

**A STRATEGIC CHOICE MODEL FOR ASIA-PACIFIC SHIPPING**

by

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## **ABSTRACT**

### **A STRATEGIC CHOICE MODEL FOR ASIA-PACIFIC SHIPPING**

**Jeffrey Edward Hawkins**

The importance of strategy to an organisation's competitiveness is widely acknowledged in the strategic management literature. However, although strategy research has become substantial in other areas, the same cannot be said with the shipping industry. Very little is known about how shipowners choose competitive strategies or what strategies they pursue under certain environmental conditions. Of what is available, most focus on Northern Europe and Northern America, with scant regard for the Asia-Pacific, which has become a major shipping power in recent decades.

This study was, therefore, conducted to address these gaps in the literature. It analysed the strategic choices made by Asia-Pacific shipowners at the corporate level, compared actual shipowners' behaviour with strategic management theory on strategy selection, and developed a strategy selection model that was applicable to Asia-Pacific shipowners and consistent with strategic management theory. An extensive review of the literature was initially undertaken to develop a generic strategic choice model, which then served as the basis upon which information from Asia-Pacific shipowners was collected.

A multi-method approach, called triangulation, was used to guide data collection and analysis. Data was obtained from two sources (shipowners' representatives and shipping experts) and through several methods (mail survey, interviews, simulation, expert and document review), and the extent to which these various sets of data were congruent had to be established. Because of the exploratory nature of the study, data was analysed using a qualitative approach.

There was a high degree of congruence in the data collected. Out of the analysis, two primary findings emerged: (1) there was strong support for the strategic choice model, which implied greater inter-industry applicability than originally expected; (2) however, modifications to the model were needed to reflect a general tendency among Asia-Pacific shipowners to use other strategies in combination with or as a substitute to those offered by the model.

# CONTENTS

<b>Chapter One</b>	<b>Problem Statement</b>	<b>1</b>
1.1	The importance of strategy	2
1.2	Limitations of strategy selection models	5
1.3	Research objectives and issues	9
1.4	Research focus	12
	Geographical focus: Asia-Pacific	12
	Maritime focus: Commercial shipowners	13
	Strategy focus: Corporate-level strategies	13
1.5	Definition of key terms	14
1.6	Key assumptions about the study of strategy	20
	A systemic view	20
	A pragmatic approach to research	23
1.7	Organisation of the thesis	23
<b>Chapter Two</b>	<b>Asia-Pacific Shipping</b>	<b>26</b>
2.1	The Asia-Pacific region: Defining its scope	27
2.2	The Asia-Pacific as an economic power	30
2.3	Major trading patterns in the Asia-Pacific	34
	The flying geese of East Asia	34
	World market share	35
	Intra-regional trade	35
	Intra-regional investments	36
	Growth triangles	36
	Growth of consumer power	38
	The Chinese network	39
	Future prospects	39
2.4	Asia-Pacific shipping	40
	The role of maritime transport	40
	Asia-Pacific seaborne trade	42
	Intra-regional seaborne trade	46
	Asia-Pacific fleet development	48



2.5	Competitiveness of Asia-Pacific operators	53
	Cost advantage	53
	Government support	56
	Maritime infrastructure	59
	Aggressive growth strategies	61
	A final word on Asia-Pacific competitiveness	62
2.6	Strategic management in Asia-Pacific shipping	63
	Lack of shipping strategy research	64
	The importance of strategy research in shipping	68
	Toward a greater understanding of corporate strategies in shipping	69
<b>Chapter Three Overview of Strategic Management</b>		<b>73</b>
3.1	Major influences to management thought	73
3.2	The beginnings of strategic management	77
3.3	The development of strategic management as a field of inquiry	78
	Overview	79
	Stage 1: Theory building (1960s)	80
	Stage 2: The debate between competing schools (1970s)	81
	Stage 3: Redefining the debate (1980s to the present)	83
3.4	Areas for further research	88
<b>Chapter Four The Content of Strategy</b>		<b>89</b>
4.1	The nature of strategy	89
	The power of strategy	90
	Elements of an effective strategy	90
	The levels of strategy	91
4.2	Types of strategy	94
	Corporate-level strategies	95
	A generic typology of corporate strategies	96
	Specific strategies in support of the four generic types	100
	A generic typology of multinational corporate strategies	102
	Business-level strategies	106
	Functional-level strategies	108
4.3	Synthesis: A comprehensive typology of strategies	110

<b>Chapter Five</b>	<b>Strategy Selection Models</b>	<b>111</b>
5.1	Approaches to strategy selection and analysis	112
5.2	BCG business portfolio model	114
5.3	General Electric's business screen	118
5.4	Directional policy matrix	121
5.5	The Thompson-Strickland matrix	123
5.6	Life cycle models	124
5.7	Porter's model of generic competitive strategies	127
5.8	SWOT analysis matrix	129
5.9	Grand strategy selection matrix	131
5.10	International competitiveness matrix	132
5.11	A critique of strategy selection models	134
5.12	A composite strategic choice model	136
<b>Chapter Six</b>	<b>The Conceptual Framework</b>	<b>138</b>
6.1	The strategic management process	138
6.2	The strategic management model	143
6.3	The strategic choice model	146
	Dimensions of analysis	147
	Strategic choices	150
6.4	Summary	155
6.5	Testing the applicability of the model to Asia-Pacific shipping	156
<b>Chapter Seven</b>	<b>Methodology</b>	<b>158</b>
7.1	Overview	159
	Data sources	160
	Research methods	161

7.2	Triangulation as a research approach	162
	The mail survey and interviews	164
	Simulation	166
	Expert and document review	168
7.3	Data collection and analysis	170
	Stage 1. Survey and interviews	171
	Stage 2. Shipowner participation in the computer simulation	176
	Stage 3. First iteration of the strategic choice model for shipping	180
	Stage 4. Expert review of the strategic choice model for shipping	181
	Stage 5. Final version of the strategic choice model for shipping	181
7.4	Summary	182
<b>Chapter Eight Research Findings: Survey and Interviews</b>		<b>183</b>
8.1	Overview of research findings	183
	Primary findings	184
	Secondary findings	184
8.2	Shipping respondents	185
8.3	Profile of shipowners	187
	Strategic planning practices	188
	Corporate strategy selection	188
8.4	Corporate strategy selection: Key issues	189
8.5	Survey data	191
	SQ-Q1: Response to environmental changes	193
	SQ-Q2: Basis for strategic changes	193
	SQ-Q3: Pursuit of a 'grow' strategy	194
	SQ-Q4: Pursuit of a 'stabilise' strategy	195
	SQ-Q5: Pursuit of a 'develop' or 'turnaround' strategy	195
	SQ-Q6: Pursuit of a 'harvest' strategy	196
	Summary of primary survey findings	197
	Other survey findings: Secondary trends	200
	Company size	200
	Training and experience in strategic management	200
	Language difficulties	200
8.6	Interview data	200
	I-Q1: Response to environmental changes	203
	I-Q2: Basis for strategic changes	204
	I-Q3: Pursuit of a 'grow' strategy	205
	I-Q4: Pursuit of a 'stabilise' strategy	207
	I-Q5: Pursuit of a 'develop' or 'turnaround' strategy	208

I-Q6: Pursuit of a 'harvest' strategy	209
Summary of primary interview findings	210
Other interview findings: Secondary trends	212
The role of the top executive	213
Lack of external information and evaluation tools	213
Lack of training in strategic management	214
An incremental approach to corporate strategy selection	215
Differences between liner and bulk operators	216
Effect of company size	216
Differences in management approaches	217
Methodological considerations	217
8.7 Synthesis: Shipowners' views on corporate strategy selection	219
<b>Chapter Nine Research Findings: Simulation</b>	<b>222</b>
9.1 Simulation variables for strategic decision making	222
9.2 Primary findings on corporate strategy selection	224
SIM-Q1: Response to environmental changes	226
SIM-Q2: Basis for strategic changes	227
SIM-Q3: Pursuit of a 'grow' strategy	229
SIM-Q4: Pursuit of a 'stabilise' strategy	231
SIM-Q5: Pursuit of a 'develop' or 'turnaround' strategy	233
SIM-Q6: Pursuit of a 'harvest' strategy	236
Summary of primary simulation findings	238
9.3 Other simulation findings: Secondary trends	239
Decision-making styles	240
Use of information	242
Environmental focus	244
Competitive performance	245
Cultural differences	250
9.4 Post-simulation evaluation findings	253
How realistic was the simulation?	253
Problems encountered during the simulation	257
9.5 Summary	258
<b>Chapter Ten Research Findings: Synthesis</b>	<b>260</b>
10.1 First iteration of the model: Shipowner feedback	260
Assumptions of the strategic choice model	262
Shipowners' response to the six assumptions	262
An Asia-Pacific shipping strategic choice model: Initial version	264

10.2	Expert review of the shipping model	267
	Realism of the model	268
	Utility of the model as an evaluation tool	269
	Suggestions for improvement	270
10.3	A strategic choice model for Asia-Pacific shipping: Final version	272
	Focus of analysis	273
	Variables for the environmental assessment	273
	Rating scale	274
	Types of corporate strategies	275
	Strategic choices	275
	Using the model	277
	Strategy selection as part of a process	278
<b>Chapter Eleven Conclusions and Issues for Further Research</b>		<b>282</b>
11.1	Conclusions	283
	Corporate strategy selection by Asia-Pacific shipowners	284
	Methodological considerations	290
	Applicability and utility of the strategic choice model	292
11.2	Limitations of the study	296
	Language difficulties	296
	Limitations of a 'snapshot' approach to data collection	297
	Limitations of individual research methods	297
11.3	Issues for further research	301
	A need for an integrative review of shipping strategy research	301
	Applicability of Western strategy models to Asia-Pacific shipping	303
	A typology of shipping strategies	304
	Strategic decision making	306
	Extending the applicability of the shipping-based strategic choice model	307
Appendix 1	The Asia-Pacific region: Background notes	309
Appendix 2	Qualitative data analysis: Coding system	325
Appendix 3	Survey questionnaire	328
Appendix 4	Stratship	338
Appendix 5	List of environmental factors	352
Bibliography		354

## LIST OF FIGURES

Figure 1.1	General research approach: Main questions to answer	11
Figure 1.2	A model of the strategic management process	21
Figure 2.1	The Asia-Pacific region: Focus on 12 countries	28
Figure 3.1	Academic disciplines that have contributed to management thought	74
Figure 4.1	Hierarchy of strategy levels	93
Figure 5.1	The BCG market growth/share matrix	115
Figure 5.2	Generic strategies for the BCG model	117
Figure 5.3	The GE business screen	120
Figure 5.4	Directional policy matrix	121
Figure 5.5	The Thompson-Strickland matrix	124
Figure 5.6	Arthur D. Little's life cycle model	125
Figure 5.7	Porter's life cycle model	126
Figure 5.8	Hofer & Schendel's life cycle model	127
Figure 5.9	Porter's generic competitive strategies model	128
Figure 5.10	Sample SWOT analysis matrix	130
Figure 5.11	Grand strategy selection matrix	131
Figure 5.12	International competitive matrix	133
Figure 5.13	A composite model for strategy selection and analysis	136
Figure 6.1	Hierarchy of strategic decision making	140
Figure 6.2	Strategic leaping	142
Figure 6.3	A model of the strategic management process	143
Figure 6.4	The basic framework of the strategic choice model	147
Figure 6.5	Corporate strategies on the strategic choice model	152
Figure 7.1	Stages in data collection and analysis	170
Figure 8.1	General profile of shipping respondents	187
Figure 8.2	General profile of shipowners represented in the study	189
Figure 8.3	Matrix of strategic choices based on survey findings	199
Figure 8.4	Matrix of strategic choices based on interview findings	212
Figure 8.5	Matrix of corporate strategic choices based on survey and interview data	220
Figure 9.1	Matrix of corporate strategic choices based on simulation data	240
Figure 10.1	The original version of the strategic choice model	260
Figure 10.2	The Asia-Pacific shipping strategic choice model: First iteration	266
Figure 10.3	Final version of the strategic choice model for Asia-Pacific shipping	273
Figure 10.4	A model of the strategic management process	280
 Appendix 1		
Figure 1	Average growth of GNP per capita, 1965-90	310
Figure 2	Real and predicted growth rates, 1987-2006	311
Figure 3	Growth in GNP: Asia-Pacific, Europe and NAFTA, 1993-2023	312

<b>Figure 4</b>	<b>Gross domestic savings in East Asia and other developing regions, 1965 and 1990</b>	<b>315</b>
<b>Figure 5</b>	<b>Intra-regional trade v. trade with the US market (%), 1985 and 1993</b>	<b>320</b>
<b>Figure 6</b>	<b>Economic complementarity: Building a regional automobile for Toyota</b>	<b>321</b>

## LIST OF TABLES

Table 2.1	Growth forecasts for world seaborne trade (1996-2005)	42
Table 2.2	World seaborne trade of main bulk commodities (billion of ton-miles)	43
Table 2.3	World and regional share in bulk trades (million tons)	44
Table 2.4	Asia-Pacific trade as a percentage of world trade	44
Table 2.5	Global container activity (million TEU)	45
Table 2.6	World and Asia-Pacific container activity	45
Table 2.7	Container activity in the Asia-Pacific region (million TEU)	45
Table 2.8	Intra-regional Asia-Pacific containerised trading volumes (TEU, 1991-2001)	47
Table 2.9	Distribution of the Asia-Pacific fleet	48
Table 2.10	Two ways of determining world fleet distribution by ship type (1997)	49
Table 2.11	Regional fleet distribution by gross (gt) and deadweight (dwt) tonnage (1997)	50
Table 2.12	Regional fleet distribution and growth rates, 1997	50
Table 2.13	Number of TEUs carried by leading Asia-Pacific container operators	52
Table 2.14	Top 15 container operators (1980-91)	52
Table 2.15	Operating cost differentials for an 800 TEU containership (1992, US\$ per day)	54
Table 2.16	Asia-Pacific fleets under foreign flags (December 1995)	55
Table 3.1	A comparison of major schools of management thought	75
Table 4.1	A comparison of typologies of corporate strategies	97
Table 4.2	Major features of generic types of corporate-level strategies	100
Table 4.3	Matching specific strategies with generic strategy types	102
Table 4.4	Comparison of global strategies	103
Table 4.5	Five generic types of multinational corporate strategies	106
Table 4.6	Porter's typology of business strategies	107
Table 4.7	Three views of functional strategies	109
Table 4.8	A comprehensive typology of strategies	110
Table 6.1	Typology of strategies	151
Table 7.1	Types of information from data sources and means of collecting it: Summary table	169
Table 8.1	Distribution of respondents by country and research method	185
Table 8.2	Survey responses to the six assumptions of the strategic choice model (n=109)	192
Table 8.3	Interview responses to the six assumptions of the strategic choice model (n=54)	202
Table 8.4	Comparing survey and interview findings with the strategic choice model	219
Table 9.1	List of quarterly variables	223



Table 9.2	Simulation responses to the six assumptions of the strategic choice model (n=570)	226
Table 10.1	A summary of shipowners' feedback on the strategic choice model	263
Table 10.2	Expert feedback on the strategic choice model for Asia-Pacific shipping (%)	268
Table 10.3	Typology of strategies	279
Table 11.1	Frequency of use of corporate strategies	295
<b>Appendix 1</b>		
Table 1	Population distribution in the Asia-Pacific region (millions), 1995 and 2010	316
Table 2	Distribution of world trade (%), 1996	319
Table 3	Percentage of Asia-Pacific exports purchased by the Four Tigers, 1993	320
Table 4	Percentage of investment distribution in four Asian NIEs, 1990	323

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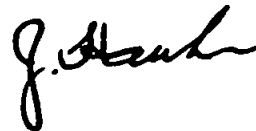
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## **AUTHOR'S DECLARATION**

**At no time during the registration for the degree of Doctor of Philosophy has the author been registered for any other University award, nor has any material contained herein been used in any other submission for an academic award.**

**This study was conducted by the author in collaboration with several maritime institutions and organisations in the Asia-Pacific region. Visits to these institutions and organisations were undertaken.**



**Jeffrey E. Hawkins  
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## **Chapter One**

### **PROBLEM STATEMENT**

Over the past several decades, the rapid globalisation of the market place has intensified competition within the already competitive shipping industry. This is particularly true in the Asia-Pacific region, which is predicted to dominate international trade in the next century. It is a certainty that with this dynamic growth in trade will come an increased demand for shipping services.

Asia-Pacific shipowners intent on taking advantage of this growth and successfully competing in the market place will require a strategic approach to the way they manage their organisations. Research suggests that strategy is the single most important factor leading to a firm's success or failure. A shipowner's choice of strategies, therefore, will be critical to its long-term market success.

The strategic management literature offers a wide range of strategy selection models but serious doubts have been raised over the applicability of these models to shipowners in general and Asia-Pacific shipowners in particular. Much of what is known about strategy is drawn from manufacturing industries; very little comes from the service industries, and even less from the maritime industry. Shipping-based research on strategy selection is limited, and very little is known about shipowners' strategic decision making behaviour. Practical tools to guide and inform shipowners in their strategy selection are also seriously wanting.

Criticism of existing strategy selection models also highlights the general lack of empirical support for strategy selection models. Most models have not undergone any

empirical testing to establish their utility and reliability in enhancing an organisation's strategic decision making. Further, although most models assume a generic nature, claiming broad applicability across businesses and industries, there is very little empirical evidence to support this claim. Indeed, there is growing evidence to the contrary.

These limitations in our current knowledge of strategy selection require greater scrutiny and examination. If we are to fully understand the application and effectiveness of strategy in a service industry like shipping, particularly in the context of a rapidly growing economic power like the Asia-Pacific, then it is critical that we learn more about how shipowners in the region actually make strategic choices. What factors do they consider when making strategic choices? What process do they follow to select and evaluate strategies? How does this behaviour compare with current theory on strategy selection? These are questions that this study aims to answer. Based on the results, the objective is to then develop a strategy selection model that is applicable to Asia-Pacific shipping.

## **1.1 THE IMPORTANCE OF STRATEGY**

The study of strategy lies within the domain of strategic management, which has emerged as an important new discipline within the general field of management. In the last two decades, there has been a steady build-up in our knowledge of the subject, both in terms of theory and empirical evidence. Literature reviews conducted in the last 10 years (Snow and Thomas, 1994; Lyles, 1990; Morris, 1986, 1987; Thomas, 1984) show a steadily maturing field whose conceptual and methodological debates continue to enrich and advance current understanding of strategic management. After more than two

decades of research, there is now a substantial body of evidence that shows that organisations practising strategic management tend to outperform those that do not (Collis and Montgomery, 1997; David, 1997; Hussey, 1994; Miller and Cardinal, 1994). The groundwork was laid by a number of studies conducted in the 1960s and 1970s (e.g. Wood and La Forge, 1979; Karger and Malik, 1975; Herold, 1972; Schoeffler et al., 1974; Ansoff et al., 1971; Eastlack and McDonald, 1970; Thune and House, 1970).

Thune and House (1970) carried out a study in 1965 to examine the performance of a number of companies over a 7-15 years period (i.e. since the introduction of formal planning in the company). They found that those who planned outperformed those that did not on three counts: earnings per share, earning on common equity, and earnings on total capital employed. They also found that planners outperformed themselves based on records prior to the introduction of planning. Herold (1972) extended the study by Thune and House and also found that companies that planned outperformed those that did not.

Other studies provided further supporting evidence. Eastlack and McDonald (1970) studied 211 companies, 105 of whom were among the Fortune 500. They concluded that CEOs who used strategic management concepts headed companies with the fastest growth rates. The following year, Ansoff et al. (1971) examined the strategic decisions made by 93 companies regarding acquisitions over a 19-year period (1946-65). They found that on many financial and sales measures, as well as ability to predict the outcomes of planning activities, companies that used a strategic management approach performed better than those that did not.

Further proof was provided by Schoeffler et al. (1974) whose study became popularly known as the Profit Impact of Marketing Strategy, or PIMS, study. This study involved 57 firms in 620 different lines of business and analysed the relationships of a wide range of strategic activity variables and profitability. Results showed that the appropriate use of strategic management resulted in increased profitability. Similar results were obtained by Karger and Malik (1975) who studied 273 companies in the chemical, drug, electronics and machinery industries. They found that on a number of financial measures, firms which used strategic management methods outperformed those that did not. Wood and La Forge (1979) got similar results: their study of 60 large US banks showed that banks using comprehensive long-range planning methods had significantly better financial performance than those that had no formal planning system.

From these promising beginnings, knowledge of strategic management continued to advance. Studies not only focused on monetary variables but on more intangible organisational factors. Based on a review of the literature, Greenley (1986) identified 14 benefits of strategic management, which David (1993) has summarised as follows:

1. It allows for identification, prioritisation and exploitation of opportunities.
2. It provides an objective view of management problems.
3. It represents a framework for improved coordination and control activities.
4. It minimizes the effects of adverse conditions and changes.
5. It allows major decisions to better support established objectives.
6. It allows more effective allocation of time and resources to identified opportunities.
7. It allows fewer resources and less time to be devoted to correcting erroneous or ad hoc decisions.
8. It creates a framework for internal communication among personnel.
9. It helps to integrate the behaviour of individuals into a total effort.
10. It provides a basis for the clarification of individual responsibilities.
11. It gives encouragement to forward thinking.
12. It provides a cooperative, integrated and enthusiastic approach to tackling problems and opportunities.
13. It encourages a favorable attitude towards change.
14. It gives a degree of discipline and uniformity to the management of a business (p. 19).

Yoo and Digman (1987) further add that because the strategic management process results in increased employee satisfaction and provides more timely information to key

decision makers, decision making becomes faster, more reliable and less costly to the organisation.

Simply applying the strategic management concept is no guarantee for success, however. As a number of reviews and research studies point out, not all companies using strategic management have achieved significantly higher financial performance. However, they attribute this failure to errors in the application of the concept, rather than in the concept itself (Miller and Cardinal, 1994; Fredrickson, 1984; Fredrickson and Mitchell, 1984; Schellenberg, 1983; Kudla, 1980; Grinyer and Norburn, 1975).

Overall, there has been a significant increase in the popularity and usage of strategic management in recent years (Porter, 1980). Over a decade ago, it was estimated that 75 per cent of all companies [in the United States] were using strategic management techniques, compared to less than 25 per cent in 1979 (Allen, 1985). Today, application has become more global, with strategic management concepts continuing to be applied to a widening range of businesses and industries in various parts of the world, and new models developed or old ones refined as a result of ongoing research in the area.

## **1.2 LIMITATIONS OF STRATEGY SELECTION MODELS**

Leading management thinkers agree that strategic management is particularly essential to those industries subject to higher levels of uncertainty and risk, and that if applied well, it can help such industries adapt to their environments more effectively (Ansoff, 1984; Simon, 1976; Drucker, 1974). As reviews of the literature show, research into the area largely substantiates this argument (Miller and Cardinal, 1994).



Shipping is one industry which clearly falls under the high-risk, high-uncertainty category (Lorange and Norman, 1972; Hope and Boe, 1981). As Frankel (1989) points out, this is even more true today than in the past:

Shipping and ports are today affected by larger uncertainties and risks than ever before. These risks include not only market risks, but uncertainties in terms of financing, ship and port technological and operational restrictions, terms of business, competition, control, and many more. On the other hand, commitments of financial or other assets and resources to ports and shipping remain long term and are usually very large in relation to cash flow turnover. As a result, it is more important than ever to [select and] evaluate alternative strategies for the determination of tactics which maximize the chances of success (p. 123; emphasis added).

