging market related evaluation of the types of businesses each estate manager had; and targets for each estate manager and SU. The executive also had to deal with problem businesses at each estate that could not compete and operate profitably. Businesses with inadequate returns were helped to formulate recovery plans or face closure if they were unable to compete. Estates also needed executive assistance in deciding what was core and should be retained. A single interface with multiple estates was an AECI centre requirement as illustrated by two examples: sales to AECI Ltd and the annual letter of assurance. The monthly invoices for sales to AECI Ltd had to be consolidated in a common format developed by the executive before submission to the EC appointed custodians. Furthermore, the estates' commentary on the invoices had to be interpreted so that the executive could provide custodians with the detailed summaries they required. A similar process was adopted for the annual budget of sales to AECI Ltd. Details of how the budget figures were derived had to be obtained from the estates for submission to the AECI centre custodians in a standard format. Schedules of sales to AECI Ltd from each estate were then integrated so that the executive could agree the service level and cost of the various activities with the AECI centre custodians. The annual letters of assurance the AECI centre required from each estate was coordinated centrally for the Company by its audit review committee, chaired by a non-executive director. The consolidated letter of assurance was in turn submitted to the AECI audit committee. The estates company audit review committee provided estate GM's with a *pro forma* letter and deadlines for completing the same. A Company Standard to this effect was also issued. The board was kept apprised of the submission of the annual letter of assurance to the AECI centre through the audit review committee report. All cases of fraud and theft had to be dealt with

centrally as required by the AECI standards. Each letter of assurance contained an action plan to correct deficiencies noted in the letter. The executive monitored the implementation of this plan routinely. The estates company collated its submission from inputs, which each estate GM made by 31 January each year. Its audit review committee approved the letter on behalf of the board before submission. The letter of assurance was also used to review millennium compliance (Y2K) of all information systems.

Consistent interpretation of policies and practices occurred by the Company integrating AECI's HR policies for the estates as a whole. This often went beyond the Company's boundaries as illustrated by the affirmative action policy. Before the government had adopted legislation to that effect, the group had already implemented an affirmative action policy. The centre developed implementation guidelines for the companies in keeping with the needs of their specific businesses. The estates company responded with an appropriate strategy for itself in addition to coordinating the initiatives of other AECI subsidiaries on the estates. Employment equity (the new designation for affirmative action) legislation followed in due course and the Company adopted and tracked the implementation framework approved by the board. A further example was managing the annual wage increases for payroll (hourly paid) employees. These were negotiated centrally for the whole group in the NBF. While AOS was mandated independently prior to the NBF negotiations in terms of what it could afford, it had to abide by the higher increases with which other group companies were comfortable. When these were applied group-wide in terms of the NBF agreement, the executive had to consider reducing employee numbers to compensate for the higher total costs of running the businesses. In the same way the board had to be guided by practices elsewhere in the group when setting the average salary adjustment rate for staff (monthly paid) employees within which the estates could award annual increases.

6.1.2 Tenants

The relevant value drivers for tenants are reflected in Table 3.13.

Improved financial performance

The estates company made a point of sharing the learning experiences of the estates and their SU's within the Company. The closure of catering and the outsourcing of security services at the estates were examples of shared learning being applied. It was also possible to benchmark key operating parameters for services such as steam production and exchange this information to the benefit of tenants on the estates. Customers were particularly sensitive to steam price and the quality of steam that was being generated on aging plants. Sharing experiences among estates proved helpful to focus attention on areas where estates' service offering could be enhanced to the benefit of tenants. As a result the executive established 'service groups' in the various utility areas to encourage the interchange of ideas and a consistent approach to customers. In the treatment of

effluent, collaboration between Modderfontein and Umbogintwini enabled the Company to provide a cost-effective service by exploiting economies of scope and scale. The service, moreover, complies with AECI standards and statutory permit levels. The estates' experiences in customer interaction, which was a weakness on estates, was shared in the executive and the collective learning applied by estate managers.

Focus on core business

Estate managers appreciated that negotiations were an essential part of doing business and that the resulting experience could influence the future relationship with tenants. To prevent the normal annual negotiations detracting from tenants' focus, the estates company coordinated the process and interfaces with other group subsidiaries and customers as required. It was always clear, though, that the responsibility for negotiating services/products with users remained with the estates. However, where estates had a common customer purchasing the same type of service or product at more than one estate, the executive coordinated the process. The executive also prepared guidelines to make the interaction with the customer meaningful. It also tracked the negotiation process to identify instances where an intervention was necessary. These guidelines suggested roles for SU managers, estate GM's and the chief executive in the customer negotiation process. To further enhance the process and the Company's ability to identify and satisfy tenants needs for increased focus an account executive was proposed for each major tenant.

6.1.3 External stakeholders

Table 3.14 specifies value drivers for external stakeholders.

Exchanging information.

Integrated external interaction followed when the executive identified the need to support estate managers in implementing group policies. One such policy was AECI's Responsible Care commitment. It aimed at greater transparency by providing communities with information on matters that affect them. The executive led the establishment of the CAER structures at its estates, monitored each estate's progress in this regard and approved resources where necessary to assist them. Details of this strategy will be described in Chapter 7. To ensure that interested and affected parties were informed about the SHE performance of its estates, the Company also integrated the publication of an annual SHE report.

AOS arranged for managers from different estates to share their relevant experience in order to identify good practice in communicating with the public.

Managing estates' off-site impact.

Integrated external interaction was necessary to implement AECI's SHE standards. This mitigated the impact estates had on their neighbours. The executive assisted estates in interpreting these and monitoring their implementation on site.

The executive also encouraged estates to share knowledge and experience in the environmental problems they encountered and to access the relevant expertise outside the Company when necessary. In this way estates produced solutions based on the accumulated experience of the Company and best available practice. The groundwater problems at Modderfontein and Umbogintwini were typical examples of such collaboration. In due course the Company established a SHE service group comprising representatives from the different estates to facilitate this ongoing interaction. Similarly, estate GM's were urged to share experiences about off-site impacts with each other in the executive to identify common needs that could be supported from the AECI centre.

6.2 Affiliation of the estates company

The research model's value drivers and associated events were identified for each of the key stakeholders in the case to assess the AOS experience regarding its affiliation to those stakeholders.

6.2.1 Owner

Drivers of owner's value are summarised in Table 3.15 of the research model.

Sustaining estate viability

Identification with owner's critical needs concerns issues that were strategically sensitive for the estates owner. Examples where the owner benefited from its affiliation with the estates company as an in-house facilities management company included: estate development and Responsible Care. AECI's ability to develop land surplus to estates' requirements 'to best advantage' was a strategic concern. While this was primarily Property Department's responsibility, the estates company interfaced with the local communities and authorities on its behalf. The fact that the Company was identified with the estates owner lent credibility to its actions in the community. Furthermore, being an AECI subsidiary meant the estates company was regarded as an equal in the EDC when it came to deciding on estate development policy and strategy. It was therefore better able to represent estate interests in this forum. The second example entails the CAER programme. AECI launched this as part of its Responsible Care commitment to a dissatisfied community following emissions of chlorine in the vicinity of the Umbogintwini estate. Given the circumstances, it was important that the initiative be directly associated with AECI. Once again, the estates company was identified with

the estates owner and was seen to speak on AECI's behalf. Similarly, the sulphur fire at Somerset West outraged neighbouring communities who held AECI accountable. The Company was able to represent AECI both in the recovery efforts following the incident and at the subsequent commission of inquiry. While AOS acted throughout as the estates company, its affiliation with AECI lent it credibility and enabled it to do so as a plenipotentiary.

Two examples of legacy issues from the establishment of the estates company that affected its effectiveness can be cited: the creation of subsidiaries that were not directly involved in estates management; and the financial systems the Company had to maintain during its formative years. After Explosives and Chemicals and Chloralkali and Plastics (the two major operating companies responsible for AECI's traditional sites before 1993) were unbundled, the estates company retained those functions and activities that the new companies (SBU's) did not consider as core but whose services they required from time to time. Some of these functions and activities were required to manage the group's estates and local interests. Others were regarded as specialist services of strategic importance the competencies of which had to be retained for the group. Those services necessary to support the estates constituted AOS' core business whilst the remainder became business subsidiaries for which it acted as AECI Ltd's agent in directing their affairs. The idea was that the Company would divest from these subsidiaries at the right time. The subsidiaries were a drain on Company profits and often detracted from its safety performance. They required 'considerable management attention' that had to be diverted from core business. Secondly, when E&C and CAP were unbundled, AOS inherited creditor, debtor, provision, and reserve balances applicable to the former companies. It therefore acquired a distorted balance sheet that did not reflect its true financial performance or its working capital since inception. It had been performing various functions such as wages, creditors and staff debtors on behalf of the newly established SBU's and bore the costs of supporting those systems on behalf of group during 1993 and 1994. While these issues were eventually resolved, it did mean the Company expended considerable energy and resources in attending to group issues at a time its own services businesses required urgent attention.

Enforcement of estate standards was associated with AECI's expectation that the estates company was the local guardian of AECI standards. As such it was responsible for bringing to the attention of the EC anything that could adversely affect the group. At the same time it had to make the estates the preferred location for all its tenants and become their supplier of choice. In the minds of its tenants this dual loyalty appeared as a conflict of interests. Occupiers were suspicious about an estates company being both player and referee. Siblings also questioned its authority to enforce emergency procedures and control estate standards. Following the drafting of an emergency procedure Company Standard, estates reported that some group companies on the estate indicated they would not comply with those procedures and requirements. As regards

estate standards, the Company chief executive was asked to convey to the EC that estate GM's felt powerless opposite tenants who commit acts that could cause serious embarrassment to the group. The examples cited included sub-standard engineering practices on sites and effluent releases outside permitted levels without prior warning. The GM's perception was that siblings did not take the agreements they had with the Company seriously.

Achieving a profitable services portfolio

The prescribed policies and practices framework imposed on subsidiaries like AOS included AECI's manpower, financial and safety practices. Manpower cost was a significant component of the cost of doing business. The estates company had to comply with the wage increases that were bargained centrally for the AECI group in the NBF. The NBF was dominated by AECI's chemical operations whose concern was wage parity in their sector. Wages in the different service sectors such as security and catering, for example, were significantly lower. While the board mandated Company management to limit wage increases to what it could afford, the outcome often exceeded those mandates. The executive had to find ways of compensating for the extra manpower costs incurred. Fringe benefits prescribed centrally were also aimed at a manufacturing rather than service environment. Any change the Company required to align its benefits with those of its competitors had to consider the group wide implications before being approved by the board. In the same way, the executive tried to re-structure individual remuneration in a flexible total compensation package along the lines of other service businesses. After incorporating external auditors' recommendations, the board approved the proposals in principle but referred the matter to the EC because of the precedent it may set in the group. The EC wished to publish guidelines for the whole group before the Company was allowed to implement them on a voluntary basis.

In terms of AECI's policy the estates company had to fund retrenchments from its trading budget. Retrenchments were expected as estate managers had to close down or contract out operations (SU's) that did not have the potential to become competitive and viable. On more than one occasion the retrenchment cost obliterated AOS' trading profit for that year and impacted on Company morale. Fortunately, in the restructuring of Modderfontein in 1998, AECI revised this policy and carried restructuring costs centrally. The estates company received another financial burden when AECI decided each operating company rather than the AECI centre must pay the medical aid subsidies of its retired employees. The Company had to pay the costs of all retirees from the factory services that supported the estates prior to its establishment and this once again impacted on morale because of the financial implications for the Company.

Safety was a critical performance measure for AECI operating companies and, therefore, for the estates company. The safety conventions AECI adopted were not

designed for a services company and on occasion impacted estate managers' safety statistics. In keeping with these conventions the Company had to accept two injuries caused by the action of a tenant (also an AECI subsidiary) on the Modderfontein estate. Despite the board's feeling that the Company should not be held liable for these injuries, they were included in its statistics thereby raising questions as to fairness in the group.

Owner's reputation

Some of AECI's in-house specialist resources such as SHE, group communications and legal were invaluable to the estates company and could not be readily accessed outside the group. The AECI centre's SHE resources supported the Company in preparing local policies in line with the group's SHE policy and assisted with risk assessments. Its international connections ensured best world practice in the group standards and 2002 performance targets prescribed in AECI policies and standards. This extended to the estate induction practices, which were acquired with the help of the AECI centre. The world-class aspiration of the estates was supported by the lead AECI took in developing and implementing the international Responsible Care programme in South Africa. Subsequently, AECI developed its SHE management system to complement the programme. Site rehabilitation programmes, such as the Umbogintwini groundwater contamination project, complied with international best practice thanks to the support the AECI centre provided.

Estate managers routinely accessed group communications at the AECI centre especially in its interaction with the public. These resources were particularly skilled at crisis communications and supported the estates during many incidents such as: the Crest Chemicals incident at Umbogintwini; a contractor's labour dispute on the Umbogintwini estate; and the sulphur fire at Somerset West. The Umbogintwini groundwater contamination problem required a complex communication plan with which the AECI centre assisted. They also arranged the conduct of community surveys on behalf of the estates.

The AECI legal department provided the executive with a professional legal service in the lease and service agreements it prepared specifically for the estates. The master lease agreement that was used for both AECI affiliates and external organizations required particular insights into the risks AECI faced. When AEL withdrew from the Somerset West estate, the legal department acted on behalf of estates in drawing up an agreement to cover the responsibilities of each tenant company as regards remediation, demolition and site clean-up requirements. The department's legal expertise was also used to designate estate GM's legal responsibilities on the estates.

6.2.2 Tenants

The tenants value drivers for an affiliated estates company are tabulated in Table 3.16 of the research model.

Contributing to tenant reputation/operational environment

The estate standards and the cooperation of all tenants in adhering to them, determine the nature of the operational environment that influence tenants' reputation. Tenant acceptance of improvement initiatives regarding those standards was illustrated by the difficulties the estate managers had in implementing lease agreements on their estates. No site leases had previously existed on the estates and tenants were charged piecemeal for site related costs such as municipal rates and infrastructure services. The lease agreements that formalized site leases were also the vehicle for controlling tenant behaviour on the estate. Existing tenants, who were primarily sister companies of the estates company, resisted the proposed introduction of site leases notwithstanding AECI Ltd support for it. However, new tenants readily accepted the arrangement. This constituted a significant obstacle in implementing the lease agreements necessary to obtain tenants' commitment to estate standards and practices.

Resources for setting site standards were necessary to create a world-class operating environment that benefited all estate stakeholders. On the estates the requirements for such an environment could be attributed to the policies and practices emanating from the AECI centre. The contribution of the centre's specialist resources has been raised. These comprised: AECI's commitment to international standards and practices such as Responsible Care; the strong SHE capability at the centre; the support from group communications during a crisis; and the legal department's expertise in drafting agreements.

Improving tenants' financial performance

Tenants valued an arms-length commercial relationship with suppliers and service providers that enable the estates company to operate as a normal business. In this case, its affiliation with sister companies that were also tenants undermined such a normal commercial relationship.

For the estates company to be perceived as a normal business was an issue from the outset as other group companies resisted its attempts to make an acceptable financial return while competing for their business. Tenants welcomed the notion of the Company having to compete with its services in the open market as it gave them the freedom to select a supplier of their choice. However, the idea that a sister company should be making a profit out of the services they received was anathema to some group companies. This occurred despite the fact that the Company was obliged to provide effective services efficiently and at a better cost than the customer was able to do itself.

This exploitation of a relationship with a sister company was not constrained to pricing of services. The ongoing struggle to have invoices settled promptly resulted in debtor balances with group companies and JV's becoming a cause for concern. Outstanding debtor balances in excess of sixty days at Modderfontein, for example, was ascribed to administrative and processing problems in the various AECI tenant entities. There was no evidence that other suppliers had encountered similar problems in dealing with the same tenants. The board repeatedly urged the enforcement of payment terms and appropriate measures to discourage late payment. A concerted effort was required at Modderfontein, for example, to obtain payment from outstanding debtors who were primarily group subsidiaries.

Having the estates company with no perceived conflict of interests was evidenced by the contrary in the case. This was as result of AECI tenants' concern that AOS was both a referee and player. As a consequence tenants accessed services from competitors because they suspected that the estates company was exploiting its position. This switch in business may not have been to the tenants' financial advantage thereby thwarting the Company's efforts in that respect.

Increasing tenants' focus on core business

The estates company dilemma in enforcing AECI decisions and providing related services also occurred in site remediation. It had positioned itself as the supplier of a remediation management service. AECI wanted remediation to proceed as a matter of policy. The Company was tasked with the remediation service and progressing the remediation programme on its estates. This enabled tenants who were obliged to remediate their sites to focus on their core business. However, the affected tenants, who had to fund the process and were under no pressure from their principals to do so, saw the efforts in this regard as soliciting business for itself. The Company had to appeal to the AECI centre to urge CEO's of the relevant AECI subsidiaries to commence with the rehabilitation process.

6.2.3 External stakeholders

The value drivers in Table 3.17 pertain to external stakeholders.

Exchanging information

The sulphur fire at Somerset West impacted significantly on nearby communities. Because of the emotional impact on the affected communities, the incident became politicized. Big businesses such as AECI were perceived to be influential and insensitive which implied they could not be trusted. Acting on behalf of AECI, the estates company had to demonstrate the contrary and re-establish the trust necessary to deal with the issues and claims flowing from the incident.

Promoting reciprocally beneficial opportunities

The estates company in the case recognized that there is a requirement to accommodate the needs and aspirations of all South Africans in future plans for growth and development with respect to its estates. This included business opportunities for external service providers and suppliers. In this regard, AECI was committed to a policy of fair dealing and integrity. It maintained that business should be conducted honestly, fairly and legally. Suppliers and service providers valued this commitment to ethical practices and expected the estate manager, as the preferred central communication point on the estates, to be totally independent. As they were related to the tenants on site, estate managers were not seen to be totally independent. They were perceived to be unable to live up to the requirement of AECI's code of ethics 'not to use their positions . . . in such a manner that a conflict or an appearance of conflict of interests arises'.

Managing off-site impacts

AECI's expressed intent with its SHE standards was to moderate the impact on surrounding communities. Similarly, the group SHE policy commits AECI to a clean, safe and healthy environment for its employees, customers and local communities. It was AECI's international connections and SHE capability that resulted in these world-class standards and practices. They helped to minimise the SHE impacts from estates as a result of which the public benefited directly. The role of AECI's specialist resources in this regard has been raised previously.

6.3 Ownership of an independent estates company

An independent estates company would have a separate owner with value drivers and events indicated in Table 3.19.

Achieving a profitable services portfolio

The estates company's business objectives have already been identified and comprised: a prescribed return on assets employed by the estates (ARONA); a market related financial performance by services with a small asset base; working capital targets and a SHE performance that met the prescribed AECI targets because safety was regarded as a matter of good business. ARONA targets for each SU had to be set and measured. These ARONA's were reviewed annually and interpreted in profit and BVC terms to focus business improvement efforts. Specific financial plans and measures the owner used for assessing business performance are summarised in Table 6.1

Table 6.1
Owner's financial requirements in the case

ITEM	DESCRIPTION
Budgets	Annual trading and capital budgets and periodic financial forecasts which the AECI centre used to ensure that operating companies back up their budgets with demonstrated performance. Extraordinary expenditure such as minor capital, retrenchments and pensioner medical aid shortfalls were budgeted and controlled separately according to available profits. Where budgets showed shortfalls from the prescribed targets, SU's had to provide business plans detailing how and when it would achieve targeted performance and the resources they would require.
Financial plans	3- and 5-year financial plans were required periodically by the EC. These required estates to incorporate the ARONA performance for the different SU's.
Asset registers	Asset registers were validated to arrive at the correct restated net book values of assets. Estate managers had to update asset registers and ensure their redundant assets were scrapped and written-off in the books.
Trading accounts	Monthly trading accounts reflecting the profit and cash flow position of each estate manager. The consolidated schedules that custodians of sales to AECI Ltd required by service category were an extension of these.
Cash management	Cash management efforts focused on timeous payment of invoices and a constant review of the Company's working capital position with an emphasis on debtors.

Managing business risk

AECI's internal audit department conducted a business and financial risk assessment that ranked risks for each estate as the basis for an internal audit programme. The executive prioritized the risks and identified mitigating measures and controls that had to be implemented. Progress was reported regularly to the audit review committee, which coordinated all risk management in the Company. Fraud was a specific focus. The Company reported all cases of fraud and theft to the AECI internal audit department at the centre, the Company chairman and managing director as well as to the police who were requested to take criminal action. The internal auditors had to investigate these and highlight whether the risk and necessary controls had been identified and implemented. Besides these controls, AECI had prescribed a number of financial controls to encourage good governance and counter fraudulent practices. AECI expected the Company to indicate the health of these controls and policies at each estate

in an annual letter of assurance. AECI also adopted a code of ethics in addition to the various accounting specific controls, which it required to be widely communicated to all employees in the group. This code was incorporated in the Company's induction programme and employee handbook.

Besides the SHE impact of the estates on other stakeholders, AECI regarded the estates company's internal SHE performance as a significant risk factor, which topped the agenda of every board and executive meeting. While the SHE performance on its estates received national recognition, the executive felt considerable improvement was required before defined targets could be achieved and sustained. The annual SHE improvement plan AECI required from the Company helped each estate focus on outstanding issues necessary for compliance with the AECI standards.

Providing professional management processes

In addition to the SHE, financial review and internal control processes outlined above, AECI, as the estates company owner, required it to develop a balance sheet and adopt certain accounting standards. This balance sheet was adulterated by legacies from unbundling the estates as indicated previously. It was important to have a balance sheet that reflected the Company's true financial position and debt/equity split.

Accounting proficiency was a key issue as Company accountants were cost accountants carried over from its functional origins and, therefore, unfamiliar with management accounting. The external auditors expressed concern about the performance of the accounting function in the Company. A corrective action plan to address the auditors' concerns was approved by the board and monitored by the audit review committee and sub-committees at each estate. The business capability of accountants was important in the process of converting functions into businesses. A generic job description was developed for SU accountants and used to conduct regular performance reviews. Another intervention entailed establishing standard accounting conventions and definitions for the Company. The financial information had to be beyond reproach so that it could be used with confidence in interpreting results. By defining the elements of variable cost in each SU, for example, and rationalizing the proliferation of account codes, inconsistencies were eliminated and the quality of financial reporting improved. A *pro forma* financial pack and guide for the completion of any supporting commentary were included in these accounting standards. Both the internal and external auditors confirmed there was an improvement in the standard of financial reporting within the Company following these interventions.

Promoting the estates company's professional reputation

Besides the examples of highest standards of estate management in AECI's policies and practices already cited, as estates company owner AECI also helped the Company acquire induction practices that complied with world standards. As indicated earlier,

AECI acknowledged broader stakeholder interests by taking the lead in developing and implementing the international Responsible Care programme in South Africa. The executive clarified the implications of the programme and adapted it for the estates as the programme criteria were developed for producers of chemicals. Group standards and performance targets prescribed in AECI policies and standards determined standards of off-site impacts. These were in line with the world-class aspiration of the estates. The AECI centre, operating on behalf of the owner, also ensured that the estates' environmental programmes complied with international best practice.

6.4 Conclusion

The case data provided evidence for the integration of multiple estates in an estates company as described by the research model in Chapter 3. The drivers that indicate the impact on each key stakeholder of integrating multiple estates were identified in the case using the indicators in the model. Owner's value drivers such as sustaining estate viability; promoting the owner's reputation; achieving a profitable services portfolio; and providing professional management processes was supported, in particular, by data concerning SHE issues. The relevant value drivers for tenants were indicated by data that confirmed improved financial performance and increased focus on core business. External stakeholders' concern for exchanging information on estates' off-site impacts and managing those impacts largely entailed data about the Responsible Care programme and CAER structures. The existence of a parent for the integrated estates company in the case, as indicated by the research model, was established in Chapter 4. In that chapter the presence of a board of directors and owner for the estates company was indicated. Besides the chairman, the Company board also had executive and non-executive directors. It also established a head office that either had the essential functions necessary to support the parent or the ability to access them. Another component of the parent, the executive, assisted the chief executive officer to maintain the relationship of each estate with the board and head office.

The impact of an independent estates company on stakeholder value was also established with data from the case. Drivers of owner's value for an affiliated estates company were supported principally by data from the way AOS was established. This concerned sustaining estate viability; achieving a profitable services portfolio; and promoting the owner's reputation. Data about AOS' relationship with sister companies, who were also tenants, impacted tenant value drivers such as contributing to tenants reputation / world-class operational environment; improving tenants' financial performance and increasing tenants' focus on core business. Support for external stakeholders' value drivers was found in exchanging information on estates' off-site impacts, promoting reciprocally beneficial opportunities and managing off-site impacts. This data also confirmed the impact of the strategic, technological and environmental

contingencies identified in the research model. As a result both the positive and negative impact of stakeholder affiliations on the ability of an estates company to deliver value was obtained.

The value drivers for the owner of an independent estates company were also identified in the case based on the predicted indicators. In the case AECI performed a dual role: estate and estates company owner. There was a broad body of evidence to support the indicators of company ownership and the data endorsed value drivers the research model associated with the owner of an estates company. These value drivers comprising services profitability, business risk, management processes and professional reputation complemented those of the estates owner.

CHAPTER 7 AOS - VALUE DELIVERING STRATEGIES FOR AN ESTATES COMPANY⁶

7.1 Choosing the value proposition

The research model in Chapter 3 considered strategies for choosing the value proposition that included identifying the intended customer; the proposed resulting experiences and customer prerequisites

7.1.1 *Intended customer*

Identification of the intended customer entails designating the primary entity and supporting entities from the stakeholder groups outlined in Section 3.3.1.

Primary entity

Sources of revenues for the estates company were those customers to whom it issued invoices: the on-site operations (i.e. tenants), AECI Property Department and AECI Ltd. The tenants were invoiced differently to Property Department and AECI Ltd. Property Department and AECI Ltd were estate occupiers only while there was property in excess of the estates' requirements. This indicates their transitory nature as customers and, therefore, their difference in standing.

Commercial lease and service agreements in the case resulted from the lease of land on each estate. Leases were only considered for the companies operating on site, whether they were external companies or wholly or partially owned by AECI. For that reason the estates company's leasing policy applied only to the tenants on each estate and not to Property Department or AECI Ltd. Similarly, service agreements only existed for those businesses on the estates that required services from the estate managers. The services specification used for Property Department and AECI Ltd did not have the same standing as the services agreement with tenants.

Profitability potential of the stakeholders can be derived from the prime purpose of the estates which was to support the industrial operations on site. Moreover, the estates' focus was on tenants' operations that relied upon high safety standards. Tenants (on-site operations) were, therefore, the intended customers of the estates and the object of marketing and promotional efforts. The estates company directed its promotional efforts to encouraging people to the site in order to occupy vacant land and unoccupied

⁶ This chapter was constructed according to the procedures described in Section 4.3. The full references to the individual documents are provided in Coetzee (2004c).

buildings. The greatest potential for delivering value profitably, therefore, lies with the tenants who as a group are the primary entity.

Supporting entity

AECI and the external stakeholders were elements of the value chain as they had some claim on the estates given that estate managers had to support their tenants in a way that benefits the owner, AECI Ltd, and the regions in which the estates operate. Furthermore, suppliers and off-line entities were, by definition, supporting entities.

Supplier of estate resources was the owner, AECI Ltd, who supplied the estates *per se*. The estates comprised land, the infrastructure on it and the commercial facilities not associated with any operation. This was all supplied by AECI Ltd. The owner also provided resources for new or improved infrastructure. AECI's involvement extended to the rehabilitation of plant sites that had been evacuated prior to decontamination. Besides these hard resources, AECI also supplied the policies, standards and guidelines for the operation of the estates.

Off-line entities were the key constituents of the external stakeholder group that the estates company in the case identified as comprising: neighbours of the estates (including residents, institutions and businesses in the footprint area of each estate), communities at large (including special interest groups, organised business and labour), authorities at all levels (national, provincial and local government and their officials) and suppliers of goods and services to the estates. Their influence ranged from holding the estates' licence to operate to participating in reciprocally beneficial opportunities.

7.1.2 High-level resulting experiences

The issues from Section 3.3.1 regarding high-level resulting experiences were considered in examining the data.

High level communication with stakeholders

The multi-business site working party first formulated high-level experiences when they submitted their proposals for restructuring AECI's traditional estates to the EC. These proposals covered the benefits restructuring the estates entail for the owner, tenants and the external stakeholders. This was followed by presentations on the AOS philosophy, objectives and overview of services to senior managers in the group including the chief executives of tenant companies, Property Department and custodians of AECI Ltd sales. Such presentations were intended to give those managers an appreciation of what the estates company was about and how it could benefit them and their organizations. Salient facts were subsequently reinforced at chief executive level when the executive elicited the strategic direction of tenants' businesses. At a meeting of interested and affected parties that preceded the formation of CAER committees at each estate, the concept of the estates company and how it should benefit stakeholders was conveyed to

those present. How the Company went about achieving the outcomes outlined at those meetings was explained at subsequent CAER chairmen conferences. After each of these high-level interactions with the different stakeholder groups, the estates company refined its service offerings for each of them and presented a comprehensive summary thereof in its corporate strategy to the EC on 6 June 1997.

Parent's operating framework for estate managers

The corporate strategy the parent produced provided estate managers with this operating framework. With respect to tenants, estate managers were urged to promote the business focus of operating companies, ensure that estates were the most desirable location for tenants and that the services estates provide are perceived by tenants to offer them value for money. Together these elements contribute to enhancing tenants' competitive position. For the owner, estate managers must see that AECI Ltd is satisfied its reputation and investment associated with the estates is improved and rewarded in a sustainable way. This implies an improved triple bottom line. In the same way surrounding communities and authorities (i.e. external stakeholders) see the estates as a desirable neighbour and world-class industrial complex that continually adds value to the region and is seen to be professionally managed. In this instance the elements of an improved quality of life for external stakeholders are evident.

Macro benefits estate managers provide tenants

The estates company in the case conducted a strategic analysis, which identified and prioritised the features a tenant would value in an industrial estate. These will be discussed under the events predicted in Table 3.20 of the research model.

Serviced sites for lease rather than purchase were the first tenant need the Company identified in its marketing strategy for industrial/commercial space. The tenant of the new biotechnology fermentation plant located at Umbogintwini requested a land reserve of 5 to 10 hA, access to the site and utilities (power, water and steam) supplied at the boundary of the reserve. This typical tenant need was captured in a Company Standard that indicated the estates company provides tenants with a suitable site and services to battery limits.

The Company articulated security of tenure on site as preserving tenants licence to operate and rated it second in tenant importance after the cost effectiveness of the services estates provided. The strategy for achieving this is to sustain community support and trust; interact effectively with communities and authorities; promote a favourable operating environment; and represent AECI as well as enhance its reputation locally. The licence to operate of both tenants and the estates are mutually dependent and considered synonymous.

A congenial work environment for tenants was part of the AOS Vision for its estates. This required estate managers to provide their occupiers/tenants with an optimal

operating environment. In its strategic analysis the estates company called this estate attractiveness and rated it just after security of tenure in tenant importance. The elements of estate attractiveness include: the estate works well and hangs together (facilities and services are well integrated), is accessible and legible (routes well marked); has the necessary infrastructure available and has a world-class appearance. This also implies that the internal impact of a tenant's operations does not detract from another tenant's work environment.

Reduced tenant distractions was a consideration from the outset. When AECI Ltd decentralised and created the different SBU's that were to become tenants, they were to comprise only core functions and outsource non-core activities. For this reason the estates company described part of its purpose as being to enhance the business focus of operating companies. As a result one of AOS' corporate goals under the heading of 'Our value adding role' was to promote the business focus of tenants and other estate occupiers. It was to shield them from unnecessary distractions by providing a market related service for those activities and functions they can outsource (i.e. not core to their operations).

Cost effective service packages was the feature tenants valued most on its estates with the cost and effectiveness elements considered separately. The cost dimension was articulated as competitive services that offer value for money with the strategy including: offerings supported by competitor analysis/benchmarking; favourable cost/benefit ratio that included the issue of pricing; and customer education regarding benefits. Customer feedback indicated that cost management was a critical issue for many occupiers and the estates company was perceived to be careless in this respect. Effectiveness was described as customised service packages that add value for tenants. The supporting strategy in this case comprised customers' needs identified and understood; comprehensive range of services (knowledge and skills) on offer; and ability to adapt to customer needs. The importance of this feature was reinforced in AECI Ltd's annual report as follows: 'A survey of tenant satisfaction levels highlighted the cost pressures tenants were experiencing and the need for an urgent intervention by AOS to address any shortcomings in its service offering'.

Macro benefits estate managers provide the owner

The AOS strategy document also indicated that AECI, as the owner, valued the events the research model predicted in Table 3.21.

Estate utilisation prompted the establishment of the estates company given under-utilization of estate assets as one of the owner's concerns. The estates had to optimise the utilisation of the land under their control and deal with redundant and under-utilised assets. Not surprisingly, the Company identified the optimal utilisation of assets as one of its prime strategies. To which end it planned to attract non-AECI occupiers and tenants; eliminate redundant assets; reclaim and restore under-utilised assets to their

original or alternative role; and facilitate any site remediation efforts to help AECI meet its long-term obligations. This estates utilisation strategy was motivated by two considerations: In the first place the potential for growth or shrinkage of the estates was important for AECI. This included plans existing tenants have for expansion/contraction; ongoing availability of estate resources such as utilities, services and skills; and maintaining a project capability to manage estate development. The second important consideration was the scope for asset rejuvenation/renovation on each estate. This included land remediation; structures to be demolished/modified and material such as waste dumps that had to be removed or beneficiated. These all point to the importance the owner attached to the utilisation of the estates.

Stakeholder appreciation of estates also featured in the AOS Vision, which was introduced as follows: the industrial estates AOS manages are the most desirable location for process industries that share its operating (SHE) philosophy. The Vision went on to declare that AECI Ltd is satisfied that its reputation and the investment associated with the estates is enhanced and rewarded in a sustainable way under the Company's stewardship. This would only happen if stakeholders appreciate the value estates provide. As an example, AECI Bioproducts selected Umbogintwini as the preferred location for its new plant due to proximity of raw materials, an export port for its products and the availability of raw materials from other site operations. AECI considered the socio-political environment as an important feature of its estates. Such an environment was seen to include community trust, community ethos and networks with the authorities. As this is dependent on how external stakeholders experience the estates, it is a further indication of the importance the owner attached to stakeholder perception of the estates.

Management of reputation and investment risk is the reverse side of developing stakeholder appreciation and included protecting AECI's resources as the primary focus. With the establishment of the estates company, AECI expected the Company to protect the group image and promote its requirements (policies). Estate GM's were concerned that they may not be aware of the potential risks and details of all the operations taking place on site. They also identified the absence of a formal process for tenants to advise estate managers of the details and potential risks of process modifications and developments. A corporate goal under the heading of our value preservation obligation was to protect AECI (image and reputation) and the assets (land facilities and infrastructure) associated with each estate from value destroying actions or influences. The estates company also aspired to have AECI's interests at heart. This encompassed AECI's strategic interest, assets and reputation. The resultant strategy was to assess and manage the risks associated with each estate. This entails a high-level risk assessment of each estate in which the sources of risk were prioritised. The strategy also required each estate to prepare and maintain crisis/issues management plans.

Macro benefits estate managers provide external stakeholders

The relevant events that contribute to external stakeholders value were also summarised by the research model in Table 3.21.

The estates company accepted the need to address community concerns when it acknowledged that communities must be recognized and consulted on any issue that is likely to affect them. The evolution of the estates, for example, had to be done in a way that added value to estate occupiers and not compromise the estates as a responsible neighbour in its communities. For that reason one of the conscious strategies was to secure each estate's licence to operate. To this end estates had to establish effective structures that would build trust between the estate and surrounding communities and relevant authorities; ensure effective participation in the relevant off-site forums and adequate representation at relevant events and functions; establish and maintain effective networks with communities and authorities; publish reports about the estates impact on the environment; and establish and maintain joint emergency plans with local authorities. Understanding of the communities' concerns is reflected in the Company's risk strategy. It had to determine a measure of risk that would be readily understood by the communities and enable the results of the estate risk assessment to be communicated to local authorities and community representatives.

Reciprocally beneficial opportunities included the benefits that estates provide local suppliers and service providers. On establishing the estates company, it was envisioned that converting estate services to businesses might entail contracting out services where appropriate and forming alliances with other service industries in the area. The Company also used consultants where it did not have the required in-house competencies. The intent was summarised in the AOS Vision: surrounding communities and authorities see the estate as a desirable neighbour and world-class industrial estate that continually adds value to the region and is seen to be professionally managed. Exploring reciprocally beneficial opportunities was based on the value espoused in concern for quality of life. It felt that quality of life was more than how AECI shares its material wealth to enhance the wellbeing of people. Other determinants included the group's breadth of experience; the conservation of its natural resources; and the nature of people's work and home environments. The statement concluded with a commitment to work at harnessing all these factors to the benefit of customers, employees and communities with the means AOS controls.

7.1.3 Customer prerequisites

As discussed in Section 3.3.1 of the research model, customers must behave in keeping with the requirements of the IES.

Sustaining the estate system

Contributing to estates viability starts with tenants accurately specifying their site requirements. This helps the estate manager promote estate viability and better meet customer requirements. Typical requirements include the size of the land reserve, infrastructure, utilities and services required during both the establishment and operational phases. Ongoing information about tenants' plans and intentions are also necessary as demonstrated at: Somerset West with the withdrawal of AEL; and Umbogintwini where the estates company was required to expand its steam capacity at short notice. Compatibility of tenant information systems with those of the estate manager was also a consideration in the case as it impacted on some of the accounting services provided. However, it was tenants' support for estate managers in their external interactions that proved vital to the estate. The importance of tenants' participation in the formal structures will be raised under lease agreements. Tenants had a role to play in helping estates respond to *ad hoc* demands from the external stakeholders. The local government transition process at Modderfontein, Somerset West and Umbogintwini demanded active involvement from local management to represent estate and industry interests and illustrates this aspect. The same applied to the Local Economic Development Forums in which AOS became involved on behalf of each estate and put forward proposals for further involvement from its estates. Tenants were also involved in assisting the local club at Umbogintwini to develop and implement a strategy for covering its own operating costs. This is another example of tenants' contribution outside formal agreements and in the interests of the estate as a whole.

Tenants had to help minimise estate risk if the estates company was to bring any adverse impact on the group to the attention of the EC. However, estate managers did not have a formal process whereby tenants could advise them of potential risks associated with existing operations or new developments. Estate GM's felt powerless opposite estate occupiers with regard to acts committed by them that could cause serious embarrassment to the group. They cited effluent releases outside permitted levels without prior warning as well as sub-standard engineering practices as typical examples of such acts. The industrial action at the site of an Umbogintwini tenant affected other tenants. As a result estate occupiers were urged to only consider contractors capable of handling labour problems and crisis situations when contracts are awarded at AECI estates. It was imperative that tenants actively participate in the estate risk management process that was developed. In this process estate managers coordinate

the risk assessments of other companies on site to develop a risk assessment for each estate as a whole.

Supporting the estates company

Recognising the authority of the estates company on the estates was tested whenever it had to manage crises on behalf of the estates. In its early days the estates company reported that some group companies were not prepared to comply with emergency procedures and requirements on the estates. It was then agreed estate managers coordinate estate emergency responses to any incident that can have an adverse impact internally and externally. At Modderfontein, for example, the Company was recognized by their tenants and the EC as having made a significant contribution in its handling of a recent strike. This recurred during a subsequent strike when the Company had taken the lead in coordinating IR issues such as signing a picketing protocol, facilitating discussions between striking employees and site management, compiling attendance statistics, liaison with AECI Ltd and sharing of information among tenants. The sulphur fire at Somerset West, which became the most notable incident AOS was called upon to handle, demonstrated its external response capability. The estates company also coordinated the efforts of joint task forces that were put together to deal with any off-site impacts. It was not surprising that the Company was expected to liaise with the press on behalf of AECI. All stakeholders, therefore, accepted the estate manager as the responsible party for managing the interface with external stakeholders on behalf of the estates. The external stakeholders were in favour of a central communication point with estates rather than communicating with individual tenants. In the same way the owner and tenants held the estates company responsible for the overall management and effectiveness of liaison processes (CAER committees, CAER Charter, annual SHE report). This extended to estate occupiers having to provide the estate managers with the relevant statistics used for the annual SHE report on a regular basis. The owner vested responsibility for the land, infrastructure and facilities (estate assets) in the estates company. It was also responsible for implementing the owner's policies and making sure tenants are made aware of and comply with agreed standards, particularly with regard to environmental issues. The Company was also authorized to formalize the location of tenants by way of lease agreements and provision of services in service agreements. This authority extended to developing estate standards and mechanisms for enforcing the same. In this way the owner respected each estate manager's prerogative to interface with its tenants. The estates company was also held responsible for developing the estates (operations envelope) and their infrastructure so as to improve the utilization of available site assets. Its authority was extended to overseeing the remediation activities on estates.

Acceptance of the estates company as a business, which in the case entailed reporting directly to AECI Ltd like any other subsidiary, was the basis for tenants to

receive cost effective services at competitive rates. AECI tenants on the various estates found it difficult to accept that the Company is entitled to make an acceptable financial return. Tenants also had to understand that as a business the estates company was not being subsidized and any estate service had to be funded even if it was not of direct benefit to any one tenant. The CAER initiatives aimed at preserving the estates' licence to operate were a typical example of such a service. Working capital is another consequence of operating as a business and tenants regularly fell behind with invoice payments. This indicated a mindset regarding the Company's business status. The owner also recognized the business nature of the estates company by paying for the services it required through sales to AECI Ltd.

It was envisaged that tenants on the estates would outsource their non-core activities when AECI decentralised and established the estates company to cater for the multi-business estates on which its SBU's were located. AECI prescribed that its SBU's would comprise core functions only and outsource non-core activities. It followed that the group required the Company to retain those services competencies that were not core to operating companies. If tenants were unwilling to outsource their non-core activities, the estates company was unable to provide tenants with the focus they required for their high level resulting experiences.

The need to consider estate managers as 1st tier suppliers addresses the problems tenants encountered when they accessed external service providers independently. However, the estates company in the case was not alert enough to act as a 1st tier supplier and assist tenants in accessing external suppliers when required. The estates company function, as originally conceived, was to provide the services tenants require. Where necessary it was to contract these out as appropriate or form alliances with external service businesses. This was in keeping with tenants' expectation that the estates company provides a one-stop service as a service supply company with the ability to supply all their services. By using it as a 1st tier supplier, tenants were able to focus on core issues and leave the managing of 3rd party suppliers/contractors to the Company.

Accepting agreements

For tenants to enter into lease and service agreements was a result of AECI's policy that ownership of land will not be transferred to companies operating on its estates. It was, therefore, necessary to enter into lease agreements with tenant companies that embodied the necessary safety, health and environmental restraints on activities. Asking tenants to formalize their relationship with each estate manager in this way was both good business practice and necessary for an appropriate work environment. Lease and service agreements weren't readily accepted by some tenants. This was evident in the estate managers concern that a clearly defined policy in respect of estate occupier agreements is required from the EC. Tenants had to accept the necessity for such instruments and

also the format of the master lease and service agreements that were developed with AECI's legal department's assistance. This requirement was extended to external tenants.

The necessity for the estate manager and each tenant to abide by their agreements is in the interest of their relationship. This did not always happen as the issue of outstanding debtor balances, particularly at Modderfontein, illustrates. It was a recurring cause for concern for the estates company when the attempts of its debtors section to obtain payments was frustrated due to administrative and processing problems in the various tenant companies. Although this practice was contrary to the agreement with those tenants, the punitive measures in the agreement were not invoked because of their group affiliation. In the case of tenants' effluent discharges, the Company acted differently. It threatened to levy substantial charges for excursions from the required compliance levels whereupon the tenants' effluent performance improved significantly. On another occasion, a tenant was warned that the volumes of effluent it was discharging exceeded what it had indicated originally.

Negotiating agreements professionally was not only required for establishing the necessary trust between the estate manager and tenant, but also to avert subsequent difficulties with the agreements. Tenants did not always adhere to the agreed negotiating process and programme, which put the estates company under pressure to meet its budgeting deadlines. These aspects had to be re-negotiated in the interests of the relationship. Sincerity of intention was also necessary for resolving any disputes that arose and the procedure for doing so was part of the process. Professional negotiations became an issue when the Company declared a dispute with a Modderfontein tenant regarding the formula for apportioning the costs of effluent treatment.

7.2 Providing the value proposition

High level providing steps that constitute the strategies according to the research model comprise: structuring estates' services portfolio and supporting estate managers in providing those services.

7.2.1 *Estates services portfolio*

The indicators for such a strategy are defined in Section 3.3.2.

The processes to own, partner or procure

AECI's estates company owned SU's that were strategic to both AECI and the estates and had the potential to become viable businesses. It partnered with others in an alliance either to redeem a necessary business or control one that had key competencies the estates required but did not have. It also procured from 3rd party suppliers services the estates required but which it had terminated, like security and catering.

Functions and activities were assigned to AOS when each estate was originally unbundled. These activities were organised from a functional perspective into viable SU's that had to earn acceptable rates of return. The process adopted to decide what activities it would retain consisted of the following steps: The first issue was to determine whether the SU was strategic to the estate or AECI. If it was strategic, the estates company would own such a SU conditional on its business health i.e. the SU had the potential to achieve the required returns. 'Unhealthy' businesses were investigated to see whether they were redeemable through interventions such as changing the management; alliances with other businesses; right-sizing; re-structuring the assets; expanding the SU's market; or re-engineering the SU. If none of these interventions were likely to succeed and terminating the SU was indicated, the effect on customers, other businesses, overheads and AECI Ltd was considered. In the absence of any contraindications, an exit plan for the SU was devised that considered any of the following possibilities: revert to a function within a customer's operation or the estates company; sell as a business; milk the assets; or, finally, terminate it. Because this was a bottom-up process, business autonomy tended to be seated at the lowest level.

Businesses were retained as subsidiaries of the Company when they were: (a) not dedicated to any estate or core to supporting them; (b) strategically important to AECI; (c) too small to exist as an independent business within the AECI group; (d) profitable or had the potential of becoming so. The Company acted as AECI Ltd's agent in directing the affairs of these non-core businesses, which the executive grouped into a number of subsidiaries within the estates company. They included applied engineering services, technical training, safety and health care services, facilities rehabilitation service, and a specialist labour broking and personnel placement service (Act Personnel). The subsidiaries were managed separately from the estates but under the same parent. This retained the focus of both the estates and subsidiaries and made it easier to manage the diversity of businesses entrusted to the Company. Management committees directing these entities carefully monitored the degree of autonomy granted to the subsidiary businesses. Subsidiaries had unique business strategies that had to be presented to the board. As soon as a subsidiary ceased to be strategically important, grew to become independent or could not attain profitability, the relationship with the estates company was terminated. It was also envisaged that subsidiaries may eventually be sold or go on their own when they became self-sufficient. When the management of Act Personnel indicated that being part of the estates company was preventing it from realizing its full potential, it was sold.

Outsourcing and retrenchment

Having agreed the businesses AECI did not require, the executive had to decide which businesses should be outsourced and which should be declared redundant and their personnel retrenched.

The Company outsourced estate services that: (a) were required by estate occupiers but were not strategic, or (b) uncompetitive for whatever reason or (c) would dilute the focus of SU's and make them 'all things to all people'. Outsourcing opportunities were properly investigated as with the rationalisation of engineering workshops at Modderfontein. One of the concerns was whether services of the desired quality were available in the market. Examples of outsourcing in the estates company were Modderfontein catering as well as security at Modderfontein, Somerset West and Umbogintwini. When the security service was outsourced, the estates were very concerned about service levels. In the case of Somerset West, for example, the estate elected to train the contractor's personnel themselves. Another concern was the impact outsourcing would have on industrial relations within the estate. Umbogintwini noted that when it outsourced its security service, the balance of power of on-site unions was affected.

Retrenchment was the process adopted to sever the employment relationship with people who could not be redeployed following the outsourcing or discontinuation of a service in which they worked. A service was discontinued when demand for it fell away as with the engineering service at Umbogintwini. It also occurred when the on-site customer base reduced or disappeared as at Somerset West and the analytical service at Umbogintwini. Retrenchment was commonplace in the estates company. It was handled locally by the estates but controlled centrally by the executive, who maintained a separate budget for retrenchment costs. Because these costs had to be funded from profits, estates had to justify any retrenchments through a business case that satisfied the executive. A Company Standard for obtaining approval for retrenchment expenditure was developed to assist estates in this process.

7.2.2 Supporting the estate managers

The research model in Section 3.3.2 also proposed strategies for supporting estate managers.

Key success factors (Operating fundamentals strategy)

The estates company in the case tackled the empowerment of individuals and teams at two levels: aligning all employees with the Company mission and objectives; and developing the 'leader group'. Employees felt uneasy and uncomfortable during the Company's transformation from functions into businesses as was reflected in employee morale. The executive improved internal communication systems to address those concerns. Employees had to know at least what the corporate goals were and how they could contribute to achieving those. However, when businesses did get it right, it was often associated with a change in management that inculcated a positive attitude among employees to making their units profitable. This led the executive to identify the following leader group issues to empower estate SU's: selection, development and

training of SU managers; performance management, remuneration, reward and potential assessment of key personnel; and delegation of authority. A priority for the executive was to identify the competencies and behaviours needed by a typical estate GM as a precursor to deriving the same for subordinate SU managers. With this as basis, the suitability of current managers could be assessed and new ones selected. SU managers also did not know enough about business finance, which the executive rectified through the design of its financial systems and coaching by accounting personnel. For specific issues such as ARONA's, the Company arranged seminars to explain the relevant principles and techniques to SU managers. All these managers were encouraged to attend marketing seminars at each estate to assist them in identifying market needs and developing marketing plans for each of their businesses. As a result of these seminars, AOS adapted a programme other AECI companies had employed successfully to equip SU managers with skills for marketing, pricing and operating a small business. The executive supported managers who had attended the course through implementation workshops. Key SU personnel also participated in a business game that taught the concept of shareholder value while addressing financial, basic sales and marketing issues as well.

Following these training and development initiatives, the estates company established a performance-oriented culture in the Company using a simple and flexible performance management system as part of empowerment of individuals and teams. After canvassing the views and needs of the business and functional managers at each estate, the executive designed and implemented a system that incorporated compensation, succession and career planning. Performance management criteria comprised the estate GM and SU manager competencies and a schedule of strategic objectives for the different management levels. The system enabled the organisation to assess the potential of key managers given the difficulty estates encountered in attracting suitable candidates for some of their key positions. The process required estate GM's to identify their key performance areas (KPA's) before cascading them through the employee levels on each estate. These KPA's highlighted the drivers at the estate level and encompassed the requirements of key stakeholders in a desired outcome or vision as outlined in Table 7.1. Linking management compensation and performance at SU level supported the system.

Table 7.1
System of key performance areas for estate managers in the case

<p>Customer Obsessiveness</p> <p>Estate occupiers find the estate regime and appearance attractive. This combined with the competitive services on offer makes the estate the preferred location for their operations, now and in the future.</p>
<p>Stewardship</p> <p>Under AOS' stewardship, AECI Ltd is satisfied that its reputation and investment associated with the estate is enhanced and rewarded in a sustainable way.</p>
<p>Continuous Improvement of Resources</p> <p>AOS corporate and estate strategies, policies and standards are influenced or formulated to provide managers with the necessary direction for discharging their responsibilities economically, efficiently and effectively.</p>
<p>Creating Shareholder Value</p> <p>Stakeholders see the estate as a world-class industrial complex that continually adds value to the region and the principal stakeholders and is seen to be professionally managed.</p>
<p>Individual and Team Commitment</p> <p>Employees experience a working environment that recognizes them as human beings. It motivates them to give of their best and develop their abilities in alignment with AOS and the estates' goals and objectives.</p>

The last part of empowerment of individuals and teams involves decentralization and its affect on individual and team commitment. The estates company devolved as much as possible to SU's, which maintained their own prescribed financial information and accounted for their own performance. Where a SU reflected cost recovery shortfalls, it had to indicate how and when a break-even or profit position would be achieved. To which end SU managers were encouraged to adopt the Company Standard in preparing business plans for presentation to the board as necessary. ARONA targets were determined for each SU and used to indicate the need for corrective action. Marketing focus was also consciously developed at a SU level. SU's also negotiated directly with their customers setting their own prices and tracking their own injuries and safety statistics. The performance of individual SU's was then discussed at board level when necessary. Delegation of authority was derived from the authority AECI had delegated to the Company board. A working document that reflected the limits of authority from the chairman down to business manager of a SU interpreted the board resolution for estates. Both financial and personnel issues were delegated. These were based on the authority the business managers reasonably required in order to manage their units effectively. Status of an individual manager was not a consideration in delegating

authorities. After issuing these limits of authority, SU managers could motivate amendments to increase their delegated authority levels if required.

The second key success factor is contracts and agreements. Formal agreements with tenants consisted of lease and service agreements. There was an obligation on tenants to enter into a lease agreement when they located on one of its estates. The executive developed a policy for leasing land, buildings and infrastructure to all estate occupiers, whether they were subsidiaries, joint ventures or external tenants. While the Company was sensitive to the impact leases could have on the cost structure of tenants for whom no leases had existed previously, it felt leases would encourage more efficient use of available land. It proceeded to develop a Company Standard that covered the elements outlined in Table 7.2.

Table 7.2
Elements of the Company Standard on leases in the case

<i>Pro rata</i> portion of municipal rates and taxes
<i>Pro rata</i> levy to cover the development and maintenance costs of infrastructure and other compulsory services such as access control and CAER.
Environmental impacts and restraints on activities
Requirement to rehabilitate sites at the termination of the lease to the standard in which sites were received. The Company proposed that occupiers make provision for such costs during the lifetime of their operations.
Occupier's Occupational Health and Safety Act responsibilities towards estates.
Acceptance of the estate GM's authority on estate related issues.

AECI's legal department drafted a master lease agreement based on the proposed standard and this was discussed with tenants in a special workshop. Leases were recorded in a lease register that was updated annually.

As regards services agreements, the Company operated without any formal services agreements for some time. The format of the first services agreement was proposed by ICI and comprised a Memorandum of Agreement that applied to all services. This was supported by an annexure of service schedules (one for each service) that captured the detailed requirements of the relevant service. The principals of the respective companies signed the main agreement but left each SU manager to sign the relevant schedule once the details had been negotiated. AECI legal department was asked to vet the agreement before it was signed. This services agreement became the forerunner of a master or generic services agreement, which estates initiated and adapted for each tenant requiring estate services. Additional services could be captured in new or revised schedules as agreed with the tenant. Besides having a clearly defined policy in respect of estate occupier agreements, the estates company identified a number of shortcomings in its service agreements examples of which are listed in Table 7.3.

Table 7.3

Shortcomings in services agreements of estate managers with tenants in the case.