Unfortunately, Frankel's call for more effective ways of selecting and evaluating strategies remains largely unanswered in the shipping literature. Although research in various industries show that strategy is a major, if not the most major, determinant of a firm's success or failure (e.g. Rumelt, 1991; Kruger, 1989; Robinson and Pearce, 1988), there is very little evidence of the practical application of strategic management concepts to shipping, much less of conceptual models specifically designed to guide the industry in its choice of strategies (Hawkins, 1993).

This is not to say, however, that there is a dearth of strategy selection models. The general literature on management and business offers a wide range of models (see, for instance, Pearce and Robinson, 1997), but the applicability of many of these models is under serious question. An increasing number of researchers and practitioners have cast doubt on the generic nature of these models, questioning the validity of the assumption that these models can be uniformly applied to all industries. Criticism has tended to focus on four problem areas: lack of research drawn from the service industries in general and commercial shipping in particular, lack of empirical support for strategy selection models, problems with methodological rigour, and lack of a global/international research focus.

Most strategy models are based on manufacturing industries, whereas research suggests that what applies to manufacturing does not necessarily apply to service industries (Schellenberg, 1983; Hambrick, 1983; Thomas, 1979). Schellenberg (1983) notes that 'applying some supposedly all-purpose or universal [concepts] to the whole range of entirely different types of companies in entirely different industries is virtually destined to result in a list of business strategy failures; indeed, universal concepts of strategic management have to be tailored to each industry and organisation type. Blanket application can only result in less than optimal results' (p. 4). There is some empirical evidence that shipping sectors do use strategy selection models (Wong, 1991; Harvey, 1987), but it is not known whether such models have been used 'as is' or modified to fit individual needs, and whether usage has led to better performance.

Another major criticism is the lack of empirical data to validate models. Many models have been built from conceptual constructs which have little supporting empirical evidence to demonstrate whether they do work and how effectively. In their review of typologies of strategies in the early 1980s, Galbraith and Schendel (1983) noted that:

[i]n general, ... classifications of strategy types have been conceptual constructs derived from appropriate dimensions taken from theory without much empirical support beyond perhaps some grounding in case studies and anecdotal accounts of competitive activity. Although important insights regarding strategic behaviour have been gained in this manner, the validity of any typology is enhanced if empirical support could be provided (p. 155).

Since then, other empirical studies have been conducted to validate typologies of strategies across different business settings (Herbert and Deresky, 1987) and industries (Schellenberg, 1983). However, empirical support from the maritime industry has yet to be provided.

A third area of criticism revolves around methodological problems. Citing Hambrick (1980), Herbert and Deresky (1987) attribute the lack of empirical support for strategy

selection models to 'methodological difficulties in identifying and measuring business-level strategy, for which no generally accepted approach has been developed' (p. 136). The same is true with corporate-level strategies. Referring to portfolio models in particular, which are used to evaluate corporate-level strategies, Wind and Mahajan (1981) argue:

[Although the] importance of the measurement aspect of portfolio analysis is evident from a cursory examination of the diverse dimensions and definitions various approaches use ... surprisingly, most of the literature on portfolios has focused not on the fundamental issues of definition and measurement but on the selling of one approach over another and on the strategic implications of, for example, the 'dog' or 'cash cow' status of a certain product (p. 157).

Similar problems persist even today. Recent reviews of the literature (Snow and Thomas, 1994; Lyles, 1990) also point to the minimal attention paid to the development of valid and reliable measures of key strategy constructs. In addition, they also highlight a growing concern over the dominance of quantitative approaches to the study of strategy and the need for a better balance in the choice of research topics, methods, and perspectives. While quantitative approaches may provide greater objectivity and reliability, they have not been able to explain many important, more complex organisational realities. Within the field, therefore, there are now calls for multi-method approaches, where quantitative and qualitative methods can be used in the same study to facilitate a fuller and richer examination of complex and dynamic strategic issues.

Another problem inhibiting strategic management research has been a lack of an international/global research emphasis. Such issues as international competition and global strategies, although considered critical in today's world, did not become a research focus until recent years. Wrote Hamel and Prahalad in 1985:

The threat of foreign competition preoccupies managers in [various] industries ... [but] corporate response to this threat is often misdirected and ill timed—in part because many executives don't fully understand what global competition is. [Unfortunately, they] haven't received much help from the latest analysis of this trend ... [The] current perspective on global competition and the globalisation of markets is incomplete and misleading. Analysts are long on exhortation—'go international'—but short on practical guidance (p. 139).

Five years later, after reviewing articles published from 1986-89 in leading management journals and interviewing established researchers in management in the US, Lyles (1990) concluded that although global competition was the 'top issue of the day', little research had been done on the area. She found that although international competition and multinational strategies were the topics identified as being the most relevant to practising general managers and the area having the most impact on strategic management research in the 1990s and beyond, none of the recent major research studies which were widely regarded as having the most impact on strategic management thought in the 1990s applied to international/global strategies. Further, very few of the experts surveyed were actually involved in this research area.

In the last few years, there has been a growing effort to rectify this lack of a global/international research perspective, as evidenced by an increasing number of publications on the topic (see, for instance, Chrysochoidis et al., 1997; Hibbert, 1997; Alkhafaji, 1995; Lasserre and Schutte, 1995; Yip, 1995; Rugman and Verbeke, 1992). However, because research interest and work on global/international strategies is relatively recent, much of the discussion is still at the conceptual level, studies focus on individual cases, and integrative reviews and syntheses of available literature are not much in evidence.

### **1.3 RESEARCH OBJECTIVES AND ISSUES**

In view of the identified gaps in current knowledge about strategy selection, the applicability of existing strategy selection models to an international service industry such as commercial shipping indeed requires careful scrutiny and examination. This research study, therefore, aims to:

- analyse the strategic choices that Asia-Pacific shipowners pursue at the corporate level,
- compare actual shipowners' behaviour with strategic management theory on strategy selection, and
- develop a strategy selection model that is applicable to Asia-Pacific shipowners and consistent with strategic management theory.

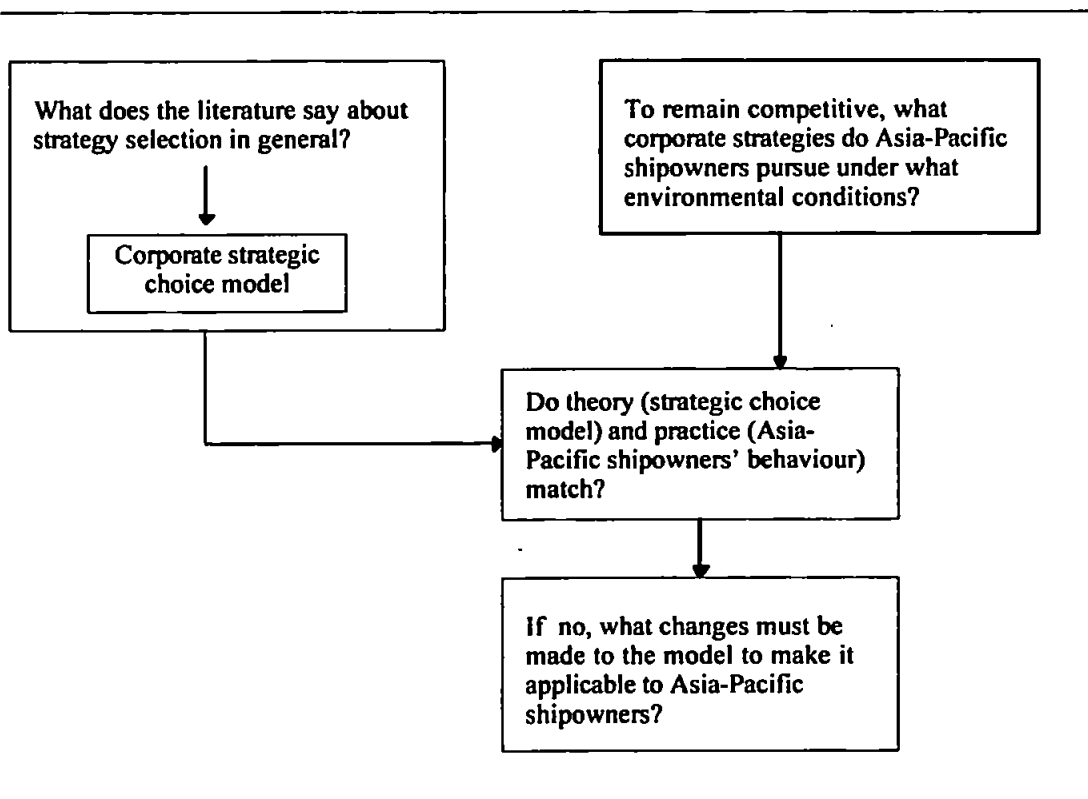
If the general literature on corporate strategy selection is correct, it can be assumed that Asia-Pacific shipowners will:

- change/modify their corporate strategies in response to changing environmental conditions.
- base strategic changes and the time frames for these changes on their future expectations of environmental conditions.
- pursue a 'grow' strategy when internal and external environmental factors are favourable.
- pursue a 'stabilise' strategy when internal environmental factors are favourable but external environmental factors are not.
- pursue a 'develop' or 'turnaround' strategy when external environmental factors are favourable but internal environmental factors are not.
- pursue a 'harvest' strategy when internal and external environmental factors are both unfavourable.

But how valid are these assumptions? Since not much is known about the strategic choices that Asia-Pacific shipowners make, it is necessary to establish if these assumptions do reflect what Asia-Pacific shipowners actually do. If theory and practice

do not match, where do the differences lie? And if there are differences, what should a strategy selection model that is specific to Asia-Pacific shipowners look like? These are the questions that the study aims to answer.

Figure 1.1 illustrates the interrelationship of these research questions, which also reflects the general research approach of the study.



**Figure 1.1 General research approach: main questions to answer**

A brief note on nomenclature is in order here. The internal and external environmental factors mentioned earlier represent the two dimensions on which strategy selection is examined. On the strategic choice model developed for this study (see section 6.3 of Chapter Six, Conceptual Framework), these variables are formally called ‘organisational competitive factors’ and ‘market factors’ to clearly define the parameters being studied. The first includes an organisation’s strengths and weaknesses vis-a-vis its competitors;

the second includes opportunities and threats in the market(s) in which the organisation operates. For ease in reference, these variable names are often replaced by the terms 'internal' or 'external' environmental conditions or factors. Any succeeding reference to such terms, therefore, should be made in relation to the more narrow definitions given here. These two factors and the associated corporate strategies (grow, develop, stabilise, turnaround, harvest) are discussed in detail in Chapter Six (Conceptual Framework) and generally in Chapters Four (The Content of Strategy) and Five (Strategy Selection Models).

#### **1.4 RESEARCH FOCUS**

The focus of this study is on one geographical and economic area (the Asia-Pacific region), one type of decision makers (commercial shipowners), and one type of strategy (corporate-level strategy).

##### **Geographical focus: Asia-Pacific**

The last three decades have seen the remarkable growth of the Asia-Pacific region into an economic power (World Bank, 1993). Although the current financial crisis has dramatically put a halt to this rapid growth and the euphoria that has accompanied it, predictions continue that once past this painful crisis, which has seen many achievements, such as the reduction of absolute poverty, severely eroded, the region will continue to build its dominance in international trade in the coming century (World Bank, 1997). Within this region, of particular interest to the study are 12 countries that have been responsible for much of the region's economic growth: Australia, China, Hong Kong, Indonesia, Japan, Malaysia, New Zealand, the Philippines, Taiwan, Thailand, Singapore, and South Korea. Although Hong Kong is now back in China's hands after

more than a century of British rule, for the purposes of this study it will continue to be treated as a separate entity. These 12 countries are discussed in further detail in Chapter Two (Asia-Pacific Shipping).

**Maritime focus: Commercial shipowners**

Within these 12 countries, the targeted group of maritime decision makers are commercial shipowners. With all the rapid changes that have occurred in the region, shipowners are now faced with the challenge of meeting increased demands amidst more intense competition and under highly uncertain conditions. How well they rise to this challenge, and how effectively they are able to maintain a competitive edge, depend a lot on their ability to think and act strategically.

To develop a comprehensive picture of strategic choice patterns among Asia-Pacific shipowners, all major shipowners in the liner and bulk trades have been included in the study. A general profile of Asia-Pacific shipping is presented in Chapter Two (Asia-Pacific Shipping), while the steps taken in selecting shipowners for inclusion in the study are discussed in Chapter Seven (Methodology).

**Strategy focus: Corporate-level strategies**

Strategies can be grouped into three levels: corporate, business and functional. At the top are corporate strategies, which govern all strategic choices within an organisation. Before any lower-level (i.e. business and functional) strategy can be pursued, corporate strategies must first be in place. In this sense, therefore, corporate strategies can be regarded as 'master' strategies. They set the strategic direction that an organisation should take: what mix of businesses (services, markets, or industries) the organisation should go into, and how resources should be allocated to these businesses. Once



established, they then set the parameters within which business and functional strategies should be made. They determine what specific business strategies an organisation should take to ensure each of its businesses is competitive; and what specific functional strategies each business should pursue to support its business strategy or strategies.

Of these three strategy levels, this study has focused on corporate-level strategies. There are two reasons for this. First, the study is concerned with strategic choices that enhance the overall competitiveness of major shipowners most of whom operate a mix (or portfolio) of businesses. Their main concern is to ensure that these businesses all contribute to the organisation's overall competitive position, and this is clearly the domain of corporate-level strategies. Second, although both corporate and business strategies are primarily concerned with keeping a firm competitive, research on business strategies already outweighs work done on corporate strategies, particularly in relation to shipping and a region like the Asia-Pacific. An examination of corporate strategies in a relatively un-researched area like Asia-Pacific shipping should, therefore, help broaden our understanding of strategy selection. Strategies are discussed in detail in the next three chapters.

## **1.5 DEFINITION OF KEY TERMS**

Defining strategy has always been problematic. The review of the literature conducted for this study reveals two main reasons. The first stems from fundamental differences in people's perspectives, in the way they view the world and how it operates; the second stems from mere semantic sloppiness.

The strategic management field has drawn on a wide range of disciplines for its theories, concepts and methods. Within the field there is a good representation of disparate

academic disciplines (e.g. economics, management science, psychology, sociology), theoretical leanings (e.g. microeconomic theory v. behavioural theory, logical positivism v. process orientation), research foci (e.g. content v. process, formal planning variables v. organisational or behavioural variables), and methodological approaches (e.g. quantitative v. qualitative, snapshot v. longitudinal).

Even among those who share the same theoretical perspective, major differences exist. Within the dominant formal analysis school, for instance, which espouses the use of rational and logical models, some quarters define strategy in broad terms, including in the definition both the goals (variously called 'objectives', 'plans' or 'missions') of a firm and the means to achieve these goals. Those belonging to this group include, among others, Chandler, Andrews, Katz, Steiner and Miner, Rumelt, Porter and other writers associated with the Harvard Business School. Others within the same school see strategy in a narrower sense, preferring to limit its scope to the means by which a firm can achieve its goals. In this second sense, goal setting is seen as a closely related but separate activity. Those who belong to this group include, among others, Hofer and Schendel, Ansoff, and Cannon and Glueck.

There is no easy answer to this aspect of the strategy debate; ultimately, choices are left to individual convictions and preferences. Empirical evidence cannot be the ultimate arbiter in this regard because research to date provides both sides of the debate with enough justification to support their respective positions.

What makes the literature unnecessarily confusing is the looseness with which certain key terms are used and the contradictory uses to which they are put. Some prime examples are 'corporate' v. 'business', 'generic', and 'goals' v. 'objectives'.

In the literature, four levels of strategies are universally cited: enterprise or societal, corporate, business, and functional. This classification is based on the organisational structure of a complex firm: top management, single business units, functional departments. Of the four strategy levels, corporate and business strategies get far greater attention in the literature because they represent the competitive areas of the firm. In spite of this attention, there is no consistent differentiation applied between levels of strategy, particularly between 'corporate' and 'business'.

The confusion lies in the fact that the term 'business strategy' is typically used in different semantic contexts. In one sense, it may refer to a specific course of action that aims to improve a firm's profitability and market share; in this case, a 'business' strategy can be contrasted with an 'organisational' strategy which focuses on structure and organisational processes, or a sociopolitical strategy, which focuses on the dynamics of human behaviour. In another sense, 'business strategy' is used to refer to the organisational level at which the strategy is used, that is, the single business unit level. When what is involved is a firm engaged in a single business, so that the term 'corporate', as typically used in business (that is, as having the nature of a corporation, which is defined as a group of people authorised to act as one individual, with legal rights, powers and privileges), becomes irrelevant, then the term 'business' is used in place of, or as a synonym for, 'corporate'. Used in this second sense, 'business' acquires a broader meaning, probably closer to its traditional use as an umbrella concept (akin to the concept 'business policy') for any commercial enterprise, regardless of size and type.

Since all these definitions are valid, the field offers no standard definitions. The task of defining key strategy terms is typically left with individual authors. Unfortunately, not all do so and readers are thus left to infer, from the flow of the discussion, the intended meaning attached to such fundamental concepts as 'corporate' or 'business' strategy.

Another term that is sometimes misused is the word 'generic'. The dictionary defines 'generic' as 'referring to a whole kind, class, or group' or 'inclusive or general'; therefore, a generic strategy would mean a broad grouping of strategies that share common characteristic or that have general applicability. In most cases, the word 'generic' is used in this sense, but there are occasions when it is given a totally different meaning. In a discussion of strategy evaluation, for instance, a leading writer in the field talks of a 'generic' and a 'competitive' aspect of strategy, where the generic aspect is concerned with the 'basic mission or scope of the business' and looks 'at changing economic and social conditions over time' (Rumelt, 1980, as cited in Quinn et al., 1988, p. 52). While it is likely that a strategy can indeed manifest these characteristics, nonetheless, to use 'generic' in this sense is misleading. It merely adds confusion to a literature that is already littered with confusing jargon.

A third area where confusion continues to surface, even when there is no longer any need to, involves the distinction between goals and objectives. Older disciplines in the social sciences make clearcut distinctions between goals and objectives. Goals are broadly couched statements that attempt to encapsulate an organisation's 'ideals' or 'vision'. In this respect, goals are broad and fuzzy, and often unmeasurable. Objectives transform these goals into specific, measurable and attainable statements of intent. These objectives, in turn, can be categorised or ordered into a hierarchy, with each level

supporting the next higher level until the terminal or long-term objectives are achieved. Although these distinctions are in standard use in other research areas, such is not the case in strategic management, where confusion between goals and objectives still continues.

To avoid the semantic confusion discussed above, the following definitions are used in this study:

- **Strategy.** The means by which an organisation achieves its goals and objectives (Ansoff, 1965; Hofer and Schendel, 1978). The word is used here in its most generic sense, that is, regardless of scope, level, etc.
- **Generic strategy.** A broad group of strategies which share common characteristics and are applicable across a variety of situations.
- **Corporate strategy.** The overall means by which an organisation can remain competitive in the market(s) where it operates. It is designed to help the top management determine the mix of businesses the organisation should be in, how these businesses should be run, and how resources should be allocated to them. Corporate strategy sets the general strategic direction that an organisation should pursue, as well as the parameters within which lower-level strategies (business and functional) should be made.
- **Business strategy.** The means by which each individual business that a organisation operates can be competitive. Business strategies should support corporate strategies.
- **Grand strategy.** The overall strategy of an organisation, regardless of size or type.
  - a) For a complex organisation engaged in several businesses, its grand strategy is synonymous to its corporate-level strategy.

- b) For an organisation engaged in a single business, its grand strategy is a combination of strategies that a complex organisation may delineate as 'corporate' and 'business'.
- **Organisation.** Any business company, whether unincorporated or not. In this study, the words 'organisation,' 'company' and 'firm' are used interchangeably and refer to commercial enterprises only.
  - **Multinational/global.** These words are used in this study to mean either of two things:
    - a) When used to describe a strategy, as in multinational or global strategy, they mean the same thing: a strategy that is used across national borders, i.e. world-wide. Another term used interchangeably with global strategy is **international strategy**.
    - b) When used to describe an organisation, as in multinational company and global company, they assume very specific meanings: a multinational company has one or a limited range of products made and sold in a specific set of countries; a global company uses resources wherever they are located and sells products/services wherever there is a market.
  - **Typology.** A system of classifying similar items on the basis of explicitly stated criteria; synonymous to taxonomy or to what Miller and Mintzberg (1983) call 'configuration'.

These definitions will underpin all succeeding discussion and should, therefore, be used as frame of reference for the entire study.

## **1.6 KEY ASSUMPTIONS ABOUT THE STUDY OF STRATEGY**

The study's general approach to strategy is premised on two guiding principles: a systemic view of the firm and a pragmatic approach to research.

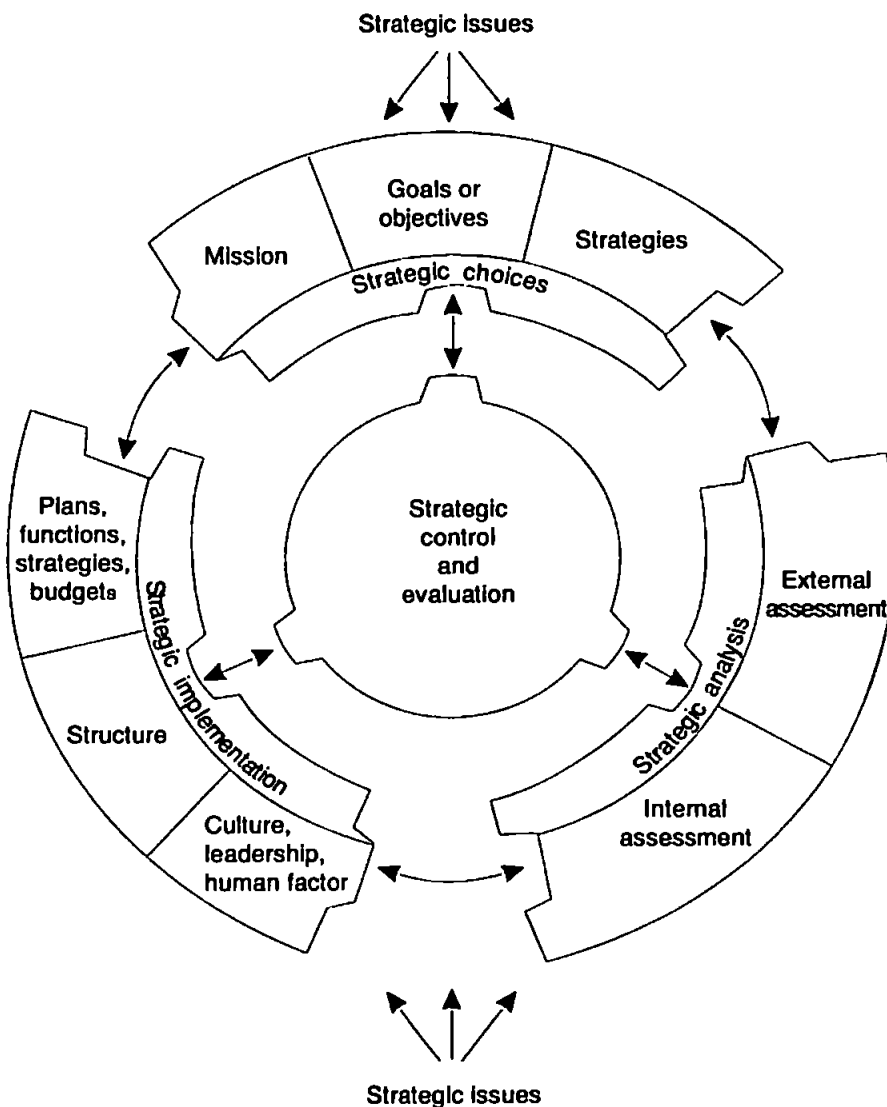
### **A systemic view**

According to Hofer and Schendel (1978), a firm's strategic management system must be studied as 'an integrated total system' (p. 198). A system's view provides a powerful tool by which both the totality and specific aspects of the strategic management process can be examined. It allows us to see the broad picture, and in general terms, see how strategy affects and is affected by the sub-systems, organisational processes and human dynamics within a firm. At the same time, it enables us to focus on a fragment of the whole, dissect it, and then relate the discrete pieces back to the whole. Finally, it constantly forces us to remember that the total picture is bigger, more complex, less amenable to dissection, than the mere sum of these discrete pieces.