<p>Setting up provisions</p> <p>The legacy issues that inhibited AOS' performance and detracted from management focus were not considered at the time it was established.</p>
<p>Coordination</p> <p>The responsibility for the agreements clearly rested with each estate. However, where a common customer was purchasing the same service or product at more than one estate, the coordination necessary was not considered.</p>
<p>Annual negotiations</p> <p>The process was not outlined at the time of the agreement, which resulted in 'negotiations about negotiations' 'to the frustration of all concerned'. It was necessary to identify someone to manage the process and deal with separating resolution of financial disputes, service queries and complaints from the negotiations. Negotiations also took place at different levels in AOS without agreement by the principals. AOS' inexperience and business naiveté as well as the sibling rivalry with AECI subsidiaries complicated the process unnecessarily.</p>
<p>Service levels</p> <p>Agreements catered for the nature of the product/service, quantity required and the charge. Not enough attention was given to stipulating the required service levels. Misunderstandings about service levels with customers and their impact on costs impacted the relationships some SU's had with their customers. At Somerset West tenants were uncertain as to the level of services they required.</p>
<p>Payment terms</p> <p>The problem of invoicing and terms of payment recurred suggesting that the agreement had not adequately defined this aspect. Interest charges on late payments should have been agreed and enforced. Had this been sufficiently addressed in the agreement, it would have been unnecessary for estates to bring their concern about payment terms to the attention of tenants at the next round of negotiations.</p>
<p>Pricing structure</p> <p>A basis for prices had not been thought through or captured in any agreements. Without an agreed pricing basis such as fixed charge, unit charge, or cost plus for each service, SU's had, for example, to try and negotiate a price structure that takes cognisance of volume during annual negotiations. Furthermore, Modderfontein was adversely affected by reduced steam volumes due to problems on the urea plant and an extended shutdown of the ammonia plant. The value estates were adding for customers and the market relatedness of their prices, were not considered in pricing. The mistake AOS managers were making was to argue from a cost plus basis in order to earn a return for AECI.</p>

Effluent charges

Agreements did not make sufficient provision for penalties when contaminants in the effluents exceeded prescribed levels. At Modderfontein an extended dispute arose with a tenant because penalties had not been sufficiently considered in structuring effluent charges.

Project charges

Certain services were provided on a project basis. There was no provision for interim payments in lengthy project contracts, which exacerbated AOS' cash management dilemma.

Discontinuation of tenant operations

At Somerset West, tenants were obliged to suspend operations because of the dictates of their markets. As a result the estate manager had to close down SU's and incur significant revenue losses as well as additional costs pending the finalisation of retrenchment procedures. A second example occurred at Modderfontein with the closure of the formalin and resins plant, which had a notable impact on the estate's performance that year.

Systems and procedures was the last key success factor. The most notable systems the estates company developed for its internal management comprised safety, health and the environment (SHE); business development; information; and company standards and procedures.

Safety, health and the environment (SHE)

Given the importance of safety in the group and the premium the estates company placed on its own safety performance, the executive developed systems to enhance the Company's internal safety performance (as contrasted with the estate as a whole). The systems were based on the SHE policy the executive developed by involving estate GM's and their management teams in customizing the group SHE policy for the Company. This policy was endorsed by the AECI centre and signed by the board to indicate the parent's commitment to SHE. The group SHE targets were also adapted to match activities on the estates. This resulted in the 2002 SHE performance targets against which implementation of the SHE policy could be reviewed. The executive and board monitored the SHE performance of all estate managers monthly and quarterly at their respective meetings. The Company's classified injury rate was at times the worst in the group. A change of employee attitude was identified as critical for achieving an improved safety performance. In addition to the typically management-orientated SHE systems, the executive took two initiatives to enhance safety awareness and commitment at the employee level: establishing a SHE Charter; and employee, contractor and visitor induction. At the instigation of the chairman, the executive adopted a safety charter of behaviours, rules and actions by both the Company

management and individual employees. This approach had proved extremely successful in ICI and the Modderfontein estate GM led a team to compile such a charter. The charter succinctly conveyed the Company's SHE objectives as well as the responsibilities of both management and employees. Both parties were expected to commit to their respective obligations by signing the charter. The board signed it as a body to lead the Company in publicly demonstrating its SHE commitment. The charter was given as much exposure in the Company as possible. Somerset West, for example, held a safety day during which all employees signed the charter. Estates reported a positive response from employees to the charter and the Company wide commitment to SHE. As regards the second initiative, 40% of AOS' injuries arose from employees with less than 1 year's service. The executive agreed to introduce induction programmes for new employees and contractors at each estate. This was also in line with the estates and tenants' legal obligation to ensure the on-site safety of employees, contractors and visitors. The following elements were in keeping with best local and international practice: useful general information with emphasis on SHE and emergency issues; estate standards and guidelines; orientation for each category of contractor; and safety procedures for visitors. These were incorporated in the induction programme and tailored to each estate in a way that managers could audit it. The employee induction package developed by the executive's HR strategy group comprised a short introductory presentation from various functions on each estate as well as an employee handbook covering common and estate specific issues. Employee understanding was assessed at the conclusion of each induction session.

Business development

SU managers required a logical process to help them prepare a business plan. The executive drafted a Company Standard that was easy to follow. It concentrated on those essential features managers from a functional background required to establish their businesses. The format could be customized to the needs of any particular business and was tested with external consultants familiar with AECI. Further modifications followed the SU's initial experiences before the board approved the strategic business plan as a Company Standard. The executive was available to assist individual SU managers who were required to prepare business plans for presentation to the board using this format.

Information systems

The estates company developed an IT strategy for the estates that addressed the functional and business needs of each estate together with those of the parent. Specialist supplementary systems were required for SU's such as engineering workshops. After calling for a specification of the Company's system requirements, the board authorized the IT project that led to the selection of the IMPACT system from a short-list of three vendors. After the EC approved the project, which was supported by the AECI IT

policy group, a Company steering committee monitored its implementation led by the IT coordinator. IMPACT was successfully implemented at all estates with the final project cost 25% less than the budgeted cost of ZAR 9.8 million. Such a system, tailored to the Company's needs, was essential for the parent to provide the owner with the necessary returns and enable estate managers to support their SU's.

Company standards

The executive developed a system of controlled documents to meet the requirements of various international standards and guidelines and enhance business effectiveness. The system described the purpose of controlled documents and provided a flow diagram of the control process, layout, referencing system and guidelines on preferred writing style. The estates company produced a number of Company Standards that were used to: state company philosophy and direction pertinent to a specific issue (policies); define specific requirements which have to be met during performance of particular activities; and describe accumulated best practice where uniformity of action is highly desirable. Company Standards could be either prescriptive or informative or both combined.

Landlord (Estates utilisation strategy)

The strategies employed to enhance the utilisation of its estates through development and renewal as well as marketing of the estates have been outlined in Chapter 3.

The operations envelope concept delineated land required for each estate's current and future operations. It designated the estates company and Property Department's respective responsibilities for estate utilisation. The operations envelope was subdivided into sites, a number of which may be allocated to a tenant's reserve. The boundary of a tenant's reserve was called the battery limits. The operations envelope and battery limits were captured on an official drawing that was updated annually and approved by the parent. In this way it defined the Landlord area of responsibility for each estate manager, formed the basis for lease agreements and the designation of tenants' legal responsibilities in terms of the OHS Act on AECI estates.

An estate development philosophy was formulated by the executive to provide estate managers with guidelines on key issues associated with the exploitation of unused land within the operations envelope. The philosophy covered: a company-wide approach to the use of land; application of tenants' leases; the activities and services provided with a leased site; and tenants' obligations to third parties, notably the external stakeholders. The philosophy also assisted Property Department in: eliminating confusion on the respective roles and responsibilities of the two parties in managing vacant land; serving as a reminder of the estates company's capabilities so that it could tap those for its own benefit; and understanding how the operations envelope would be managed so that it could use this information in its own planning and marketing. The

philosophy, which was adopted by the board and later the EC, was captured as a Company Standard.

Estate master plans for developing the operations envelope were prompted by the responsibility to improve the utilisation of all estate assets. Estate infrastructure and utilities were important components of the master planning activities. Master plans had to anticipate demands from current occupiers to upgrade the capacity of the estates' infrastructure timeously. The need to satisfy concurrently the owner's requirements in any master plans, add value to tenants and be a responsible neighbour to surrounding communities, were important planning considerations. The parent, therefore, produced a development framework process that estates adopted as a guideline for the master planning of all operations envelopes. Tenants supported the concept and a programme to produce a development framework was initiated on all estates. The framework provided a comprehensive development strategy that incorporated tenants' needs and suggestions, consulted the communities and obtained the support of Property Department and the EDC. The board regularly reviewed estates' progress in updating their existing master plans in accordance with the framework. The result was that each estate produced a development framework that met its unique requirements and enjoyed the support of its key stakeholders.

Site remediation issues had to be incorporated in the development framework, which then prioritised the remediation tasks. Site remediation entailed the actions necessary to restore a site to a condition where it can be used for a designated purpose. Such actions included any demolition, removal of all types of debris and decontamination of soil and groundwater as envisaged by AECI's SHE standard 4/92. Where a plant site had been evacuated without decontamination, the estates company was required to manage the remediation on behalf of the group. In the case of the shutdown of an existing plant, the tenant was responsible for the decontamination but could approach the estate manager for a remediation service. Specific examples of remediation projects in the case are listed in Table 7.4:

Table 7.4
Remediation projects undertaken by estate managers in the case.

PROJECT	DESCRIPTION
Somerset West explosives areas.	A condition of the joint venture between ICI and AEL was that AECI would remediate the explosives areas vacated by AEL. AECI required AOS to lead the remediation project with the EC as the primary customer.

Removal of the sulphur stockpile at Somerset West.	A grass fire ignited the government's strategic sulphur stockpile on the Somerset West estate in December 1995. AOS was required to eliminate all bulk sulphur from the estate as part of AECI's commitment to the authorities and surrounding communities.
Carbon rich ash dumps at Modderfontein.	2 million tons of carbon rich fly ash from the gasifiers at Modderfontein's ammonia plant had been dumped on site over the years. Not only were these dumps occupying valuable land on the Modderfontein estate but they also produced dust, which irritated the neighbours in the windy season. The dumps therefore constituted a significant remediation challenge that AOS addressed by beneficiating the fly ash.

Redundant facilities were also highlighted in the development framework and included underutilized facilities such as the hostels at Modderfontein and Somerset West. Following an intervention by the executive, the conversion of Modderfontein's hostels into office blocks was approved in principle subject to market demand and cash flow. The Somerset West hostel was still occupied but grossly underutilized and the executive asked for alternative uses for these buildings to be identified. When AEL vacated the Somerset West estate, the hostel occupancy fell below its critical mass and the estate suspended its hostel accommodation service. At the parent's request, local management produced a plan for dealing with the facilities. It was agreed to proceed with the conversion of 50 hostel units into mini storage facilities for rental to external customers. The removal of the remaining residents, who were employees of tenants, had industrial relations ramifications but was handled to the satisfaction of all concerned. Alternative uses for the premises besides storage space were also evaluated.

Estate promotion entailed publicising the advantages of an estate and was the consequence of the focus on under-utilised sites and facilities in the development framework. It occurred when the executive lobbied the owner for approval to lease under-utilised sites and facilities to non-AECI tenants. The executive then encouraged the external promotion of vacant land and unoccupied buildings on all the estates. The appointment of a property broker to publicise the advantages of the estate was one of Modderfontein's initiatives and this led to the leasing of two commercial premises. Somerset West indicated that their increased efforts to lease property had enhanced AECI's image locally. Somerset West reported a 16% improvement in revenue during 1997 as result of increased rental income.

Service Provider (Business effectiveness strategy)

The research model indicates a business effectiveness strategy for Service Provider with special emphasis on customer service. The estates company was criticised for not behaving as a business in its Service Provider role. Besides structuring each estate's business portfolio and identifying the necessary key success factors for SU's, instilling business and marketing skills became an issue that estates felt required particular attention. The executive supported estate managers in the Service Provider role by attending to two issues: the preparation of business plans; and customer focus. Business plans based on the standard the parent had produced (see operating fundamentals strategy) provided SU's with a Service Provider strategy. Such plans were a SU responsibility to develop and not that of the parent. SU's negotiated directly with their customers and set their own prices thereby emphasizing SU dominance in the Service Provider role. The parent was only left with customer focus for which it provided a strategic framework that consisted of two particular initiatives: customer policy and customer awareness.

The customer policy was developed in a workshop with SU managers that had a particular passion for customer care. The same SU managers were also consulted on how the policy should be communicated to employees and customers. The policy suggested roles and responsibilities for customer care but each estate manager had to assist its SU's in identifying specific goals and measures within the guidelines of the policy. Estate GM's met regularly with key customers to assess how the Company was viewed. Problem areas were then resolved with the SU managers concerned. To enhance the usefulness of the policy, the executive decided to extend it to incorporate behaviours and standards. Company-wide systems and actions as well as objectives, measures and controls to support the policy were added.

Customer awareness required that each estate manager identifies its major customers and ensures activities are aligned with customer requirements. Umbogintwini offered to investigate and pilot the implementation of a customer information system for use by all SU's. The executive invited the CEO of a major customer with operations on all three estates, to share his perceptions of AOS as a supplier of services and products. His observations are summarized in Table 7.5.

Table 7.5
High-level tenant expectations of the estates company in the case

AOS should implement a basic programme of customer care.
The level of customer care should be based on the customer's needs and not exceed those needs unless there was a benefit to the supplier.
AOS should consider an account executive for major group companies on each estate.
Caring for customers is culture driven and AOS must inculcate such a culture in employees. The customer policy was a step in the right direction.
Every supplier is dependent upon its customer's success and should get to know its customer's business intimately.

Liaison (Public interaction strategy)

The public interaction strategies were outlined by the research model in Section 3.3.2.

Addressing external stakeholder concerns was based on the estates' acceptance that communities must be recognized and consulted on any issue that is likely to affect them. The platform for exchanging meaningful information with local communities was provided by AECI's CAER initiative. Through the CAER committees, estates assisted the group in meeting its responsibilities in a balanced, sensitive manner that acknowledged the input of those beyond estate boundaries. The first CAER committee was established at Umbogintwini following a series of chlorine emissions in March 1993. AECI regarded these incidents as a challenge for the group's credentials and an opportunity to reinforce community relationships. This pioneering venture became a permanent feature of AECI's operations. It was also consistent with the chemical industry's Responsible Care initiative that espoused principles such as: the recognition and acknowledgement by industry of public concerns; openness to external scrutiny; and measurable improvements in SHE performance against defined targets. The estates company led the process of establishing these committees at all estates and provided the necessary resources. Neighbouring communities and other interest groups, in turn, nominated their representatives to serve on the committee. Estate occupiers were also represented on these committees. This enabled meaningful dialogue on issues and concerns relevant to individual estates including their impacts on neighbours and the environment in general. The objectivity and independence of these committees were regarded as crucial and the executive encouraged the committees to become as representative as possible. The peculiar needs of each estate dictated the make-up of the local CAER committee and its agenda topics reflected the concerns at that estate. The formation of each CAER committee culminated in the preparation and signing of a CAER Charter, which made public the Company's commitments to addressing community concerns. The executive obtained the part-time services of a liaison officer

to help with organization of meetings, conferences, presentations and the necessary publications. The lead provided by AOS was emulated by other industries and forums. The establishment of the South Coast Marine Pipeline Forum and signing of a charter by all participants is one such example. CAER committees at the different estates got involved in issues such as those outlined in Table 7.6.

Table 7.6
Typical CAER Committee issues encountered in the case

Effluent management.
The content of the annual SHE reports issued by each estate and coordinated by the AOS parent.
Off-site impacts that may lead to ground, air or water pollution at any of the estates.
A survey to obtain the neighbour's view of the estate in which estate occupiers participated and group communications assisted.

The CAER chairmen's conference that the executive initiated ensured that CAER committees were able to share experiences and develop strategies for generic issues relevant to all estates.

Identifying reciprocally beneficial opportunities applied to both the economy (wealth creation) and people development (social advancement). Several examples of how the estates company encouraged local suppliers and service providers to become involved in servicing the estates have been cited. These serve to illustrate the commercial opportunities that estates created. The estates were also significant employers in their regions and by doing so created employment opportunities. Even the work the executive did to assist Property Department in negotiations with local communities and appearances at public participation meetings can be classified as contributing to reciprocally beneficial opportunities. This included the Southgate development at Umbogintwini, and approval of the AECI Somerset West Conceptual Development Framework. In the social sphere the estates supported the golf clubs that occupied buffer land between the estates and neighbouring communities. Originally, when the estates were remote and alternative facilities inaccessible, these clubs provided recreation facilities for employees. With increased urbanization and reduction in employee numbers, non-employees were admitted to the clubs. However, the estates continued to subsidize them on behalf of AECI. It was felt these clubs had to be assisted in becoming self-sufficient and cover their own operating costs. The estates company was tasked to manage the interfaces with local club committees on behalf of estate occupiers and the AECI centre, involving local authorities when necessary. At the Umbogintwini Club, it assisted the club in formulating a whole new strategy to become

commercially viable on its own. This was an emotional issue which had to be handled with sensitivity and involve all the important stakeholders. As a consequence the board specifically requested to be involved. The situation was exacerbated by a request from Property Department to excise some of the golf club land. AOS had to facilitate these negotiations in a way that protected the estate and AECI's reputation in a community, which had grown to depend on AECI's involvement in the club. There was positive reaction from the neighbours when AECI decided to retain the club for the time being but continue with plans to make it self-sufficient. When it became necessary to upgrade the course itself, the Company used its resources to access the greens manager from Modderfontein Golf Club for advice. The Modderfontein Golf Club also benefited from the interventions. Their main concern was the quality of water in the Golf Club stream. A tributary to the Golf Club stream emanated from the estate. During heavy rains or following a spill, fly ash from the dumps contaminated the stream. This was a recurring problem that obviously impacted on the club and AECI's reputation because of the large proportion of non-AECI members. The Company was once again asked to manage the interface with the golf club on behalf of AECI centre and estate occupiers. Reciprocally beneficial opportunities also arose in the use of land to promote the estates and AECI's values among estate occupiers and the communities. The way all estates actively developed conservation areas on their property, was a special feature of AOS' estate development initiatives. At Modderfontein and Umbogintwini the areas, which were particularly large, contributed to the advancement and environmental education of employees, surrounding communities, schools and interest groups. The point the conservation areas made was that industry and the environment could co-exist to mutual benefit.

Monitor (Monitoring strategy)

The monitoring strategy of the Monitor role requires the estates company to develop an operations impact philosophy, manage estate risk, and manage off-site impacts of each estate (Chapter 3).

The AECI group publicly committed itself to the chemical industry's Responsible Care programme. Clarifying Responsible Care implications was necessary because the estates company was not a producer of chemicals and found great difficulty in determining how it could be evaluated against the Responsible Care criteria. The executive, nevertheless, appointed a senior manager to investigate the Responsible Care implications for the Company in terms of the following remit: 'assess whether an integrated SHE system that incorporated the requirements of group SHE, National Occupational Safety Association (NOSA), Responsible Care, the MHI regulations and ISO 14000 is possible for AOS; distinguish between elements common to all estates and those that are unique to some; recommend a process for creating a Responsible Care awareness among employees; and assess the feasibility of using lease agreements to

enforce Responsible Care requirements with tenants. The investigation involved individual estates and concluded ‘the Responsible Care charter did not make provision for a services company supporting the chemical industry’. Notwithstanding, the Company incorporated the Responsible Care principles in the services it provided estate occupiers.

Managing estate (SHE) risk was the result of the hazardous substances and processes on the estates that posed risks to key stakeholders. It was part of the executive’s strategy to identify the most significant on-site risks. The executive, therefore, adopted the following approach to risk management: Consultants designed a methodology that estates could use in a workshop with tenants to establish a risk awareness culture on the estates. Tenants were required to assess or identify the significant risks, possible impacts, and risk control measures associated with their current operations. If required, an assessment service was provided for tenants. Whenever process modifications or new projects were contemplated, ‘tenants had to conduct formal risk assessments on those and satisfy stakeholders that there was no increase in the vulnerability of the estates because of such changes’. Estate managers were careful not to assume responsibility for operational risks over which tenants had control. The consultants also had to develop a methodology for communicating identified risks to employees and members of the community in an easily understood format. The implications for AECI in communicating risk information had to be carefully considered. Finally, tenants were expected to review their risk assessments and prescribed controls periodically. The executive required estates to submit a risk review schedule for the coming year with their annual budget. Such a schedule formed part of the SHE improvement plan in the annual statements of performance against which estates would monitor their progress. The Modderfontein estate piloted aspects of this approach and with the help of the consultant conducted a high-level risk assessment. Based on the outcome, the consultant had to recommend how these issues could be communicated to the neighbouring community. In order to verify the quality of the findings, the SHE function at the AECI centre undertook a risk assessment of their own at all estates. Based on this assessment, the estates company was able to lead the registrations of hazardous installations on behalf of tenants at all its estates in terms of the MHI regulations.

There are examples of specific risks that the estates company managed at each estate. At Modderfontein, for example, it monitored possible adverse effects on the environment from a site where a tenant had ceased operations pending remediation of the site. As the problem was outside the Company’s jurisdiction it recommended solutions that were duly accepted for the account of the subsidiary. Where specific materials used by on-site tenants caused concerns to external stakeholders as at Somerset West and Umbogintwini, it tracked and coordinated the measures that were agreed to address those concerns. In coordinating the efforts of the joint task force that

was established to remediate the effects of this specific material, two important activities were necessary: maintain a thorough record of actions taken; and manage the sensitive community interaction required. The local estate manager employed all its networks including the CAER committee, local authority, community representatives and statutory bodies to coordinate these activities. In another example, it was imperative to assess the possible health risks that may have arisen as result of contaminated groundwater. An independent consultant was appointed to do the assessment using a process accepted by the local CAER committee. In the meantime, the estate had arranged for the supply of free water to the affected residents in consultation with the local metropolitan council. When the results of the risk assessment became available, it again engaged the relevant stakeholders in planning the way forward.

Strategies for managing off-site impacts concerned effluents, above or below the surface, which constituted a significant off-site impact that the estates company had to address in its Monitor role. A further issue requiring a monitoring strategy was the management of on site emergencies. The following sections address these strategies as well as the estate standards which controlled tenant behaviour.

Effluent management strategies

The executive coordinated projects to bring overall effluent performance on the Modderfontein and Umbogintwini estates in line with international standards. Modderfontein sprayed its diluted nitrogenous effluent onto unutilized land, which was grazed by a herd of stud cattle belonging to the estate. The Department of Water Affairs and Forestry issued permits to control both the spray disposal and off-site discharges that occurred by way of run-off into watercourses. When the authorities indicated that permit levels were to be tightened, the estates company devised an effluent management strategy for the estate. Besides a campaign to reduce effluent arisings at source, the strategy included the following objectives: clarifying effluent standards for tenants; continuous monitoring of effluent arisings at tenants battery limits; phased upgrading of storm water drains; optimizing the spraying operation; and designing an effluent treatment facility to replace the spraying operation in the longer term. In accepting the strategy, the board urged the executive to ensure that cost pressures from tenants did not compromise disposal standards. Modderfontein also considered it good effluent management practice to establish boreholes for monitoring possible groundwater contamination. The local CAER committee was briefed about a proposed groundwater characterization exercise and extension of the survey to cover possible contamination of the watercourse, Modderspruit, running through the estate. After discussions involving all stakeholders, a groundwater management plan was prepared and sent to the Department of Water Affairs and Forestry for comment. At Umbogintwini a marine pipeline was used for many years to discharge effluent at sea under an official permit. However, the pipeline was ageing and community opposition to disposing effluent at

sea was mounting. The Company investigated a new effluent management system for the estate involving the public, government, local communities and other interest groups in meetings and workshops. At the same time the authorities revised effluent discharge limits and, with the support of tenants, it decided to build an on-site treatment plant. After the origin of the contaminants was identified with a view to reducing them at source, the project was approved at a total cost of ZAR 19 million. The necessary commercial agreements with customers and suppliers were finalized and the project completed on time and within budget.

Emergency Response

The estates company coordinated on behalf of the AECI group each estate's emergency response to any incident that could have an adverse impact internally and externally. The estate GM's were in most cases the AECI representative making the initial response to a situation involving the public or media. Stakeholders expected an effective emergency response to significant incidents at any of its estates. Recognising that emergencies provide the ultimate test of stakeholder coordination (including AECI Ltd, tenants, local authorities, neighbours, media, special interest groups), the executive prepared comprehensive emergency procedures based on best available practices to assist its estates. The Company was not held responsible for product related emergencies, which occurred off site. Besides the strikes it managed on the estates, it singled out the sulphur fire at Somerset West as the most notable incident it was called upon to handle. In December 1995, a grass fire, fanned by strong winds, ignited a state-owned stockpile of sulphur that had been stored on the Somerset West estate since 1968. Two asthma sufferers from a nearby community lost their lives when they inhaled the sulphur dioxide fumes generated. A great many more suffered severe discomfort and widespread crop damage occurred. After the incident, the estates company put in place a number of measures to assist the affected community. Whilst the mechanism of ignition of the raw sulphur was unexplained, AECI immediately accepted responsibility for the incident and met all reasonable claims for compensation. Acting on behalf of the group, the Company called for the appointment of an independent commission of inquiry to ensure that the incident, its causes and its consequences were fully understood and that all issues had been properly dealt with. This had the support of the authorities and communities. The Desai Commission of inquiry into the fire reported its findings in April 1997.

Estate standards

The estates company used these as the monitoring device to control tenant behaviour that could possibly reflect negatively on the estate and its owner. Each estate manager had to ensure estate occupiers were made aware of and complied with agreed standards, particularly those affecting the environment. These standards were based on AECI SHE

policy, management standards and the 2002 performance targets. The executive developed these standards in conjunction with the estates on the understanding that they would be part of every lease agreement and enforced accordingly. The standards comprised a generic section applicable to all estates and an estate specific section, which could be tailored to the needs of each estate. The standards were discussed with estate occupiers whose comments were incorporated before the final document was issued. Table 7.7 reflects typical elements covered by the estate standards.

Table 7.7
Typical elements of estate standards encountered in the case

ELEMENT	DESCRIPTION
Access control	This encompasses the access control procedures for employees, visitors, suppliers and contractors as well as the legal responsibilities of both the estate and estate occupiers in this regard. It also covers the obligatory induction processes for new employees, visitors and contractors.
Risk management	All tenants have to assess the risks to the estate and other tenants of their current and future operations as well as those of process modifications or new projects. The legal requirements of the MHI regulations, for example, are also included.
Emergency response procedures	What constitutes an emergency, what estate occupiers must do in the event of an emergency, how the emergency procedure works on the estate, what the relevant roles and responsibilities are and how the estate handles the media and the public are the issues covered in this section.
Management of effluent and emissions	The environmental standards imposed on the estate and how tenants can assist in sustaining their licence to operate are highlighted here. The way environmental excursions should be handled and the resources available to assist in such an event are also included.
Land contamination	Occupiers obligations to rehabilitate their sites at the conclusion of their lease and the owner's commitments in this regard are covered, as are the ways in which AOS can assist them.
CAER committee	Defining the function of the CAER committee concerning community relations, why it exists and who is involved introduces this section. It goes on to deal with each estate occupier's responsibilities to the CAER committee as well as AOS' role and the benefits to tenants and the stakeholders.
Maintaining	The SHE statistics (performance measures) required, how

SHE statistics	frequently they should be collected and who occupiers should advise (of the statistics) and by when, are the essential aspects described. The section also indicates how these statistics are used in communicating with other stakeholders (e.g. annual SHE report).
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Estates Coordinating Committees (ECC) coordinate estate actions by aligning them with estate objectives and standards; integrating the estate response on common issues; encouraging mutual aid/support; and discussing estate development and service strategies. The ECC is convened by the estate GM and comprises the most senior representative of all estate occupiers. The purpose of the ECC is to assist the estate GM in providing the work environment that is most conducive to all users while at the same time meeting the estate’s obligations to external stakeholders. The estate standards then become an aid to the ECC, which not only ensures compliance through peer pressure but also enhances it as required. Each ECC is expected to draft its own remit that regulates its authority, frequency of meetings, agenda topics, meeting notes and the like. The executive prepared a draft *pro forma* remit to assist each ECC in launching the process.

7.3 Communicating the value proposition.

7.3.1 Communicating the high-level resulting experiences

The communicating-vehicles that make up such strategies have been outlined in the research model in Section 3.3.3.

Agreements and reviews.

Lease agreements with the estate manager were used to formally designate a tenant’s site and the services he required. The lease also committed the tenant to compliance with estate standards, which assured him of an appropriate work environment given that these standards were equally applicable to all other tenants. Each tenant’s contribution to managing estate risk was included in the lease. It entailed minimising the off-site impact of its operations on fellow tenants and the external stakeholders at large. This helped in both creating a work environment conducive to the image of tenants and also securing tenure by way of the estate’s licence to operate. The latter was an important consideration in stipulating the tenant’s role in the estate’s CAER committees. Services agreements with each tenant focused primarily on the cost effectiveness of the utilities and services tenants purchase from the estate manager. Service levels were an important part of the agreement and gave tenants assurance about the ‘on time and in full delivery’ of those services according to the quality specifications adopted. Tenants’ cost concern was repeatedly addressed in references to establishing a business environment in which:

prices would be agreed on an arms-length competitive basis; costs would not be allocated but based, wherever possible, on a rate per quantity of the service actually received; and the estate manager was expected to charge prices that would at all times be competitive with suppliers of similar services available to the tenant. The estate was also obliged to invoice the tenant each month in respect of all services supplied under the agreement during the previous month. These service agreements reflected a commitment to SHE that further emphasised the importance of an appropriate work environment. In general, the quality of the service agreements that were concluded with tenants caused concern. A stewardship agreement *per se* was not used between the estates company and AECI. Nevertheless, the Company did see itself as a steward of AECI's interest describing one of its strategies as stewardship of AECI's multi business sites. This stewardship awareness was communicated when, for example, AECI first indicated that AOS would be replaced as the estate manager at Somerset West. Without waiting for a directive to that affect, it resolved in a board minute to accept responsibility for managing the Somerset West estate . . . until an alternative authority is appointed by the AECI EC. The Company's attitude towards estate utilization was a further example of stewardship. It informed the board that estate managers were making every effort to encourage tenants to the estates so that the vacant land and unoccupied buildings on site could be used gainfully. A community charter called the CAER Charter reflected the estates' understanding of external stakeholders expectations in the introduction to the Charter: The aim of the Charter is to ensure that the estate minimises its impact on the community as regards safety, pollution and other influences on the community's quality of life, whilst at the same time deriving economic and social benefits arising from the presence of the estate within the community.

The annual negotiations the estate had with its tenants were reviews. These were often acrimonious with little evidence of the opportunity being used to demonstrate how its relationship with customers was mutually beneficial. The professionalism with which these negotiations were conducted caused concern. Shortcomings in the services agreement and late payments tended to receive most attention. Pricing was a frequent sticking point that necessitated an executive intervention to indicate that prices should be based on the value of the service on offer and, therefore, market related. The SU's were criticised for being reticent in showing they were able to provide effective and efficient services at a better cost than customers were able to do themselves. The Company expressed concern that tenants had not always considered all the relevant cost elements of a service as these were often hidden in their systems. By not bringing these elements to a tenant's attention, SU's failed to off-set the customer belief they could perform the service more cost effectively themselves.

Forums

The ECC was one forum in which estate managers met with all tenants to ensure that estate standards were conducive to an optimal working environment and that non-compliance was corrected. In this way tenants were constantly aware of the estate's efforts to promote both security of tenure through their license to operate and a working environment conducive to their image. The AECI committees and Company board were also forums in which the owner's policies and directives were issued, discussed and interpreted. The CAER committee was one of the forums established to engage external stakeholders. According to the CAER Charter, 'the CAER committee shall keep the community informed of the activities of the estate and shall have access to information on the estate's environmental performance which it shall be free to communicate to the community'. In addressing community concerns, the committee was expected to audit regularly estate emergency and civil protection plans; be given EIA's for study and comment; and bring to the attention of the estate discrepancies between actual and planned actions and performance. Communicating the estates initiatives in exploring reciprocally beneficial opportunities with local communities can be illustrated by two local forums in which estates participated. In 1994 the new government established local government forums to decide on 'a new local authority dispensation in urban areas' that included Modderfontein, Somerset West and Umbogintwini. The estates company represented industry, AECI Ltd and estate occupiers in these negotiating forums using their experience and knowledge of industry and its needs. By participating in this way it was able to help other participants better understand how estates can contribute to reciprocally beneficial opportunities for local communities and the likely impact other proposals may have on estates. Local Economic Development Forums were established subsequently in some regions to examine how wealth creation activities could be attracted and promoted. Again, the Company represented AECI and estate occupiers as a conduit for the role the AECI centre and estate occupiers might play in the development of their regions.

Formal presentations

The Company's chief executive explained the role and purpose of the estates company and promoted its services during presentations that targeted the chief executives of tenant companies. It also used a formal presentation to share its strategy with the EC. In doing so it indicated what the Company was offering the owner: making the most of its resources at AECI's industrial estates (embodies estate utilisation); and being the estate custodian entrusted with the stewardship of AECI's local interests (manages any risk to AECI). This presentation went on to highlight specific strategies such as optimising utilisation of assets as well as assessing and managing the risks associated with each estate.

Reports and invoices

Invoices to customers were submitted with insufficient detail to satisfy their information needs and the estates company lost the opportunity of reminding tenants of the value it was adding for them. It communicated its performance with regard to AECI's directives and expectations through reports such as the annual statement of performance to the EC and through board papers and minutes to the chairman of the board. The SHE improvement plan in the annual statement of performance indicated how it intended adding value for AECI regarding its SHE policy during the ensuing year. Subsequently companies were also required to report progress on achieving the 2002 SHE targets in the statement of performance. The statement of performance also monitored the implementation of the SHE management system in each company. The SHE issues were all directed at managing the estate or investment risk. The role of media reports in communicating with external stakeholders was recognised in the following commitment by estates in the CAER Charter: Where press releases are made following an environmental incident, the estate shall provide the (CAER) committee with sufficient background information to enable it to assess whether the estate has acted in line with its declared principles and to answer questions from the community authoritatively. Besides the media the estate also acknowledged that all appropriate means of communication with the community shall be employed including press releases; newsletters; community presentations; school lectures and tours of the estate; visits and open days. The estates also used the annual SHE performance report to communicate with external stakeholders. The CAER chairmen were involved in deciding what information the report should contain and how it could be communicated to interested parties. The report format comprised a general section covering AECI's policies, standards and targets as well as the estates company's role on each estate. Every estate was then able to insert a supplement to the report which reflected that specific estate's SHE performance and impacts on the environment. Estate occupiers participated in the collection of the data with the Company acting as the collator of the report. These reports were published on World Environment Day each year to underscore their importance as well as the estates commitment to the environment. The Company invited independent external auditors to verify the annual SHE reports. The auditor at Somerset West, for example, reported: The SHE report is clearly presented. No issues that should have been included in the SHE report, but were not, came to our attention during our review. It regarded these reports as key to communicating relevant information that would address external stakeholders concerns and believed it demonstrated the benefits of partnerships between communities and on-site operations.

Complaint system

Customer complaints were regarded as an indication of failure to meet a customer's service expectation and the estates company handled them formally using a system it had developed. While complaints presented an opportunity to reaffirm the resulting experiences the Company wished to deliver, there was no evidence to this effect. A formal complaint system for registering and dealing with external stakeholders' complaints also existed. It consisted of a 24-hour helpline through which the community was encouraged to voice any concerns. Complaints were investigated and corrective action taken immediately, whenever possible. All complaints were formally registered and followed up with feedback to the complainants. It was not possible to establish the extent to which the estates company used the complaint system to communicate the resulting experiences it wished to provide external stakeholders.

'Word-of-mouth'

There was no evidence of word-of-mouth communication being used to communicate resulting experiences. However, there were indications that personal interactions between the estates company and stakeholders were an important communicating-vehicle. Furthermore, such interactions took place at multiple levels in the stakeholder organisation. Personal links with tenants were maintained. The chairman of the Company linked with the chairmen of other AECI subsidiaries who were customers. In the SMC the chief executive explained the role and purpose of the Company and its services. During interactions the chief executive had with chief executives of tenant companies the goal of enhancing customer focus on their core business as well as ascertaining any strategic requirements tenants might be contemplating were emphasised. The estate GM's and SU managers were expected to maintain the relationship with respectively the tenants' most senior managers on site and principal opinion formers in on-site operations. As a follow-up of the customer attitude survey sponsored by the executive, the chief executive and estate GM's 'monitored the quality and frequency of their interaction with customer peers and encouraged the SU managers to do the same. These interactions were aimed at aligning the estates company's service offering more closely with tenant needs. The linking at multiple levels also occurred during the resolution of conflicts as at the time of the effluent dispute with a Modderfontein tenant. Personal interaction at multiple levels also occurred with the owner. As a member of the EC, the Company chairman had a natural interaction with his peers on the EC. The chief executive interacted routinely with the senior managers who headed the different functional areas at the AECI centre. Their subordinates at the centre, who were the functional specialists tasked with specific assignments on the estates, interacted with the estate GM's and where necessary their SU managers. The work done in the remediation of the Umbogintwini groundwater contamination

demonstrated this interaction. The estates company also managed multiple level personal relationships with individual representatives of external stakeholders as demonstrated by the sulphur fire and its aftermath at Somerset West. The chief executive concentrated on national and provincial representatives, politicians or emergency services officials. The estate GM engaged local community leaders including the local authorities while SU managers and their staff interacted with individuals from the communities.

7.3.2 Assuring stakeholders it would happen

According to the research model each key stakeholder group requires a different high-level strategy to assure it that the estates company can deliver the identified resulting experiences.

Tenants

According to Section 3.3.3 the philosophy, constraints and objectives underpinning the management of the estates in the agreement the estates owner has with the estates company provide tenants with such assurances. AECI Ltd's commitment to 'create a SSO (forerunner of AOS) as an independent business that provides services to occupiers of each industrial estate' indicated it was serious about creating tenant focus and reducing operating costs. The original proposal to establish an estates company was the Company's mandate and had inherent features such as: on site tenants are willing customers of a services business that provides them with support; and tenants and estates sustain appropriate operating standards. These assured tenants of both competitive services and sustainable operation of estates in relation to their communities (security of tenure) and other tenants (work environment).

Owner

In the research model the agreement with the owner (stewardship agreement) regarding the outcomes and supporting structures for monitoring estates company performance provide the owner with the necessary assurances. Examples of the outcomes the owner requires have already been identified in the owner objectives for the estates company. As regards the supporting structures, AECI was assured the estates company would deliver on its mandate because it controlled the Company's board. The chairman was a member of the EC and board members were all AECI senior managers. The mandate was aimed at restructuring multi-business estates in a way that will make each estate attractive / competitive for present and future estate occupiers while at the same time protecting the interests of AECI. An attractive estate, by implication, attracts more occupiers and operations which improves estate utilisation. Protecting the interests of AECI implies minimising the risk to the estates with which AECI is closely associated.

External stakeholders

Besides the estates company's undertakings in the stewardship agreement, the public pronouncements by the owner, according to the research model, give external stakeholders the assurances they require. AECI had publicly committed itself to the international chemical industry's Responsible Care initiative. Furthermore, the AECI SHE policy was adopted as the basis for all estate standards and targets. Implementation of the policy was achieved through a comprehensive SHE management system that complemented the Responsible Care codes of practice and other international standards. A programme of corporate and individual company audits monitored implementation of the management system. The group believed community trust could only be earned through public disclosure in keeping with its Responsible Care commitments. The publication of annual SHE performance reports on estates was an example of such disclosure. The fact that AECI was recognized as a leading industrial group and respected by communities assured the external stakeholders that AECI would honour its commitments.

7.4 Conclusions

This chapter identified data for parenting strategies in terms of choosing, providing and communicating at a high level the value proposition of each of the key stakeholder groups described in the research model. This was based on the delivering profitable value framework, which was found to provide a suitable structure for collecting the relevant information. Data concerning the intended customer, high-level resulting experiences and customer prerequisites were found for the choosing-strategies. Besides the tenants, the case indicated that the AECI Property Department and EC were also estates company customers. The value chain concept in the research model was invoked to identify the intended customer and supporting entities. Data from the case indicated that high-level resulting experiences were used to communicate with stakeholders at a high level and provide estate managers with an operating framework. The research model anticipated both these applications. Data from a variety of sources endorsed the predicted high-level experiences of each key stakeholder group. Customer prerequisites were identified from case data of the estate system as proposed by the research model. Providing-strategies for structuring the estates services portfolios and supporting estate managers were also identified in the data. The estates company in the case used retrenchments and outsourcing as strategies to structure its business portfolio. According to the data, the existence of subsidiary companies of the estates company further complicated the identification of the Company's core businesses. Support for the estate managers in their four roles entailed adopting the key success factors as an operating fundamentals strategy throughout. There was a wealth of data indicating the

key success factors the research model proposed. It highlighted the development of KPA's for the estate GM's as indicative of the empowerment success factor; lease and service level agreements indicated the contracts success factor; and SHE, business development, information systems and standards supported the systems and procedures success factor. The formal strategy the estates company presented to the EC provided data for the other supporting strategies. This and other data sources indicated the estate utilisation, business effectiveness, public interaction and monitoring strategies that supported the estate managers' Landlord, Service Provider, Liaison and Monitor roles respectively. The case also yielded evidence of strategies that communicate the high-level resulting experiences to stakeholders by way of agreements and reviews; forums; formal presentations; reports and invoices; a complaint system; and word-of-mouth communication. The principles for establishing the estates company provided the data the stewardship agreement in the research model required. This agreement was the basis for assuring key stakeholders that their resulting experiences will be delivered. The case also revealed data that indicated the communication of the value proposition to key stakeholders occurred at multiple levels. This was not identified by the research model and will be further discussed in Chapter 8.

CHAPTER 8 ANALYSIS AND CONCLUSIONS

8.1 Research question 1: Key participants in industrial estates, their requirements and interactions

8.1.1 Stakeholder identity

AECI Ltd owned the estates and specifically the operations envelope comprising the land, infrastructure and facilities that estate managers required to serve their tenants. The group also issued financial, human resources and safety, health and environment (SHE) policies, standards and controls for estate managers to implement. The SHE improvement targets AECI prescribed were one set of objectives for estate managers. Estate managers were also required to adopt the group's ARONA and working capital targets as basic business measures. These features are in line with the predicted ownership criteria for industrial estates thereby confirming the existence of AECI as the estates owner in the case.

Each estate in the case reported accommodating multiple tenants most of whom operated their own chemical processing plant with potential off-site impacts. Lease agreements with the estate manager verified their position. Because the estates in the case had land surplus to operational requirements, two unique estate occupiers were identified: the AECI Property Department and the EC. Their existence did not detract from the principles identified for tenants, who were the dominant occupier group as predicted in the research model.

The case demonstrates how the estates interact with local communities comprising local authorities, residents within the 'footprint' area (previously defined as the area on which the estate impacts directly) of the estates, clubs in the vicinity of the estates, institutions and businesses that include suppliers to the estates. The commitment the estates made to these stakeholders in particular was 'self -regulation, public disclosure and community involvement in addressing mutual concerns'. This included the way the estates managed emergencies with an off-site impact. The estates' interaction extended to provincial and national authorities, the media, non-governmental organizations, suppliers of bulk services and materials as well as other service providers. The nature of these interactions varied from: direct approaches by the external stakeholders as with complaints and visits; formal meetings as in the CAER committees and forums; negotiations with officials and bulk suppliers; reports such as the annual SHE report and media releases; and documents such as statutes, ordinances, permits, minutes and correspondence. The estates second commitment involved both the SHE targets it pursued with regard to employee and contractor safety, occupational health and the environment as well as the procurement principles and procedures for contractors, suppliers and service providers. Not only does this support the existence of external

stakeholders as a stakeholder group but also denotes the diversity of its constituent elements.

In summary: AECI Ltd acted as the estates owner and owner of the estates company (managers). This duality will be discussed fully in Section 8.2.3. The case illustrates that despite the diversity among estate occupiers their generic needs can be captured in a single group ('tenants') as anticipated. Similarly the external stakeholders have generic needs with respect to the estate that also enables them to be classified as a single group. External stakeholders are a collective for important constituents such as authorities, neighbours, suppliers and the community at large. This includes special interest groups, local businesses and even remote communities where employees' families may be concentrated. No other estate stakeholder groups were evident in the case. The case confirms that estate managers are an integral part of industrial estates as defined by UNEP IE (1996b) and that the owner, tenants and external stakeholders adequately represent the key stakeholders of an industrial estate in keeping with the research model. The physical characteristics of an industrial estate described by UNIDO (1997) are also evident in the case. The research also endorses the applicability of the stakeholder concept as proposed by Freeman (1984) and developed in the literature by subsequent researchers.

Estate stakeholders identity can be summarised as:

The key stakeholder groups of an industrial estate are: the owner, estate occupiers (tenants) and the external stakeholders that typically comprise authorities, local communities, suppliers, and special interest groups.

8.1.2 Stakeholder requirements

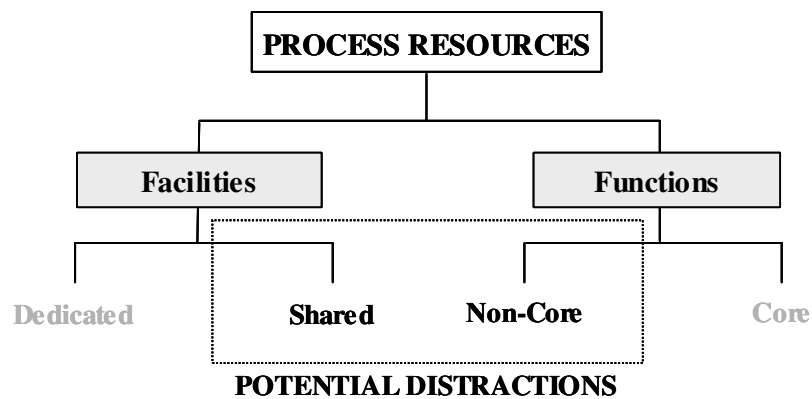
AECI expected the estates company to ensure the long-term viability of the estate and to use its existing assets to best advantage. AECI was concerned about the 'risks associated with the estates' and their licence to operate. Its endorsement of Responsible Care, insistence on a positive relationship with external stakeholders and adherence to its code of ethics, reflected AECI's commitment to its reputation as a good corporate citizen. Furthermore, AECI expected the SU's in the Company to be commercially viable and meet the required financial returns using the management processes it prescribed. These processes included the SHE, HR and financial systems as well as reporting on internal controls using letters of assurance. Together these expectations confirm the value drivers of a triple bottom line being the high-level value an owner requires from its estates.

Many tenants were expected to adhere to AECI's SHE policy and management systems as well as Responsible Care commitments by virtue of their association with the group and the chemical industry. As such they were sensitive to their operating environment, especially as regards SHE performance and their reputation. Tenants in the case were also sensitive to the costs of utilities and services that were covered by

service agreements. These agreements prescribed commercial practices such as negotiations and invoices in acquiring and paying for those services. An expressed requirement by tenants was an enhanced focus on their core business. As these tenant expectations confirm the value drivers identified in Chapter 3, it is concluded that an enhanced competitive position is the high-level value tenants seek from estates.

As regards promoting tenants' focus on core business, Figure 8.1 depicts the typical resources required by tenants' processes. These comprise either facilities (capital items such as a serviced site, buildings, plant and equipment) or functions (the support those facilities require in the form of services, people, materials and systems). The potential distractions experienced by tenants in the case and, therefore, the target of services that could minimise tenant distractions is the shared facilities and non-core functions illustrated in Figure 8.1.

Figure 8.1
Target for services that enhance tenant focus

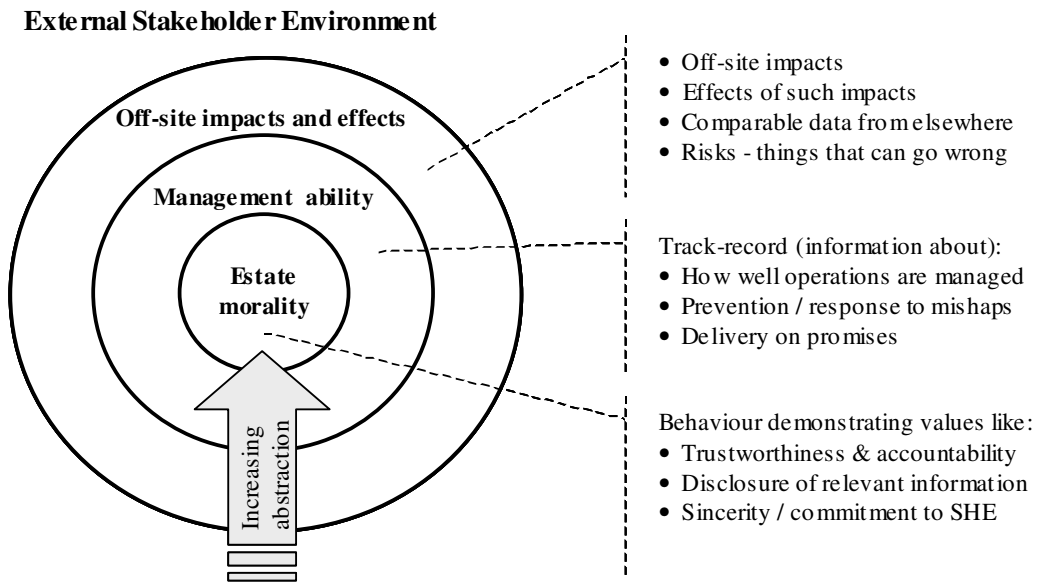


In the case, the external stakeholders wanted information on estates' off-site impacts and especially emergency procedures. Risks to their health and wellbeing resulting from off-site impacts such as emissions (odours), effluents and noise were also a concern. Furthermore, the external stakeholders saw the estates as creating wealth by way of employment and commercial opportunities, which offered employment seekers and suppliers a source of revenue. Another way of promoting reciprocally beneficial opportunities of significance to external stakeholders entailed access to estate resources. These included the expertise of estates and tenants, funds and property to help build capacity in the communities. Examples from the case included instilling skills in the workforce, the community and managers of local government and non-governmental structures. These value drivers confirm that at a high level the external stakeholders expect from the estates an improved quality of life. The findings also endorse the UNEP IE (1997) contention that the environmental performance of industrial estates is an

important consideration and that an 'improved quality of life' is an appropriate high-level value for external stakeholders as suggested by Robillard (2000).

Having confirmed the value drivers of quality of life in the research model, the case also illustrates a related concept not anticipated by the model. Elements from 'exchanging information on estates off-site impacts' and 'managing estates off-site impacts on the environment and stakeholders assets' give rise to the concept of 'peace of mind'. A full definition of the concept has not been encountered. In everyday use it is understood to mean 'freedom from worry or any other preoccupation' (Encarta Dictionary, 2001). Peace of mind can therefore be defined as a state of mind that is free from concern about current or potentially harmful situations that may constantly occupy a person's thoughts. The case indicates that for industrial estates this involves knowledge of the actual and likely off-site impacts and their possible short and long term effects on people's quality of life. The likely off-site impacts include those things that can go wrong and cause emergencies. However, external stakeholders concern is not confined to the physical aspects of off-site impacts. People realise that the nature of such impacts are affected by the ability of the management on each estate to deal with those and related issues. Here ability is understood to mean a high degree of general skill and competence to manage those issues. Furthermore, if management ability is not underpinned by an appropriate estate morality and value system, people cannot be assured of consistent and predictable behaviour necessary for peace of mind. Morality refers to 'standards of conduct that are accepted as right and proper' (Encarta Dictionary, 2001). The case shows that the peace of mind concept integrates a number of issues that drive quality of life. It does so in a hierarchy of increasing abstraction from the physical off-site impacts and effects, followed by management ability and culminating in estate morality. This is depicted as a model in Figure 8.2 which illustrates the elements as different layers moving towards the centre. This model also suggests typical indicators derived from the case for each level of issues.

Figure 8.2
Model depicting the ‘peace of mind’ concept



In summary, the key stakeholders’ requirements, being those things they value, can be broadly classified at a high level in terms of both ‘hard’ and ‘soft’ elements. This categorization reflects the degree of tangibility (and therefore measurability) of those needs. Using such a categorization, Table 8.1 below summarizes the generic needs of the major stakeholder groups as encountered in the case.

Table 8.1
Generic expectations of an industrial estate’s key stakeholders

STAKE-HOLDER	REQUIREMENTS (NEEDS AND DEMANDS)		
	‘HARD’	‘SOFT’	HIGH-LEVEL VALUE
Owner	Long term viability Investment secure and rewarded Assets optimally utilized Risks managed	Reputation Corporate citizenship Commitment to safety, health and the environment	Improved triple bottom line
Tenants	Competitiveness enhanced Optimized costs Access to world-class facilities and services	Focus on core activities Outsourcing non-core activities	Enhanced competitive position

STAKE-HOLDER	REQUIREMENTS (NEEDS AND DEMANDS)		
	'HARD'	'SOFT'	HIGH-LEVEL VALUE
External stakeholders	Wealth creation /preservation Work opportunities Sell labour, materials and services Off-site impact on assets and property values	Peace of mind (now includes reliable SHE information and professional estate management practices) Compliance with statutes and standards	Improved quality of life

Estate stakeholder requirements can be summarised as:

The principal high-level value requirement each key stakeholder group has of the estate is: for the owner, an improved triple bottom line; for the tenants, an enhanced competitive position; and for external stakeholders, an improved quality of life.

8.1.3 Stakeholder interaction

The example of the new biotechnology fermentation plant used from the case provided a useful insight to the various cycles proposed in the industrial estates system (IES) model in Chapter 3. The waste discharges from the new biotechnology fermentation plant illustrate the tenants reinforcing cycle in the IES model. Having responded initially to what the estate had to offer by selecting it as the plant location, the prospective tenant adopts the IEM principles prescribed by the estate for plant design (tenants react). In keeping with Responsible Care requirements (the business impact) and estate standards, the tenant minimizes the effluents to be discharged during the design phase of the plant. Once the project was designed and ready for approval, the estate manager communicates with stakeholders to advise them of the new plant and its off-site impacts (estate responds). During operation of the plant the estate manager alerts the tenant to excursions in plant discharges that culminate in detectable off-site impacts (operations impact).

The external stakeholders react to these impacts (public reacts) as they expect the plant to have little impact on the environment under normal operating conditions. The estate manager explains the issues to external stakeholders and investigate the cause of the impacts with the help of independent specialists (expectations impact). The estate and community agree to the investigation's recommendations for tighter discharge standards (agreed response). The impact of the tighter standards on the estate is to either review the composition of the effluent it was discharging or modify the discharge process (operations impact). This slows down the reinforcing cycle as the new biotechnology fermentation plant re-negotiates the service required from the estate manager by requesting a modification to the existing discharge process (tenants react). Failure to rectify discharges from the plant could jeopardise any future expansion of the

plant making such a modification a business imperative (business impact). The estate manager implements the modification (estate responds) and eliminates the off-site impact to the satisfaction of external stakeholders (operations impact).