A system's view requires a theoretical perspective and research methodology that can allow a holistic approach to analysis, that is, an approach that allows analysis of individual parts without losing sight of the whole. Unfortunately, although it is much easier to talk about a holistic view, it is far more difficult to represent it graphically: if we want the broad picture, details can get blurred, making in-depth analysis very difficult, if not impossible. Conversely, if we put more emphasis on the details, we run the risk of losing sight of the broad picture.

For this study, the strategic management model in Figure 1.2 (Hawkins, 1993) has been chosen because it allows the analysis of specific aspects of the strategic management process within the context of the organisation and its environment. Of primary concern

to the study is that aspect of the strategic management process that deals with strategy selection. This corresponds to the 'strategies' section of the model, within the broader area of 'strategic choices'.



**Figure 1.2 A model of the strategic management process**  
 Source: Hawkins, 1993

It must be emphasised that focusing on one specific area of the strategic management process—in this case, strategy selection—does not negate the need for a holistic and systemic approach to the study of strategic management. To come to an in-depth understanding of the process, the specific parts and stages that make it up should be



analysed and understood. Thus studied, the specific parts can then be incorporated into a holistic view of the process.

A criticism that many strategic management models often attract is their sequential representation of the strategic management process. This is a main weakness in model building. Authors and model builders unanimously acknowledge the dynamic, iterative and non-sequential nature of the strategic management process. In the words of Sharplin (1985),

[t]he strategic management process has two attributes which are particularly significant. First, it is iterative; that is, [as illustrated in Figure 1,] the process continues over and over in a never-ending cycle. Second, it is nonsequential in actual practice. It is easy to think of formulating, activating, evaluating, and controlling strategy, but more difficult to do it in separate steps. In fact, it does not normally occur in precise order ... Any single manager might at one moment be involved in one or several of the steps in strategic management ... (p. 14).

However, they often find it difficult to draw up a model that can capture these qualities and still remain understandable and instructive. The typical trade off is to construct a model that shows a sequential pattern and then highlight the holistic, iterative and nonsequential nature of the process in their description of the model. The model used for this study follows a similar approach, but also attempts to capture the holistic nature of the process by presenting the various aspects of the process as pieces of a jigsaw puzzle. The puzzle can be broken up and each piece can be studied separately, but to create the full picture, all the pieces must be linked together into their proper slots. The model will be discussed in full in Chapter Six, when the conceptual framework of the study is presented.

In closing, it should be remembered that models are no more than mere attempts to impose some order on what is often a 'messy' world (Ackoff, 1979); indeed, they are no more than mere representations of what their authors, both by inclination and as a result

of training, perceive reality to be. Although models are very instructive tools, it would be wise for the reader to bear this caveat in mind.

### **A pragmatic approach to research**

Another fundamental premise upon which this study is based is the need for a pragmatic approach to research. This means the use of, and reliance on, an eclectic, interdisciplinary research base. Morgan (1983) describes this approach rather well:

[This approach assumes that] there is no one best set of assumptions or tools for conducting research, and that it is appropriate to vary assumptions from one situation to another according to the issues being studied or the problem being solved. The idea that there is an optimal way of conducting research is thus qualified by the principle of **contingency**: the view that “it all depends” (p. 379; boldface added).

Where possible, a pragmatic approach also

... attempts to use the differences among competing perspectives as a means of constructing new modes of understanding ... [It] deliberately counterposes the insights of different perspectives in the hope that a completely new mode of understanding will emerge from the debate generated by this opposition (Morgan, 1983, p. 379).

As Chapter Seven (Methodology) will show, this study will use a combination of perspectives and methodologies to gain a better understanding of strategy selection, particularly among Asia-Pacific shipowners, who are the subjects of this research.

## **1.7 ORGANISATION OF THE THESIS**

In this initial chapter (Problem Statement), the objective has been to present the subject of the study, the rationale for choosing it, the objectives that the study aims to achieve, and the key questions it seeks to answer. The chapter also provides a definition of key terms used in the study, and outlines the basic principles underpinning the study's methodological approach.

The remainder of the study is organised into 10 other chapters. Chapter Two documents the economic growth of the Asia-Pacific in the last three decades, discusses Asia-Pacific

shipping and the strategic challenges shipowners must face to take advantage of the region's dramatic growth, and highlights the lack of information on strategic decision making in general and strategy selection in particular that can assist Asia-Pacific shipowners in their pursuit of a competitive advantage.

Chapters Three to Five then examine the literature on strategic management to analyse and synthesise what is currently known about strategy selection. Chapter Three (Overview of Strategic Management) provides a backdrop to the discussion by tracing the development of strategic management as a field of inquiry, highlighting major trends in strategic management theory and practice, and identifying current areas of research. Chapter Four (The Content of Strategy) focuses on various types of strategies that organisations can use and synthesises the discussion with a comprehensive typology of strategies for use at the corporate, business and functional levels of an organisation. Chapter Five (Strategy Selection Models) extends the discussion on strategy by reviewing a range of models used for strategy selection and analysis, and then presents a composite strategic choice model that reflects the common features and strengths of these models.

In Chapter Six (Conceptual Framework), the strategic management process introduced in Chapter One, and the typology of strategies and the strategic choice model presented in Chapters Three and Four, are integrated into one conceptual framework, and key aspects of the framework are explained and defined. In Chapter Seven (Methodology), the general approach to data collection and analysis is explained, and specific methodological techniques and procedures used during the study are identified.

Research findings are presented in the next three chapters. Survey and interview data are discussed in Chapter Eight; simulation data in Chapter Nine, and a synthesis of research findings, which leads to a shipping-specific strategic choice model, in Chapter Ten. This sequence reflects the research process outlined in Chapter Seven (Methodology), and discussion in each chapter is organised around the six assumptions of the strategic choice model.

In the final chapter, Chapter Eleven (Conclusions and Issues for Further Research), major conclusions about corporate strategy selection by Asia-Pacific shipowners and the applicability of the strategic choice model to Asia-Pacific shipping are drawn. The limitations of the study are also discussed and areas for further research are identified.

## **Chapter Two**

### **ASIA-PACIFIC SHIPPING**

The last three decades have seen the phenomenal growth of the Asia-Pacific region into an economic powerhouse. Behind this growth is a small band of countries located along the western rim of the Pacific. They are primarily responsible for the intensification of trade within the region, as well between the region and the rest of the world, particularly the United States and Europe. Because most of these countries are maritime countries, their economic growth and burgeoning trade have significant implications to shipowners operating in the region. If shipowners are to compete effectively in this dynamic market, they must know, and be prepared to pursue, those strategies that will optimise their chances of gaining a desired competitive position. Further, since strategy choice is predicated on a knowledge of the environment, it is imperative that shipowners have a good understanding of what is going on in the Asia-Pacific and where strategic opportunities, as well as threats, lie.

In the next remaining chapters, discussion will focus on strategy selection and its implications to Asia-Pacific shipowners. To put this discussion in perspective, it would be useful to begin with a profile of the Asia-Pacific region and commercial shipping in the region. In this chapter, therefore, a summary of key growth trends and trading patterns in the region in general and commercial shipping in particular is presented. Against this background, the competitiveness of Asia-Pacific shipowners is then examined, and the extent to which the current shipping literature on strategy and strategic management is able to lend practical advice to shipowners is assessed.

## **2.1 THE ASIA-PACIFIC REGION: DEFINING ITS SCOPE**

The term 'Asia-Pacific' is used widely in the academic and professional literature and in the mass media, but its precise geographical configurations remain in contention. In its broadest sense, the Asia-Pacific region is said to encompass all countries located on both sides of the Pacific Ocean: from Asia on one side to North America and Latin America on the other. This grouping is reflected in the composition of the Asia-Pacific Economic Cooperation (APEC) forum, whose 18 members make up half the total world economy (for a detailed discussion of APEC, see Rimmer, 1997; Garnaut and Drysdale, 1994; Higgott, et al., 1991; Elek, 1991). Other writers also refer to this broad grouping of nations as the Pacific Rim (Rimmer, 1997).

In its narrower sense, the term Asia-Pacific is used to refer to those countries located along the western rim of the Pacific Ocean, but even within this limited version, different interpretations exist. A popular view includes China, South (and North) Korea, and Japan in the north all the way down to Australia, New Zealand, and Papua New Guinea in the south. All these countries belong to APEC, but some writers prefer to call them the 'Western Pacific' to distinguish them from the broader Asia-Pacific (Kunkel, 1995). Other geographical configurations either broaden or reduce this grouping. Some writers start further north to include Russia and Mongolia; others go further east to include the smaller Pacific island nations; still others restrict their coverage to East Asian countries only, from China and Japan in the north to Burma in the west and down to Indonesia in the south (Lasserre and Schutte, 1995; Shibusawa, et al., 1992; Park, 1991). The uncertainty of the region's geographical boundaries is reflected in the various names given to the region. Some retain the name 'Asia Pacific' even if they mean the East Asian countries only (Lasserre and Schutte, 1995); others use alternatives like 'Pacific Asia'

(Shibusawa, et al., 1992; Park, 1991) or more traditional nomenclature like 'Far East' (Fitzgerald, 1994).

This study has adopted the narrower definition of the Asia-Pacific region, that is, only those countries located along the western rim of the Pacific Ocean. However, the term 'Asia-Pacific' will be used, rather than 'Western Pacific', because it is the more widely used terminology. Within this region, of particular interest to the study are those countries that are inter-linked by strong trade and investment ties (Garnaut and Drysdale, 1994). As shown in Figure 2.1, these include 10 countries in East Asia (China, Hong Kong, Japan, Indonesia, Malaysia, South Korea, Singapore, the Philippines, Taiwan, and Thailand) and two in Australasia (Australia and New Zealand).



**Figure 2.1 The Asia-Pacific region: Focus on 12 countries**

In terms of geographical distribution, these 10 East Asian countries can be grouped into Northeast Asia (China, Hong Kong, Japan, South Korea, and Taiwan) and Southeast Asia (Indonesia, Malaysia, Singapore, the Philippines, and Thailand). Because the Southeast Asian countries are members of the Association of Southeast Asian Nations (ASEAN), they are also referred to as ASEAN countries.

Questions have been raised about the inclusion of Australia and New Zealand in any Asia-Pacific grouping, largely on the argument that these countries have always viewed themselves more as part of the western world, rather than of Asia. While this sentiment may still be predominant (not only in the countries involved but throughout Asia as well), geographical proximity offers a persuasive argument for inclusion; so do current trading patterns. Already, a big majority of the trade conducted by Australia and New Zealand takes place within the region. As the cause of intra-regional cooperation, through such mechanisms as APEC, is furthered, the fact that both countries are stable high-income economies can only be a boon to the entire region. For these reasons, Australia and New Zealand are included, with East Asia, in the category 'Asia-Pacific region'.

Throughout the study, any reference to the Asia-Pacific region will be limited to countries on the western side of the Pacific Ocean, and more specifically, to the 12 countries covered by the study. Because the purpose of this chapter is to present an overall picture of the Asia-Pacific environment, particularly as it relates to shipping, no attempt is made to discuss individual country performance. Instead, the region is treated in aggregate terms, much akin to broad brushes on a canvas. However, this should not be taken to mean that the study views the region as a homogenous mass. Far from it.



Within the region, significant differences in economic performance exist (Garnaut and Drysdale, 1994; World Bank, 1993; Shibusawa, et al., 1992; Ariff, 1991), as do equally significant social, cultural and political differences (Fitzgerald, 1997; Chow et al., 1997; Chu, 1995; Adler et al. 1995). Providing some telling comparisons, Lasserre and Schutte (1995) note:

Asia Pacific [excluding Australia and New Zealand] by no means represents a group of homogeneous economic or political systems. National and business cultures vary significantly and macro-economic data show extreme differences. In 1993 Indonesia had 187 million people with an income per capital of US\$370; neighbouring Singapore had a population of less than three million with an average income of US\$19310. Japan represents 16 per cent of the global economy, but has only 2.3 per cent of the world's population; China's population, on the other hand, makes up more than a fifth of the world's population but contributes only 2.2 per cent to the world's economy. Officially, at least, government socialist principles still determine the fate of the Chinese economy, while Hong Kong's *laissez faire* policies have turned its economy into a capitalist's paradise. In no other part of the world does one find such variations, whether in Europe, Latin America or Africa ... (p. 3).

Country-specific information such as this, while critical to effective strategy selection at the individual shipowner level, lies outside the scope of this chapter. Instead, attention is directed toward a general picture of the Asia-Pacific environment, particularly on general growth trends and regional trading patterns that have direct relevance to Asia-Pacific shipowners. To this end, more specific information on growth trends and trade patterns have been put together in Appendix 1 rather than being incorporated into this chapter.

## **2.2 THE ASIA-PACIFIC AS AN ECONOMIC POWER**

Although the region has sustained remarkably high growth rates since the 1960s, and often at a time when all other regions were either stagnating or in recession (World Bank, 1993), worldwide interest in the region's growth, particularly at the academic and policy-making levels, is of relatively recent origin. Indeed it was not until the late 1980s that the region's economic record was subjected to more widespread scrutiny. Since

then, there has been an explosion of writings, both academic and popular, all intent on analysing the reasons behind the region's economic success and whether this success will continue well into the new century.

The substantial literature on the subject bears strong proof of the region's growth as an economic power over the last 30 years, but there is less agreement, indeed there is intense debate, over the nature, causes, and sustainability of this growth. The specific details of this debate will not be covered in this chapter, as their full treatment requires far more depth and breadth than can be adequately provided in this section and chapter. However, as part of the backdrop to the study, it will be useful to identify its main streams.

On the one hand are those who firmly believe in the region's ability to maintain a healthy pace and lead the world in economic development (Garnaut, 1997; Rimmer, 1997; Tan and Wee, 1995; Garnaut and Drysdale, 1994; World Bank, 1993). Many writers refer to the region's success as a 'miracle', and the primary contributors to this growth (i.e. Japan, Hong Kong, Singapore, South Korea, Taiwan, and more recently, Indonesia, Malaysia, and Thailand) as 'miracle' economies that are predicted to lead the region into what is being dubbed as the 'Asian' or 'Pacific' century. There are those, however, who contend that this miracle is but a myth (e.g. Krugman, 1994), arguing that because the region's growth has been due more to substantial foreign capital and investment inflows rather than to improvement in overall technical efficiency and domestic productivity, which are essential for long-term competitiveness, the sustainability of this growth is doubtful (Lingle, 1997; Ignatius, 1996; Krugman, 1994).

These two opposing views serve as the main themes around which current discussions of Asia-Pacific growth now revolve.

The debate has intensified in the last few years, fuelled by the region's slowing growth rates, fiercer global competition, and more recently, a financial upheaval that has had devastating effect on the region's national economies. This market upheaval, which started in mid 1997, saw a steep and sudden drop in currency values and a subsequent massive flight of capital out of the currency and share markets in Thailand initially, and then in Indonesia, Malaysia, the Philippines, and South Korea. Subsequent government action—or inaction—merely exacerbated the problems, and the crisis deepened as national governments failed to implement hard-nosed economic structural reforms that would have helped restore market confidence. The continuing crisis has raised grave doubts about the financial and political stability of the region, especially Southeast Asia. Prospects, at least in the short term, are bleak. For 1997 and 1998, the anticipated annual growth rates of 5–8 per cent for Indonesia, Malaysia and the Philippines have been pushed back to 4–6 per cent; more pessimistic estimates go even lower, to about 1–2 per cent. For Thailand, which averaged a 9 per cent growth rate from 1986–1995, the most optimistic forecast is 3–4 per cent; conservative analyses talk of negative growth or even a probable recession. Market recovery in these countries is expected to take some time, as foreign investors take their money elsewhere, notably China and Latin America, while warily awaiting further developments in Southeast Asia. It is argued that unless confidence in the markets and Southeast Asia's political leadership is restored, foreign investors are likely to stay away, which in turn will further dampen economic growth.

markets and Southeast Asia's political leadership is restored, foreign investors are likely to stay away, which in turn will further dampen economic growth.

Does this mean then the end of the Asian 'miracle'? While some analysts and commentators are quick to agree, noting dismissively the 'rise and fall of the Asian century', the more broadly accepted view is that in spite of current market and political uncertainties, as well as a regionwide slowdown in growth rates, the long-term prognosis for the region remains optimistic. The latest World Bank assessment (World Bank, 1997) shows that the countries in the region are economically strong enough—[they have] 'comparatively high savings ratios, low debt burdens, historically strong fiscal positions, and a history of market-friendly policies' (p. 2)—to recover from the currency crisis and regain healthy growth rates, especially if needed economic, fiscal and policy changes are quickly put into effect. To be certain, tough economic decisions have to be made by East Asian countries to strengthen their economies, but overall the region is still expected to maintain healthy growth rates, albeit at a more subdued pace, but that will keep them well ahead of other regions in the world. Trade will continue to intensify, particularly within the region, to meet the consumption needs of the region's growing middle class which, given current demographics, is poised to become the world's biggest (Rohwer, 1996). Given all these driving forces, the region is predicted to emerge 'as an independent engine of growth [that]... [i]n the longer run ... may even evolve into a powerful trading region that can propel itself with less and less reliance on the US and Europe' (Tan and Wee, 1995, p. 51).

### **2.3 MAJOR TRADING PATTERNS IN THE ASIA-PACIFIC**

What major trade patterns characterise this growing economic power? There are several that are particularly noteworthy. Since the 1960s, when the countries in the region began to advance economically, there has been a significant flow-on of benefits from the wealthier countries to their poorer neighbours. With economic growth has come a significant increase in people's incomes and educational levels, and a subsequent rise in purchasing power and consumer spending. Today, the region's exports account for about a quarter of total world exports. It is also becoming its own biggest market. Initially, trade between countries was underwritten for the procurement and supply of cheap labour and land; today, it is to satisfy the growing needs and demands of the region's growing middle class. Whereas before manufactured goods made in the region were mostly exported to countries outside the region, notably the United States and Europe, today these goods are increasingly kept within the region. While the United States remains a major player in the region, the region's leading economies are taking on a more significant role; today they provide a big majority of the investments flowing into the region's newly industrialising economies. These major trends are expected to continue into the next century, particularly as China, with its more than a billion people, gradually transforms itself into the world's biggest economy.

#### **The flying geese of East Asia**

East Asia's economic growth is often likened to the flight formation of geese: Japan at the head, followed by the Four Tigers (Hong Kong, Singapore, South Korea and Taiwan), and then by the region's newly industrialising economies (NIEs) notably, Indonesia, Malaysia, Thailand and more recently, China and the Philippines. The 'flying geese' analogy is drawn from the way the East Asian economies have developed their

economies within a relatively short period of time. Japan started the growth momentum, first by industrialising and, when it prospered as an exporter nation, by moving its high capital and labour intensive industries to the less-developed countries in the region, whose low labour and production costs allowed Japan to maintain its competitive edge. Since then, the momentum has been maintained, with the countries in the region growing in tandem. The advancement of a country has typically led to the advancement of others, as all have closely followed Japan's overall strategy for growth. This pattern of development has allowed the region to grow rapidly, as the following market trends reflect.

#### **World market share**

Largely because of the economic success of the East Asian countries, the trade controlled by the Asia-Pacific region has grown at an unprecedented rate over the last three decades. It is now 26 per cent of total world trade, compared to the European Union's 37 per cent and NAFTA's 19 per cent. When the region's share is added to the other members of APEC (i.e. Canada, Chile, Mexico, and the United States), the total APEC share jumps up to almost half of the entire world trade (Bergsten, 1997). A significant proportion of the region's exports include higher-value manufactured goods, while most imports are relatively low-value raw materials or energy (Drewry, 1993).

#### **Intra-regional trade**

One striking aspect of Asia-Pacific trade has been the increase in intra-regional trade (Menon, 1996; Kunkel, 1995). The region is now its own biggest market, with intra-regional trade estimated in 1991 to account for 40 per cent of total trade, up from 30 per cent in 1986 (Drewry, 1993). The value of trade among these countries is now greater than their trade with the US. A decade ago, for instance, Japan's trade with the US was

about 40 per cent of its total trade; now it is less than a third. During the same period, Japan's trade with its neighbours rose to around 40 per cent, from less than 25 per cent (Leger, 1995). This trend is reflected throughout the region, particularly between the Four Tigers and the five NIEs (Kunkel 1995).

### **Intra-regional Investments**

The rapid market integration within the Asia-Pacific region has been fuelled by the massive inflows of investment from the wealthier nations of the region to their newly industrialising neighbours. Major foreign investors in the NIEs have been Japan and the Four Tigers, displacing the US and Europe. As a group, the Tigers have been the largest investors in the NIEs: 44.7 per cent in Thailand, 40 per cent in the Philippines, 47.8 per cent in Malaysia, and 29.3 per cent in Indonesia. They also hold the biggest share of the NIEs' exports, and are the biggest market for China's exports. (Tan and Wee, 1995; Leger, 1995). While for a number of countries these huge inflows have dramatically come to a stop in the wake of the 1997 financial crisis, the investment pattern outlined here is nonetheless expected to continue.

### **Growth triangles**

Another significant aspect in the growing intra-regional trade has been the development of 'growth triangles' within the region. Growth triangles are economic zones that involve two or more countries but not necessarily these countries' entire national economies. Two very successful growth triangles now attracting world interest and attention are the Singapore-Johor-Riau (SIJORI) triangle, which comprises Singapore, the state of Johor in Malaysia, and the Riau province in Indonesia; and the Great South China Economic Zone, which includes Hong Kong, Macau, Taiwan, and the southern coastal provinces of Guangdong and Fujian in China (Yue and Yuan, 1994). Massive investments by the

Tigers (and to a lesser extent by Japan) into Guangdong and Fujian in China, Johor in Malaysia and Riau in Indonesia have led to a dramatic economic transformation in these areas. From being areas of poverty, they have become major industrial and investment centres, whose high incomes contrast sharply against national averages (Yue and Yuan, 1994). Major industrial restructuring is also being undertaken, as investments allow the construction of superhighways, power generators, communications systems, and similar infrastructure programs critical to the sustenance of an industrialising economy.

The concept behind the growth triangles is similar to the flying geese pattern of national development. Wealthier nations invest in their poorer neighbours, whose cheap labour and land allow the former to keep manufacturing costs down and thus remain competitive. With growth triangles, however, the areas involved are physically close to each other to allow (with government approval) a relatively easy movement of goods, people and capital across national borders. As with the flying geese pattern, there is growing evidence that the economic benefits from the growth triangles are spreading beyond the original boundaries; as wages rise and labour becomes in short supply, and as real estate prices soar, investors go further in search of fresh supply of cheap labour and land (Yue and Yuan, 1994).

Mindful of these successes, various countries in the region are now in different stages of negotiation to establish more growth triangles. At the most advanced stage of negotiations is the Northern Growth Triangle, proposed by Malaysia, and designed to comprise 15 southern provinces of Thailand, 4 states in Malaysia and 2 provinces of Sumatra in Indonesia (Yue and Yuan, 1994). The Association of Southeast Asian Nations (ASEAN) has also agreed to establish a free trade area (to be called ASEAN



Free Trade Area, or AFTA) within 10-15 years, commencing 1 January 1993. Since its meeting in 1992, when the AFTA concept was approved, ASEAN member nations have been negotiating on timetables for tariff reductions of ASEAN products, covering all manufactured and capital goods, processed agricultural products and other items that do not meet their definition of agricultural products (Menon, 1996). Three others in the offing are the Tumen River Delta Area project (eastern Russia, China, Mongolia, South and North Korea), the Yellow Sea Economic Zone (Japan, South Korea, northern China), and the Japan Sea Economic Zone (Japan, eastern Russia, northeastern China, South and North Korea).

#### **Growth of consumer power**

Companies initially began investing in East Asia to take advantage of low-cost labour and then export their products outside the region. While this trend continues today, a growing proportion of manufactured products now remains within the region to serve a fast-growing middle class. Sustained economic growth has led to a substantial rise in incomes, educational levels and purchasing power, making possible the rapid emergence of this middle class, whose sheer numbers make their purchasing potential formidable. The 10 East Asian economies covered by the study account for about 30 per cent of the world's population, more than 60 per cent of whom are between 25 to 65 years old and with some consumer spending power. If growth trends are sustained, the region is expected to have about 1 billion consumers by the early 2000s, whose consumption needs and demands would have to be met (Rohwer, 1996; Tan and Wee, 1995).

### **The Chinese network**

Another critical aspect of intra-regional trade in the Asia-Pacific is the presence of the Chinese network. There is actually no single network; rather, there are numerous networks that span national boundaries, crisscrossing the Asia-Pacific region and over to North America and Europe. These networks are made up of Chinese who have resettled throughout the Asia-Pacific and the rest of the world; they are estimated to be about 50 million strong in East Asia alone (6 million in Hong Kong, 21 million in Taiwan, 30 more million spread out from Korea to Indonesia). Not much research has been conducted into these Chinese networks, but the accepted wisdom is that their ties are strong and extensive, and that they work largely on the basis of personal, family, school, and/or business connections. They control much of the banking, finance and trade in East Asia and are involved in major investments throughout the region, including Australia and New Zealand (Fitzgerald, 1997). They are principally responsible for massive investment inflows into China, accounting for about 70 per cent of the country's total investments (Tan and Wee, 1995); these investments are expected to continue, giving China the strength and resiliency it needs to transform itself into a major economic force.

### **Future prospects**

Trade in the Asia-Pacific region is expected to follow the region's overall pattern of economic development. Although short-term prospects are gloomy due to the continuing financial crisis, the long-term prognosis for the region remains positive. From all indications, countries will continue to industrialise and liberalise their economies, which will enable intra-regional trade to grow in importance (Menon, 1996). Intra-regional cooperation and competition will also be maintained as countries work together to establish free trade areas and more growth triangles, and as they maintain regional

consultations through various mechanisms, notably APEC and ASEAN. While the idea of a 'Pacific or Asian century' may not be widely shared—indeed, is hotly contested—the prevailing view is that the Asia-Pacific region will grow into a strong economic region in the next century, particularly if individual countries implement much-needed economic and structural reforms.

## **2.4 ASIA-PACIFIC SHIPPING**

The performance of the Asia-Pacific region over the last several decades finds close parallel in the performance of commercial shipping in the region, which should come as no surprise since shipping is a derived demand and the region's geography virtually demands heavy reliance on maritime transport.

### **The role of maritime transport**

Geography has been a significant factor in the region's reliance on maritime transport. The region is highly archipelagic, which means trade within the region, as well as within individual countries, almost always implies the use of water transport (Peters, 1986). Contiguous land links to mainland Asia and beyond do not necessarily provide an advantage either; in their discussion of the influence of geography on the use of maritime transport in Asia, Leinbach and Sien (1989) point that 'the high mountains to the north and east create formidable barriers which effectively render the region highly dependent on water transport' (p. 98). A further complication, reports Lloyd's Maritime Asia (May 1997), is the lack of reliable and extensive land-based infrastructure links to facilitate transport of goods; forcing fast-growing Asia-Pacific countries with manufacturing bases to significantly increase their use of maritime transport.

Trade has not been the only reason for the region's dependence on maritime transport; the improvement of communication and the need for greater administrative and political control, to name a few, have also been major factors behind the growing demand for shipping (Rimmer, 1997; Leinbach and Sien, 1989; JAMRI 1987). Neither is the region's reliance on maritime transport merely a late 20th century phenomenon; it goes back in time, long before western countries made their presence felt in the region. As Leinbach and Sien (1989) put it,

[Asia has] a rich maritime tradition which dates from well before the era of Western influence in the region. The early Indonesian empires of Srivijaya based on Sumatra and Majapahit based on Java relied on sea power to hold sway over their maritime territories. The extension of Chinese power over the Nanyang ('Southern Seas') was made possible by its powerful navy. Commerce between the region and West Asia, East Africa, and South Asia, as well as within the region, was carried by sea-borne transport which also provided the means of cultural exchange. It is well known that among the peoples of the Malay archipelago, there has been a very long and established tradition of seafaring ... With the arrival of the Europeans in the eighteenth century and the eventual domination of colonial powers in the nineteenth and the first half of the twentieth century, trade and political control of the region continued to rely heavily on maritime transport (p. 97).

In the last two decades, this reliance on maritime transport has grown significantly to keep pace with the rapid economic growth of the region. Recent studies on Asia-Pacific shipping highlight a remarkable record of growth in shipping activity from the 1970s to 1990s, with the 1980-90 period recording the most significant growth (OECD, 1997; UNCTAD, 1996b; Lee, 1996; Drewry, 1993; Xingyuan, 1991; Thanopoulou, 1995; JAMRI, 1987; Peters, 1986). In 1980, the region controlled 18 per cent of the total world volume in bulk imports and 29 per cent in container throughput; by 1991, this share had grown to 33 per cent and 40 per cent, respectively (Drewry, 1993). In terms of annual growth rate, the Asia-Pacific has been leading the way, as a recent report (OECD, 1997) confirms:

The most dynamic exporting countries are generally found outside of the OECD area. This is particularly true of exports from the Dynamic Asian Economies (+14 per cent), Latin America (+11.5 per cent) and Central and Eastern Europe (+9.5 per cent). With regard to import growth, only Asia performed above the average (+13 per cent, with +11.5 per cent for Japan and +15 per cent for the DAEs). These figures show the relative decline in the share of

international trade of the non Asian Members of the OECD, and confirm the growing importance of the Asia-Pacific area in international shipping markets (p. 67).

### **Asia-Pacific seaborne trade**

Shipping is not one homogeneous market; rather, it is made up of several important sectors. There are three main sectors (also called markets or trades): liner (also called general cargo), tanker (also called wet bulk), and dry bulk (Stopford, 1993). The tanker and dry bulk markets are normally grouped together as bulk trades. Because the industry norm is to organise the shipping market into these three sectors, this typology will be used for the remainder of the chapter. Further, because the characteristics of each shipping market is well documented in the shipping literature (e.g. Spruyt, 1994; Farthing, 1993; Stopford, 1988; ESCAP, 1986; Branch, 1982), no attempt will be made here to replicate previous efforts. The reader is asked instead to refer to these sources for an extensive discussion of shipping markets.

Forecasts for world seaborne trade from 1996-2005 show that world seaborne trade growth is expected to grow by an average of 4.1 per cent per annum over the next decade, that is, from 3,865 million tons in 1995 to an estimated 5,454 million tons in 2005 (Fearnleys Review, 1996a; UNCTAD, 1996b). As shown in Table 2.1, the highest growth rate is expected from the liner sector (6.4 per cent), mainly from containerised and general cargo, followed by the dry bulk sector (4.5 per cent), and the tanker sector (2.6 per cent).

**Table 2.1 Growth forecasts for world seaborne trade (1996-2005)**

Industry Sector	Growth Rate (base year=1995)	Estimated Volume (2005)
Dry bulk	4.5	1,685
Tanker	2.6	2,168
Liner*	6.4	1,601

Source: DRI/McGraw-Hill, 1995, as cited in UNCTAD, 1996b

Most analysts agree that growth rates in seaborne trade for the Asia-Pacific region will not be as great in the 1990s as those achieved in the last two decades. The main growth drivers (China, Taiwan, Hong Kong, Korea, Malaysia, Singapore, and Thailand) have started slowing down after years of rapid unprecedented growth (OECD, 1997), and the current financial crisis gripping the region is expected to further dampen this growth. In terms of differential trade requirements, JAMRI (1987) predicts that as countries continue industrialising, trade in raw materials will decrease while trade in semi-finished products will increase. Drewry (1993) also predicts higher growth rates for liner shipping, especially containerised cargoes, but a much slower growth for the bulk trades; in spite of this slowdown, however, the bulk trades are still predicted to grow not only in volume but also in world importance. More specific trends in each sector are discussed below.

*Bulk trades.* The three largest commodities in world seaborne bulk trades are crude oil, iron ore, and coal, all of which have had a dominant impact on demand patterns (ISL, 1997). Comparative figures for these and other bulk commodities are presented in Table 2.2.

**Table 2.2 World seaborne trade of main bulk commodities (billion of ton-miles)**

	1985	1990	1995
Crude oil	4 007	6 261	7 375
Iron ore	1 702	1 978	2 287
Coal	1 473	1 849	2 176
Grain	1 004	1 073	1 160
Bauxite & alumina	166	205	199
Phosphate	156	154	136

Source: Fearnleys, 1996b

The Asia-Pacific region already commands a significant share of this trade, and any increase during the 1990s is expected to be marginal. Drewry (1993) predicts a 25 per

cent growth by 2000, which will put the region's share to about 34 per cent of total world trade. Tables 2.3 and 2.4 provide some comparative figures.

**Table 2.3 World and regional share in bulk trades\* (million tons)**

	World	Asia-Pacific	%
1992	3 014	1 025	34.0
2000	3 422	1 170	34.2

\* excluding LNG

Source: Drewry, 1993

**Table 2.4 Asia-Pacific trade as a percentage of world trade**

	1991	1995	2000
Crude oil	24.6	26.9	28.3
Oil products	25.9	22.7	17.3
LNG (1)	73.3	76.4	65.8
Iron ore	53.5	51.3	53.0
Coking coal	57.3	60.3	58.1
Steaming coal	40.5	41.5	42.3
Grain	35.9	38.7	39.8
Forest products	39.0	41.0	43.9
Cement	55.6	54.5	53.5
<b>Total (2)</b>	<b>33.6</b>	<b>34.0</b>	<b>34.2</b>

(1) billion cu.av of low/high forecasts

(2) excluding LNG

Source: Drewry, 1993

*Container trades.* The region's container trades have followed similar growth patterns as the bulk trades, with the last two decades showing increased container traffic in and out of the region. From a negligible 1 per cent of world container traffic in the early 1970s, it jumped to 28 per cent in 1982 (Peters, 1986). Since then the region has continued on its exponential growth pattern, growing at a much faster pace than any other region, more than twice that of Western Europe and four times more than North America. As of 1990, the region controlled nearly 40 per cent of world container traffic; by 1995, this rose to 46 per cent; by 2000, it is predicted to rise to 50 per cent. Regional growth trends are summarised in Tables 2.5 and 2.6.

**Table 2.5 Global container activity (million TEU)**  
(Total throughput at regional ports)

	1980	1990	1995	2000
Asia-Pacific	11.2	34.9	63.4	99.1
W. Europe	11.7	22.4	30.5	39.9
N. America	9.5	16.7	20.8	24.1
L.America	2.3	4.8	8.0	11.7
Mid East	1.9	3.5	6.8	10.5
Africa	1.5	2.7	4.2	6.2
S. Asia	0.2	1.8	3.4	5.8
E.Europe	0.4	0.6	0.6	1.0
World Total	38.7	87.4	137.7	198.2

Source: Drewry, 1996c

**Table 2.6 World and Asia-Pacific container activity**

	World Total (million TEU)	Asia-Pacific Percentage Share
1980	38.7	28.9
1990	87.4	39.9
1995	137.7	46.0
2000	198.2	50.0

Source: Derived from Table 2.5 (Drewry, 1996c)

Individual country performance within the region is predicted to vary. ASEAN countries are expected to lead the way, with an annual growth rate of 9.5 per cent, closely followed by Hong Kong, Taiwan, South Korea and China, which are expected to grow at an average of 6.1 per cent per annum. Both groups will exceed the world average of 4.6 per cent, while Japan, Australia, and New Zealand are expected to fall below it. These figures are summarised in Table 2.7.

**Table 2.7 Container activity in the Asia-Pacific region (million TEU)**

	Average Growth % (1991-2000)	Countries Included
Far East	6.1	Hong Kong, Taiwan, South Korea, China
Japan	3.9	-
SE Asia Taiwan, Thailand	9.5	Indonesia, Malaysia, Philippines, Singapore,
Oceania	2.1	Australia, New Zealand
World	4.6	

Source: Drewry, 1993



### **Intra-regional seaborne trade**

One striking aspect in the growth of seaborne trade in the Asia-Pacific has been an extraordinary increase in intra-regional trade. In the last several decades, intra-regional seaborne trade has expanded much faster than trade with countries outside the region (Drewry, 1993; Xingyuan, 1991). In 1991, it accounted for 40 per cent of its total trade; in 1995, for the first time it exceeded the region's trade with the rest of the world. Like regional economic growth in general, the growth in seaborne trade has been spurred by regional cooperation networks (e.g. APEC, ASEAN) and the establishment of economic zones, or more colloquially known as 'growth triangles', in the region (Rimmer, 1997; Lee, 1996). As noted earlier in the chapter (see section 2.3), such regional cooperative schemes have significantly boosted trade within the region either through increased dialogue and consultation among the countries in the region or through joint ventures between nationals or governments of two or more countries. Most analysts agree that this growth in intra-regional trade will continue well into the future, which augurs well for the region's maritime industry (Containerisation International, 1997b; Lloyd's Maritime Asia, 1997; Lloyd's Shipping Economist, 1997; OECD, 1996; Lee, 1996; UNCTAD, 1995; Drewry, 1993; Xingyuan, 1991; JAMRI, 1987).

For Asia-Pacific shipowners, the implications of this trend are immense. Greater intra-regional trade will require a major shift in the way shipping is conducted; from being mainly feeder service providers, shipowners will increasingly serve as longer haul operators and providers of direct service routes to Asia. Changes will also be inevitable as the promise of greater profits will attract more competitors into the area. Lloyd's Maritime Asia (1997) offers a hint of the lurking potential:

Intra-regional trades, are, in comparison to transpacific routes, lucrative. One account has it that the cost of running a TEU from Shanghai to Rotterdam has flattened from \$1,800 two years ago to less than \$800 today. By way of contrast, a TEU from Shanghai to Manila earns \$1,200, the same as it did two years ago. The trades offer other comparative cost savings as well. For example, on short-haul, port-to-port services, containers do not generally need to be relayed from one ship to another en-route to final destinations, so transshipment costs are limited. These port-to-port services also translate into relatively low inland transportation costs compared to long-haul carriers, for which rail and trucking costs represent almost 20% of operating costs (p. 44).

Of the region's shipping markets, container trades are predicted to show the most significant increases (Rimmer, 1997; Containerisation International, 1996c; Drewry 1993), and their growth is expected to be a major determinant in the development of world shipping (ISL, 1996). By 2000, the region is expected to account for about a quarter of total world box movements (Containerisation International, 1997c). This growth in the region's intra-regional containerised cargo flows is summarised in Table 2.8.

**Table 2.8 Intra-regional Asia-Pacific containerised trading volumes\* (TEUs, 1991-2001)**

	1991	1996	% change	2001	% change
Japan	1 703 098	2 407 654	41.4	3 288 194	36.6
South Korea	705 497	1 103 844	56.5	1 755 552	59.0
Taiwan	967 849	1 339 826	38.4	1 970 373	47.1
Hong Kong	832 740	1 402 177	68.4	2 308 549	64.6
Philippines	184 748	400 901	117.0	664 042	65.6
Indonesia	492 084	962 353	95.6	1 647 277	71.2
Singapore	762 509	1 337 456	75.4	2 245 544	67.9
Thailand	533 033	922 372	73.0	1 487 487	61.3
Malaysia	573 811	1 131 603	97.2	1 941 940	71.6
Total	6 755 369	11 008 186	63.0	17 308 958	57.2

\* Data based on import customs reports; revenue terms converted to tonnes and then into TEU. Source: DRI/Mercer, 1997, as cited in Containerisation International, 1997c

As can be seen from the table, the region's containerised cargo leapt by 63 per cent from 1991 to 1996, with the Philippines, Malaysia, and Indonesia showing the most significant increases, closely followed by Singapore, Thailand, and Hong Kong. By the year 2000, the region's share is expected to rise by another 52 per cent, with Malaysia, Indonesia, and Singapore expected to show the highest increases.

The most significant growth corridors have been linking Japan and South Korea with East and South East Asia (Taiwan, Hong Kong, Malaysia and Thailand), where the one-way cargo flows exceed 200,000 per year. In addition, significant trade is taking place between Taiwan and Hong Kong and South East Asia, as manufacturers in these countries follow their Japanese and Korean counterparts and take advantage of lower labour costs and cheaper land to establish assembly and production plants offshore. This, in turn, is leading to the development of certain interesting secondary trades, such as those between Malaysia/Indonesia, Philippines/Thailand and Taiwan/Vietnam (Containerisation International, 1997c, pp. 49-50).

### Asia-Pacific fleet development

As of December 1995, a total of 35 maritime nations controlled the majority (93.8 per cent) of world tonnage, as measured by number of vessels and deadweight tonnage. As Table 2.9 shows, all Asia-Pacific shipowners except New Zealand made it to this elite group of maritime nations, controlling over a third (32.85 per cent) of the world fleet. Japan, with its 12.93 per cent share, dominated; but even with considerably smaller shares, China, Hong Kong, South Korea, Taiwan, and Singapore all made it to the first top 15. The Philippines, Indonesia, Australia, Thailand, and Malaysia were positioned closer to the bottom of the list.

**Table 2.9** Distribution of the Asia-Pacific fleet

World Fleet Rank	Country	% of World Fleet
2	Japan	12.93
5	China	5.25
6	Hong Kong	4.67
8	South Korea	3.12
11	Taiwan	2.14
13	Singapore	1.94
25	Philippines	0.70
27	Indonesia	0.61
32	Australia	0.51
33	Thailand	0.49
34	Malaysia	0.49

Source: Adapted from UNCTAD, 1996a

In terms of ship types, those that dominate world shipping today are oil tankers (tanker trades), bulk carriers (dry bulk trades), and general cargo ships and containerships (liner trades). The collective strength of these ship types can be described in a number of

ways, one of which is by gross tonnage (gt). If all ship types above 100 gt are considered, then the four ship types can be said to make up 86.3 per cent of the 1997 world fleet. If the cut-off point is above 1,000 gt, then the percentage jumps up to 99.2 per cent for the same period. The distribution of the world fleet according to ship types using these two measures is shown in Table 2.10.

**Table 2.10 Two ways of determining world fleet distribution by ship type (1997)**

Major Ship Types	over 100GT	over 1,000 gt
Oil tankers	36.5	42.0
Dry bulk carriers	32.3	37.2
General cargo ships	11.0	13.3
Container ships	6.5	6.7
Total % of world total	86.3	99.2

Source: Lloyd's Maritime Information Service, 1997

For commercial shipowners operating in major trades (which exclude those providing feeder services), the 1,000gt basis is more appropriate because it provides a better representation of major commercial ship types and the tonnage size used on major shipping routes (Lloyd's Maritime Information Service, 1997; ISL, 1997). This higher gt level is used as the basis in Table 2.11 which shows the Asia-Pacific's share of the world fleet by ship type, gross tonnage, and deadweight tonnage. As the table shows, the four ship types account for 99.2 per cent of the world fleet, with oil tankers and dry bulk carriers representing almost 80 per cent of the total. Of this fleet, 37.6 per cent is controlled by the Asia-Pacific region. In terms of gross tonnage (gt), container ships (43.8 per cent) and dry bulk carriers (43.6 per cent) represent a slight majority, with oil tankers (33.3 per cent) and general cargo ships (31.7 per cent) not far behind. In terms of deadweight tonnage (dwt), bulk ships, which account for nearly 80 per cent of the total world fleet, dominate Asia-Pacific shipping, with dry bulk carriers comprising the largest group (47.1 per cent), followed by oil tankers (32.8 per cent). The liner sector is

smaller due to the prevalence of small semi-container ships (8.8 per cent) and even smaller general cargo ships (11.2 per cent) in the region (Drewry, 1993).

**Table 2.11 Regional fleet distribution by gross (gt) and deadweight (dwt) tonnage (1997)**

Major Ship Types	% of World Fleet (over 1,000 gt)	% of Asia-Pacific share	
		(over 1,000 gt)	(over 1,000 dwt)
Oil tankers	42.0	33.3	32.8
Dry bulk carriers	37.2	43.6	47.1
General cargo ships	13.3	31.7	11.2
Container ships	6.7	43.8	8.8
Total % of world total	99.2	37.6	37.6

Source: Lloyd's Maritime Information Service, 1997

In terms of geographical distribution, Europe and the Asia-Pacific account for almost 82 per cent of the world fleet, with the first holding 44.1 per cent and the latter, 37.6 per cent. North America holds the next largest share (7 per cent), followed by Latin and South America (2.4 per cent), and Africa (1 per cent). Between 1994-1997, the Asia-Pacific region registered the highest growth rate (4.2 per cent), followed by Africa (2.9 per cent). The rest—Europe, North America, and Latin and South America—all declined. Regional fleet distribution and growth rates are summarised in Table 2.12. The geographical location of 8 per cent of the world fleet cannot be ascertained and hence are grouped under the category 'unknown'.

**Table 2.12 Regional fleet distribution and growth rates, 1997**  
(% share of world fleet by dwt for ships of 1000gt and over)

Regions	Oil Tankers	Bulk Carriers	Container Ships	General Cargo Ships	Total %	Growth Rate*
Europe	46.0	41.3	40.2	46.8	44.1	- 0.1
Asia-Pacific	33.3	43.6	43.8	31.7	37.6	4.2
North America	11.9	2.8	8.1	2.6	7.0	-3.7
Latin & South America	2.5	2.3	1.5	2.5	2.4	-3.5
Africa	0.9	0.9	0.9	1.9	1.0	2.9
Unknown	5.3	9.1	5.5	14.4	8.0	—

\* Average yearly growth rates from 1994-1997

Source: Lloyd's Maritime Information Services, 1997

The national fleets of the Asia-Pacific have grown considerably over the last three decades (Lloyds Maritime Information Service, 1997). Their most significant growth period was between 1960-1970, when they grew by 250.5 per cent; however, as world fleet size increased and shipping demand slumped, the growth rate slowed down, to 104.4 per cent between 1970-1980 and then to a low 30.9 per cent between 1980-1990. Between 1990-1996, however, the growth rate picked up again, reaching 61.3 per cent. At these growth rates, the national fleets of the region have been able to substantially increase their share of the world fleet, from only 6.9 per cent in 1960 to 23.4 per cent in 1996. If foreign flag vessels are included, which means a further 16.2 per cent added to the world total, the region's share will rise to over one third. Behind this remarkable growth are six countries: Japan, China, Hong Kong, South Korea, Taiwan, and Singapore (Lloyds Maritime Information Service, 1997).