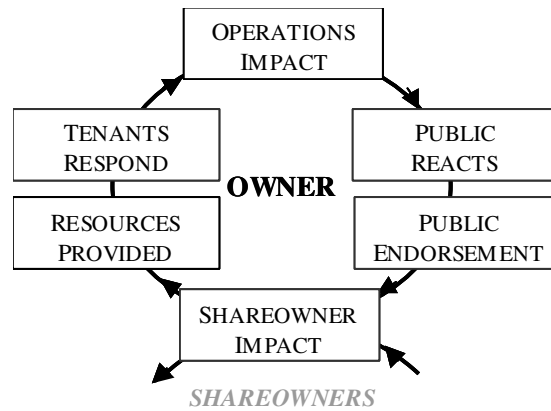
These cycles are in keeping with the model. They also demonstrate the applicability of Senge's (1990) systems-thinking to developing a model for the industrial estate system.

The limiting condition is informed by changes at the political level through the South African constitution. That constitution embraces sustainable development and empowers local communities to confront industries with off-site impacts the communities deem unacceptable. Therefore, the communities know they have state backing for their position in the new biotechnology fermentation plant example (changes in stakeholder circumstances). However, the local community has to trade off the risk of shutting down the plant because of unreasonable demands against the benefits associated with the plant (stakeholder trade-offs). As predicted by the research model, a satisfactory compromise is reached after a workshop with the estate (estates engaged in discussion). The tighter discharge standards to which all parties agreed have a limiting impact on estate operations (operations impact).

The results indicate an additional reinforcing cycle that can be incorporated in the IES model but was not predicted by the research model. The estates owner's international shareholders support the establishment on its estate of a new world-class biotechnology fermentation plant provided it satisfies the financial, safety, health and environmental criteria they prescribe (shareowner impact). Their concerns were addressed in the case by providing the estate with: (1) a site and the infrastructure necessary to service the project; (2) SHE systems to control any off-site impacts; and (3) a commitment to external stakeholders regarding Responsible Care (resources provided). The tenants reacted by selecting this estate as their preferred location, confirming their requirements and conducting the necessary studies to honour the estate's commitments to external stakeholders (tenants react). The socio-economic benefits and the rejuvenating impact of the plant on the estate (operations impact) elicited a positive reaction from the external stakeholders as reflected in the media (public reacts). Such a response reinforced support for the group as estates owner as well as the project (stakeholder endorsement). As a result the further expenditure required to improve the estate manager's service to the new biotechnology fermentation plant was approved (shareowner impact).

This reinforcing cycle and its stages is depicted in Figure 8.3.

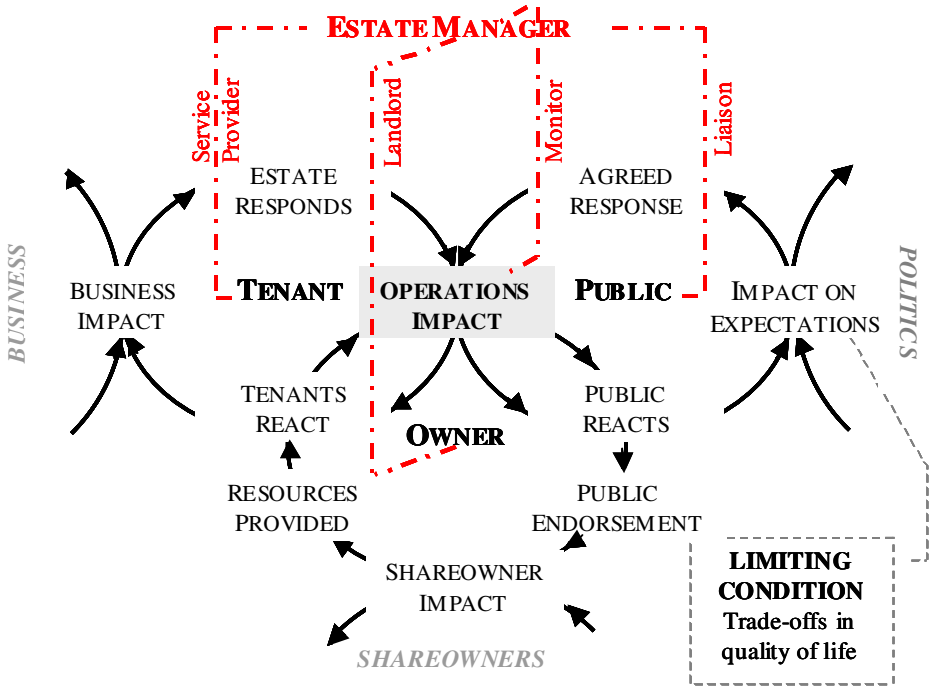
Figure 8.3
Owner's reinforcing cycle



The new biotechnology fermentation plant example also illustrates the estate manager's four roles described in the research model but not incorporated in the IES. It performed the Landlord role by providing the site and the necessary infrastructure for the initial project as well as a future reserve for the intended expansion. As the Service Provider, the estate manager negotiated the support services the tenant required and saw to the utilities as well as other service requirements specified by the tenant. The estate manager, in its Liaison role, coordinated the extensive communication with the external stakeholders in announcing the project, managing complaints about the plant effluent and determining the necessary corrective action in consultation with the affected communities. Monitoring the plant's effluent performance and agreeing acceptable performance standards with the tenant, illustrates the estate manager's Monitor role. The case confirms the four essential roles of the estate manager as system custodian. It also demonstrates how each of these roles results in a unique relationship with each key stakeholder group and the system's 'pivot point', the operations impact, in order to keep the system in balance. According to these roles the estate manager has a unique relationship with each of the key stakeholder groups achieving systems balance by monitoring the operations impact of the estate. The case study also illustrates how lease, services and community agreements respectively entrench the first three roles. The fourth, Monitor, role focuses on the pivot point and depends on all three agreements. The relationship between estate manager and each stakeholder can be formalized, therefore, in an agreement. Moreover, the IES benefits from the estate manager as an agent. The estate manager facilitates the various stakeholders' interactions and balances the possibly conflicting stakeholder demands that arise on an estate.

The industrial estates system model can be modified as depicted in Figure 8.4 by incorporating the proposed owner's reinforcing cycle and the estate manager roles.

Figure 8.4
Interaction model of key industrial estate stakeholders and the estate manager



The theoretical model is a workable representation of an industrial estate as a system in which its key stakeholders and estate manager continually interact with each other and their respective environments. The key aspects of this model comprises reinforcing cycles for the owner and tenants with an external stakeholders (public) balancing cycle determined by a limiting condition. The estate manager acts as the custodian of the system by integrating stakeholders' diverse needs through its four essential roles. Each role is directed at one of the three cycles and the pivot point around which the estate manager balances the system as best it can.

Estate stakeholders interaction can be summarised as:

The industrial estate systems model depicts the interaction dynamics of the key stakeholder groups and their influence on the system. The estate manager performs a pivotal role in the key stakeholder interactions. As representative of the industrial estate, the estate manager is also the custodian of the industrial estates system through four roles: Landlord; Service Provider; Liaison and Monitor.

8.1.4 Estate manager commercial orientation

The case substantiates the value the research model indicates an estate manager provides each stakeholder when it operates as a business.

As a business, the estates company delivered value to AECl, the owner, by being more responsive to change and enhancing the long-term viability of the estate. The greater customer orientation, which a business focus promoted in the case, was aimed at retaining tenants and addressing estate viability. The AOS business was able to provide the owner with more accurate costing of services as a further contribution to estate viability. A second value driver is the profitability of the services portfolio that depends on services being offered in a normal business relationship. Capital has to be justified through a business case that gives the owner a market related return. Where service units are unable to compete, they are closed down or contracted out. The final value driver in the research model is the owner's risk exposure. This risk is managed by ensuring that targeted returns are market related and business oriented risk management systems are in place.

From a tenant's perspective, the first value driver is improved financial performance. The estate manager in the case was established to give tenants freedom of choice associated with a competitive business environment in order to entrench the 'willing buyer, willing seller' principle. Furthermore AOS was committed to move away from 'the allocation of costs in favour of negotiated rates'. Negotiation of services at both estate and company level, and payment on submission of invoices also contributes to tenants financial performance. Invoices and the associated management of debtors featured prominently in the estate managers' relationship with tenants. The second value driver is promoting tenants' core business focus, which the estate manager demonstrates by converting tenant distractions into business opportunities. In the case the estates company committed itself in the commercial arrangements it had with tenants to manage tenants' off-site impacts. The chemical industry's Responsible Care programme prompted this commitment. Those aspects of the lease agreements that embodied such arrangements demonstrate the third value driver, enhancing tenants' reputation.

As far as external stakeholders are concerned the same leases also cater for their information needs by way of CAER committees and a CAER Charter. These were established as part of the Responsible Care programme. The case implies that tenants and the owner recognize this as a service that has to be rewarded through such lease agreements. The same leases also cover tenants' environmental impacts and restraints on activities including the rehabilitation of sites at the termination of the lease. This is aimed at managing off-site impacts, the second external stakeholders' value driver. A business oriented estate manager, therefore, is able to manage such off-site impacts better because of its sensitivity to societal perceptions and their effect on its business

reputation. Finally, the estate manager operating as a business is sensitive to the viability of its own services and demonstrates a greater willingness to contract out services to 3rd party suppliers as reciprocally beneficial opportunities.

Figure 8.5
The effect of service environment on estate manager’s stakeholder alignment

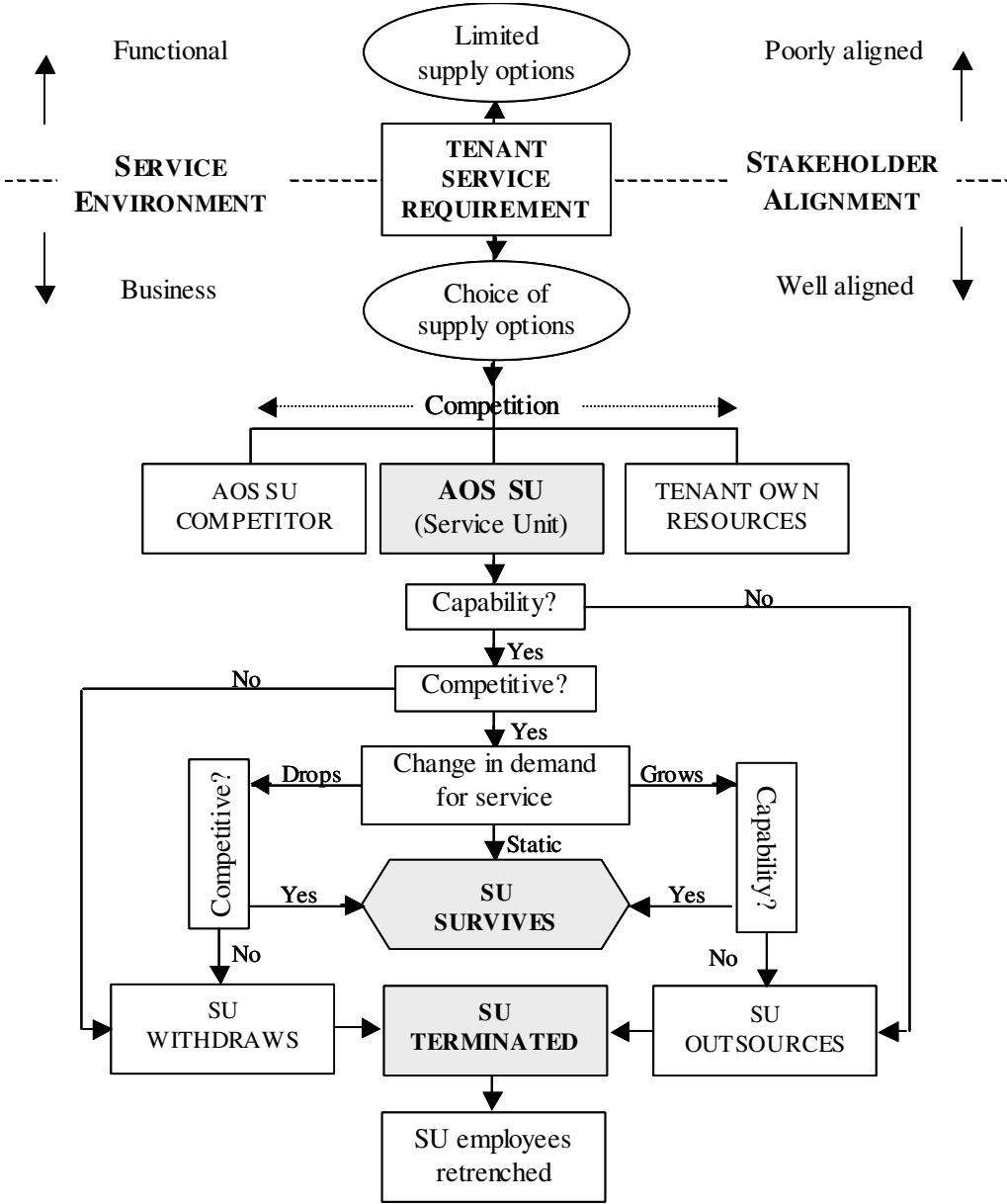


Figure 8.5 illustrates how the nature of the service environment, whether it is functional or business, affects the estate manager in the case. This environment affects factors that will be discussed below and influences the alignment of the estate manager with

stakeholder requirements. According to the figure, a functional services environment limits the supply options available to a tenant for a specific service. This, in turn, constrains the alignment of the estate manager operating as a function with stakeholder requirements. However, when an estate manager operates as a business, the case illustrates that a tenant has three competing supply options to satisfy its service needs: the AOS SU, a competitor for the SU or the tenant itself. For the SU to survive in this business environment it has to demonstrate it is capable of providing the service, can compete in terms of value and maintain its capability and competitiveness in the face of changes in demand for the service. Failure with regard to any of these factors necessitates the termination of the SU. Capability shortcomings inevitably result in outsourcing whereas an inability to compete on value causes the SU to withdraw from the market. Whether the SU withdraws from or outsources a service, retrenchment of employees is inevitable as the figure shows. It is, therefore, a combination of the business environment and these factors that facilitates the alignment of the estate manager with stakeholder requirements. Such requirements include competitive services businesses for the owner, cost effective services for the tenants and outsourced opportunities for the external stakeholders. This diagram further emphasises that the ultimate test of competitiveness for any business is survival. When a business cannot survive it has to retrench its employees. An additional indicator of market exposure, therefore, is business-induced retrenchment which occurred extensively in the case. While functional entities can also experience retrenchment, the contention is that in businesses it occurs naturally as a survival mechanism. In the case of functions, a specific intervention is required.

The estate manager's commercial orientation can be summarised as:

An estate manager operating as a profit-making business exposed to the market is aligned with stakeholder requirements.

With the identification of the key stakeholders, determination of the stakeholder requirements and the derived stakeholder models, the research question concerning the key participants in an industrial estate, their requirements and their interaction has been addressed.

8.2 Research question 2: The estates company configuration

8.2.1 Integration of multiple estates

When the estates company, integrates the owner's requirements and interprets it uniformly, it contributes to the long-term viability of estates. It does so by way of mechanisms it develops such as the operations envelope, estate standards and master agreements. Estate viability is also promoted through exchanging experience in, for

example, the effluent and hostel utilisation projects at different estates. The same applies to the coordination of master planning, site remediation and market research that improve the utilization of assets. The second value driver is promoting the owner's reputation. The estates company accomplishes this by integrating SHE management using the risk management process and the SHE programme it establishes. In this way it aligns estates with the owner's policies and standards and reports compliance in the annual statement of performance. External coordination is another feature of this value driver. The estates company achieves this by coordinating external programmes such as CAER and the annual CAER chairmen conference. The next owner's value driver, profitability of the estate manager's services portfolio, benefits through the uniform interpretation of owner's financial requirements such as BVC, financial forecasts and the annual budgets. Integrated business performance also contributes to services profitability by ensuring that corporate, estate and individual goals are consistently aligned with AECI's expectations across all estates. Providing professional management processes is the third value driver, which an integrated estates company addresses. This was exemplified in the case by the single interface created for the multiple estates in the sales to AECI Ltd, for the annual letter of assurance and the consistent interpretation of policies and practices.

An important value driver the estates company addresses for tenants is improved financial performance. It did so primarily through sharing among its estates such learning experiences as could benefit tenants. This results in benchmarking key operating parameters of estate services and establishing service groups that exchange improvement ideas in the various utility areas. Integration also enhances tenants focus on their core business as a second driver of value. The annual negotiation process, as an example, detracted from tenants' focus. The company was then able to address this issue by coordinating the process and providing guidelines for the various management levels involved.

Exchanging information on off-site impacts that affect external stakeholders is important to them. It gives the estates company the opportunity to establish a culture of transparency on its estates. The Company in the case integrated the establishment and resourcing of the CAER structures as the primary vehicle for exchanging information between the external stakeholders and estates. The publication of an annual SHE report, which the Company integrated, is a source of such information on estate performance. The external stakeholders also want to see a reduction in off-site impacts, which the implementation of AECI's SHE standards mitigated. The estates company interpret these standards and monitor their implementation on its estates ensuring that the accumulated experience of the company is used to good effect in developing best practice.

In considering the integration of multiple estates, the research was able to apply successfully the relevant organizational concepts developed by Van der Brugge and

Verburg (1998). It, moreover, found that for the South African situation there are distinct advantages in dedicated estates companies managing the multiple chemical estates that belong to the few major companies dominating the industry.

Figure 8.6
Integration modes from the case illustrated in a entity/outcome matrix

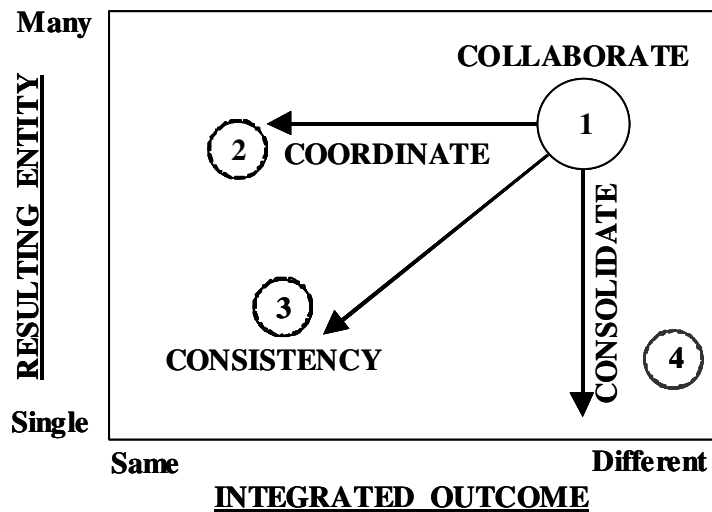


Figure 8.6 illustrates the four modes the estates company in the case adopted in integrating its estates managers. The matrix depicts the discreteness of the resulting entity after integration on one axis and the homogeneity of the integrated outcome on the other. The entity axis reflects whether the discreet units act as a single entity or as multiple entities. The outcome axis considers the effect of the integration and whether the units are required to produce the same or different results. The four modes an estates company adopts in integrating multiple estate managers are termed: ‘collaboration’, ‘coordination’, ‘consistency’ and ‘consolidation’ and can be described as follows:

Collaboration occurs when the estates company exploits the differences among estate managers in its integration efforts. In collaborating, the units operate separately and produce different results, which positions them at the top right hand sector of the matrix. This can be described as a first level of integration. All the estates company attempts to achieve through collaboration is to maximize the benefit from these differences. It does so principally through collective and accumulated learning. The experiences of the different units are aggregated all the time and the skills and available knowledge pooled to address issues of common concern. In this way possible synergies are exploited to the benefit of the company. This action is appropriate for value propositions directed at all stakeholders. Such value propositions are different for each

estate and each stakeholder of that estate but reflect the experiences of other estates in the estates company.

To coordinate the activities of the various units means moving towards a uniform outcome on specific issues while recognizing that differences between the units are important. Coordination, therefore, moves from right to left in the top section of the matrix. An analogy is the way the conductor of an orchestra integrates the effect or outcome of the different instruments in the orchestra. The estates company in the case coordinates negotiations with customers. While elements of the agreements are the same for all estate managers, the estates company did not compromise the separate identity or needs of each estate. Coordination is the second level of integration and benefits all stakeholders.

Consistency implies consistent and uniform interpretation and behaviour that conform to the same standards, rules or pattern. Time is also important in that the outcome must not vary with time. The estates company invokes this integration mode when it is necessary to operate as a single entity to produce a uniform outcome. A diagonal line moving from the top right hand to the bottom left hand side of the matrix describes this action. The higher-level strategic requirements in the case (e.g. the owner's financial targets) required a consistent outcome from the estates company as a single entity. This can be seen as the third level of integration and is used primarily for value propositions aimed at the owner. Tenants and constituents of the external stakeholder group are unique to each estate and therefore cannot be satisfied by the same outcome.

Consolidation is the fourth level of integration in an action that consolidates the different estate authorities. This action accepts the diverse outcomes from the different units but requires them to be treated as a single entity. It is illustrated by moving vertically down from the top right to the bottom right of the matrix. In the case this occurred when AOS provided AECI Ltd. with a single interface in its interaction with estate managers notwithstanding the differences in the outcome. The value proposition emanating from this mode is also primarily directed at the owner.

Integration of multiple estates can be summarised as:

The integration of multiple estate managers in an estates company offers superior value to estate stakeholders.

The integrating actions of an estates company are issue specific and entail combining the estate manager entities and their outcomes in four ways: collaboration (both entities and outcomes differ), coordination (entities differ but outcomes are uniform), consistency (both resultant entity and outcomes are seamless) and consolidation (resultant entity operates as one while outcomes differ).

8.2.2 Affiliation of the estates company

A driver of owner value is the long-term viability of the estates. For AECI it was strategically important to have the estates company identify with the group's critical needs (strategic contingency). Where the estate manager in the case led the Responsible Care initiative on the estates, it was important for the estates owner to be directly associated with the programme through ownership of the estates company. The estates company's actions in the community were that more credible because it was identified with the estates owner (environmental contingency). In handling the sulphur fire incident, the Company was identified with the estates owner and was seen to speak on AECI's behalf. This lent it credibility and enabled it to act as a plenipotentiary. It also helped to be regarded as an equal partner alongside the developer in AECI's estate development efforts (environmental contingency). The case demonstrates the second event, elimination of legacy issues, by the way the legacy issues from AOS' establishment militates against affiliation with the estates owner and undermines estate viability. The subsidiaries the estates company was obliged to carry on behalf of AECI detracted from its performance and required attention that had to be diverted from its core business. Enforcing estate standards is another event that promotes long-term viability. In this case, however, the estate manager's affiliation with the estates owner was a hindrance as tenants perceived a dual loyalty on the part of the estate manager. This led to an apparent conflict of interests and suspicions about how the estates company in the case could be both player and referee. Profitability of the estate's services portfolio is another value driver for the owner. In this instance AECI imposed incompatible policies and practices such as mandatory wage increases and remuneration packages on the estates company. AECI's treatment of retrenchment costs also impacted on the Company's trading profit and morale. On the other hand, the estate manager benefits from access to owner's specialist resources (technological contingency) as an event to enhance the next value driver: owner's reputation for good corporate citizenship. The AECI centre's SHE resources were invaluable in preparing estate policies, assisting with risk assessments and employing its international connections to ensure world-class standards and practices on the estates. The Company routinely accessed the AECI centre's communications and legal resources to assist with crisis management and the preparation of specialized agreements respectively.

Tenants' reputation resulting from a world-class operational environment depends on the estate standards and resources used to establish them. When it came to tenants' acceptance of improvement initiatives to establish standards on the estates, existing tenants, who were primarily sister companies, resisted the proposed introduction of site leases. Such lease agreements were the vehicle for controlling tenant behaviour on the estates and were readily accepted by new tenants. However, the estate manager depended on the owner's specialist resources (technological contingency) in setting

such standards and the affiliation with the owner was invaluable as discussed earlier. The second tenant value driver of improved financial performance is undermined when the estates company is not perceived as a normal business. This happened in the case when sister companies, who welcomed the freedom of choice afforded them by the estates company, opposed its profit orientation. Such an abuse of a familial relationship also extended to the estate manager's ongoing struggle to have its invoices settled promptly. This was made all the more noticeable by other suppliers not encountering similar problems with the same tenants. The second event concerning this value driver is the perceived conflict of interests the estates company has. This resulted in tenants accessing services from competitors because they suspected AOS was exploiting its position. Such a switch was in fact not always to the tenants' advantage. The affect of affiliation in enhancing tenants focus on core business, the third value driver, can be demonstrated by the dilemma in site remediation. AECI expected the estates company to enforce the AECI decision for tenants, who were sister companies, to remediate their abandoned sites. It also expected it to provide the necessary services that would enable those tenants to retain their business focus. However, the affected tenants rejected the Company's service offer, as it was perceived to be soliciting business for itself.

External stakeholders value the exchange of information on off-site impacts with estate managers who are perceived to be non-partisan and non-politicized. When there is an affiliation between the estate manager and the estates owner and the owner is perceived to be partisan it, of necessity, affects the estate manager. In the case, AECI was contaminated by the perception that it was sympathetic to the previous government in South Africa. This complicated the estate manager's handling of the sulphur fire aftermath with the affected communities. Promoting reciprocally beneficial opportunities is a second value driver that also depends on non-partisan and non-politicized estate management. The case shows that external stakeholders expect an estate manager to act without any conflict of interests in exploring such opportunities; a stance the estate manager found difficult to attain if it is affiliated to the estates owner who is also a key stakeholder. The last value driver concerns managing off-site impacts, which is positively influenced by the estate manager's access to the owner's specialist resources. This technological contingency has been raised previously, as has the manner in which it benefited the estate manager.

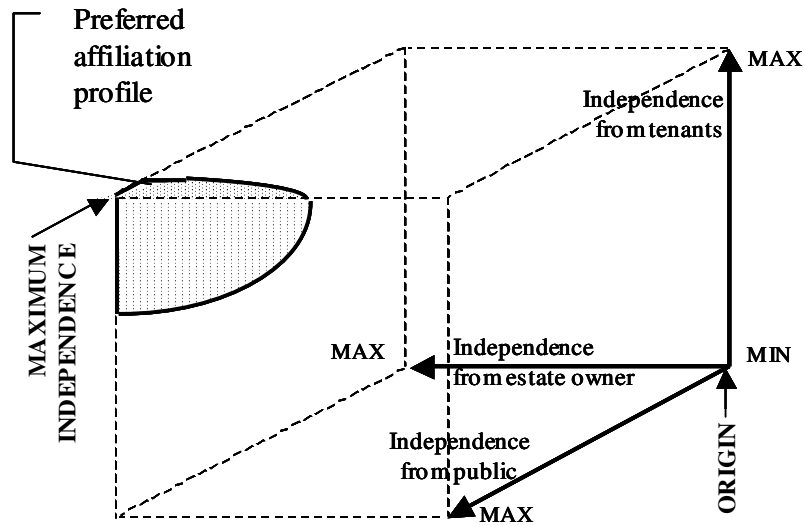
In summary, the research model indicates that strategic, environmental and technological contingencies may necessitate compromises in the degree of independence of an estates company, especially in the South African services environment. In the case, for example, there were no suitable Facility Managers which AECI Ltd could consider for outsourcing estates management at the time (environmental contingency). A strategic consideration was the uncertainty surrounding the unbundling of the estates and the impact of possible joint ventures. These may have complicated contractual commitments if the management of the estates were completely

outsourced. Were it not for these considerations, it could be argued that an arms length commercial agreement with an independent estates company would have avoided many of the legacy issues identified in the case. From the perspective of an operating environment, the conflict with sister companies, which arose in the case, indicates a preference for outsourcing the management of the estates. As a counter, the technological benefits the estates company received from the estates owner by way of the Responsible Care and SHE related programmes were invaluable for managing the interactions with particularly the external stakeholders. How significant this should be in deciding whether estates should be managed in-house or outsourced, depends on the availability of the necessary technology elsewhere. The case, nevertheless underscores the observation in the research model that the estates company's degree of independence can be dictated by prevailing strategic, environmental and technological contingencies. These decisions can be made in the context of the value drivers and superior events discussed above.