Since container shipping has had and will have the most dramatic impact on world shipping (Rimmer, 1997; JAMRI, 1987), it is worth exploring the growth of this fleet at this point. Container carriers were introduced to the maritime industry in the 1970s, and in the short span of 10 years, many had made their presence felt on world shipping markets. Evergreen (Taiwan), NOL (Singapore), and MISC (Malaysia) were all formed in 1968, followed by Yang Ming (Taiwan) in 1973, Hyundai (Korea) in 1976, and Hanjin (Korea) in 1978. Table 2.13 traces the development of the leading Asia-Pacific container operators over a 15-year period (1975-1990). By 1990, Evergreen of Taiwan had the largest number of TEUs carried, followed by four Japanese companies (NYK, MOL, K Line), Cosco from China, and OOCL from Hong Kong.

**Table 2.13 Number of TEUs carried by leading Asia-Pacific container operators**

	1975	1980	1985	1990
Cho Yang	-	564	3 033	10 742
Cosco	-	474	28 752	71 046
Evergreen	-	18 100	74 132	130 498
Hanjin-	-	5 948	7 028	46 943
Hyundai	-	-	6 841	16 048
Japan Line	4 684	5 992	7 209	-
K-Line	7 967	8 906	22 851	58 290
KSC	-	7 776	9 650	-
MISC	-	4 900	10 734	10 442
MOL	13 373	18 952	35 967	66 838
NLS	-	-	-	17 809
NOL	1 100	8 323	13 874	35 943
NYK	15 330	21 664	33 963	73 062
OOCL	18 267	21 701	33 825	56 629
Showa	2 795	5 190	5 780	228
Y-S Line	5 413	6 584	9 950	-
Yang Ming	-	7 344	23 409	46 817

Source: Containerisation International Yearbooks, various dates

As a result of this growth, many of the region's leading container operators improved their world ranking within a relatively short period of time (Rimmer, 1997; Tanaka, 1993). Table 2.14 compares their performance vis-a-vis other leading world container operators over a 10-year period (1980 and 1991).

**Table 2.14 Top 15 container operators (1980-1991)**

1980 Rank			1991 Rank		
Rank	Operator	Capacity (000s TEU)	Rank	Operator	Capacity (000s TEU)
1	Sea-Land (USA)	58	1	Evergreen (TWN)	115
2	Hapag (GER)	43	2	Maersk (DEN)	104
3	Maersk (DEN)	34	3	Sea-Land (USA)	95
4	OCL (GBR)	29	4	NYK (JPN)	83
5	OOCL (HK)	27	5	COSCO (CHN)	69
6	NYK (JPN)	26	6	APL (USA)	61
7	CGM (FRA)	24	7	MOL (JPN)	60
8	APL (USA)	21	8	OOCL (HK)	55
9	Evergreen (TWN)	19	9	Hapag (GER)	54
10	Wilhelmsen (NOR)	18	10	Hanjin (KOR)	53
11	Nedlloyd (NTH)	18	11	K-Line (JPN)	53
12	MOL (JPN)	17	12	Yang Ming (TWN)	49
13	US Line (USA)	16	13	P&O (GBR)	44
14	Farrell Lines (USA)	12	14	NOL (SNG)	40
15	NOL (SNG)	8	15	ZIM (ISR)	40

Source: Tanaka (1993)

Between 1980 and 1991, Evergreen moved from 9th to the top position; NYK, from 6th to 4th; and MOL from 12th to 7th. While OOCL of Hong Kong and NOL dropped from 5th to 8th and 8th to 14th respectively, they still remained in the top 15; in contrast, seven leading operators, mainly from Europe and the US (OCL, CGM, APL, Wilhelmsen, US Line, and Farrell Lines), did not make it to the 1991 list. A more recent analysis provided similar results (Containerisation International, 1996c). In 1983, six container operators from the Asia-Pacific made it to Containerisation International's Top 20 league; collectively they accounted for 27 per cent of the total. By 1995, half the list was made up of Asia-Pacific shipowners, representing close to 50 per cent of total world container capacity. These changes clearly reflect the shift of the center of power within container shipping to the Asia-Pacific region (Rimmer, 1997).

## **2.5 COMPETITIVENESS OF ASIA-PACIFIC OPERATORS**

The shipping literature cites four main reasons why Asia-Pacific shipowners have succeeded in gaining significant headway into world shipping within a relatively short period of time: cost advantage, government support, access to a vibrant maritime infrastructure, and aggressive growth strategies.

### **Cost advantage**

In their early stages of development, the main competitive advantage of Asia-Pacific shipowners was easy access to a relatively inexpensive and committed workforce, which meant lower vessel operating costs (Holste, 1993; Drewry, 1993; Leinbach and Sien, 1989; Peters, 1986). This cost advantage over the traditional maritime nations of Europe has been maintained over the years as the fleets of the Asia-Pacific have continued to expand. A typical example of the lower operating cost differentials



between Europe and the Asia-Pacific is provided in Table 2.15. A 30 per cent lower operating cost structure is a significant competitive advantage in freight markets, especially during times of depressed freight rates and long periods of over-tonnaging. This difference would be even more pronounced if compared to the even cheaper South East Asian shipowner (Leinbach and Sien, 1989).

**Table 2.15 Operating cost differentials for an 800 TEU containership (1992, US\$ per day)**

	N. European Operator	Asia-Pacific Operator	% Difference
Operating costs*	10,315	7,915	30.3

\*manning, insurance, stores, ship management  
Source: Drewry, 1992

Cheaper labour costs, both at sea and ashore in shipping management, have not been the only cost advantages of Asia-Pacific shipowners. As their share of the world fleet increased, the use of more modern and efficient ships and equipment, particularly in container trades, gave them another competitive advantage (Holste, 1993). Drewry (1993) sums up the situation very well:

During the last 20 years, there has been a tremendous expansion in the merchant fleet owned and operated by interests located within the Asian Pacific Rim. In recent years attention has focused on the growth of its container carrying services but throughout the whole period there has also been substantial growth in the number of other vessel types operated by regional interests (by both domestic and foreign flag holdings), most notably the dry bulk carrier and tanker fleets. Undoubtedly a major factor encouraging the penetration of Pacific Rim fleets into the world scene was cost advantage. The region is the centre of the world shipbuilding industry and close relationships have been built up between local ship operators, cargo interests and shipbuilders. But more than this has been the large differentials in operating costs - particularly crew costs, which (with the exception of Japan) have given local ship operators a significant cost advantage - more so in periods of depressed freight levels (p. 6).

In the tradition of the 'flying geese' model of development, discussed earlier in the chapter, as operating costs increased, many Asia-Pacific shipowners initially flagged out their national fleets to other cheaper Asian national flags (e.g. from Japanese to Hong Kong registry) in an effort to maintain their cost advantage over Europe and North America (predominantly the US). These regions in turn tried to narrow the cost

advantage of the Asia-Pacific by flagging out their national fleets to open registries, offshore flags, and the creation of second registries. Many also formed joint ventures and tended to specialise in the more advanced areas of shipping like containerisation in an attempt to be competitive. The Asia-Pacific retaliated through imitation, flagging out their national fleets mainly to open registries, thus still maintaining their cost advantage (Thanopoulou, 1995; Sletmo and Holste, 1993; JAMRI, 1987).

This trend is reflected in Table 2.16 which shows what percentage of the Asia-Pacific fleet are under foreign flags. It is interesting to note that, with the exception of China, the countries which have the highest world ranking are those with the highest percentage of fleets under foreign flags, namely, Japan, Hong Kong, South Korea, and Taiwan. These countries have mainly used the open registries of Liberia and Panama (and Vanuatu for Japan and Hong Kong) and to a lesser extent Cyprus and the Bahamas (Lloyd's Maritime Directory, 1997). In the case of China, where the fleet is owned and operated by the state, it is reasonable to expect the majority of its fleet to be under its national register. The main reason why 34 per cent of its fleet are under foreign flags is to gain access to shipping markets and commercial finance (Drewry, 1993).

**Table 2.16 Asia-Pacific fleets under foreign flags (December 1995)**

World Rank	Country	Foreign flag as a % of total controlled fleet
2	Japan	73.00
5	China	34.28
6	Hong Kong	77.70
8	South Korea	53.55
11	Taiwan	47.02
13	Singapore	39.48
25	Philippines	3.34
27	Indonesia	31.39
32	Australia	8.84
33	Thailand	41.18
34	Malaysia	5.20

Source: UNCTAD, 1996b

In summary, as a result of cheaper crewing costs, the use of more modern ships and technology, and the move by many of the leading Asia-Pacific shipowners to open registries, a fundamental shift occurred in the comparative advantage of the industry players, with the Asia-Pacific shipowners maintaining a lower cost advantage over their competitors.

### **Government support**

The Asia-Pacific's rise to power in world shipping has been greatly assisted by individual national governments whose maritime and industry policies have been instrumental in developing and promoting the industry. In the bulk sector, the expansion into tankers and dry bulk carriers has been encouraged to meet the increasing demand for bulk imports so that the domestic economy could achieve the maximum benefit from such trade. In the liner sector, the development into containerisation has likewise been encouraged to meet the export and intra-regional trade growth in semi-finished products (Lee, 1996; Thanopoulou, 1995; JAMRI, 1987; Brooks, 1985). Peters (1986) explains the rationale behind government support:

One reason the developing countries [of the Asia-Pacific] moved so aggressively into the shipping markets was their concern about invisible trade. The contention was—and largely still is—that substantial and avoidable payments of scarce foreign exchange were going to foreign carriers and their insurers. Officials decided the solution was to acquire their own tonnage. In some cases, the decision was also influenced by strategic considerations. Often, easy export credit financing was available from foreign shipyards, further encouraging such decisions (p. 11).

Using the classic economic 'infant industry' argument, which contended that shipping should be protected until it was strong enough to compete on its own, many Asia-Pacific governments used a range of measures to restrict foreign competition and assist national shipowners. Assistance was both direct (operating, construction, credit and loan subsidies) and indirect (taxation allowances, cargo/flag preference and reservation,

cabotage, moratoria and loan guarantees). Other measures that guaranteed preference for national flags over foreign flags were carrier licensing, discriminatory pricing (giving national flags a subsidised rate), support given to ancillary industries (e.g. funding maritime training institutions, shipbuilding, research and development), operation of government-owned national carriers, tight government control on foreign investment, joint ventures and business restrictions, and additional bureaucratic requirements imposed on foreign operators. Such measures have significantly helped expand the fleets of the Asia-Pacific into their current carrying power (Lee, 1996; Thanopoulou, 1995; Goss and Marlow, 1993; Holste, 1993; Leinbach and Sien, 1989; Hawkins, 1989; Brooks, 1985).

Shipping market analysts have argued and debated the merits of this assistance given to Asia-Pacific shipowners. Many claim that such government intervention is unfair and discriminatory, arguing that the benefits of this assistance to Asia-Pacific shipowners have been at the expense of international shipping, contributing to overtonnaging and over-investment and creating market inefficiencies and economic distortions by undercutting more efficient international competitors. Others also argue that over-investment in shipping hurts national productivity because it shifts scarce resources away from other well-deserving economic areas. Underlying these criticisms is the view that Asia-Pacific shipowners have been given an unfair advantage, which in turn is fuelling the growing calls for a more 'level playing field' in international shipping (Thanopoulou, 1995; Goss and Marlow, 1993; Sletmo and Holste, 1993; Kim, 1992; Hawkins, 1989; Peters, 1986; Jon, 1986; Yui and Nakagawa, 1985).

On this issue, however, the traditional maritime countries of Europe and North America can hardly stand on high moral ground. As Hawkins (1989) found in his study of shipping subsidies, similar measures were followed by many of these traditional maritime countries in their effort to consolidate the position of their national fleets during the early stages of their maritime development. Hawkins (1989) also adds that rightly or wrongly, subsidisation has always been viewed as the primary method of assisting national fleets:

Shipping subsidies have always been the classical method of assistance to national shipowners. Their origins go as far back as the seventeenth century when England started providing subsidies to its shipping industry to maintain its supremacy in the world markets. By the nineteenth century, maritime subsidies had become commonplace not only in the United Kingdom but also in other countries such as Japan and the United States. Today, we have a situation where there is not a maritime nation which does not offer some form of assistance to its national fleet (p. 1).

Since the start of the 1990s, with mounting pressure from their major trading partners, many Asia-Pacific governments have begun changing direction, moving more closely, albeit very slowly, towards the liberalization of their shipping industries and the removal of barriers to their markets (OECD, 1994). Pressure has been applied in different ways; for instance, in recent years, the US Federal Maritime Administration has conducted investigations into unfair trade practices of Asia-Pacific shipping, while the Korean shipping line, Hyundai, has been brought before the Commission of the European Directorate-Competition for unfair trade practices. OECD has ongoing discussions on harmonising shipping policies to bring the Asia-Pacific more in line with their trading partners (OECD, 1994; Holste, 1993). There is growing impatience at the slowness with which the region is carrying out its reforms, and with the region currently in serious financial trouble, with a number of countries requiring huge financial assistance from international sources (i.e. the International Monetary Fund), there is strong

likelihood that Europe and North America will use this as a leverage for greater trade liberalization in the region.

### **Maritime Infrastructure**

A third contributory factor to the success of Asia-Pacific shipping has been its maritime infrastructure. There is a growing body of opinion and research that highlights the importance of what Lewarn and Hawkins (1994) call a strong 'maritime infrastructure' in maintaining the competitiveness of a national shipping industry. This maritime infrastructure includes a network of people, operations, and activities designed to support the seaborne transport of goods and people.

The work of Lewarn and Hawkins (1994), Sletmo and Holste (1993), and Pelecanos (1992) all follow Svendsen's (1989) original argument that the long-term competitiveness of a national shipping industry requires a vigorous 'shipping milieu', which is defined as 'the network of qualified men and women working in the cluster of shipping activities, private and government' (p.254). This network represents a dynamic pool of information, knowledge, and expertise. It includes a range of different users (importer, exporters), providers (port authorities, terminals, stevedores, agency, customs, training, brokers) and government services (safety, transport, customs, quarantine, research, search & rescue). Interaction and communication within and among these groups are needed to establish and maintain an environment within which national shipping can effectively compete.

Svendsen's view of a vigorous shipping milieu finds parallel outside the shipping industry in Porter's (1990) research on what he calls the 'home base' or the 'diamond of national advantage'. Porter argues that the home base is critical to long-term

competitiveness because it provides the thrust for innovation, improvement, and change. It promotes the creation of domestic rivalry among suppliers which in turn fuels expansion into related industries. The home base also creates greater strategic flexibility. Porter's research was conducted over a four year period and involved ten of the world's most important trading nations. Of these, three were from the Asia-Pacific: Japan, South Korea, and Singapore. Focusing on the most successful industries of each nation, he found that the competitive advantage of a national industry depended on the strength of its national environment, i.e. the 'home base'.

In many Asia-Pacific countries, the development of the maritime infrastructure has been given prominent consideration in national maritime policies and discussions. Largely as a result of this, the region is now a dominant player in world shipbuilding, ship repair, shipbreaking, sale and purchase markets, and maritime training, research and development. It also provides the largest pool of low-cost seafarers. The forging of close working relationships between and among the various sectors of a country's maritime infrastructure has also led to many cost advantages. In South Korea, for example, the entire national fleet, which underwent massive expansion in recent years, was virtually built on Korean shipyards; when one large Korean operator got into trouble (KSC), it was simply absorbed by another (Hanjin). In Taiwan, a state-owned carrier (Yang Ming) acquired its new fleet from a state-owned shipbuilder (China Shipbuilders) on very favourable terms. These examples are repeated elsewhere across the region, both within shipping and outside it. Given this level of support, it is easy to see why the Asia-Pacific fleet has grown significantly both in size and commercial power within a relatively short period of time (Drewry, 1993; Holste, 1993; Pelecanos, 1992).

### **Aggressive growth strategies**

The final element behind the success of Asia-Pacific's shipping are aggressive growth strategies. The Asia-Pacific fleet, particularly in liner shipping, grew faster than its own seaborne trade requirements, which led to more tonnage being offered in the already crowded markets of Europe and North America. Indeed, many analysts place the blame for the chronic overtonnaging situation in liner trades to the excessive expansion strategies of Asia-Pacific shipowners, pursued with the tacit or express blessing of their national governments (Thanopoulou, 1995; Kim, 1992; Jon, 1986).

The new Asian carriers, particularly from Taiwan and South Korea, gained a foothold in Europe and North America through their aggressive push for growth and their unconventional approach of competing against the conference system, which caught the market by surprise. Commented Drewry (1993):

[T]he carrier establishment was used to running the world container trades in a completely different way to the strategy adopted by the new Asian lines, and the emergence of a new breed of competitor was an enormous culture shock. The spirit of compromise and conciliation which these lines had previously taken for granted in their liner operations was anathema to the new Far East carriers, who simply seemed to formulate a strategy and then put it into operation, with apparently unlimited financial resources (p. 104).

What also caught many by surprise was the global ambition of the Asia-Pacific carriers. Many came from large industrial conglomerates and had the support of their national governments, thus they had the resources to support global corporate strategies (Holste, 1993; Drewry, 1993; Kim, 1992). Drewry (1993) again encapsulates this view very well:

[W]ith the Asia-Pacific region developing into a major generator of liner cargo, a simultaneous advance in liner shipping to service this rapid expansion could have been anticipated. What was less easy to anticipate—and certainly what the established carriers in Europe and elsewhere failed to appreciate fully—was the fact that the ambitions of the new Asian lines extended far beyond any national, or even regional, limitations. Almost without exception, these carriers had global horizons (p. 7).



A more recent trend that is just becoming apparent is the move away by Asia-Pacific shipowners from independent operations to consortiums and partnerships. With leading Asia-Pacific shipowners having successfully penetrated world shipping markets and with their governments coming under increasing international pressure to liberalise trade policies and practices, many Asia-Pacific shipowners are moving towards the conference system of consortia/partnership arrangements to maintain market share and profitability. This is not just happening at the regional level, but in the global markets as well. In the name of profitability and survival in the global market, shipowners from the Asia-Pacific, European and North American regions are all forming mega global alliances on a scale never seen before in container shipping (Containerisation International, 1997c; Lloyd's Shipping Economist, 1996a; Drewry 1995, 1996).

#### **A final word on Asia-Pacific competitiveness**

The influence of Asia-Pacific shipowners in world shipping cannot be ignored. It can only be expected to intensify, as the following quotes show:

[W]hen this degree of control [of the world fleet] is combined with the competitively priced operations which so many of these owners/operators are able to offer, either because of their low cost native crews and/or the cost advantages of their open register status (low cost crews, low taxation, advanced depreciation of hull values etc), then the full extent of their challenge to world shipping becomes evident (Drewry, 1993, p. 112).

With the help of such an expanded tonnage capacity and their competitive freight rates, the fleets of these nations will increasingly find themselves in an advantageous position over the advanced maritime nations' fleet. Hence, the international competition on the maritime transport market is expected to become more and more intensified (JAMRI, 1986, pp. 63-64).

Such pronouncements on the Asia-Pacific's influence are not without critics, however.

With a growing evidence that many Asia-Pacific shipowners are losing their competitive edge, nagging doubts have been raised about the region's staying power (Lee, 1996; Holste, 1993; Kim, 1992; Peters, 1986). The implications of the current financial turmoil gripping the region are also adding to this general feeling of unease and uncertainty.

Would Asia-Pacific shipowners be able to maintain their success in world shipping? The answer it seems is that if Asia-Pacific shipowners are to maintain their new dominant position in shipping, they have to learn better ways of competing. Holste (1993) best sums up the current mood:

No market segment exists in which competitive advantages are permanent. If companies from the TMCs [traditional maritime countries] are to compete successfully, they will have to adapt frequently to changing market conditions and will have to form strategic alliances on a global level to best respond to the needs of an integrated world economy. Similar conditions for success apply to carriers from the NMCs [new maritime countries of the Asia-Pacific], which have to move beyond their cost advantage and use this temporary strength to build a lasting market advantage based on innovative corporate strategies and strategic alliances (p. 51).

Such calls for innovative corporate strategies are growing, but how ready are the Asia-Pacific shipowners to rise to this new challenge?

## **2.6 STRATEGIC MANAGEMENT IN ASIA-PACIFIC SHIPPING**

Like Holste (1993), Peters (1986) makes a similar plea for more strategy research into Asia-Pacific ports and shipping. He argues that there is much potential for growth in the area, but a lot depends on shipowners' ability to pursue the right strategic approach and on their knowledge of the general shipping environment. Unfortunately, as he has found in his study, although a lot has been written about Asia-Pacific shipping, much of this is fragmented and dispersed, with no coherent base, which severely limits widespread use. Credibility is also suspect, with many studies often skewed to reflect vested interests or political viewpoints. Even conceptual contributions are based mostly on personal views, without any empirical backing. The rapidity and magnitude of change in shipping adds further complications because rapid change means findings have a very short 'shelf-life'. Peters thus argues for a continuing need to carry out new investigations and update current knowledge. He cites, for instance, the need for a better understanding of how transport system planning, the efficient management of the transport system, and the

financing of transport investments in ports and shipping are interrelated. According to him, these three areas are pivotal because they determine and are heavily influenced by the type of strategies selected by shipowners. Unfortunately, not much is known about how these three areas can be effectively integrated, and even less about the nature of strategies and strategic behaviour of shipowners.

#### **Lack of shipping strategy research**

Recent work by Wong (1991), Hawkins (1993), and Reker (1997) shows that the literature on shipping strategy is sparse and of very uneven quality, and specific reference to the new maritime nations of the Asia-Pacific is almost non-existent (Hawkins, 1993). Of the few available sources, attention has mainly focused on Europe and North America, with greater emphasis on the former (e.g. McKinsey, 1985; Hope and Boe, 1981; Lorange and Norman, 1972). This European orientation is perhaps to be expected given Europe's long tradition in world shipping; and even despite its gradual decline in fleet size since the 1970s, it still controls the largest share of the world's fleet (Lloyd's Maritime Information Services, 1997; Thanopoulou, 1995; Aspinwall, 1995; Ledger and Roe, 1992). However, there is some evidence that this geographical imbalance is slowly being addressed. Harvey's (1987) study on ship financing included both European and US shipowners, while Cullinane (1991) covered a broader geographical mix, including one prominent Asia-Pacific nation, Hong Kong, in his study of risk preferences in shipping. More recent studies (Wong, 1991; Hawkins, 1993; Barton, 1995; Reker, 1997) are shedding more light on strategic management issues in the Asia-Pacific. Management texts on the area are also on the increase (e.g. Bartol, et al., 1998; Chow, et al., 1997). With the growing world interest in the region, the

increasing globalisation of shipping markets, and the recent trends in liner shipping toward global alliances, it is likely that more studies will increasingly follow this pattern.

Geographical orientation aside, the lack of research into shipping strategy appears to be pervasive throughout the industry. In academic and trade journals, management books, scholarly publications, and graduate courses and training programs, there appears to be a singular lack of attention to the theory and practice of shipping strategy.

*Shipping management journals and publications.* Shipping strategy has not received any prominent attention in leading journals in shipping and port management. The *Maritime Policy and Management*, for instance, which is arguably the leading international academic journal on shipping and port research, has devoted very little space to the subject: a few articles on strategic planning, and none on strategic management in general or corporate strategy in particular. While a number of articles have referred to corporate strategy, the treatment has been superficial, made only to support or clarify the main thrust of the authors' thesis (e.g. Aries, 1989, on business strategies; Hawkins, 1991b, on port strategy). Of the papers on strategic planning (Frankel, 1989; Arlt, 1987; Rich, 1978), all are concept papers in which the authors expound on their personal interpretations of the application of strategic planning to ports and shipping. Although no doubt these interpretations are drawn from the authors' extensive experience in the field, a major limitation is their lack of shipping-based research to provide empirical support. Even Frankel's (1989) highly influential work, which is the most frequently cited in shipping literature, shows no reference to shipping strategy research. Instead, support is drawn primarily from the general strategic management literature.

Other shipping publications and trade journals cover a wide range of subjects, but they too document very little research work. Some provide overviews of strategic management in shipping and ports, either in the form of historical reconstructions or general introductory descriptions (e.g. Fairplay, 1997; Hawkins 1993; Yui and Nakagawa, 1985; ESCAP 1985a). Others give a brief analysis of the strategies of individual companies such as MISC (Lloyd's Shipping Economist, 1996b), OOCL (Containerisation International, 1996b), K Line (Containerisation International, 1996d), COSCO (Containerisation International, 1996e), Korean Carriers (Containerisation International, 1997a), and Evergreen (Lloyd's Shipping Economist, 1997). Many others come in the form of conference papers, which, like the articles in shipping academic journals, are primarily concept papers with little or no supporting evidence from shipping research. Some examples of such papers include Soper (1980) who wrote on corporate planning in shipping, Carlson (1989) who focused on developing a business strategy for a port, and Hawkins who wrote about managing port investments (1991) and strategic management for Asia-Pacific shipowners (1996). Shipping management textbooks offer no better alternatives. Four widely used textbooks on the practices of shipping managers (Spruyt, 1994; Marcus, 1987; Yui and Nakagawa, 1985; Frankel, 1982) do not even have any meaningful discussions on strategic planning and shipping strategies.

*Graduate degree programs.* Further evidence of this lack of research literature on shipping strategy can be found in the curricula of graduate degree programs on shipping. In western countries, many leading institutions offering graduate programs on shipping management normally include at least one subject on strategic management in shipping in their curricula. This subject usually comes under various titles, for instance, shipping

policy (Master of Science in International Shipping, University of Plymouth), strategic management tools (Master of Transport and Maritime Management, University of Antwerp) strategic management (Master of Business in Maritime Management, Australian Maritime College), corporate strategy in marine industries (Master of Science in Maritime Management, Maine Maritime Academy), or shipping management strategy (Master of Science in Shipping Management, World Maritime University). While all these programs cite some general shipping literature on strategic planning for shipping and ports (notably Frankel, 1989) in their course material, they make no similar referencing for corporate strategies. Instead, they rely on the general strategic management literature, particularly on the work of Porter (1980, 1985) on competitive strategies at the business level.

In East Asia, the trend is the same. Course material in many maritime management and shipping programs contains hardly any reference to shipping strategy research, while a significant part of the reading list is drawn from general strategic management literature (e.g. Kobe University of Merchantile Marine (Japan), Singapore Polytechnic, Korea Maritime University, Hong Kong Polytechnic University, Dalian Maritime University (China), Indonesian Merchant Marine Academy, Malaysian Maritime Academy, Vietnam Maritime University, Thailand Maritime College).

Theses and dissertations coming out of these graduate programs also reveal this lack in strategy research. Harvey's (1987) extensive review of the literature on corporate planning and strategy, for instance, draws almost exclusively on the general strategic management literature; in his review of the shipping literature on strategy, only two sources were cited, one by Rich (1982) and the other by the US Maritime

Administration (1982), which had been prepared for them by Delta Steamship Lines and Temple, Barker and Sloane Inc. Similar reviews by Wong (1991), Barton (1995), and Reker (1997) essentially take the same approach.

### **The Importance of strategy research In shipping**

The lack of research work on strategic management in shipping is surprising for two reasons. One, there have been persistent calls for more strategic research in shipping since Lorange and Norman (1972) sounded the first call 25 years ago. And yet, although succeeding writers have echoed the same message in recent years (Peters, 1986; Wong, 1991; Holste, 1993; Barton, 1995; Reker, 1997), the call has evidently not reached the wider shipping population. This continuing inattention to shipping strategy is even more surprising given significant advances in our understanding of the role of strategy in competitive performance. Research evidence over more than two decades points to a conclusive link between strategic management and performance: firms who practise strategic management have been found to be more profitable than those who do not (Miller and Cardinal, 1994). In spite of this substantial body of research, however, there is very little evidence of wide application in shipping.

The critical role that strategy is expected to play in the 1990s and the new century is increasingly being stressed in the literature today, particularly in reference to the Asia-Pacific. Lasserre and Schutte (1995) strongly argue that to successfully compete with Asian companies, Western companies must gain a better understanding of the 'Asian' way of doing things. They assert that this involves not just learning how to do things differently, but also how to do different things. According to them, this process of adaptation and transformation is necessary to facilitate entry into the Asian markets and ensure long-term competitive success in the region:

The [Asia-Pacific] region is changing and modernising rapidly, but it is a Western self-delusion to equate modernisation with Westernisation. As Japan's development over the last 100 years or so has shown, it is possible to modernise without losing one's own identity and culture. Managing this change in Asia is an enormous task and will bring setbacks and disasters ...

Implementing global strategies in the region will not always be easy and will create problems for those who believe in a simple, uniform world. Not many global consumers are at home in Asia Pacific. Only on a superficial level do we witness a convergence in beliefs and practices. Bearing in mind the successful development of Asia Pacific over the last few decades, it cannot be expected that the region will move towards Western societal, economic and management models soon, if ever. As Rudyard Kipling said at the turn of the last century, 'Asia is not going to be civilised after the methods of the West. There is too much Asia, and she is too old.' (p. 292).

These have important implications to shipping, especially given recent trends in liner shipping of global alliances and partnerships between European, North American and Asian shipping companies. The western concepts and models of strategic management will need greater testing and adaptation before they can be assumed to work. Some may indeed not need any adaptation, while others may need a lot, but without adequate analysis and testing, we may be making bold and unsubstantiated assumptions.

#### **Toward a greater understanding of corporate strategies in shipping**

If work on shipping strategy at a general level is sparse, work *detailed* the nature of strategy is even rarer. A number of articles and books discuss the evolution of strategies in different shipping companies (Slack et al., 1996; Lim, 1996; Yui and Nakagawa 1985) and some maritime consultancy reports recommend specific strategies for container shipping (Drewry, 1991) and dry bulk shipping (Drewry, 1996b). However, none of these provide any detailed and comprehensive analysis of shipping strategies; neither do they offer insights into the strategic behaviour of Asia-Pacific shipowners.

Strategies can be classified in several ways, but of particular relevance to an organisation's long-term success are two types of strategies: business and corporate. Their names refer directly to the organisational level at which they are determined and



pursued: business strategies focus on the individual businesses or divisions of an organisation; corporate strategies, on the entire organisation. In general strategic management literature, work on business strategies has predominated while that on corporate strategies, although not entirely neglected, is relatively lighter. In shipping strategy literature, however, both types have received minimal attention, with perhaps business strategies getting a little bit more exposure than corporate strategies.

*Business strategies.* A notable example of work on business strategies is Hansen's (1989) analysis of shipping strategies, which is based on his previous research into Norwegian shipping (McKinsey, 1985). He described this analysis as

... an effort to develop a better understanding of what it takes strategically to be successful in the highly dynamic shipping markets, how shipping companies can take advantage of opportunities that follow market changes, and how to understand and avoid being exposed to deadly risks (p. 13).

Drawing heavily on Porter's (1980, 1985) work on business strategies and Peters and Waterman's (1982) report on their 'search for excellence' among US companies, Hansen (1989) came up with four strategic types of shipping: contract (e.g. chemicals, container), industry (e.g. cruise), commodity (e.g. large bulk or oil), and special (e.g. LPG). Using these four types, he then proposed a number of business strategies for shipping, which essentially followed Porter's business strategy principles. In his analysis, Hansen concluded that superior analytical skills were one of the success factors common to all successful shipping companies; such skills enabled shipowners to assess market opportunities and threats and take advantage of company strengths. He also recommended the use of analytical frameworks to assist any such environmental analysis.

Following Hansens's lead, the Institute of Shipping Analysis recently conducted a similar analysis of shipping business strategies (Fairplay, 1997). The close resemblance in the approach used by the two studies could probably be attributed to the fact that the author of the Institute paper, Professor Tor Wergeland, was also part of the McKinsey study team who studied Norwegian shipping in 1985. Like Hansen, this latter study also drew heavily on Porter's work (1980, 1985), leading Fairplay (1997) to claim, rather mistakenly, a universal application of Porter's strategies to shipping.

*Corporate strategies.* Unlike business strategies, corporate strategies have not received similar attention in shipping. Recent studies on Asia-Pacific shipping (Barton, 1995; Reker, 1997) highlight this gap in the literature and urge for more research into the area, particularly in relation to Asia-Pacific shipping. In their surveys of East Asian shipowners, mainly in the liner trades, Barton (1995) and Reker (1997) found that the need for analytical tools and techniques to evaluate strategies was a major concern. Many shipowners complained of the lack of shipping-based analytical tools and criticised general tools which many believed were inappropriate or untested in shipping, and hence were not used. Wong's (1991) analysis of the strategic planning tools used by North East Asian shipowners in the liner industry highlighted a similar problem of credibility and low level of use. Both users and non-users of analytical strategy selection techniques, such as the ones found in the general strategic management literature, voiced concerns over the relevance of such techniques to shipping. Although users were familiar with, and used to a limited degree, a number of mainstream analytical techniques and models, the general perception was that such techniques and models were not really that applicable to shipping. Non-users explained that because the language and layout used in the models was unfamiliar to them (presumably because they were drawn from

manufacturing concepts and principles), they dismissed them as not relevant or applicable to their industry. Similar conclusions were reached by a study on information technology use by Hong Kong shipowners (Saxena and Joshi, 1992). According to them, although the conservatism of shipowners may be a factor, an even bigger factor is the poor design of such systems, which has created a 'credibility gap' in shipowners' minds and has made them more reluctant to use such systems (p. 61).

The studies by Wong (1991), Barton (1995) and Reker (1997) have shed some much needed light on the strategic behaviour of shipowners, particularly Asia-Pacific shipowners. Although the generalisability of their survey data is limited because of low response rates (less than 20 per cent), nonetheless their studies represent one of the initial steps toward developing a better understanding of strategy use by Asia-Pacific shipowners. They also highlight the need for more research into strategies and strategy selection techniques that can assist Asia-Pacific shipowners in competing more effectively among themselves and with other regions. If strategy is the answer to long-term competitiveness, what must Asia-Pacific shipowners do to achieve this objective?

## **Chapter Three**

### **OVERVIEW OF STRATEGIC MANAGEMENT**

This chapter and the next two examine the strategic management literature. Three areas are covered: the historical development of strategic management as a field of inquiry (Chapter Two), the types of strategies pursued by organisations to maintain their competitive edge in the market(s) in which they operate (Chapter Three), and available tools for strategy selection and evaluation (Chapter Four).

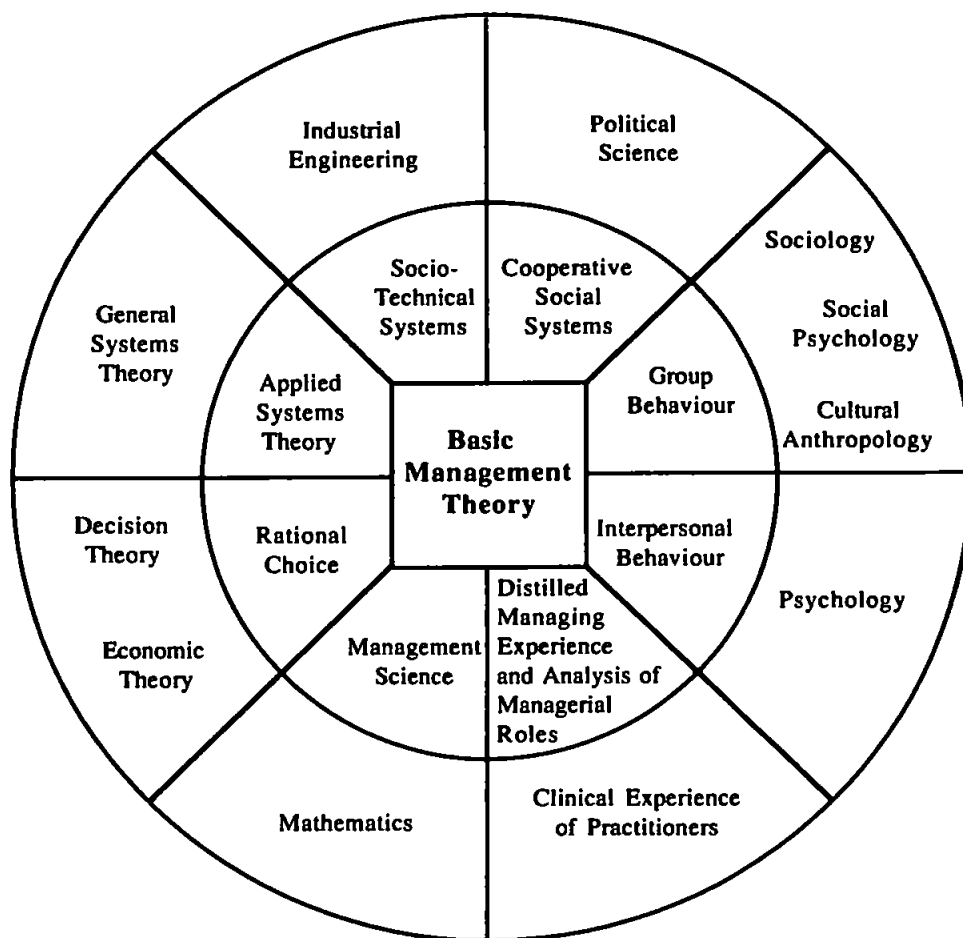
In this chapter, the development of strategic management as a field of study is examined. The major theoretical perspectives that have shaped strategic management are discussed, and the development of the field over the last 30 years is analysed. Based on this review, areas for further research are then identified.

#### **3.1 MAJOR INFLUENCES ON MANAGEMENT THOUGHT**

Anderson (1984) lists eight schools of thought that have been major contributors to the growth and development of our understanding of management. Classified into three main groups, they include:

- *Theories of management skills*  
The human relations school  
The organisation behaviour school  
The information and decision school
  
- *Theories of management functions*  
Scientific management  
The quantitative school (management science)  
The strategic management school
  
- *Theories of organisational systems*  
Administrative management  
The organisational theory school

These schools of thought are compared in Table 3.1, and an overview of the disciplines that have given rise to them is depicted in Figure 3.1. All these major schools of management thought have built on the contributions of other disciplines in the development of their theories. However, although these disciplines have laid the foundation for and enriched management thought, their application, with their disparate theoretical orientations and methodological approaches, within the same research area has also produced confusion and disagreement. As the following sections would indicate, this confusion and disagreement would be echoed within the strategic management field, particularly during its fledgling years.



**Figure 3.1** Academic disciplines that have contributed to management thought  
 Source: Anderson, 1984, p. 55

**Table 3.1 A comparison of major schools of management thought**  
(Compiled from Anderson, 1984)

School	Problem Addressed	Original Authors	Specific Areas	Main Contribution
Human relations	Motivation	Mayo Roethlisberger	Human factors on the job	Provided a broader definition of motivation: shift from an economic orientation to a multi-faceted approach emphasising psychological, social and economic factors
Organisation behaviour	Integration of people into the organisation	Argyris Maslow MacGregor Likert	Relationship of individuals with the organisation, satisfying individual needs while simultaneously reaching high levels of performance	Fostered employee productivity through development of interpersonal skills, basic skills in decision making and goal setting, and instilling in managers the value of trust and participation
Information and decision	Management decision skills	Simon March Cyert (Carnegie-Mellon Univ)	How managers actually make decisions on the job, process of decision making, effective human and organisational decision making skills	Differentiated between programmed and non-programmed decisions; propounded the rational theory of satisficing and the rational approach to decision making
Scientific management	Human productivity	Taylor Gilbreth and Gilbreth	Scientific decision making; management/labour cooperation, time and motion studies, standardisation, bonus, individualised work, shorter hours, management training, rest pauses	The beginnings of modern management theory: first systematic use of goal setting in organisations, procedures for selection and hiring, systematic study of work and the role of management. Undertook first attempts at systematic organisational design.

**Table 3.1 (cont'd) A comparison of major schools of management thought**  
(Compiled from Anderson, 1984)

School	Problem Addressed	Original Authors	Specific Focus Areas	Main Contribution
Quantitative school (management science)	Application of objective functions to management	Koontz	Mathematical/quantitative approach to management	Introduced analytical and statistical tools for functional areas, particularly planning and control: linear programming, inventory models, queuing theory, planning tools (eg PERT)
Strategic management	Long range planning and management	Harvard Business School Drucker Ansoff	Defining and implementing long term goals and plans of the organisation, the strategy process, content of strategy, link between strategy and organisation	Defined role and functions of chief executives v. lower level managers; stressed importance of strategy to company survival
Administrative management	Organisational structure	Weber Fayol	Bureaucratic structure; hierarchy, division of labour, ranking of individuals according to power and expertise; professional management	First to develop management principles for managers in large organisations, emphasise that training in these basic principles is the key to successful management, and lay the ground rules for the organisation of large enterprises
Organisational theory	Organisation design	Woodward Thompson Lawrence Lorsch Galbraith	Components of organisations, interrelationships with one another with the environment, process of matching an organisation's design with its environment	Laid down the theoretical foundations of the interdependencies between parts of an organisation; introduced the concept of an organisation as an open system

### 3.2 THE BEGINNINGS OF STRATEGIC MANAGEMENT

As an area of study within the field of management, strategy is of relatively recent origin, but the concept itself is not new. The word strategy comes from the Latin word *strategos*, which

[i]nitially ... referred to a role (a general in command of an army). Later, it came to mean 'the art of the general,' which is to say the psychological and behavioral skills with which he occupied the role. By the time of Pericles (450 BC), it came to mean managerial skills (administration, leadership, oration, power). And by Alexander's time (330 BC), it referred to the skill of employing forces to overcome opposition and to create a unified system of global governance (Evered, 1983, p. 3).

Up until about four decades ago, the term strategy had been associated mainly with military operations:

One of the functions of the earliest historians and poets was to collect the accumulated lore of ... successful and unsuccessful life-and-death strategies and convert them into wisdom and guidance for the future. As societies grew larger and conflicts more complex, generals, statesmen, and captains studied, codified, and tested essential strategic concepts until a coherent body of principles seemed to emerge. In various forms, these were ultimately distilled in the maxims of Sun Tzu (1963), Machiavelli (1950), Napoleon (1940), Von Clausewitz (1976), Foch (1970), Lenin (1927), Hart (1954), Montgomery (1958), or Mao Tse-Tung (1967) (Quinn et al., 1988, p. 4).

According to Ansoff (1965), von Neumann and Morgenstern (1948), who developed the theory of games, provided the bridge from military to business usage:

Although game theory has not resulted in many practical applications, it has revolutionized ways of thinking about social problems in general and business in particular. One of the consequences was the increasing use of the concept of strategy in business literature. As one would expect, some business writers borrowed from game theory to define strategy as a set of specific product-market entries ... while others have defined it in the military sense as the broad overall concept of the firm's business ... (Ansoff, 1965, pp. 118-119).

Once introduced, the concept of strategy found ready acceptance in the management field. As Ansoff, one of the most influential voices in the field, noted in 1965:

[d]uring the past ten years the idea of strategy has received increasing recognition in management literature ... This interest grew out of the realization that a firm needs a well-defined scope and growth direction, that objectives alone do not meet this need, and that additional decision rules are required if the firm is to have orderly and profitable growth. Such decision rules and guidelines have been broadly defined as **strategy** or, sometimes, as the concept of the firm's business (Ansoff, 1965, p. 103; boldface added).

Since then, the practice and study of strategic management in general and of strategy in particular has developed steadily. It continues to be a dynamic, rapidly growing area,



with research branching out into a widening array of organisations and industries covering different countries and geographical locations.

### **3.3 THE DEVELOPMENT OF STRATEGIC MANAGEMENT AS A FIELD OF INQUIRY**

The development of the strategic management field following the second world war can be roughly organised into three stages, commencing in the 1960s and extending into the present. This section provides a brief overview of the three stages, and then discusses each stage in detail, highlighting the key issues, developments and thinkers in each.

#### **Overview**

The 1960s mark the formal emergence of strategic management as a separate field of inquiry. At this initial stage, the first attempts at theory building were published.

The succeeding decade, the 1970s, which marked stage 2, was characterised by a rapid growth in, and robust debate over, theoretical (and quasi-theoretical) perspectives and conceptual models. At this stage, much of the debate remained at the conceptual level; empirical evidence, although steadily growing, was not substantive enough to redefine the debate.

Stage 3 began in the 1980s and extends into the present. This stage is characterised by a continuing refinement of concepts and models as more empirical evidence is gathered and the field matures. The debate now is not so much on the superiority of one paradigm or research method over another as on the suitability and appropriateness of combining different paradigms and methods to explain different situations. Empirical evidence to date points to the need for more eclectic, more integrated and inter-disciplinary approaches. There are also calls for more reviews of the literature so that the growing body of strate-

gic management theory and research can be systematically analysed and incorporated into the field's body of knowledge. Theory building and testing are continuing, as research broadens to areas far beyond the original manufacturing/product industries which provided the foundation for initial research studies.

The first two stages in strategic management research, the 1960s and 1970s, were dominated by two competing schools of thought. One was the 'formal analysis' school, with its roots mainly in economics, scientific management, management science and administrative management. It was also known as the 'rational-analytical' or 'logical-positivistic' school. The second was the 'process' school (Morris, 1987a), with its roots on organisational behaviour, design of organisations, and human and organisational decision-making processes. These two schools have also come to be known as 'rationalist' and 'incremental' or 'emergent', respectively. The level of disagreement between these two schools was—and is—remarkably high. Proponents of the formal analysis school discredit models based on the process school as non-rational, unstructured, and reactive; proponents of the process school, on the other hand, argue that models based on the formal analysis school were too mechanistic and formalistic.

In recent years, a third school of thought has emerged. Although there is no widely accepted name for it, it can be aptly called the 'holistic' or 'synthesis' school, because it advocates a more holistic and interdisciplinary approach to the study of management. The word 'synthesis' is borrowed from Miller and Mintzberg (1983) who argue that management research can be best served by an approach that seeks to integrate various attributes of managements into composite frameworks or configurations.

### **Stage 1: Theory building (1960s)**

The study of strategy and strategic management became an identifiable field of inquiry in the business literature in the 1960s with the simultaneous publication of three seminal pieces of work: Alfred Chandler's *Strategy and Structure: Chapters in the History of American Industrial Enterprise*, published in 1962; Igor Ansoff's *Corporate Strategy: An Analytic Approach to Business Policy for Growth and Expansion*, published in 1965; and the Harvard Business School's (Edmund Learned, C Roland Christensen, Kenneth Andrews and William Guth) *Business Policy: Texts and Cases*, published in 1965.