Where an affiliation of the estates company with one of the stakeholders is inevitable, the question arises as to which of the affiliations is the most innocuous. The following analysis considers the possibilities one by one: (1) Estates company affiliated to the external stakeholders. The nature of such an affiliation is an enterprise wherein the external stakeholders believe they are the shareowner and have inherent rights to the way the enterprise is run. A state-owned company is such an example. The danger exists that the external stakeholders view such an enterprise as existing primarily for their benefit. As neither the state nor the external stakeholders group has the experience or knowledge of industry's requirements, a dominant influence by external stakeholders can be the most detrimental to the estates company. (2) Estates company affiliated to estate occupiers (tenants). Such an affiliation may seem sensible given that it is in the interests of the occupiers to support the estates company. One problem is that in a multiple estates situation it is very difficult to have all, or even most, occupiers from all estates employing such an estates company. Furthermore, the case has indicated that in reality it is unlikely the estates company will be allowed to operate as a separate business. Given the previous argument this deprives occupiers of the value they could otherwise obtain. (3) Estates company affiliated to the estates owner. The case illustrates that this is a realistic affiliation. Assuming that the estates owner has no affiliation in turn with either the occupiers or external stakeholders, this option is the most innocuous. The reason is that the owner has sufficient at stake to assist the estates company to support the industries on site. Stakeholders will also view any contamination by an owner affiliation with less suspicion as they are already willing tenants / neighbours of the owner's estates. However, the case did demonstrate how the imposition of incompatible policies and practices handicap the estates company's operation. In the final analysis the probability of this eventuality will be determined by

the nature of the estates owner and the technological environment in which the estates are located.

Figure 8.7
Independence and affiliation profile of an estates company



In light of this analysis, it is postulated that if an affiliation between the estates company and major stakeholders is unavoidable, the order of preference for such an affiliation should be: (1) estates owner; (2) tenants; and (3) external stakeholders (public). This can be depicted diagrammatically in Figure 8.7 where the degree of independence of the estates company from each one of the stakeholders is represented by each of the axes in the figure. The point of maximum independence is the furthest from the origin. Given the postulated order of preference, a preferred affiliation profile can be plotted as indicated. This profile is largest along the estates owner axis and shortest along the external stakeholders (public) axis.

Affiliation of an estates company can be summarised as:

In the absence of compelling strategic, environmental and technological contingencies, an independent estates company delivers superior stakeholder value.

Perceived conflicts of interests in balancing the diverging demands of key stakeholders will be minimised if an independent estates company not affiliated to any stakeholder group manages the estates.

If an affiliation between the estates company and any of the key stakeholders is unavoidable, the order of preference for such an affiliation is postulated to be estates owner, tenants and external stakeholders.

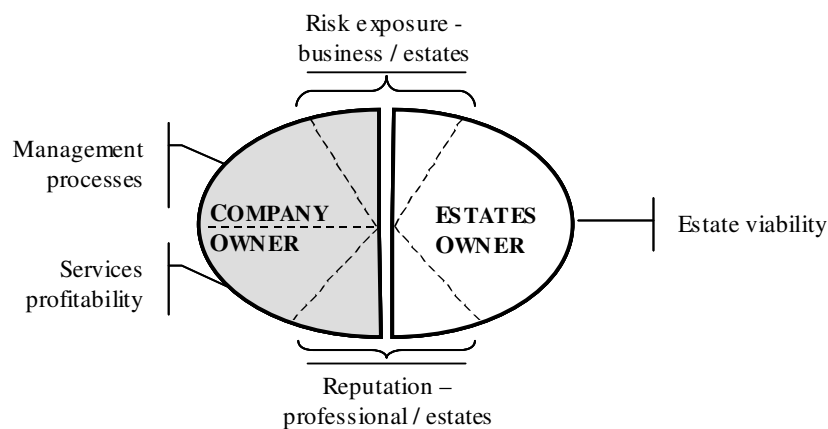
8.2.3 Ownership of an independent estates company

AECI Ltd performed two roles in the case study: ‘estates owner’ and ‘owner of the estates company’. While the estates owner role is clear, the research was able to identify the criteria indicated in Chapter 3 for the owner of the estates company as well.

Achieving a profitable services portfolio is the first value driver for an owner of the estates company. In the case, the estates company interpreted its business objectives such as market related returns, working capital targets and the company’s internal SHE performance targets. The Company also controlled the estate managers’ actual business performance in terms of profit and cash flow (including debtor management), budgets (trading and capital), periodic financial forecasts as well as 3- to 5-year financial plans. There was also emphasis on the validity of asset registers. The second value driver, managing business risk, involves safety as a matter of good business. This indicated that the estate manager’s internal SHE performance is a significant risk factor on estates where tenants operate hazardous processes. It was further illustrated by internal SHE performance topping the agenda of every board and executive meeting. The estates company also assessed and prioritised its business and financial risks, which included fraud, before establishing mitigating measures and controls under the aegis of the audit review committee. The health of these controls and owner’s policies, such as the code of ethics, were reviewed at each estate in an annual letter of assurance. Providing professional management processes is the third value driver for an estates company owner. Because SHE and financial performance were a major concern for the company owner in the case, this tended to be the focus of his management processes as well. Other management processes included the estates company balance sheet, accounting proficiency and accounting standards that ensured the financial information could be used with confidence in interpreting results. The HR systems were largely prescribed by AECI in the form of policy and practices, which the Company parent had to implement. The final value driver of concern to an estates company owner is the professional reputation of the estates company. In developing the induction programmes for visitors and employees, the estates company accessed best practice from world-class operations internationally. The estates company also appointed a dedicated team to examine the implications of the internationally recognised Responsible Care philosophy that underpinned its stakeholder interactions. While many of the provisions were found not to apply to a service company, the Responsible Care framework was adopted in the company’s SHE programme. The company’s SHE performance was always compared to international standards.

It can be concluded that all the elements of separate ownership of the estates company are evident notwithstanding the dual role of the owner in the case. The value drivers for the owner and the complementary nature of the two ownership roles that AECI Ltd performed are illustrated in Figure 8.8. The fact that both ownership roles are considered concurrently does not detract from the validity of the conclusions reached with regard to the owner. South African owners of multiple estates can consider independent estates companies for managing their estates without fear of this detracting from the value offered to stakeholders.

Figure 8.8
Complementary nature of the company owner and estates owner



The question arises as to whether the estates owner can be either a ‘private’ or ‘state’ enterprise. While the case focused on the needs of a private owner acting as a responsible corporate citizen, state enterprises also want to be seen as responsible and concerned for the welfare of its citizens. There may be nuances around the way private and state enterprises reward their investment in an estate. The contention, however, is that state enterprises will be increasingly pressurized to demonstrate that their shareowners (taxpayers) funds are also well utilized.

Ownership of the estates company can be summarised as:

The owner of the estates appoints the estate managers or company, which can be independent of the estates owner without detracting from the value the estate managers deliver.

8.2.4 Parent of the estates company

The board and the executive were the two essential components of the estates company parent in the case (Chapter 4). The executive, which played a pivotal role in the parent, had as permanent members a chief executive, company financial manager and estate

GM's. It was supported by a small head office totaling a further 4 people and specialist resources accessed from the AECI centre, the estates and outside consultants. AECI's brand and reputation were identified as important parenting resources. Viewing the estates company through the parent provides useful insights to the company's operation because the parent acts a bridge between the estates and the owner(s). The research also confirmed the relevance of the parenting concept that Goold, Campbell and Alexander (1994) developed for multi-business companies such as an estates company.

The estates company parent can be summarised as:

The estates company managing multiple estates has a parent that links its owner to individual estate managers. It accesses specialist resources and directs the estate managers by way of implicit or explicit high-level supporting strategies. The executive within the parent performs a valuable integrating and filtering role for the board of the estates company.

The integration modes for multiple estates, the resulting estates company, its independence, affiliation profile and ownership as well as the role of the parenting structure describe the implications of configuring industrial estates for delivering stakeholder value.

8.3 Research question 3: Value delivering strategies for multiple estates

The parent of an estates company managing multiple industrial estates is responsible for the company's strategy based on choosing, providing and communicating a high-level value proposition. This structure for corporate strategy as well as the conceptualisation of value, resulting experiences, value propositions and the value delivery system was successfully applied to collect data according to the research model. This endorses the delivering profitable value framework Lanning (1998) proposed.

8.3.1 Choosing the value proposition

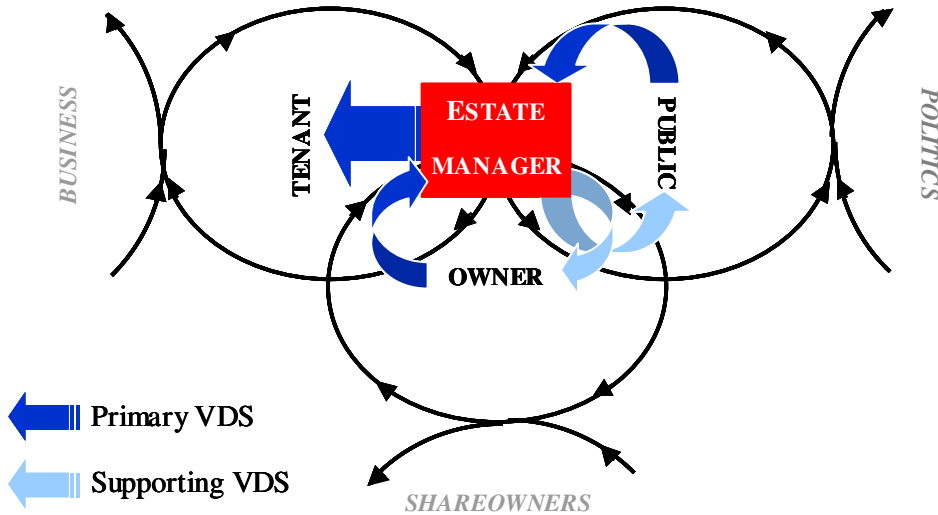
Identifying the intended customer

This is the first issue in choosing the value proposition according to the research model. The estate occupiers (tenants, AECI Property Department and AECI Ltd) in the case provided the estates company with its revenues. However, Property Department and AECI Ltd had a different standing as customers. They were transitory in nature and did not contribute to the Company's long-term profit potential. Furthermore, tenants were the only entities for which leases and proper service agreements were considered. Moreover, the estates company's promotional efforts were directed at tenants. They

were the ones to occupy vacant land and buildings thereby underscoring their importance. Therefore, the intended customers of an estate based on the case are the tenants.

The estates owner and the external stakeholders (public) also have some claim on the estates. They are supporting entities with the estates owner providing the estates with their infrastructure and the external stakeholders the estates' licence to operate. Such an arrangement confirms the balancing strategy for estate managers as depicted in the research model and illustrated in Figure 8.9.

Figure 8.9
Primary and supporting VDS' in the balancing strategy



Formulating high-level resulting experiences

High-level resulting experiences are the second element of choosing a value proposition and indicate the value estates provide. The estates company developed high-level resulting experiences in the case to give stakeholders an appreciation of the company and the value it offered them. After each high-level interaction with the different stakeholder groups, it refined its service offerings and incorporated it in the Company's corporate strategy. High-level resulting experiences were also used as an operating framework for estate managers inasmuch as they provided the pillars of the corporate strategy the estates company developed.

As regards the macro benefits offered to tenants, the Company provided tenants in the case with a site that was fit for their purpose and utilities at their battery limits. Security of tenure, the second event, concerns the tenants' licence to operate. This

depends on community support and the trust estates develop through effective interaction with such communities. The estates company also provided tenants with a congenial work environment determined by the attractiveness of each estate and the behaviour of tenants on site. Part of AOS' Purpose statement was to enhance tenants focus on core issues. This entailed shielding them from unnecessary distractions by providing services for those activities and functions they could outsource. Tenants considered cost effective services as critical. The cost dimension was articulated as competitive services that offered value for money and effectiveness as customised service packages that added value for tenants. Together these events produce, as predicted, an enhanced competitive position for the high-level value tenants require.

The owner benefits at the macro level from improved utilisation of its estates either through the occupation of undeveloped sites or the rejuvenation of redundant assets such as land and facilities. A second high-level event for the owner entails cultivating an appreciation for the estates by other stakeholders. This ensures that local communities perceive the estates as a desirable neighbour and process industries see them as the location of choice for tenants with a specific operating (SHE) philosophy. This is related to the third event of protecting the owner's investment in the estates from manageable risk. The estates company called this its value preservation obligation and described it as protecting the owner's image and reputation as well as the assets at each estate from value destroying actions or influences. In aggregate, these events produce an improved triple bottom line as the high-level value the owner requires in keeping with the research model.

At the macro level external stakeholders wanted the estates, in the first place, to address their concerns. This includes establishing and employing structures such as CAER; regularly reporting pertinent information on off-site impacts; and maintaining joint emergency plans with local authorities. The way the estates in the case contracted out services and formed alliances with other businesses in the area gave rise to reciprocally beneficial opportunities that are of value to the external stakeholders. Such opportunities extend to sharing other estate resources such as skills and knowledge with communities to continually add value to the region. As the research model indicates, an improvement in external stakeholders' quality of life is the high-level value produced by a combination of these events.

The conclusion is that by formalising high-level resulting experiences for customers and supporting entities the estates company is able to: align its estate managers in relation to key stakeholders; provide a uniform framework for estate managers to focus creatively their service offerings; establish a consistent platform for the cross-fertilisation of ideas and sharing of best practice between estates; prescribe basic values and rules of behaviour as part of a consistent corporate culture; and formulate strategic initiatives that estate managers were expected to implement in their own local strategies.

Stipulating customer prerequisites

Customer prerequisites for receiving the value proposition are the third component of choosing a value proposition. The results support the research model that requires tenants to respect the IES, the estate manager's role therein and any agreements necessary to formalise its roles. An in-depth analysis of the findings is reflected under these headings in Appendix 5 and illustrates details of a customer prerequisite strategy. The salient features include tenants support for the external interactions of the estate as well as its risk management efforts. In recognising the estates company, tenants are expected to accept the estate manager's authority on the estate, its status as an independent business and be willing to outsource non-core activities to the estate manager as their 1st tier supplier. Formalising their relationship with the estate manager entails tenants entering into lease and service agreements based on the estates company's format, negotiating such agreements professionally and abiding by them.

Choosing-strategies can be summarised as:

The high-level interests of industrial estates' key stakeholders are best balanced by a strategy that designates tenants as primary entities and the owner and external stakeholders as supporting entities at each estate.

A strategy of formulating high-level resulting experiences facilitates the interaction with stakeholder principals and formulation of estate managers' operational level value propositions. Such high-level resulting experiences comprise the events the estates company delivers in primary and supporting value propositions, the consequences of such events and the value these hold for the relevant stakeholder in terms of its principal requirement.

A strategy of stipulating the high-level prerequisites for tenants to receive the proposed value proposition requires that they actively participate in the industrial estate system through their contributions to the estate, recognition of the estate manager and formalization of their relationship in agreements.

8.3.2 Providing the value proposition

Structuring the services portfolio

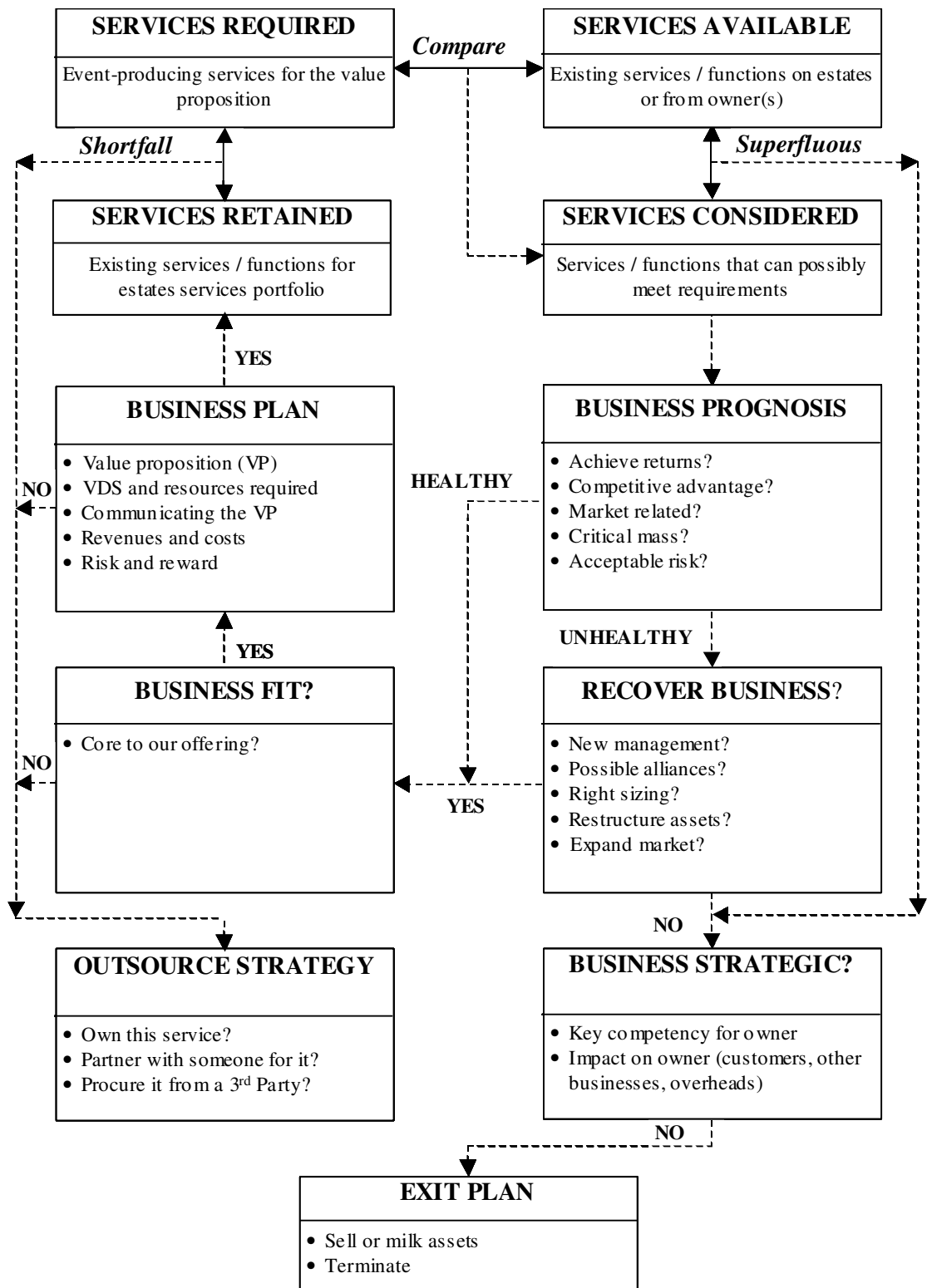
Determining the scope of an estate manager's services portfolio in the case was essential to providing the value proposition. The estates company in the case took over a number of activities from the factories that preceded it as well as the owner. It then had to convert them into viable businesses. This experience can provide useful information

on how an estates company goes about deciding the services it has to retain in its portfolio, those it must outsource and a structure that is sufficiently decentralised for managing its portfolio. It also provides estate companies with a strategy, which can be depicted by way of a process framework in Figure 8.10. Details of the process are in Appendix 6 where bold type is used to refer to the steps in the process. The strategy to scope the services portfolios of estate managers consists of two stages: focusing the services on each estate's core needs and then positioning the service units as 1st tier suppliers by owning, partnering or procuring the necessary services.

Having decided which services should be organic to each estate manager's services portfolio, a strategy for organising the resulting service units (SU's) is required. The parent in the case organised its estate managers' businesses functionally instead of aligning them with the value propositions as suggested by the research model. Consequently, devolution of authority was too low down in the estate managers' hierarchy resulting in the establishment of more SU's than necessary. This increased the need for competent key personnel such as managers and accountants, which placed a strain on the Company.

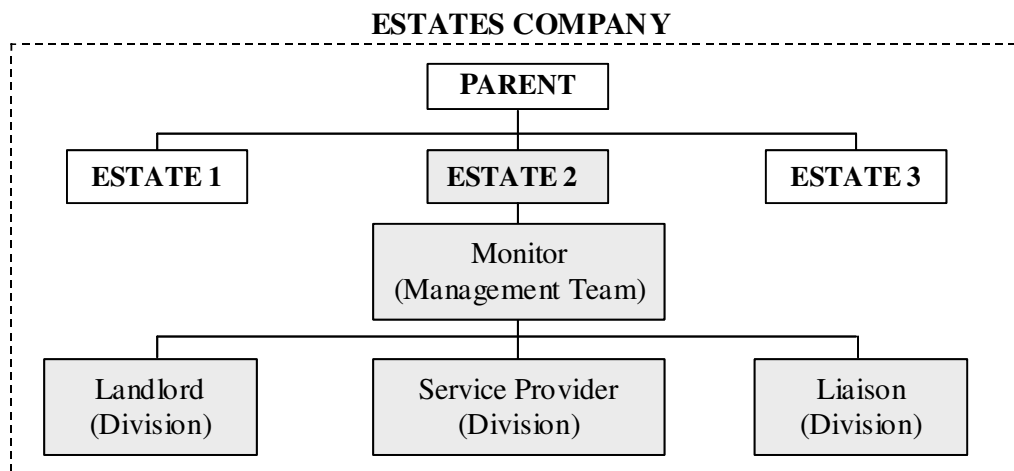
However, the most serious deficiency arose in the SU's interface with their customers. Because there were more SU's than necessary, their value propositions were fragmented in a piecemeal approach. Customer negotiations became more difficult in that the customer was not offered an integrated solution. Instead he was faced with a basket of services that were in fact estate manager resources (its providing-vehicles) from which to choose. According to the research model, the customer's choices should be confined to the value proposition and not how it is provided.

Figure 8.10
Framework for structuring the services portfolio of estate managers



It would have been more effective had the parent structured its estate managers according to the four roles: Landlord, Service Provider, Liaison and Monitor. An outline of each of these roles and the agreements that support them is provided in Appendix 7. The estate GM and specialist staff perform the Monitor role in keeping with the research model. The other three roles each require a senior SU or division manager thereby creating a tighter organisation as depicted in Figure 8.11. Besides the advantages of alignment with customers' value propositions, it is also more economical in specialist business resources. Furthermore, with such senior resources in place, estate GM's can spend more time interfacing with stakeholders and supporting the parenting effort of the company.

Figure 8.11
Proposed organisation structure adopting the research model



Entrenching the key success factors – Operating fundamentals strategy

In the case, three clusters of issues inhibited the operation of the estates company and its estate managers and were classified as 'key success factors': the empowerment of individuals and teams; systems and procedures that are fit for purpose; and effective agreements with stakeholders. Empowerment of individuals and teams is determined by the company's devolution policy and culture. Key elements in the case were: delegating authority on a 'need to have' basis as determined by managers' responsibilities; and the capability of management. The performance management system addressed the last mentioned using key performance areas to align all levels in the organization. Systems and operating procedures were particularly important for managing: the SHE performance of estate managers; their business processes; and information systems. Company standards were established to capture formally these and other requirements including policies. Agreements and contracts highlighted in the case included lease and service agreements with tenants, charters with communities and a stewardship

agreement with the owner. This is in line with administering covenants and restrictions, which is a role UNEP IE (1996b) pointed out for estate managers.

These key success factors underpin all the other providing-strategies and had the estate managers implemented these correctly from the outset, their operations would have been better focused on delivering value for stakeholders. Appendix 8 reflects the detailed issues encountered in the case with regard to each of the key success factors.

Landlord – Estates utilisation strategy

The focus of this strategy is improved estate utilisation. This entails supporting estates in identifying their area of responsibility (described by the operations envelope in the case) and approaching their utilization optimally (outlined in the estate development philosophy). For this each estate requires a master plan (provided by the development framework) for improving the utilization of the operations envelope that includes dealing with contaminated land and redundant buildings (referred to as estate renewal). Implementation of the master plan can be accelerated through promoting the sites and facilities that are not used. Details of each of these facets are described in Appendix 9.

Service Provider – Business improvement strategy

The Service Provider role is concerned with the primary value proposition. SU's in the case were responsible for their own Service Provider strategies, which included negotiating directly with customers and setting their own prices. It is governed largely by the strategic business plans estate managers develop according to the parent's key success factor strategy. Estate managers require guidance in delivering the promised experiences profitably. Customer focus is essential to the success of the Service Provider role and a parenting strategy that includes creating customer awareness and a supporting customer policy provides a framework to achieve this.

Customer awareness entails two basic elements: a customer information system and retrieving customer feedback. As in the case, customer feedback requires an intimate knowledge of customers' businesses and the appointment of account executives for major tenants is worth considering. Customer policy was the first step the case adopted to inculcate a 'caring for customers' culture in the organisation. Such a policy also outlines roles and responsibilities as well as behaviours and standards to support the company-wide objectives, measures and controls in terms of the policy.

Liaison –Public interaction strategy

The parent provides the insight that helps estates balance their major stakeholders demands: reduced risk for the estates owner; security of tenure for the tenants; and responsiveness to the concerns of the external stakeholders. As in the case, the parent tries to grow community confidence in its estates by balancing the owner's commitment to responsible estates management, occupiers' needs and the communities'

expectations. In the case this resulted in a package of initiatives that included addressing the communities' concerns by meeting their information needs and demonstrating the estates' social responsibility by way of reciprocally beneficial opportunities. Appendix 10 captures the details of these strategies.

Monitor – Monitoring strategy

World-class operation of the estates was an aspiration of all stakeholders in the case. The parent's monitoring strategy of estate impacts aims at supporting the estates in implementing international best practice where appropriate. Key to this strategy is a commitment to world class SHE practices. This entails two aspects: a process for formally managing the estate risks; and managing the estates' off-site impacts. Both these strategies were adopted in the case and are analysed in Appendix 11.

Providing-strategies can be summarized as:

Structuring the estate managers' services portfolio is essential to providing the value proposition and requires a strategy that enables estate managers to focus on their estates as 1st tier suppliers by owning, partnering or procuring the necessary services.

The strategy also entails organising estate managers' service delivery around the four roles: Landlord, Service Provider, Liaison and Monitor to provide integrated solutions that are focused on the value proposition for their primary and supporting entities.

A strategy directed at the key success factors of estates applies to all estate manager roles and comprises empowerment of individuals and teams; development of systems and procedures; and establishing contracts and agreements.

The parent supports the Landlord role with a strategy aimed at improved estate utilization through estates development, renewal and marketing.

The parent supports the Service Provider role with a customer focus strategy that creates customer awareness and provides a policy framework for customer relationships.

The parent supports the Liaison role with a public interaction strategy that addresses the community's concerns for information, off-site impacts and reciprocally beneficial opportunities.

The parent supports the Monitor role with a strategy that controls the adverse impacts of the estate according to the commitments given by stakeholders through managing estate risk and off-site impacts.