This initial stage was dominated by the formal analysis school. Among its leading proponents were Kenneth Andrews and Igor Ansoff. Both men are typically credited for first articulating the concept of corporate strategy. They were the first to focus specifically on the concept of strategy and to develop analytical frameworks within which the concept can be defined. However, although both built on Chandler's (1962) dictum, 'structure follows strategy', their interpretation of the scope of strategy differed. To Andrews (1965, 1971), strategy included both an organisation's goals and the means to achieve these goals; to Ansoff (1965), it was limited to the means of achieving organisational goals. As we shall see in the succeeding discussion, this basic difference would be carried on by later writers.

It should also be mentioned here that another work actually predated these three publications: Peter Drucker's *The Practice of Management*, published in 1954. According to Hofer and Schendel (1978), Drucker was actually the first to address the issue of strategy in business management, but he did so only implicitly, framing it instead in terms of two questions: 'What is our business? And what should it be?'. As a result, it was not

until the latter half of the 1960s, when interest in strategy had become more widespread, that Drucker's seminal work was 'rediscovered'.

### **Stage 2: The debate between competing schools (1970s)**

The energetic inquiry into the concept of corporate strategy that followed the work of Andrews and Ansoff, and the emergence of a contrary viewpoint in reaction to the dominant formal analysis theme, characterised stage 2 in the development of the field.

*Revisions within the formal analysis school.* Much of the work produced during this period built upon the work of Andrews and Ansoff and reflected the same formal analytical perspective. Major contributors included, according to year of publication, Katz (1970) Argenti (1974), Drucker, (1974), Rumelt (1974), Vancil and Lorange (1975), Hofer (1975), Hedley (1976, 1977), and Steiner and Miner (1977).

Within the formal analysis school, there was a distinct pattern of growth: from an early emphasis on long-range planning to strategic planning and finally to strategic management. The move away from formal long-range planning was easy to understand: plans became too elaborate and too unwieldy; often they did not match the realities existing within the organisation; and they were limited to financial forecasts based on the organisation's previous performance (Ansoff, 1987).

The shift to strategic or corporate planning partially silenced some of the major criticisms levelled against long-range planning, but not for long. Although there was overwhelming evidence suggesting that firms that planned performed better than those that did not (Rumelt, 1974), research also showed that almost every organisation studied followed different 'planning' models, some of which were not always formally conceived, *a priori*, as the word 'plan' would normally suggest, or limited to financial con-

siderations. Indeed, research showed that the strategy process was much more complex, more encompassing, than that suggested by the concept 'strategic planning'. Thus was born the concept of strategic management (Ansoff, 1965; Ansoff et al., 1976).

*The emergence of the process school.* It was also during the 1970s that the formal analysis approach to the study of management came under criticism for ignoring the behavioural aspects of management. Criticism centred on the approach's exclusive reliance on measurable quantitative factors and its lack of attention to vital qualitative, organisational and power-behavioural factors which so often determined strategic success in any one situation. Critics contended that in practice, planning was 'just one building block in a continuous stream of events that really determine corporate strategy' (Quinn, 1978, p.7). The process school also extended its criticisms to previous behavioural studies:

Unfortunately, many power-behavioral studies have been conducted in settings far removed from the realities of strategy formulation. Others have concentrated solely on human dynamics, power relationships and organizational processes, ignoring the ways in which systematic data analysis shapes and often dominates crucial aspects of strategic decisions (Quinn, 1978, p. 8).

The most prominent members of the process school were Bower (1970), Child (1972, 1974, 1975), Mintzberg (1972, 1973, 1976, 1978), Miller and Friesen (1977), Quinn (1978), and Miles and Snow (1978). Drawing on studies on the dynamics of human behaviour in business settings and on earlier studies done in other fields, notably public administration, sociology and politics (e.g. Cyert and March, 1954, 1964; March and Simon, 1958; Lindblom, 1959), proponents of the process school argued that strategies were not always formally made or formulated and that strategic decision making was not the exclusive domain of top management. The main thesis of the process school was that strategies were formed as part of the decision-making processes occurring at various levels of an organisation, emerging as recognisable patterns only afterwards.

### **Stage 3: Redefining the debate (1980s to the present)**

This last stage is characterised by two trends: the move toward a holistic approach to the study and practice of management, and further refinements within the formal analysis and process schools.

*The move toward holistic management.* The need for a more holistic approach to management was first articulated by Bowman (1974) who recommended the use of different approaches to better understand corporate strategy. However, his call was largely ignored until the more prominent writers in the field took up the same cause.

By the end of the 1970s, the mood of the debate had started to change. Summing up the research findings of the period, Hofer and Schendel (1978) noted:

Recent policy research has shown ... that while strategies do differ among different types of businesses, there are also patterns of strategies that are appropriate to broad sets of environmental conditions ... [R]esearch in the areas of organizational theory, organizational behavior, and accounting have indicated that different methods of organizing, staffing, directing, and controlling are appropriate for different situations... (p. 196).

Hofer and Schendel (1978) also cited the work of Mintzberg (1973) and others which clearly showed that all levels of management performed similar management functions, but that the nature of the work performed at each management level differed. They also noted that 'these ideas [had] not yet been extensively integrated in management practice' (p. 196) nor were they 'yet reflected in most writings in the policy, organizational theory, and organizational behavior fields' (p. 197). However, they closed with a clear statement about what needed to be done:

What is clear ... is that a firm's strategic management process must be treated as an integrated total system. Thus, it would be counter productive to try to implement some of the strategy formulation tools and techniques described in this text without concurrently altering all the implementation processes and systems of the firm, including its staffing and promotion practices, measurement and evaluation systems, compensation systems, and management control systems (p. 198).

Since then, research in the area has increasingly focused on a more holistic, interdisciplinary, eclectic approach to strategic management. Today, the focus of the debate is not so much on which school provides the better theory and research methodology but, rather, on deciphering the appropriate strategic configurations for different situations and on choosing the appropriate research methodology for examining or validating different theoretical, conceptual or practical issues (see, for instance, Snow and Thomas, 1994; Lyles, 1990). While debate continues between the rationalistic and process schools, which one writer describes as at heart a conflict between proactive purposefulness versus reactive powerlessness (Gaddis, 1997), the general trend is toward more integrated, systemic and interdisciplinary approaches to the study of management (Taylor, 1997). Greater emphasis is placed on the need to acknowledge, in both theory and practice, the equal importance of intuition and analysis in strategic management, and of the existence of various configurations in which strategies are managed. This new way of thinking is increasingly reflected in recent editions of many management textbooks (e.g. Collis and Montgomery, 1997; Johnson and Scholes, 1997, Pearce and Robinson, 1997; Thompson and Strickland, 1996).

*Advances within the formal analysis and process schools.* The advent of the holistic or synthesis school has not necessarily meant the demise of either the process or formal analysis school. Although criticisms of both schools are expected to continue, nonetheless, some significant advances have been made by each school that has helped clarify our understanding of strategy.

Within the formal analysis school, work by Glueck (1980), Porter (1980, 1985, 1990), Hamermesh (1983, 1986), Rumelt (1991), Hamel and Prahalad (1989, 1990, 1993),

Goold and Campbell (1987, 1994), and Collis and Montgomery (1995, 1997) has substantially advanced our knowledge of strategy.

Model testing and validation has continued, with a stronger emphasis shown on the applicability of models across industries and geographical regions. In his review of the literature, Morris (1987a) cited several such recent attempts: Galbraith and Schendel (1983) and Dess and Davis (1982) tested Porter's models; Hammermesh (1983, 1984) tested portfolio planning; and Herbert and Deresky (1987) tested typologies of business strategies.

There has also been a clear trend toward greater research on the content of strategy, focusing specifically on specific strategies and their impact on economic performance (Morris, 1988). This is borne by more recent syntheses (David, 1997; Hussey, 1994) which show the latest research on strategy and performance (e.g. Rumelt, 1991; Ramanujam and Venkatraman, 1987; Cook and Ferris, 1986; Rhyne, 1986; Allen, 1985) further strengthening the evidence that high-performing organisations tend to be more strategic in both orientation and practice. With the reality of global trading and the rapid multiplication of multinational companies, greater attention is also being placed on the role of corporate bodies in managing their portfolio of businesses for greater profitability. Leading the way in this area are Goold and Campbell (1987, 1994).

A new revolutionary idea on viewing strategy has also taken hold. From merely attempting to find a fit between what an organisation has and what the market offers, there is a new view that defines the organisation in terms of its core competences (Hamel and Prahalad, 1990) and examines the various ways the organisation can take advantage of these competences to make itself competitively strong. This view has come to be known



as the resource-based view of the firm (Wernerfelt, 1984; Collis and Montgomery, 1995) and as Collis and Montgomery (1997) assert, it 'more broadly and accurately defines the assets that can function as core competences and lays out the conditions under which they can be sources of value in multiple businesses' (p.22).

Within the process school, a similar process of model building and verification is occurring, with research focusing on such key areas as the politics of strategic decision making, the link between structure and the strategy process, the role of informal decision making and managing in strategy implementation and the fit between managerial skills, styles, and responsibilities. Some of the more noteworthy work on these areas includes Fredrickson (1984), Fredrickson and Mitchell (1984), Warner and Arnold (1986), MacMillan (1986), and Miles and Snow (1986). Speaking of these new developments in process research, Morris (1987a) notes:

...[A recent and] interesting trend in thinking about strategy ... suggests the need for a shift away from mechanistic and highly rational planning to recapture flexibility, creativity and judgement. Such arguments have implications for the role of planners, the processes of planning and the shape of organizations. They suggest a reawakening of interest in instinct rather than programmed analytical decision-making; a refocusing on the importance of line-management experience for really understanding product markets; a challenging of all assumptions (p. 93).

Further work on the nature of strategy as a process has also been undertaken, notably by Mintzberg and Waters (1985) and Mintzberg (1987). Mintzberg's main thesis is that strategy formation has less to do with formal planning than with the intuitive knowledge and experience of decision makers whom he likens to highly skilled craftsmen who 'craft' rather than deliberately plan strategies (Mintzberg, 1987). Strategy itself is not always deliberate; it can emerge from the various political processes and decisions made within the organisation (Mintzberg and Waters, 1985).

Since the 1990s, both schools have also moved towards a stronger international orientation, which was largely a reflection of recent developments in world trade. As the world's markets continue to be reorganised into regional trading blocs, and as companies increasingly seek entry into national markets around the world, the need for appropriate strategies to deal with competition at this global scale has become a primary focus in the field, as evident in the work of Porter (1990) on the competitive advantage of nations and Yip (1995) on global strategy, and as reflected in recent reviews of strategic management research agenda (Gopinath and Hoffman, 1995; Lyles, 1990). There has also been a geographical broadening of the research base, with attention increasingly drawn to the Asia-Pacific region (e.g. Bartol, et al., 1998; Lasserre and Schutte, 1995). The region's dynamic growth in the last three decades has attracted large-scale commercial and academic interest, and as more western organisations venture into relatively 'unknown world of the Asian', this interest is likely to continue into the next century.

In summary, it can be seen from the literature over the last three decades that there has been a steady maturation of the field, which has considerably expanded our knowledge of the subject, both in breadth and depth, across different businesses, industries, and geographical regions. A sign of this maturity has been the move away from espousing the superiority of one particular school of thought, paradigm or research method over another, the need for greater integration between intuition and analysis or between formal and informal strategy processes, and the growing adoption and advocacy of more eclectic, interdisciplinary approaches. However, there still remain some conceptual and methodological problems that prevent a broader application of strategy. The meaning and use of key terminology still remain unresolved; more importantly, empirical evidence to demonstrate the practical application and validity of conceptual models across

business, industrial and geographical settings is still wanting (Lasserre and Schutte, 1995; Miller and Cardinal, 1994; Snow and Thomas, 1994; Lyles, 1990).

### **3.4 AREAS FOR FURTHER RESEARCH**

What then does the future hold? Clearly, the debate will continue as empirical evidence builds up and theory building and refinement is pursued. From the major trends emerging in the literature, which have been summarised in the preceding sections, greater emphasis on the following areas can be expected:

- the content of strategy, specifically, on generic strategies and their applicability to a variety of business, industry, and geographical settings,
- the link between content and process, specifically, in relation to behavioural variables (values, motivations, power, etc.) and organisational processes, and
- a more eclectic, interdisciplinary approach to theory building and research.

Of these issues, the study of corporate strategic choices by Asia-Pacific shipowners falls within the first domain, the content of strategy. In the next two chapters, therefore, discussion will focus on the types of strategies needed for competitive survival (Chapter Four) and the analytical tools that can facilitate strategy selection and evaluation (Chapter Five).

## **Chapter Four**

### **THE CONTENT OF STRATEGY**

The literature on strategy can usually be organised into two areas, one focusing on the content of strategy and the other focusing on the process. Of these two areas, work on content is far more extensive (Bailey and Johnson, 1995). While much of what is written about the content of strategy, both in terms of conceptual frameworks and empirical evidence, has been drawn from the manufacturing industries, and while there continues to be disagreement in the definition of concepts like 'strategy' (see Chapter One), there is a remarkable high degree of agreement on everything else, particularly on such key areas as the purpose of strategy, the major strategy types an organisation can pursue to maintain a competitive edge, and the organisational levels at which these strategies should be pursued. This chapter examines these aspects of strategy, and by way of conclusion, pulls together what is currently known about strategy types into a comprehensive typology of strategies. This typology is then used as part of the study's conceptual framework (see Chapter Five).

#### **4.1 THE NATURE OF STRATEGY**

It has been said earlier that the literature on strategic management suffers from semantic problems, the most serious of which is the lack of consistency in the use of fundamental concepts like strategy and business strategy. In some instances, strategy is defined as the means to achieve a goal; in others, the definition is broadened to include both the goal and the means to achieve this goal. When stripped of the surrounding polemics, however, it is easy to see that any differences in definitions lie mainly in scope: some

authors bring goals into the definition; others do not. What is never in question is the key attribute of strategy: the *means* of achieving a strategic goal. In this regard, there is clear unanimity in the field. Basic tenets about strategy—for instance, its importance to a firm's competitive survival, the components of effective strategy, levels of strategy—receive almost universal acceptance.

### **The power of strategy**

Strategy has long been held to be one of the most important areas of management (Howe, 1986). Harvey (1988, p. 9) attributes this to strategic management's ability to give a firm and its top management a distinct advantage in 'providing long-term direction, adapting to an increasing rate of change, gaining a competitive advantage in a high-risk environment, and achieving a more effective organisation'. David's (1997) synthesis of the research over the last several decades amply shows a strong link between strategy and performance: those who use strategic management concepts are more profitable and successful, are more likely to engage in systematic planning, are better at understanding their environment and anticipating future changes, take a more long-term perspective, and empower both managers and employees by involving them in the strategy decision-making processes. Research also shows that 'the process, rather than the decision or document, is the more important contribution of strategic management' (p. 15).

### **Elements of an effective strategy**

In their review of strategy research, Hofer and Schendel (1978) identified four key elements of an effective strategy: scope, resource deployments, competitive advantage and synergy. Briefly, these can be defined as follows:

- Scope (or domain) is the range of a firm's present and planned interactions with the environment. It include such factors as product and market segments, geography, technology, distribution channels, etc.
- Resource deployments (distinctive competencies) refer to the availability of certain skills and resources that a firm requires to achieve its goals and objectives (Porter, 1980, 1985).
- Competitive advantage is the relative position of a firm vis-a-vis its competitors, which results from the firm's product positioning, market positioning and/or resource deployments.
- Synergy. This is similar to Ansoff's 2+2=5 concept, which is premised on a holistic view of the firm. Hofer and Schendel (1978, p. 26) define it as 'the degree to which the various resource deployments and interactions of the organisation with its environment reinforce or negate one another'.

These four components are widely regarded as equal contributors to a firm's overall success, although in some cases, one component may assume a greater role than another. Taken together, an organisation's scope, resource deployments, and competitive advantages determine its effectiveness. The prime determinants of its efficiency, however, are the synergies it develops among its various distinctive competencies and product/market entries.

### **The levels of strategy**

Another area where there is strong agreement is in strategy levels. There are three acknowledged levels—corporate, business and functional—which correspond to the organisational levels of a complex firm: top management, single-business units and functional departments, respectively.

*Corporate strategy* is the domain of top management. It encompasses both the business and functional levels and provides the general parameters within which strategic choices at each level should be made. Corporate strategy is used to define the mix and match of businesses in which a firm should compete, and to ensure a proper alignment between these choices and the requisite resources and organisational structures (Hofer and Schendel, 1978). Corporate strategy typically implies usage within a national market. However, with the rapidly increasing globalisation of markets, its meaning has now been extended to include multinational strategy, or strategy aimed at dealing effectively with competitors on a worldwide basis.

Where corporate strategy involves the whole firm and is primarily concerned with where the firm must compete, *business strategy* focuses on the individual business units that make up the firm and how the firm must compete in each of these businesses. Also known as *competitive strategy*, business strategy is designed to improve the competitive position of a specific business or product in the market(s) in which the firm competes.

Porter (1985), the leading expert in business strategy, explains:

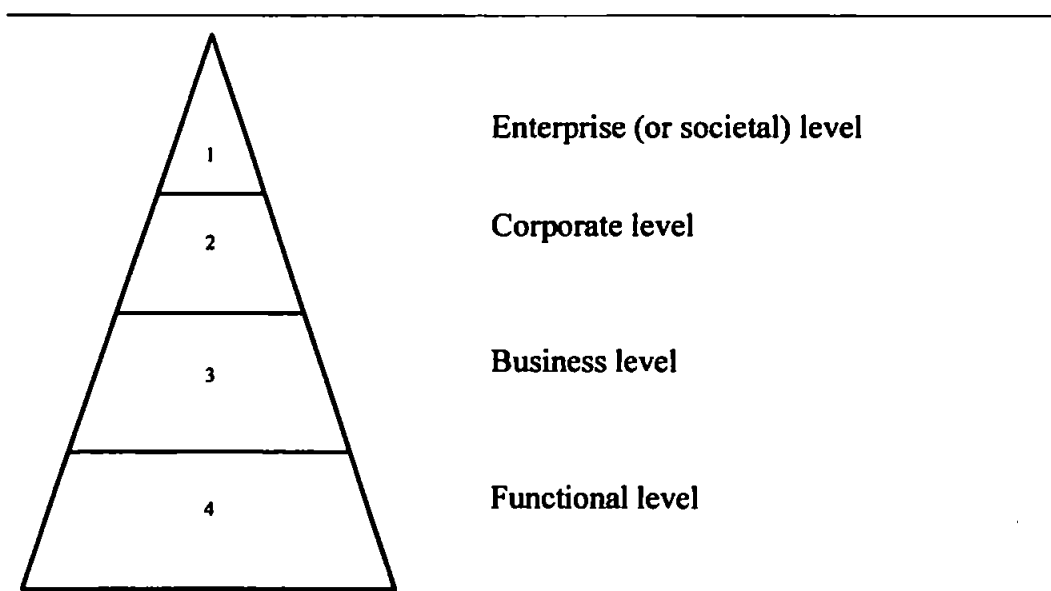
Competition is at the core of the success or failure of firms. Competition determines the appropriateness of an organisation's activities that can contribute to its performance, such as innovations, a cohesive culture, for good implementation. Competitive strategy is the search for a favorable competitive position in an industry, the fundamental arena in which competition occurs. Competitive strategy aims to establish a profitable and sustainable position against the forces that determine industry competition (p. 1).

At the third and lowest level is the *functional, or operational, strategy*. Its main area of responsibility is determining how the different functions of a firm can contribute to the business and corporate levels.

The functional level is concerned with managing product, geographic, or functional areas and the actual production and marketing of goods and services. The principal focus of functional strategy is on maximizing target objectives as an element of a business strategy, such as becoming the lowest-cost producer of a product. There is a functional strategy for each major segment of the business, including marketing, manufacturing, finance, human resources, research and development, and indeed for each functional unit that makes up a total business strategy (Harvey, 1988, pp. 14-15).

In recent years, a fourth level has been identified in the literature. Called *enterprise strategy or societal strategy*, its scope is broader than corporate strategy. In brief, the main difference between the two lies in their interaction with their external environment. Corporate strategy focuses on giving the firm a winning edge in market competition; enterprise or societal strategy deals with an organisation's interactions with various sectors of the public with which it conducts its business. A sub-group of enterprise or societal strategy also recently identified is collective strategy (Quinn et al., 1988; Astley and Fombrun, 1983; Pfeffer, 1976), where the aim is to band with other firms to promote a common cause.

Figure 4.1 illustrates the hierarchical relationship of the four strategy levels. Business strategy and corporate strategy have received by far the most attention in the literature, as these are the ones primarily required to sustain an organisation's competitive edge in the market. By comparison, the conceptual work that has gone into delineating the other strategy levels, functional and societal, is relatively light, as is the empirical evidence available on them.



**Figure 4.1 Hierarchy of strategy levels**



## **4.2 TYPES OF STRATEGIES**

Over the last 30 years, a considerable body of work has accumulated on specific strategies that firms use to remain competitive in the markets in which they operate. Particularly during the initial years, much of the work involved individual research attempts on a specific level, a specific organisation or spread of organisations, and a specific industry. However, no attempt was made to pull this growing body of knowledge together, examine it, and draw a more comprehensive picture of what was known about strategy. Without this synthesis, it was probably inevitable that confusion over terminology arose as a seemingly wide array of strategies entered the strategic management literature.

Efforts to put more order into the research on strategies commenced in the early 1970s, when typologies of strategies began to appear. Since then, numerous attempts at classifying strategies have continued to appear, leading one critic to call 'the construction of lists' as 'the dominant methodology of strategy', which although widely used is erroneous because most of these lists are not subjected to empirical testing to establish their practical application (Kay, 1995, p. 360).

Today the typologies on offer are just as numerous, and at first glance just as confusing. However, careful examination will show that in spite of differences in terminology and scope, all currently available typologies are based on one or a combination of the following classification criteria:

- product/market/corporate life cycle (e.g. Herbert and Deresky, 1987; Glueck, 1980; Hofer and Schendel, 1978; BCG, 1976; Buzzell, et al., 1975; James, 1974)
- market positioning (e.g. Porter, 1985; Hofer and Schendel, 1978)

- geographical scope (e.g. Leontiades, 1985; Shanks, 1985; Doz, 1980)
- organisational structure (e.g. Galbraith and Schendel, 1983; Miles and Snow, 1978; Rumelt, 1974; Wrigley, 1970)
- the organisational level at which the strategy is used (e.g. Melcher and Kezner, 1988; Hofer and Schendel, 1978; Pfeffer, 1976)
- the strategic management process (e.g. Mintzberg, 1988, 1996)
- management styles (e.g. Mintzberg, 1980)

Of these eight classification criteria, the fifth, organisational level, is used as the main basis for classifying strategies in this study. This criterion has been chosen to provide a clearer link between strategies and organisational structure and because it allows an easy incorporation of the first four classification criteria. The last two classification criteria, strategic management process and management styles, are excluded from consideration because they deal more with the process rather than the content of strategy.

The discussion that follows covers the three main strategy levels: corporate, business and functional. Of these three levels, the study's primary concern is with corporate strategy; to better understand its role and place in an organisation, however, it is necessary to also bring into focus business and functional strategies. The fourth level, enterprise or societal, is not included in the discussion largely because of the paucity of information about it, both conceptually and empirically.

### **Corporate-level strategies**

Corporate strategies, as defined earlier in this chapter, are the domain of top management. They define the general parameters within which an organisation makes its strategic choices. Originally used to imply usage within national markets, today

corporate strategies also encompass multinational or global strategies. Both types of corporate strategy will be discussed in this section.