8.3.3 Communicating the value proposition

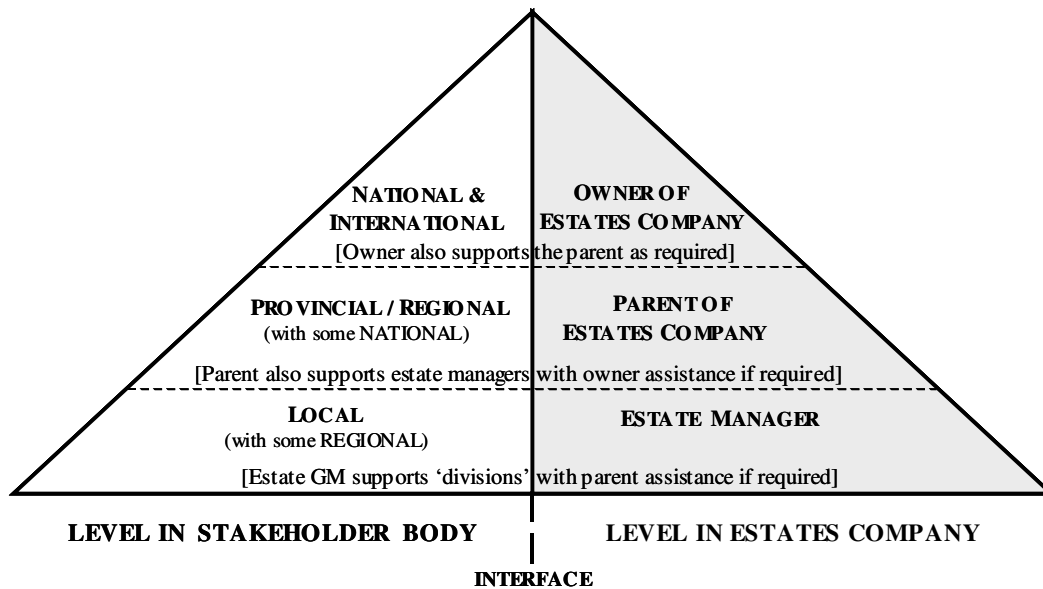
The estate managers in the case encountered difficulties in convincing their customers that the services on offer gave them value for money. Besides providing the value proposition effectively, the estates company must ensure the intended customer understands two things, according to the research model: the high-level resulting experiences the estates company will provide; and assurances these will happen if the customer does what the estates company wants him to do.

Strategies for communicating resulting experiences

Communicating the value proposition to key stakeholders is a cardinal and strategic activity which the parent leads without usurping the estate managers' responsibilities. In its communication strategies the parent employs a number of strategic communicating-vehicles to enunciate the intended high-level resulting experiences for key stakeholders. These include: formal agreements; forums; reports; presentations; a formal complaint system for eliciting and recording stakeholder feedback; encouraging personal relationships with stakeholder groups at multiple levels; and monitoring stakeholders' word-of-mouth communications. These strategies have been analysed in Appendix 12.

Encouraging personal relationships at multiple levels was not anticipated as a strategy by the research model. Personal relationships are the informal relationships that build trust between individuals in the estates company and a stakeholder group. It also provides the means for an estates company to 'get into the stakeholders' shoes'. The key to this strategy is the development of such relationships at multiple levels in the stakeholders' organisation. This can be depicted diagrammatically in Figure 8.12. At the highest-level, resulting experiences applicable to a stakeholder group are communicated by the owner of the estates company to his peers in the stakeholder body. This is replicated at the level of the chief executive of the estates company, the estate GM, divisional manager and, where possible, even lower levels. In this way a network of relationships between the estates company and the stakeholder body are built and sustained. It is vital that the different levels in the estates company share the information they gleaned about the stakeholder with each other. Furthermore, all levels must communicate consistent messages and relevant resulting experiences to their peer level in the stakeholder entity. The concept is akin to a practice that Pigott & Associates (2001) have advanced for soliciting customers in business-to-business sales.

Figure 8.12
Diagram of the ‘multi-level relationships building’ concept



Strategies for assuring stakeholders

While assurances for stakeholders that the resulting experiences would happen are inherent in the communication strategies discussed above, there is scope for communicating high-level assurances to each stakeholder group as illustrated by the case.

In the case the assurances tenants require takes the form of the mandate the estates company receives from the owner. The mandate captures the philosophy, constraints and objectives for managing the estates. This is equivalent to an agreement between estates owner and the estates company (the stewardship agreement) in which the estates owner outlines the policies and practices as well as the high-level outcomes it requires from the estates company.

The external stakeholders are interested in the estates operating philosophy and the owner’s public commitment to the same. The owner in the case was committed to the Responsible Care philosophy and practices, which it and the estates company publicly espoused in different guises and on many occasions. The parent’s strategy is to ensure that similar philosophies and practices exist for its estates and that the estates owner frequently commits to them in public.

Formal undertakings by the estates company regarding the implementation of the owner’s policies, practices and objectives are what the owner requires. AECI prescribed its policies, practices and objectives for the estates company and monitored the

implementation of those through a variety of structures including the company board. The strategy the estates company adopts is to prepare such a 'specification of outcomes' that includes appropriate structures, which the owner can use to monitor its performance.

Communicating-strategies can be summarised as:

The parent supports the estate managers in communicating the high-level resulting experiences they will deliver using any or all of the following communication strategies: formal agreements; forums; reports including those of the media; presentations; formal complaint systems; word-of-mouth communication; and multiple level personal relationships.

Strategies to give stakeholders the high-level assurances about such resulting experiences are: the estates owner's mandate to the estates company indicating the operating policies and practices that drive value for tenants and the external stakeholders; public commitments on operating philosophy as additional assurance for external stakeholders that back up the owner's mandate; and a formal specification of the owner's operational requirements for the estates company.

Selecting the value propositions, providing it to the stakeholders and communicating it are the elements that comprise a value delivering strategy for multiple estates.

8.4 Conclusions

8.4.1 The research problem

The research problem, which was stated as the central research question is: *What strategies can multiple estates employ to be competitive?*

The research addressed three aspects of this question by considering the elements to which such strategies should be directed (research question 1); who should be responsible for the strategies (research question 2); and what should such strategies entail generically (research question 3). The evidence generated by the research in answering these questions can be summarised as follows:

An industrial estate comprises a dynamic system of key stakeholders that is sustained when each stakeholder receives value with respect to its principal requirement. The key stakeholder groups are the owner, tenants and external stakeholders. Their high-level requirements from the estate are, respectively: an improved triple bottom line; enhanced competitive position; and improved quality of life. An estate manager is the appointed custodian of an industrial estate system that describes the interaction of the key stakeholder groups. The estate manager aligns itself

better with these stakeholders requirements when it is run according to business principles adopting four roles: Landlord; Service Provider; Liaison and Monitor. It is responsible for sustaining the estate by balancing the stakeholder groups' high-level requirements through strategies that deliver superior value.

For multiple estates, the strategic responsibilities are determined by the configuration of the relevant estate manager entities. The integration of multiple estate managers in an estates company offers superior value for estate stakeholders. The estates company can also deliver superior value if it is independent provided no compelling strategic, environmental and technological contingencies exist. Estate managers from such an independent company will have fewer conflicts of interests and better able to balance the diverging demands of stakeholders. If an affiliation between the estates company and any major stakeholder is unavoidable, the order of preference for such an affiliation should be estates owner, tenants and external stakeholders. Having a separate owner for an independent estates company does not detract from the value the company can deliver. An estates company of multiple estate managers has a parent that is responsible for the company's value delivering strategies.

Such strategies comprise choosing, providing and communicating the high-level value proposition that will sustain the industrial estate system for which estate managers are responsible. Choosing-strategies entail designating the intended customer; formulating high-level resulting experiences required for the value proposition; and determining prerequisites for the customer to receive it. The high-level interests of industrial estates' key stakeholders are best balanced by a strategy that designates tenants as primary entities and the owner and external stakeholders as supporting entities at each estate. The use of high-level resulting experiences facilitates the interaction with stakeholder principals and assists estate managers in formulating operational level value propositions. Such resulting experiences indicate where estate managers must focus to deliver value in terms of the principal requirement of each stakeholder. For customers to receive this value proposition they must actively participate in the industrial estate system through their contributions to the estate, recognition of the estate manager and formalisation of their relationship with the estate in agreements. Providing-strategies entail structuring the services portfolio of estate managers to enable them to become 1st tier suppliers of integrated solutions to their estates. They do so by owning, partnering or procuring the necessary services before delivering them in focused value propositions to the primary and supporting entities using the four estate manager roles. The parent supports each role as follows: the Landlord role with a strategy aimed at improved estate utilization through estates development, renewal and marketing; the Service Provider role with a customer focus strategy that creates customer awareness and provides a policy framework for customer relationships; the Liaison role with a public interaction strategy that addresses the community's concerns for information, off-site impacts and reciprocally beneficial

opportunities; and the Monitor role with a strategy that controls the adverse impacts of the estate according to the commitments given by stakeholders through managing estate risk and off-site impacts. A strategy directed at the key success factors of estates applies to all estate manager roles and comprises empowerment of individuals and teams; development of systems and procedures; and establishing contracts and agreements. Stakeholders require communicating-strategies that advise them of the high-level resulting experiences the estates company will provide. They also require assurances that these will happen if the customer does what the estates company wants him to do. The resulting experiences are communicated by formal agreements; forums; reports; presentations; complaint systems; multilevel personal relationships; and word-of-mouth communication. Stakeholders receive the assurances they require through the estates owner's mandate to the estates company, which indicate the operating policies and practices that drive value for tenants and the external stakeholders; public commitments on operating philosophy to back up the mandate as additional assurance for external stakeholders; and a formal specification of the owner's operational requirements from the estates company.

8.4.2 Confronting the literature

The following were the significant findings of the case study that confirmed key features of the literature.

The case identified many of the physical characteristics of an industrial estate described by UNIDO (1997). It also endorsed estate management as the distinguishing feature of an industrial estate outlined by UNEP IE (1996a). The importance of environmental issues highlighted by UNEP IE (1997), especially with regard to chemical estates, was encountered in this case. UNEP IE (1996b) also pointed out the role estate authorities have in administering covenants and restrictions. The case demonstrated this in the agreements and estate standards the estates company initiated and managed. The case also pointed out that estate managers on each estate have an important role of providing services to tenants as indicated by UNIDO (1997). Stakeholder theory broached by Freeman (1984) and subsequently developed by other researchers was a useful construct to describe the key elements of an industrial estate in terms of the owner, tenants and external stakeholders. Senge's (1990) systems-thinking was then applied to describe the interaction of these stakeholders leading to the development of the industrial estate system model. The case confirmed the applicability of Robillard's (2000) quality of life definition as the high-level value external stakeholders expect from industrial estates. Van der Brugge and Verburg's (1998) organisational concepts for multiple estates and the four roles that describe the operation of estate managers were also found to apply in this case. Goold, Campbell and Alexander's (1994) parenting and parenting advantage concepts for multi-business entities such as estates companies could be used successfully as the basis for developing

the choosing, providing and communicating strategies. The structure adopted for these strategies was based on Lanning's (1998) DPV framework, which demonstrates its relevance in conceptualising value, resulting experiences, value propositions and the value delivery system.

8.4.3 Deviating findings

A number of findings were not anticipated by the research model

The first concerns an extension to the industrial estate system by way of an additional reinforcing cycle for the owner. This new cycle complements the cycles the research model proposed for the other key stakeholder groups. The owner cycle was found to pivot on the same point as the tenant and public cycles, namely the operations impact. It furthermore incorporates the elements of tenant and public reaction from those cycles to integrate well with the overall system. The three cycles and common pivot point provide the focus for each of the four estate manager roles. A further contribution is the 'peace of mind' construct that embraces a number of issues driving external stakeholder quality of life. These issues comprise a hierarchy of increasing abstraction from industrial estate off-site impacts and effects, followed by the ability of management on the estate culminating in estate morality. A basis for identifying indicators for these levels has also been proposed. Another construct developed from the case findings concerns the 'integration' of multiple entities and their outcomes. Four different integrating modes termed 'collaboration', 'coordination', 'consistency' and 'consolidation' were identified depending on the issue at hand. They describe the four quadrants of a matrix having discreteness of the entities and homogeneity of the outcomes as the axes. A final concept described as 'multilevel relationship-building' addresses, according to the findings, the interaction between the estates company and a stakeholder organisation. In this concept the different hierarchical levels of an estates company personally engage counterparts at a corresponding level in the targeted stakeholder organisation to communicate consistently specific resulting experiences related to that level.

8.4.4 Relevance for South Africa

There are several findings in the case study of particular interest to South African estates. In the first place, external stakeholders and their needs are ranked equal in importance to those of the other stakeholders. This is particularly relevant given the emphasis by government on CSR and public-private partnerships. In this regard SHE concerns are paramount especially in respect of chemical estates that have been contaminated over time. A major issue for South African manufacturing is international competitiveness. Besides the normal commercial considerations with which international competitiveness is associated, it also requires estates to maintain world-class SHE standards. This resonates with the South African constitution where

environmental issues and sustainable development are prominent. Secondly, the research has highlighted that there are distinct advantages when dedicated estates companies manage as businesses the multiple chemical estates that belong to the few major companies dominating the chemical industry in South Africa. These owners can, furthermore, consider outsourcing this function as the identified contingencies permit and the service environment in the country becomes more sophisticated. Such outsourcing can occur without fear of detracting from the value offered to stakeholders. Finally, the strategies for assuring stakeholders of resulting experiences are particularly relevant in light of the aforementioned emphasis on external stakeholders and the employment of dedicated professional management for multiple estates. At the heart of these strategies lie the mandate from the owner reflecting a commitment to SHE and CSR and a 'specification of outcomes' for the estates company. These and other requirements can be embodied in the proposed stewardship agreement. In summary, estates in South Africa must be internationally competitive, maintain world-class standards and accommodate the growing expectations from external stakeholders regarding their social responsibilities.

8.4.5 Recommendations for further research

This study provides insight to the general aspects and specific issues of multiple estates in South Africa. Future research opportunities to further the body of scientific knowledge associated with these findings can be assessed using Mouton's (1996) typology in Figure 1.2. The contribution of this research was described as both descriptive and explanatory in terms of his typology (Chapter 1). This, in turn, suggests three logical extensions for additional work: replication studies to validate these findings; hypothesis generating studies using specific data and findings from this research; and further theory development and testing.

Replication studies are concerned with the external validity of the findings based on the unit of analysis, as the set of entities to which the conclusions of the research can be applied (Mouton, 1996). In this research the unit of analysis was defined as multiple industrial estates accommodating a number of discrete businesses requiring comprehensive services from the estate and having significant off-site impacts. Besides the obvious need to replicate the findings of the study using other multiple estates having similar characteristics, there are specific aspects that could be validated using units of analysis that have a narrower scope. The key stakeholder groups, their high-level requirements and their interaction with each other and the estate manager in the proposed industrial estates model can be replicated with a single industrial estate. This is the crux of a possible industrial estates theory, which not only enables a better understanding of estate dynamics but also the optimisation of the estate operation. The finding that commercial estate managers deliver superior stakeholder value can be similarly validated. However, multiple estates will be required to replicate the findings

about the value delivering potential of multiple estate managers. This includes the integration of multiple estate managers in an estates company, such a company's affiliation with the owner of the estates and the affiliation preferences when independence is not possible. These are key elements for the subsequent development of value delivering strategies for multiple estates as envisaged by this research. While the strategies themselves have focused on the parent of such an estates company, elements of these strategies are equally applicable to individual estates and can be validated accordingly. Such a validation will enhance confidence in these strategies' ability to deliver stakeholder value.

The data and findings can also be used for research involving units of analysis beyond industrial estates, particularly in the development of research hypotheses. In this regard two specific topics that apply to industry in general and not just industrial estates have been highlighted by this research: SHE management and the transformation of 'functions' into 'businesses'. The measures AECI Ltd adopted and the issues the estates company encountered in improving its SHE performance, provide material that can be used in formulating hypotheses for further research in SHE management. This is a significant issue for industry as demonstrated by this research. Moreover, AOS' experiences in transforming itself from supporting functions on factory sites to business driven SU's can provide similar material for researchers in organisational design. This topic is of interest to investigators concerned with organisational re-engineering or right sizing, which is a particular concern for managers faced with globalization.

Finally, the realm of non-empirical studies directed at theory development and testing provide interesting future research possibilities. Firstly, the peace of mind construct developed in this research should be further tested and adapted as a key driver of quality of life. This construct can be particularly relevant to CSR where external stakeholders are dominant. Secondly, in her critique of stakeholder theory, Key (1999) proposes four additional components that should be considered before stakeholder theory can be regarded as an alternative to the neoclassical theory of the firm. These are: (1) a logic for understanding firm behaviour *vis a vis* its stakeholders; (2) accounting for the role of actors within and outside the firm; (3) defining the system in which the firm operates; and (4) incorporating the impact of time into the identified relationships. The extent to which the following elements contribute to these concerns and, therefore, to a more complete theory of the firm should be investigated: the logic of the delivering profitable value framework as developed in this research; the high-level value identified for the key stakeholder groups; the roles of the estate manager being a type of the firm; and the proposed industrial estates system reflecting the interaction of stakeholders with time as well as the balancing influence of the estate manager.

EPILOGUE

In April 1998, SASOL Limited presented a bid to acquire the entire share capital of AECI (Trahar, 1998). In spite of support for the transaction by the Department of Trade and Industry, the Competition Board in South Africa rejected this as an unacceptable 'concentration of power in the marketplace'. SASOL withdrew its offer after this ruling. The period from the time of SASOL's offer to the completion of the Competition Board's investigation had a major detrimental impact on the group. The radical revision of the group's strategy that followed concluded that AECI had too broad a base; lacked competitive advantage in many products; and had to rationalise costs 'more aggressively' (Trahar, 1998). The transformation programme to 'reinvent AECI' had to deliver a lean and focused group with cost savings of at least ZAR 150 million⁷ / annum (Blizzard, 1998). The programme required Modderfontein to be consolidated into a single business site with the shutting down of several non-explosives plants (Trahar, 1998). Activities at Somerset West were further reduced to the point where AECI property division could manage the residual tasks of rehabilitating and disposing of real estate. Umbogintwini with a more diverse tenant base was less affected by AECI's restructuring plans. Because Modderfontein became a single business site, its industrial estate status changed and AOS was no longer required as an estate manager. Without Modderfontein, its largest estate, and with Umbogintwini the only industrial estate left, it was impossible to justify the retention of AOS as a multiple estates company. AECI Operations Services was therefore disbanded on 31 December 1998.

However, Umbogintwini has continued to operate as a single industrial estate, with the same estate manager it had before now operating as Umbogintwini Operations Services (UOS). UOS has maintained the same philosophies, strategies and systems developed by AOS. This confirms that the disbandment of AOS was not due to a failure of the industrial estate concept but as result of extraneous factors.

⁷ Exchange rate in 1998: 1 US dollar = 5.55 South African Rand

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APPENDIX 1 THEME REGISTER BY ID REFERENCE AND CATEGORIES

Theme ID	Theme Category	Theme
AECI01	AECI Ltd	History
AECI02	AECI Ltd	Strategy
AECI03	AECI Ltd	Profile and Developments
AECI04	AECI Ltd	Objectives, Policy
AECI05	AECI Ltd	Group (Central) functions
AECI06	AECI Ltd	AOS establishment
AECI07	AECI Ltd	Business performance (impact of environment)
ASSET01	Asset Utilisation	Leases (without Services Agreements)
ASSET02	Asset Utilisation	Facilities
ASSET03	Asset Utilisation	Site Development
ASSET04	Asset Utilisation	Operations envelope
ASSET05	Asset Utilisation	Property Department
ASSET06	Asset Utilisation	Site Remediation
CON01	Internal Controls	Limits of Authority
CON02	Internal Controls	Audit review Committee
CON03	Internal Controls	Letters of Assurance
CON04	Internal Controls	Risk Assessment
CON05	Internal Controls	Accounting Standards
CON06	Internal Controls	AOS Company Standards
FIN01	Finance	Financial Management and Performance
FIN02	Finance	Retrenchments
FIN03	Finance	AECI Ltd Sales
FIN04	Finance	Targets
FIN05	Finance	Assets
FIN06	Finance	Budgets
GOV01	Governance	Board
GOV02	Governance	Executive
GOV03	Governance	AECI Committees

Theme ID	Theme Category	Theme
HR01	Human Resources	Performance Management
HR02	Human Resources	Individual commitment
HR03	Human Resources	People Strategy
HR04	Human Resources	IR
HR05	Human Resources	Statutory
HR06	Human Resources	Functional Management/Standards
HR07	Human Resources	Retrenchment
HR08	Human Resources	People Development
IND01	Chemical Industry	Overview
IND02	Chemical Industry	CAIA
IND03	Chemical Industry	Classification
IND04	Chemical Industry	Trade Statistics
IND05	Chemical Industry	Characteristics
OPS01	AOS Operations	Business Definition
OPS02	AOS Operations	Strategic Business Plan
OPS03	AOS Operations	IT
OPS04	AOS Operations	Subsidiaries
OPS05	AOS Operations	Outsourcing
OWN01	Owner Directives	Owner Directives
RSA01	South Africa	Political overview, milestones
RSA02	South Africa	Transitional process
RSA03	South Africa	Economical development
RSA04	South Africa	External factors, business environment
RSA05	South Africa	Human resources and Labour
RSA06	South Africa	
RSA07	South Africa	Globalisation (imports)
SHE01	Safety, Health & Environment	Management
SHE02	Safety, Health & Environment	Managers
SHE03	Safety, Health & Environment	Employees

Theme ID	Theme Category	Theme
SHE04	Safety, Health & Environment	Contractors / Visitors
SHE05	Safety, Health & Environment	Group (AECI Ltd) Standards
SHE06	Safety, Health & Environment	Statement of Performance
SHE07	Safety, Health & Environment	Statutory
SHE08	Safety, Health & Environment	Risk
SHE09	Safety, Health & Environment	Effluent Master Plan
SHE10	Safety, Health & Environment	Off-site impacts (ex on site)
SHE11	Safety, Health & Environment	On-site impacts (ex off site)
SHE12	Safety, Health & Environment	Groundwater
SHE13	Safety, Health & Environment	Responsible Care
STAK01	'Public'	Policy
STAK02	'Public'	CAER Committee
STAK03	'Public'	Annual SHE Report
STAK04	'Public'	Emergency Response
STAK05	'Public'	Clubs
STAK06	'Public'	Forums
STAK07	'Public'	Suppliers
STRAT01	AOS Corporate Strategy	Vision and Design
STRAT02	AOS Corporate Strategy	Purpose / Mission
STRAT03	AOS Corporate Strategy	Values
STRAT04	AOS Corporate Strategy	Objectives
STRAT05	AOS Corporate Strategy	Strategy
STRAT06	AOS Corporate Strategy	Identity

Theme ID	Theme Category	Theme
STRUC01	AOS Structure	Operations Structures
STRUC02	AOS Structure	AOS Corporate Services
STRUC03	AOS Structure	AECI Services
USE01	Tenants	Agreements (Leases with Service Agreements)
USE02	Tenants	Site standards
USE03	Tenants	Promotion
USE04	Tenants	Customer care (service orientation)
USE05	Tenants	Customer satisfaction (measure)
USE06	Tenants	Utilities and Services
USE07	Tenants	Site user behaviour
USE08	Tenants	Modderfontein
USE09	Tenants	Somerset West
USE10	Tenants	Umbogintwini

APPENDIX 2 SAMPLE OF DOCUMENT RECORDS IN ACCESS DATABASE

DocID	Type	Title	Reference	Date	Author Surname	Author Initials	Author Job Title	Author Org/Publisher	Found	Filed	Notes
920309R	Report	Chairman's Report	AECI Ltd 1991 (68th) Annual Report	09/03/1992	Relly	GWH	Chairman	AECI Board	Own Records		
920506M	Memo		Memorandum from Multi-business site working Party to General Manager Planning AECI Ltd	06/05/1992	Coetzee	JE	Production Director	AECI Explosives and Chemicals (E&C)	Own Records		
920506P	Paper	Restructuring of Multi-Business Sites (MBS's)	Proposal for consideration by the SMC Task Group for restructuring AECI's core businesses	06/05/1992	Coetzee JE, Weir AJM, Humphries AW, Hollway RAE		Multi-business site Working Party	AECI	Own Records		
921123E	Minutes		Executive Minutes	23/11/1992	AOS	Executive		AOS	Own Records		

APPENDIX 3 EXAMPLE OF A DATA CAPTURE FORM FOR ACCESS DATABASE

DocumentID	Pg/#	ThemeID	Spare	Extract	Follow-up
000619A	p 2	TOPIND02		<p>The Chemical and Allied Industries' Association (CAIA) was established in 1994 to promote a wide range of interests pertaining to the chemical industry. These include fostering South Africa's science base; seeking ways to promote growth in the sector; promoting the industry's commitment to a high standard of health, safety and environmental performance; and consulting with government and other role players on a wide variety of issues.</p> <p>Membership is open to chemical manufacturers and traders as well as to organisations which provide a service to the chemical industry, such as hauliers and consultants.</p>	

APPENDIX 4 DATA ANALYSIS SCHEME

<i>THEORETICAL COMPONENT</i>	<i>CONSTRUCTS</i>	<i>ELEMENTS</i>	<i>THEME CODES</i>
Research Design: Case Study context and unit of analysis			
Macro-environment	National	Legislation; Constitution; Transformation; Democratisation; Expectations created; Globalisation; Policy drivers	RSA01 to RSA05
	Industry	Contribution; Composition; Challenges; Initiatives; Organisations; International links;	IND01 to IND05
AECI Ltd.	Scope of activities	Markets; Products; Revenues; Listed	AECI01; AECI03
	Threats, Opportunities	Competition; Globalisation; Change in service needs; cost; speed; reliability; flexibility; quality	AECI02; AECI07
	AOS rationale	* Business strategy led; * Unbundling	AECI06
AOS	Milestones	* Joint Mdf / Estate mgt; * Principal relationships;	STRAT01 to STRAT06
	Resources	* Key functions; * Rationale; * Services	
Modderfontein	History	Location; Origins; Milestones	USE08
	Characteristics	* Size; Activities; * Value added; * Interactions	
	Estate users	Identity; Products; Markets; Materials; Resources; Value added	
Somerset West	History	Location; Origins; Milestones	USE09
	Characteristics	* Size; Activities; * Value added; * Interactions	
	Estate users	Identity; Products; Markets; Materials; Resources; Value added	
Umbogintwini	History	Location; Origins; Milestones	USE10
	Characteristics	* Size; Activities; * Value added; * Interactions	
	Estate users	Identity; Products; Markets; Materials; Resources; Value added	
Question 1: Understanding industrial estates (The System)			
Tenants	Competitive advantage	On-site operations; Services packages; Freedom in supplier choice; Conducive work environment; Image; Responsible estate practices	STRAT01; STRAT02; USE05; USE06;
Public	Quality of life	New developments sustainable (economically, socially and environmentally); Peace of mind (free information flow, world-class	SHE13; STAK02; STAK03; STAK04;

<i>THEORETICAL COMPONENT</i>	<i>CONSTRUCTS</i>	<i>ELEMENTS</i>	<i>THEME CODES</i>
		standards, professional risk & SHE management); Ethical governance (compliance with statutes and agreements, honesty and transparency, professional commercial practices)	
Owner	Triple bottom line	Utilisation of assets; Sustaining and developing Estates; Reputation as responsible corporate citizen	ASSET01; ASSET02; FIN01; USE03;
	Mandate estate authority	Legal appointments; Targets; Practices; Policies; Strategies	AECI04; CON02; CON05; FIN04; HR04; HR05;
Estate authority	System custodian	Interconnectedness with stakeholders to mutual benefit; Evidence of "limiting" and "balancing" conditions; Stages in reinforcing and stabilising cycles informing the VDS	OPS01; OPS02; SHE10; SHE11; STRUC01;
	Business	Market exposure; Business practices (financials, customers, competitive forces, agreements; negotiations); Developing and maintaining a VDS	FIN01; FIN03; FIN05; FIN06; OPS01; OPS02; USE03; USE04; USE05;
<u>Question 2: Configuring for Value</u>			
Integration	Estates Company	It exists; Comprises estate authorities; Estate authorities are affiliated; Benefits that demonstrate it better serves stakeholder interests; Focused on stakeholder value;	OPS01; OPS02;
Independence	Autonomy	Legal standing; Dedicated entity; Decision-making authority; Effectiveness;	CON06; FIN01; FIN04; FIN06; GOV01; GOV02; GOV03;
	In-house or Outsourced	Strategic (dominance of Owner needs, availability of FM's); Environmental (other Owner involvements on site); and Technological (Extent of Owner's internal capabilities) Contingencies	FIN02; GOV03; HR04; HR05; OPS04; OPS05; STRUC03;
Parent	Identity	Identifiable; nature of resources; position in organisation; relationship with Company Owner and estate authorities; extent to which it provides insights to the operation of Estates	ON02; CON04; CON05; GOV01; GOV02; GOV03; HR06; HR07; HR08; OPS04; STRUC02; STRUC03; STRAT06

<i>THEORETICAL COMPONENT</i>	<i>CONSTRUCTS</i>	<i>ELEMENTS</i>	<i>THEME CODES</i>
	Parenting advantage	What parenting characteristics existed to make it more competitive: Resources (specialists; reputation; brand; network; headoffice); Capabilities (business sense, customised systems, risk and SHE management, balanced decentralisation practices)	ASSET04; ASSET05; ASSET06; CON01; CON06
<u>Question 3: Strategies for Value</u>			
Higher-level value proposition	Cascade	Communication of value proposition and what it expects in return at the higher level; Estate authorities tailor to Estates unique circumstances	OPS01; STRAT01; STRAT02;
	Customer	Tenant group is primary customer; potential for unlocking value the greatest; Owner and 'Public' supporting; only benefit if Tenants benefit	FIN03; USE01; USE04; USE05; STAK01; STAK02;
	Primary value proposition	Owner: Serviced sites; Owner and 'Public': Security of tenure; Owner and Estate authority; Operating climate; Estates authority: Integrated service; Estate authority: Cost effective services	ASSET01; ASSET03; ASSET04; USE03; USE06;
	Supporting value proposition	For Owner: Improved triple bottom line (asset utilization, stakeholder benefits, enhanced reputation); For 'Public': Better quality of life (new developments are sustainable, peace of mind, ethical governance)	ASSET01; ASSET04; ASSET05; ASSET06; FIN03; STAK04 to STAK07; USE03;
	Obligations	Recognise Estate Company as a business, mandated authority, 1st Tier supplier of outsourceable services. On Estates respect role of other stakeholders, enter and comply with local agreements, participate in local structures, contribute to sustainability, support risk management efforts.	USE02; USE07;
Providing the value proposition	Estate authority roles	Service provider, Landlord, Liaison and Monitor roles influence the structure and delivery of VP. Each supported by local Agreements	USE01; USE02; SHE04; SHE05; USE06;
	Providing strategies	How Parenting characteristics were implemented to make it more competitive: Resources (specialists; reputation; brand; network; headoffice); Capabilities (business sense, customised systems, risk and SHE management, balanced decentralisation practices)	ASSET04; ASSET05; ASSET06; CON01; CON06

<i>THEORETICAL COMPONENT</i>	<i>CONSTRUCTS</i>	<i>ELEMENTS</i>	<i>THEME CODES</i>
Communicating the value proposition	Multi-level relationships	Owner, parent, estate authority connect personally to different levels in stakeholders organisations	STAK01; STRAT05; USE04;
	Communicating strategies	Communicating vehicles include agreements, forums, invoices, reports, complaint systems, word-of-mouth, personal relationships for Tenants, Owner and the 'Public'.	ASSET01; CON03; FIN01; FIN03; SHE06; USE01; STAK03;

APPENDIX 5 ANALYSIS OF CUSTOMER PREREQUISITES

Contribute to the estate

To benefit from the industrial estate system, customers in the case supported the system in two ways: supporting the estate manager in its external interactions; and diligently participating in the estate risk management process. Tenants assist the estates in responding to communities' *ad hoc* demands but also by accurately specifying their initial and future site requirements. Diligence by each tenant in preparing and maintaining its on-site risk assessment enables the estate manager to do the same for the estate as a whole.

Recognise the estates company

In the case customers had to recognise the authority of the estates company in, for example, coordinating any emergency response, managing the interface with the external stakeholders and acting on behalf of the owner. Secondly, tenants had to accept the estates company as a business that invoices for its services, expecting prompt payment as agreed. 'Cost effective services at competitive rates' requires the estates company to operate as an independent business charging for all services tenants require. Furthermore, tenants must be willing to outsource their non-core activities and consider the estate manager as their 1st tier supplier. By using the estate manager as a 1st tier supplier, tenants are able to 'focus on core issues' and leave the managing of 3rd party suppliers/contractors to the estate manager. In the case, tenants encountered problems when they independently accessed external service providers.

Enter into formal agreements

It was necessary in the case for tenants to 'enter into lease agreements that embodied the necessary SHE restraints on activities'. Formalizing the relationship with tenants in this way was both good business practice and necessary for an appropriate work environment. Tenants had to permit AOS to propose the format for such agreements based on 'the master lease and service agreements it developed'. Such agreements have to be negotiated in good faith, which is defined as honesty of intentions. This establishes the necessary trust and averts subsequent difficulties with the agreements. In the case, tenants did not always adhere to the agreed negotiating process and programme, which put AOS under pressure to meet its budgeting deadlines. Good faith is also necessary for resolving any disputes as agreed beforehand. Furthermore, it is vital for the relationship between estate manager and tenants to abide by their

agreements. Examples where this did not happen in the case include outstanding debtor balances and tenants' effluent discharges.

APPENDIX 6 PORTFOLIO STRUCTURING PROCESS FRAMEWORK

Focusing the services on the estates

The first step is to ensure that the **services required** are prescribed by the events necessary for the promised resulting experiences. When these are compared with the **services available** from the estate or the estates company, the outcome is **services considered**. Services that cannot contribute to delivering the value proposition are **superfluous** and have to be dealt with in an **exit plan**. Next the business viability of services considered or **prognosis** for delivering the value proposition has to be assessed. The attributes of a 'healthy' service include the ability to achieve the expected returns; compete effectively; provide market related offerings; exceed the critical mass necessary to operate as an effective business; and manage the associated risk economically. Unhealthy services fail this test and are analysed for their **recovery** potential. This entails assessing whether their health can be restored through: new management; alliances with others; right sizing to reduce costs; restructuring the asset base; or increasing their revenues. Services that fail this test are also candidates for an **exit plan** only after their **strategic** significance for the owner of the estates company has been tested. This includes questioning whether they are centres of excellence for the estates company; house some key competencies; or are an essential service now or possibly in the future. Together with these questions the effects of dispensing with that service on customers, other estates company businesses and the owner's cost structure (particularly overheads) have to be determined. If none of these considerations apply, the services can be sold, the assets 'milked' (i.e. exploited) or the service terminated in an **exit plan**.

Positioning the businesses as a 1st tier supplier

Before healthy services and those that can be restored to health are accepted they must first be assessed for **business fit**. Here a key consideration is whether the estates are best equipped to run this service or should it be outsourced. If the service is core to the estate manager's business, it should be retained together with any other services that conform. A **business planning** step (see 'key success factors') helps identify the viability of services that should be retained. These **retained services** are compared with those required to provide the value proposition. This identifies any **shortfall** in the services portfolio. This shortfall is addressed according to the parent's **outsource strategy**. Such a strategy typically considers whether the service has to be acquired if it is core and essential for the estate manager to 'own' it. Other options would be to enter

into a partnership with an existing provider of the service or just procure it from a 3rd party provider. The result is a services portfolio for the parent's estate managers.

APPENDIX 7 ESTATE MANAGER ROLES IN THE INDUSTRIAL ESTATE SYSTEM

The estate manager's role in the industrial estate system is directed at each of the key stakeholders and the balancing or pivot point. System roles coincide with four service roles: Landlord; Service Provider; Liaison and Monitor.

Landlord. This role is directed at the owner with indirect benefits for tenants. It considers value drivers such as estate viability for the owner and both financial performance and reputation for the tenants. Typical activities in this role include: site planning and development; infrastructure establishment and maintenance; as well as managing leases and leased facilities. Estate marketing and development activities also reside in this role. The agreements that govern this role are lease agreements with tenants and a stewardship agreement with the owner.

Service Provider. Tenants are the focus of this role with indirect benefits accruing to the owner and external stakeholders. Dominant value drivers in this role are tenants' financial performance and business focus; profitability of the services portfolio for the owner; and external stakeholders empowerment opportunities through 3rd party contracts. The services that are provided support tenant operations on site and include utilities, site support (security, catering, basic office and administrative support) and technical support (workshops, laboratories). Services agreements govern this role.

Liaison. This role focuses on the external stakeholders with indirect benefits accruing to tenants and the owner. Principal value drivers for this role are exchange of information and opportunities that benefit external stakeholders; tenants' financial performance and reputation; and the risk exposure and reputation of the owner. This role handles all interactions with the external stakeholders such as addressing community concerns and participating in reciprocally beneficial opportunities. The agreement that formalises this role is the community charter.

Monitor. All key stakeholders feature in this role with tenants' reputation; the owner's risk exposure and reputation; and the off-site impacts on the external stakeholders being the main value drivers. This role concerns the interpretation and implementation of policies, statutes, conventions and standards on the estate. It does not consist of a separate services division but resides with the estate GM and his management team. Specialist support staff assists them with the technical aspects of SHE management. This role impacts on all agreements.

APPENDIX 8 KEY SUCCESS FACTORS

Empowerment of individuals and teams

Empowerment is dictated by an organization's devolution policy and culture. AOS delegated authority from the board on a need to have basis conditional on the capability of individual managers. The intention was to quash the notion that signing authorities reflect status. The executive tried to delegate authority for financial and personnel matters on the basis of the authority business managers reasonably required to manage their responsibilities effectively. SU managers' strategic responsibilities include developing and maintaining the strategic business plans the board requires. Their operational responsibilities cover budgets and forecasts, negotiations with customers, financial and safety performance.

AOS addressed the issue of management capability strategically by introducing a performance oriented culture in the company based on a simple and flexible performance management system. The system is based on the following estate GM's key performance areas (KPA's) that addresses the requirements of key stakeholders with measurable deliverables for each KPA: customer obsessiveness, stewardship, continuous improvement of resources, creating shareholder value, and individual and team commitment. Employees at all levels derive their KPA's from these to ensure the necessary alignment with the company's strategy. Appropriate 'behavioural competencies' linked to the KPA's are identified and used for selection and training purposes. Managers regularly conduct performance reviews to identify additional development shortfalls and influence the rewards individuals receive.

Systems

The SU's were the providing-vehicles in AOS' VDS and required formal operating systems and procedures to ensure that they provided resulting experiences to the agreed standards. Such systems and operating procedures not only guide the delivery of the value proposition, they also capture the cumulative experience in best practices.

- Safety, health and the environment (SHE). The estates company in the case developed systems to enhance its internal (as contrasted with the estate as a whole) safety performance. While the Responsible Care programme does not make provision for a services company in the chemical industry, the philosophy can be extrapolated and incorporated in the SHE policy the company develops with its estate managers. The parent first ensures that there is an awareness of Responsible Care on the estates. It then goes on to integrate the various SHE related initiatives, local and international (e.g. ISO codes), in a single programme or system that can be managed holistically. In addition to such a SHE management system, the company

produces a SHE Charter and induction programme to enhance safety awareness and commitment at the employee level. This system has to be comparable with world best practice and incorporate its SHE targets.

- **Business development.** The parent develops a standard business development process that can be customized to the needs of any particular business. This guides SU's in developing value propositions from the high-level ones cascaded down to them. These value propositions include the price customers are prepared to pay for services. On this basis managers can determine possible revenues before knowing the cost of providing that service. According to the research model, the resulting experiences of the proposition can now be broken down into their component events, which dictate the delivery vehicles required. How these delivery vehicles will be provided, by whom and by when are determined in detail leading to the cost of the VDS. The resulting reward is now evaluated considering the risk to the estates and the estates company. The essence of the strategy is that SU's should be encouraged to work formally and systematically through the detail of how they intend delivering the value proposition in order to establish the profitability of any opportunity prior to interacting with the customer. Such an analysis provides a solid base-line for making improvements and an invaluable aid to the negotiation of any agreements. It also presents the platform whence SU's communicate the nature of the resulting experiences they propose and why they will happen if the receiving entity does what the division asks.
- **Information systems.** The estates company develops an IT strategy to address the functional and business needs of each estate as well as the integrating needs of the parent. This leads to an IT platform tailored to the company's needs that incorporates specialist supplementary systems for certain SU's.
- **Company Standards.** These documents are controlled to satisfy the requirements of various international standards and guidelines and contain both prescriptive and informative information. The way they were used in the case was to state company philosophy, define specific requirements that had to be met in performing certain tasks and capture accumulated best practice where uniformity of action was highly desirable.

Agreements and contracts

AOS demonstrated that having comprehensive, formal agreements in place with both the primary and supporting entities are critical. These agreements may take a number of forms including the service and lease agreements with tenants and a charter with the communities. With a conscious strategy to outsource certain services through partnering with or procuring from 3rd party suppliers and service providers, the nature of such contracts become critical. While the owner's policies may be regarded as a *de facto* agreement with the estates company, they can be formalised in a stewardship

agreement. In a sense the official permits and licences, which the authorities issue from time to time, also constitute agreements with those authorities. The conclusion is that estate managers must know what they are expected to deliver for each entity and what that entity undertakes to do in return.

The lease agreement in the case not only indicated the standard details such as the site, its associated rental and the term of the lease but also included: municipal rates and taxes; an infrastructure development and maintenance levy; obligatory services and charges such as access control, CAER and crisis management; environmental impacts and restraints on activities together with applicable sanctions; responsibilities towards minimizing estate risk; rehabilitation of the site at the termination of the lease as well as the need to make financial provision for this eventuality; tenants statutory responsibilities with regard to the estate; and acceptance of the estate GM's authority on estate related issues.

A number of shortcomings in AOS' services agreements were highlighted. These include: setting-up provisions; off-take volumes; pricing mechanisms; service levels; payment terms; interest on late payments; penalties for contaminants exceeding agreed levels; interim payments in project type services; review mechanisms including annual negotiations; and discontinuation of a tenant's operations on site.

Based on the AOS case, the estates company must take and retain the initiative in proposing agreements whenever possible. This should even apply to permits and licences with the authorities. Master agreements, which can be adapted to each estate's requirements, should be prepared. This will ensure a uniform approach to issues that apply to all estates in the interest of their stakeholders.

APPENDIX 9 ESTATES UTILIZATION STRATEGY

Estate development

The operations envelope defines the Landlord responsibilities of each estate manager as well as designating AOS and Property Department's respective responsibilities for estate utilisation. The operations envelope and tenants' battery limits can be captured on an official drawing that is approved annually and forms the basis for lease agreements and the designation of tenants' legal responsibilities in terms of the OHS Act. AOS' philosophy on estate development became a Company Standard and provides estate managers with guidelines on key issues such as approach to the use of land; application of tenants' leases; the activities and services the company provides with a leased site; and AOS and tenants' obligations to third parties, notably the external stakeholders. Estate master plans are produced according to a development framework that also anticipates demands from current and future users for estate infrastructure and utilities. Each estate produces a development framework that meets its unique requirements and enjoys the support of key stakeholders. Such a framework provides a comprehensive development strategy that incorporates tenants' needs and suggestions. In the case this was supported by Property Department and the EDC and endorsed by local communities.

Estate renewal

Site remediation entails the actions necessary to restore a site to a condition where it can be used for a designated purpose. By incorporating such sites in each estate's development framework alongside the uncontaminated land still available for use, the remediation tasks can be prioritised. The development framework also highlights redundant facilities such as hostels and warehouses that are underutilized. Alternative uses for the premises can then be identified and evaluated.

Estate marketing

Master plans are core to the company's strategy for promoting estates in the open market. In this strategy the parent retained specialist resources, set the marketing policy and objectives for the estate managers to implement. The case also demonstrates that there is a fine balance between the marketing momentum provided by the parent and the action and ownership necessary by estate managers for marketing their estates.

APPENDIX 10 PUBLIC INTERACTION STRATEGY

Addressing public concerns

The CAER Charter between the estates and the communities lies at the heart of the CAER programme. The CAER committee consisting of community and tenant representatives implement the programme with the estate manager as facilitator. The case demonstrates how these committees become the vehicle for addressing all matters of mutual concern between the estates and the communities with environmental and emergency response issues dominating the agenda. Because information sharing is a core activity of the committees, openness and honesty by the estates are essential. This is a prerequisite for building trust without which the programme is doomed. The parent in the case, acted as the dynamo for establishing and nurturing these committees. It provides the guidelines for launching them and developing the draft charter for consideration by each estate and its communities. The case also demonstrates the value of the parent in acting as a conduit for sharing the different estates' experiences of the CAER programme through the annual CAER chairmen's conference.

Identifying mutually beneficial opportunities

The case indicates that community projects go beyond the donation of money. They also entail access to other estate resources such as the expertise and skills to build capacity in the community or facilitate the implementation of a project. As before, the parent's involvement is not to detract from the normal relationship estate managers have with their communities. The parent provides policies and guidelines that enjoy the support of the owner. It also creates a forum for the exchange of related experience to the benefit of individual estates. Given the political nature of some projects, the parent's direction, and in some cases intervention, can be helpful. If the resources required are significant, the parent is able to access and coordinate the deployment of such resources, including the necessary finances. The parent also exercises discretion with such projects to ensure they do not set precedents that could embarrass other estates if not coordinated.

APPENDIX 11 MONITORING ESTATE IMPACTS

STRATEGY

Managing estate (SHE) risk

Estates and their stakeholders can be exposed to significant risks depending on the nature of their on-site operations. In the case, the parent takes the lead in developing a framework for managing estate risk. It does so by creating risk awareness on the estates as a first step to establishing a risk management culture. A formal risk identification process follows in which all tenants identify their most significant risks, possible impacts and appropriate risk control measures. If requested, the estate managers provide an assessment service for tenants as part of a service offering. Tenants also scrutinise the risks of process modifications and projects entailing new plant and equipment to assure the estate manager and fellow tenants of no deterioration in estate vulnerability. The framework also includes a risk communication step for informing employees and communities of any significant risk in an easily understood way. This is a sensitive step requiring the parent's involvement because of possible implications for all stakeholders. The final step in the framework is a periodic review of the risk assessment and prescribed controls by tenants. Because tenant participation is essential in this process, it is recommended that the approach be incorporated in all lease agreements. New tenants are required to submit with their plans a formal risk assessment like a 'hazard and operability study' of their proposed operations with their plans before they are allowed to establish on site.

Managing off-site impacts

The extent of external stakeholders' concern about the impact estates have on the environment depends on the nature of the estates. The case involved hazardous process industries and the parent led the environmental strategy. It did so with sincerity and commitment whilst respecting external stakeholders' right to know. Based on the case, such a strategy entails reducing environmental impact at source through estate operating standards and proactive waste management; dealing with legacy issues such as groundwater contamination; and responding effectively to major emergencies.

- Estate operating standards enjoyed the backing of lease agreements and militated against tenant behaviour that could harm the estate or its owner. The parent develops these standards in consultation with the estates and their tenants. The standards comprise a generic section applicable to all estates and an estate specific section tailored to the needs of each estate. Estate standards typically cover topics such as access control; risk management; emergency response procedures; management of effluents and emissions; land contamination; community interaction (CAER); and recording of SHE statistics. ECC monitored compliance with these

standards in the case. The ECC is chaired by the estates GM and comprises the senior on-site representative of each tenant. It drafts a remit for regulating its authority, frequency of meetings, agenda topics, notes of meeting and the like based on an outline proposed by the parent.

- Waste management in process industries is cardinal as the wastes impact on effective land use particularly with regard to solid and liquid wastes. The effluent master plan, which the case highlighted, underscores the importance of planning and managing waste treatment and disposal on estates. Besides the impact on land utilization, waste management is an important feature of the estates' work environment and environmental performance. The authorities are also concerned about waste management on site and legislate for it in most operating permits. The case again shows that effective consultation with all stakeholders on how waste will be managed is imperative. The parent is often involved in initiating these conversations. It also adds value in ensuring that effluent standards exist and that waste management features in the estates' master plans. When waste facilities have to be established on the estates, the parent agrees the constraints and guiding parameters like financial and land use with the owner. Building a relationship with the relevant national and provincial authorities is another key action for the parent. In a similar way the parent builds a network with professional consultants required in the design and operation of such facilities. The case also demonstrates the value of having the parent lead the steering committees that oversee any effluent-type projects. Moreover where sustained pollution can affect the public (e.g. groundwater contamination), the parent should be involved in shaping that communication strategy. This requires appropriate involvement from all stakeholders. The case amply demonstrates how vulnerable estates are to the legacy of historical practices and their impact on off-site migration of groundwater.
- Emergency response procedures are essential where hazardous processes expose key stakeholders to risk on estates. The way estates respond to incidents mitigates that risk. Because of the significant impact incidents may have, it is appropriate for these to feature prominently in the parent's strategy. The parent develops guidelines for emergency response procedures and monitors the exercises. The case also shows how it takes the lead in drafting master agreements with local authorities. These agreements spell out their involvement in exercises and incidents on estates, particularly where estates have no fire service of their own. The actual management of incidents is best left to estates with the parent available to support and summon additional resources as required. However, where an incident has resulted in a crisis such as with the sulphur fire in the case, the parent should visibly represent the owner in leading the recovery process following the incident. An invaluable parenting activity is to ensure that the learning from incidents is shared with other estates to enhance their emergency response capability.

APPENDIX 12 COMMUNICATING RESULTING EXPERIENCES STRATEGIES

The following strategies for communicating resulting experiences can be derived from the case: agreements; forums; reports; formal presentations; formal complaint systems; personal relationships; and word-of-mouth communication.

Agreements and the processes associated with them feature prominently as a communication vehicle in the parent's strategy. The case deals with lease and service agreements that communicate the relevant value propositions to tenants. The CAER charter can be seen as communicating the estate's offering to the local external stakeholder group. Agreements specify a review mechanism that includes the annual negotiation process. The issue of a stewardship agreement did not arise in the case because the estates owner was also the owner of the estates company. In situations where the estates company has an arms length relationship with the estates owner, such an agreement can be used to govern their relationship. A stewardship agreement outlines the estates company's proposed value proposition to the owner in addition to other requirements discussed previously.

Forums are a second strategy or high-level communicating vehicle the parent initiated on the estates. The estates ECC is one such forum in which estate managers meet with all tenants and remind them of efforts to promote both security of tenure through their licence to operate and a working environment conducive to their image. The CAER committee serves a similar purpose with the local communities. The case also employs other community forums to remind external stakeholders of the high-level experiences the estates provide. AECI's structures and the AOS board were forums at which the owner's requirements were discussed and interpreted but also feedback given as to the value proposition provided for the owner. In an arms length relationship with the owner, the estates company can consider an 'owners forum' that formalises the meeting between the respective owners. It can also be the mechanism for managing the stewardship agreement and its stipulations.

The parent uses reports as a strategy to communicate high-level experiences especially to the owner and external stakeholders. AOS conveyed its value proposition to the chairman of the AOS board, as representative of the owner, through board papers and board minutes as well as budgets, forecasts and long term plans. Expenditure proposals to justify capital expenditure are another example of a report communicating an intended resulting experience if the owner provides the funding requested. The annual statement of performance to the AECI EC and the associated SHE improvement plan indicated how the company intended adding value for the owner regarding its SHE policy and targets in the year to come. Besides protecting the owner's reputation, such SHE efforts are directed at managing the estate or owner's investment risk. The statement of performance

can be broadened as a strategy by the parent to remind the estates owner of the experiences it provides with respect to all the requirements of a possible stewardship agreement discussed earlier. Annual SHE reports provide a powerful strategy to remind external stakeholders, the primary audience, of the resulting experiences the estates wish to deliver and how they are performing against their targets. In implementing this strategy the parent orchestrates the process from defining the information needs of the external stakeholders to obtaining the commitment of tenants and the support of the owner. It coordinates publication of the report to achieve economies of scale and maximise the impact when the report is issued. A vital part of the strategy is the independent verification of the report using external auditors to enhance its legitimacy. The external stakeholders no longer perceive it as a public relations exercise but a serious commitment by the estates to its relationship with local communities and delivery on its undertakings. The case recognises the importance of the media as a communicating vehicle and its impact on conveying the intended resulting experiences to external stakeholders. In this strategy the parent is dominant in formulating press releases, especially at national and provincial level, and developing the capacity of estates to respond to the same. The parent also provides a policy, which recognises the role of the media and establishes the estate managers as the most reliable source of information regarding the estates. In this way the parent ensures it maintains the initiative to convey the intended resulting experiences to external stakeholders.

Formal presentations to all key stakeholder groups featured as a significant communication strategy in the case. It is normally employed by the parent to share high-level resulting experiences with the relevant stakeholders such as the chief executives of tenant companies, the EC and the public meetings that introduced the CAER concept to communities.

An effective complaint system is a strategy the parent can adopt for both tenants and external stakeholders and is described in the relevant agreements. Formalising complaints is an important aspect and estates company personnel should be encouraged to complete a complaint form even when a tenant lodges an informal complaint. Each estate manager designates a responsible person to respond professionally to all complaints reminding tenants of the resulting experiences the company wishes to deliver. External stakeholders' complaints are recorded and used by the CAER committee to track community concerns. Such a system must be user friendly and, in the case, a 'helpline' was used to support it. Besides establishing the complaint system with the necessary uniformity among estates, the parent also audits the diligence and discipline with which it is applied. If applied professionally, this strategy can remind communities of the resulting experiences and their believability as promised by the estates.

There was understandably little documented evidence of the impact of word-of-mouth communication. Some of AOS' difficulties in the case can be ascribed to this communication vehicle. If personal relationships are well developed and the complaint

system is working, the estates company should receive adequate warning of customer discontent and take corrective action. This should counter to some extent adverse word-of-mouth communication. Word-of-mouth can also be used positively by encouraging tenants to allow their operations to become 'reference sites' for viewing by prospective tenants. The same applies to external stakeholders where the positive experiences members of the community or community groups share about their interaction with the estates, lends credibility to the estate manager's external stakeholder value proposition. In the case, this happened at public meetings, CAER committee meetings, through the media and the surveys that were conducted. Word-of-mouth is regarded as the most credible communication vehicle estates have, as it is independent and occurs outside their ambit of control. The parent's strategy should be to encourage estate managers to search for word-of-mouth evidence in its interaction with stakeholders. The parent contributes to this as a formal strategy by listening to what tenant principals and high-level external stakeholders representatives say and have heard from others. This information can be used to address stakeholder perceptions of the resulting experiences estate managers deliver.

Developing personal relationships with stakeholders at multiple levels was not raised in the research model as a possible parenting strategy. This concept is adopted in the interaction with customers, owner and external stakeholders alike. The parent models this approach by establishing relationships with key customers at the highest level. It similarly identifies the key opinion formers and decision makers at the parent's level in the external stakeholder domain and nurtures such a relationship. The notes from these informal interactions can be captured on the customer information system. A close informal relationship with the owner is invaluable in building confidence in the estates company's ability to deliver the promised experiences. To consolidate such a partnership, the parent should create specific opportunities from time to time, as the case did, of exposing the estates owner to all estates and their other stakeholders. This gives the owner first hand experience of the value the estates company is adding and the opportunities or challenges that still exist for which his support may be required.