What is currently known about corporate strategies? To answer this question, a comprehensive comparison of corporate strategies identified in the literature was made (Hawkins, 1989), and the results are summarised in Tables 4.1 to 4.4.

#### **A generic typology of corporate strategies**

Since the early 1970s, a number of typologies have been developed to aid strategy identification and selection. Table 4.1 identifies 13 of these typologies. Considered to be the major ones, they include James (1974), Hofer and Schendel (1978), Wissema et al. (1980), Glueck (1980), Galbraith and Schendel (for consumer products, 1983), Galbraith and Schendel (for industrial products, 1983), Buzzell, Gale and Sultan (1983), Day (1984), Allaire and Firsirotu (1985), Smith, Arnold and Buzzell (1985), Howe (1986), Herbert and Deresky (1987), and Harvey (1988).

At first glance, the typologies offer a seemingly wide variety of corporate strategies. However, when the strategies were compared in terms of objectives and general 'plan of attack', a high degree of similarity across typologies surfaced. Although the terminology used in the various typologies varied, there was enough commonality among them to warrant grouping them into five generic types: develop, grow, stabilise, turnaround, and harvest (Herbert and Deresky, 1987).

Table 4.1 A comparison of typologies of corporate strategies

Author Type of strategy	James 1974	Hofer & Schendel 1978	Wissema et al. 1980	Glueck 1980	Galbraith and Schendel Consumers Products 1983	Schendel Industrial Products 1983	Buzzell, Gale and Sultan 1983	Day 1984	Allaire & Firsirotu 1985	Smith, Arnold and Buzzell 1985	Howe 1986	Herbert & Deresky 1987	Harvey 1988
Develop	Emergence	Share increasing	Explosion	↑	↑	↑	↑			↑	↑	↑	↑
Grow	Growth	Growth increasing	Expansion	Growth ↓	Builder ↓	Growth ↓	Building ↓	Performance improvement (sales volume)	Revitalisation	Growth ↓	Explosion ↓	Develop ↓	Growth ↓
Stabilise	Maturity	Profit and market concentration, asset reduction	Continuous growth, consolidation	Stabilise	Cash-out, continuity niche	Maintenance Niche	Hold	Performance improvement (productivity gains)	Reformation		Status quo	Stabilise	Neutral
Turnaround	Regeneration	Turnaround			Climber			Turnaround	Turnaround	Turnaround	Turnaround	Turnaround	↑
Harvest	Decline	Divest and liquidate	Slip and contraction	Retrench	Harvest	Low commitment	Harvest	Harvest	Reorientation	Decline	Contraction	Harvest	↓ Defensive

### *Develop/grow strategies*

Strategies designed for development and growth are often bracketed together for two reasons: both are characterised by an aggressive push to dominate, and both are preferred by young firms. They differ only in that 'develop' strategies are more applicable to businesses at the very embryonic stage of their life, while 'grow' strategies are more applicable to those that have achieved a foothold in the market and now have the ability to go ahead. Both strategy types are aggressive by nature. The objective is to intimidate the competition and dominate the market. The level of aggressiveness depends on the nature of the industry in which a firm competes: the more competitive and technology-driven an industry is, the more aggressive a firm needs to be. There is strong evidence that companies that pursue develop/grow strategies are strong market leaders, both within and across national boundaries. They are most likely to operate in, or seek entry into, high growth markets and segments within these markets (Gutman, 1964; Chevalier and Catry, 1974). Research indicates that companies that do not compete aggressively in this type of industry will have serious problems staying healthy (Howe, 1986; Glueck, 1980; Henderson, 1979).

### *Stabilise strategies*

Strategies designed for stabilisation aim to maintain the status quo either by keeping to a tried and tested course of action, changing incrementally in response to environmental changes (Quinn, 1978), or both. Those who pursue this strategy type are typically mature companies whose main objective is to maintain their dominance in the market(s) in which they are competing by penetrating new products and markets in an incremental fashion. Even companies with low market shares use this strategy with a high degree of success. Research shows that those who concentrate on maintaining their niche in a par-

ticular market, operate efficiently, and aim for profitability are likely to achieve excellent returns on investments (Hamermesh et al., 1983). However, stabilisation strategies are not meant to be long-term alternatives. Citing the work of Thomas (1977), Howe (1986, p. 61) argues that they are appropriate for limited periods of time only (for instance, when the level of change in the industry is low), and point to the 'crop of business failures in recent years [as the result of a] complacent adherence to untenable positions'.

### *Turnaround strategies*

'Turnaround' strategies are short-term survival measures aimed at reducing or eliminating those activities that inhibit a firm's growth and hurt its performance (Herbert and Deresky, 1987). The objective is to simultaneously cut down costs, increase revenue and reshape the organisational structure into a more suitable form. Companies that pursue this strategy type are usually more mature and in financial trouble, due, for instance, to such external conditions as economic recessions, market decline and innovative breakthroughs by competitors, and/or to internal haemorrhages caused by mismanagement, production inefficiencies and shortage of resources.

### *Harvest strategies*

Like turnaround strategies, harvest strategies are short-term measures designed to reduce or eliminate poorly performing businesses. These strategies may either be deliberate or emergent (Herbert and Deresky, 1987). They are deliberate if they form part of a long term disinvestment plan; emergent, if they result from either unsuccessful turnaround attempts, unanticipated forces from the environment or new and better opportunities in other businesses. The basic strategy in both cases is the same: once a firm holds a stable and dominant position in a given market (or fails in its attempt to turn around a

business), the next phase is to scale down operations by selectively tapering off unprofitable segments, milk the remaining investment for cashflow and divest at the most opportune time. Kotler (1978) suggests that harvest strategies are likely to succeed if a particular business is in a stable or declining market, doesn't provide sales stability or prestige to the firm, has a small market share which would be too costly to increase, and does not contribute a large percentage to total sales.

The major features of the five strategy types are summarised in Table 4.2. As the table shows, develop and grow strategies, as well as turnaround and harvest, are so closely related that they are often treated together.

**Table 4.2 Major features of generic types of corporate strategies**  
(Adapted from Harvey, 1988, p. 112)

Strategy Type	Purpose	Type of Business Environment	Frequency of Usage
Develop/grow	To increase sales/earnings	High market growth, economic prosperity	54.4%
Stabilise	To increase profitability	In a mature industry, stable environment	9.2%
Turnaround/harvest	Survival, to cut costs, to eliminate losses	In crisis, when facing severe losses	7.5%
Combination of the above	To increase earnings, to cut costs	In economic transition, multi-division companies	28.7%

#### **Specific strategies in support of the four generic types**

Depending on its internal and external environmental conditions, a firm can choose from 11 specific strategies in support of the four generic types (develop, grow, stabilise, harvest). The first nine can be regarded as *internal* strategies because they rely solely on a firm's own resources and capabilities, while the last three are *external* because they use

resources and capabilities of other firms as well. The strategies are briefly defined below, but full treatment is not provided here because they lie outside the scope of the study.

### *Internal strategies*

- **Concentration:** to do one thing only but to do it well
- **Integration:** to control a number of similar economic processes previously carried out independently
- **Diversification:** to increase the variety of products/services that a firm offers
- **Divestiture:** to sell off a business or a major part of it as a going concern
- **Liquidation:** to sell off a business or a major part of it as a tangible asset due primarily to bankruptcy
- **Timing:** to introduce a real-time rapid-response system into a business
- **Samegame:** to imitate industry success factors and use them to create a market niche
- **Newgame:** to redefine industry success factors and use them to create a market niche

### *External*

- **Merger:** to combine two or more firms into one
- **Acquisition:** to purchase the assets of another firm and absorb these assets into the firm's own operations
- **Joint venture:** to join forces with another firm to achieve a common purpose

Table 4.3 classifies these eleven strategies according to the generic types for which they are most suited.



**Table 4.3 Matching specific strategies with generic strategy types**

Specific Strategy	Generic Strategy Type			
	Develop/Grow	Stabilise	Turnaround	Harvest
<i>Internal</i>				
Concentration	●			
Diversification	●	●	●	●
Divestiture	●		●	●
Integration	●	●		
Liquidation	●		●	●
Newgame	●		●	
Samegame	●	●		
Timing	●	●		●
<i>External</i>				
Merger	●		●	
Acquisition	●			
Joint venture	●	●		

**A generic typology of multinational corporate strategies**

As discussed earlier in this chapter, multinational strategy is part of corporate strategy; it differs from other corporate strategies in its geographical scope. It requires separate treatment because of the complexities associated with operating across national boundaries and markets.

Very little has been written about specific types of multinational strategies. Major contributors include Porter (1986), Leontiades (1985), Shanks (1985), and Doz (1980), all of whom have developed typologies to classify multinational strategies. In spite of their differences in terminology, a comparative analysis of the four typologies conducted as part of this study has revealed enough commonalities to warrant their classification into five basic types: global cost leader, global niche, protected national market, national niche, and follower. Table 4.4 compares the four typologies according to these five types.

**Table 4.4 Comparison of global strategies**

Generic Multinational Strategy	Porter 1986	Leontiades 1985	Shanks 1985	Doz 1980
Global cost leader	Global cost	Global high share	Global leader	Worldwide integration
Global niche	Global segment	Global niche		
Protected national market	Protected market	National high share	Domestic	National responsiveness
National niche	National responsiveness	National niche		
Intelligent follower			Follower	Administrative coordination

*Global cost leader*

Firms that pursue a global cost leader strategy sell a standard product/ service to many different mass markets. The product/service may not be at the cutting edge of technology, but it is at least at the forefront. With high market shares and economies of scale, firms of this type are able to keep their costs down, effectively undercutting competitors. This also enables them to maintain a high level of research and development at relatively low costs. Operations are coordinated across a range of national boundaries in order to secure a major share of the global market. Companies pursuing this strategy require a huge amount of resources to support their activities. This is why most companies that use this strategy are the giants of the industry, e.g. Toyota, IBM, Shell and General Motors. In addition, they prefer to act alone.

... Such firms are often wary about alliances with other firms (such as joint ventures or licensing) in what they consider to be in their core products and markets, though exceptions increasingly are being made in those countries that are difficult to enter and with promising new suppliers that have developed new products and/or techniques (Leontiades, 1985, p. 52).

### *Global niche*

Firms pursuing this strategy seek to avoid direct competition with global cost leaders by focusing on a particular market segment. Their area of specialty may be technology, unique products, special geographical characteristics, or some stage of the production-cycle (finished or semi-processed products). The scale of operations, as the strategy name implies, is world-wide, which gives a firm the opportunity to increase in size within its area of speciality. There are also opportunities to achieve a certain amount of cost advantages through joint ventures with other firms. Fewer resources required for this type of strategy, which is why it is often the first strategy used by national competitors seeking entry into the global market.

### *Protected national market*

Firms using this strategy seek out countries in which market positions are protected by host governments. Many firms that do not have the resources and/or the skills required to go global or that seek a tax shelter to offset the profits of other businesses units often find this strategy attractive. Typically, firms seek a competitive advantage in the national market by taking full advantage of government measures designed to protect this market, for instance, national entry barriers (high tariffs, stringent import quotas, high entry costs), national government support/preference (subsidies, local purchasing requirements, excessive regulations), and local economic advantages (greater knowledge of national conditions and customer needs, closer and shorter communication with the customer, national preference of dealing with local partners, flexibility to tailor operations more to customer needs and only one set of national conditions). However, this is a high risk strategy: stronger global competitors may enter the market and edge them out, or government protection may be discontinued.

### *National niche*

Firms using this strategy specialise on a particular product/service within any number of national markets. These firms capitalise on local/national differences. Provided there is sufficient size involved and a cost advantage to be attained, they will seek out national customers with special/unusual needs (e.g. a chemical production business which requires special products at short notice in various amounts and where the product to be supplied cannot be stored). As with the protected national market strategy, this strategy is appropriate for firms who do not have the resources/skills to compete globally. It is sustainable only to the extent that local/national differences remain strong and the firm is able to offer lower prices than its competitors, both national and global. National niche and protected national market strategies can be pursued simultaneously whenever governments provide protection to a market segment that is highly specialised and has unusual market needs.

### *Intelligent follower*

Firms that pursue this type of strategy have one common characteristic: they follow tried and tested formulas, preferring the security of established products/services to high-risk entrepreneurial ventures. They are classic 'middle-of-the-road', taking advantage of opportunities as they come, and always making sure a high level of profitability is maintained.

Table 4.5 summarises the main features of these five generic types of multinational corporate strategies.

**Table 4.5 Five generic types of multinational corporate strategies**

<b>Generic Multinational Strategy</b>	<b>Key Features</b>
Global cost leader	<ul style="list-style-type: none"> <li>• Sell a well-known product or service to different mass markets</li> <li>• Pursued by firms with high market shares and economies of scale (i.e. industry giants)</li> <li>• Requires substantial resources</li> </ul>
Global niche	<ul style="list-style-type: none"> <li>• Focus on a particular specialty and market segment, and avoid competing with global cost leaders</li> <li>• Pursued by national competitors seeking entry into the global market</li> <li>• Requires fewer resources than global cost leader, and cost advantages are possible through joint ventures</li> </ul>
Protected national market	<ul style="list-style-type: none"> <li>• Seek entry into countries which offer protection to national markets, and take advantage of protective measures to gain a competitive edge</li> <li>• Pursued by firms with neither the resources nor the expertise to establish global operations, or seek tax shelters to offset profits</li> <li>• High risks involved</li> </ul>
National niche	<ul style="list-style-type: none"> <li>• Similar to protected national market except here the strategy is to specialise on a particular and unusual product/service within a number of national markets</li> <li>• Pursued by firms with neither the resources nor the expertise to establish global operations</li> </ul>
Intelligent follower	<ul style="list-style-type: none"> <li>• Stick to established products/services which provide a high level of profitability</li> </ul>

**Business-level strategies**

Of all strategy levels, business strategies have been the most discussed and examined in the literature. It has been noted earlier in the chapter that business strategy focuses on how to compete in one particular business. In a diversified company, business strategies are based on higher-level corporate strategies. In a firm involved in a single business, however, business strategies assume the role of corporate strategies. To a great extent, this dual interpretation of 'business strategy' has contributed significantly to the enduring confusion over terminology within the strategic management field. Any analysis of empirical data on business strategies, therefore, must carefully establish whether 'business' is used in the first sense, or whether it is used at the same level as 'corporate'.

The acknowledged leader in the field of business strategy is Porter (1985). Much of what is written on the subject draws upon Porter's extensive work and builds on his conceptual frameworks. Porter (1985) argues that a firm can gain a competitive advantage either through low cost or differentiation. When these are combined with a firm's scope of activities, three types of business strategies can be pursued: cost leadership, differentiation and focus. These strategy types are presented in Table 4.6. They will be discussed in detail in Chapter Four, when analytical models for strategy selection and analysis are examined.

**Table 4.6 Porter's typology of business strategies**

<b>Business Strategy</b>	<b>Objective</b>
Cost leadership	To gain a cost advantage by providing a highly standardised product/service and under-pricing the competition
Differentiation	To seek a position that enhances the special qualities of a product/service that is widely valued by customers and that will allow the firm to charge higher than average prices
Focus	To concentrate on achieving a cost advantage (cost focus) or providing a specialised product/service (differentiation focus) within a narrow segment of the market

There are other typologies of business strategies, but though names may vary, the underlying concepts differ little from Porter's. A comparison of Porter's typology (1980, 1985) with another well known typology, for instance, which has been developed by the Strategic Planning Associates (1981), shows that both typologies are based on the fundamental premise of competitive advantage, and each pair of strategy types (i.e. cost leadership v. commodity, differentiation v. specialty, cost focus v. hybrid, cost differentiation v. transitional) are highly similar in approach and orientation. They differ only in the wording of their variables, which could be attributed to the

authors' individual orientations. Porter's is more oriented toward economics; the SPA's, toward marketing.

### **Functional-level strategies**

Strategies at the functional level are the domain of the specific operational units within a business. They specify the means by which the different functional areas of the business must contribute to the business and corporate levels of strategy. According to Pearce and Robinson (1988), three characteristics differentiate functional strategies from business and corporate strategies: time horizons, specificity and participants.

- *Time horizons.* Functional strategies are designed to identify and coordinate short-term action programs, usually for no longer than one year. These short time horizons force functional managers to be more proactive and vigilant; they are expected to act on what currently needs to be done to implement higher level strategies, constantly scan the environment for opportunities and threats, and be ready to make the appropriate adjustments when necessary.
- *Specificity.* Functional strategies must be specific, ready to be put into operation by lower-level managers. They should therefore come in the form of detailed project plans/outlines, specifying all key aspects of strategy implementation (resources, control, time, etc.).
- *Participants.* The responsibility for the development of functional strategies is typically delegated by the business-level manager to the principle subordinates responsible for the operating areas of the business (e.g. marketing, production, finance). Furthermore, it is up to the business-level manager to ensure such functional strategies meet the requirements of the business-level strategy. The active involvement by operating managers helps in the implementation of the

functional strategy because they end up gaining a thorough knowledge of exactly what needs to be achieved. It also tends to increase their commitment to the business.

Efforts to classify functional strategies into typologies are far less substantial than those devoted to corporate and business strategies. Of the few attempts made over the last three decades, the most well known include Melcher and Kerzner (1988), Pearce and Robinson (1988) and Argenti (1974). Table 4.8 compares the work of three authors on functional strategies.

The number of functional strategies depends largely on the organisational design of the business. The basic rule is that each operating department (production, finance, personnel, etc) in a single business unit must have its own set of functional strategies, and that these strategies should be based on, and support, the business strategies of the organisation.

**Table 4.7 Three views of functional strategies**

<b>Argenti 1974</b>	<b>Pearce and Robinson 1988</b>	<b>Melcher and Kerzner 1988</b>
Market	Marketing	Marketing
Financial	Finance/accounting	Finance
Product Supplies Facilities	Production/operations	Manufacturing
Research	Research and development	Research and development
Organisational	Personnel	

Overall, the literature on strategy does not devote as much attention to functional strategies as it does to strategies at the higher levels. This is understandable, as the literature on strategy focuses primarily on those areas within the domain of top



management, and functional strategies do not fit this category. In essence, corporate and business strategies are considered the domain of the generals and strategists; functional strategies, that of the soldiers on the battlefield.

### 4.3 SYNTHESIS: A COMPREHENSIVE TYPOLOGY OF STRATEGIES

The relationships between the various types and levels of strategies examined in this chapter can be more clearly understood if synthesised into a comprehensive typology of strategies. This typology is presented in Table 4.8.

**Table 4.8 A comprehensive typology of strategies**

Strategy Level	Generic Strategy Type	Specific Strategy			
		Primary		Secondary	
		Internal	External	Internal	External
Corporate (General)	Grow Develop Stabilise Turnaround Harvest	A common pool of specific strategies can be used to support generic strategy types at the corporate or business levels. This pool is also the source of functional strategies. Among the more well known specific strategies are:			
Corporate (Multinational)	Global cost leader Global niche Protected national market National niche Intelligent follower	<i>Internal:</i> Concentration Diversification Divestiture Integration Liquidation Newgame Samegame Timing		<i>External:</i> Merger Acquisition Joint venture	
Business	Cost leadership Differentiation Cost focus Differentiation focus	Strategies are <i>internal</i> when they require a company's own resources; <i>external</i> when they require external resources.			
Functional	[Hatched Box]	If they are first choice, they are called <i>primary</i> ; if they are alternative choices, they are called <i>secondary</i> (or ancillary or contingency).			

This typology of strategies will be used as part of the study's conceptual framework, which will be discussed in Chapter Six (Conceptual Framework).

## **Chapter Five**

### **STRATEGY SELECTION MODELS**

Corporate strategy, as discussed in the previous chapter, is primarily concerned with deciding which businesses a firm should be in and what the firm must do to ensure these businesses contribute to its overall profitability. Bowman and Asch (1996) elucidate:

[Corporate strategy] is primarily about:

- Deciding which businesses and industries are attractive.
- Making decisions about the opportunity costs and benefits of allocating resources across and between [single business units] SBUs.
- Making decisions as to how excess cash flows from trading will be appropriated as dividends or for reinvestment funds.
- How the corporation is to be structured and controlled.
- How the overall activities are to be financed.
- How growth is to be achieved, and what kind of growth is sought. (p. 119)

Decision making on such strategic issues as identified above by Bowman and Asch—mix of businesses and industries, deployment of resources, organisational structure, long-term goals and strategies for growth—obviously has to be done within an integrating framework, otherwise the relationships between and among businesses, and their implications to the firm's overall profitability and competitiveness, cannot be adequately assessed. Fortunately, a wide range of alternative frameworks that can facilitate strategy selection and analysis is available. While they may vary in focus and scope, as well as in conceptual and methodological rigour, these frameworks or models provide firms with the tools to evaluate strategic decisions at the corporate level. They are what Porter calls 'consistency checks' (1980, p.388) that firms can use to assess their market positions and on this basis select appropriate strategies to maintain a strong competitive presence in the marketplace.

The literature offers a wide range of models for strategy selection and analysis but for the purposes of this study, only the most widely used models have been included in the analysis.

## **5.1 APPROACHES TO STRATEGY SELECTION AND ANALYSIS**

Out of an array of possible choices, how can the manager know which strategy, or set of strategies, will promote the firm's continuing competitiveness and profitability?

Traditionally, the answer has been to use a technique that is popularly known as *portfolio analysis*. Portfolio analysis refers to the evaluation of the various businesses that a firm has in its portfolio to determine how well they contribute to the firm's overall goals and objectives and what the firm must do to maintain a competitive edge in the market(s) where it operates. Portfolio analysis typically involves the use of a portfolio model, usually presented in matrix form, where the relative positions of businesses in a firm's portfolio are plotted in terms of profitability and market share.

While it is widely acknowledged that the various models used for portfolio analysis are equally applicable to corporate and business strategies, portfolio analysis is predominantly associated with firms with multiple businesses (ie diversified companies) because this is how it was introduced in the 1960s by the Boston Consulting Group (BCG), the authors of the portfolio concept, and how it has been subsequently embraced by the management field. However, there is now a growing trend away from the use of the term 'portfolio models' in favour of more encompassing terminology such as 'strategy selection models' or some similar derivation, as this does away with the arbitrary demarcation line drawn between corporate and business strategy selection.

Behind this shift in thinking is the argument that if portfolio models are equally applicable to multiple-business firms and single-business or less diversified firms, then the terminology should be changed to reflect this broader use of the models. The shift also moves the field away from the continuing debate surrounding the usefulness of portfolio analysis and its different models, and pushes the field on to the next level of theory building and testing.

Of the many models available for corporate and business strategy selection, there are about 11 which are the most widely used in the field. These models can be broadly categorised into three groups:

- **Group 1: Early models**  
BCG business portfolio model  
GE's business screen
  
- **Group 2: Derivations of Group 1 models**  
Royal Dutch Shell's directional policy matrix  
Thompson-Strickland matrix  
Arthur D. Little life cycle model  
Porter's product/market life cycle model  
Hofer and Schendel's product/market life cycle  
Porter's model of generic competitive strategies
  
- **Group 3: More holistic approaches**  
SWOT analysis matrix  
Grand strategy selection matrix  
International competitiveness matrix

The groupings are based mainly on chronology to signify the changing shifts in strategic management thought. The earliest and most well known model is the BCG matrix, developed by the Boston Consulting Group to help their clients manage their business portfolios. After this initial attempt came other models, each designed to address some identified weakness in the BCG model and each following essentially the same matrix format. As the three groupings suggest, over the years there has been steady progression

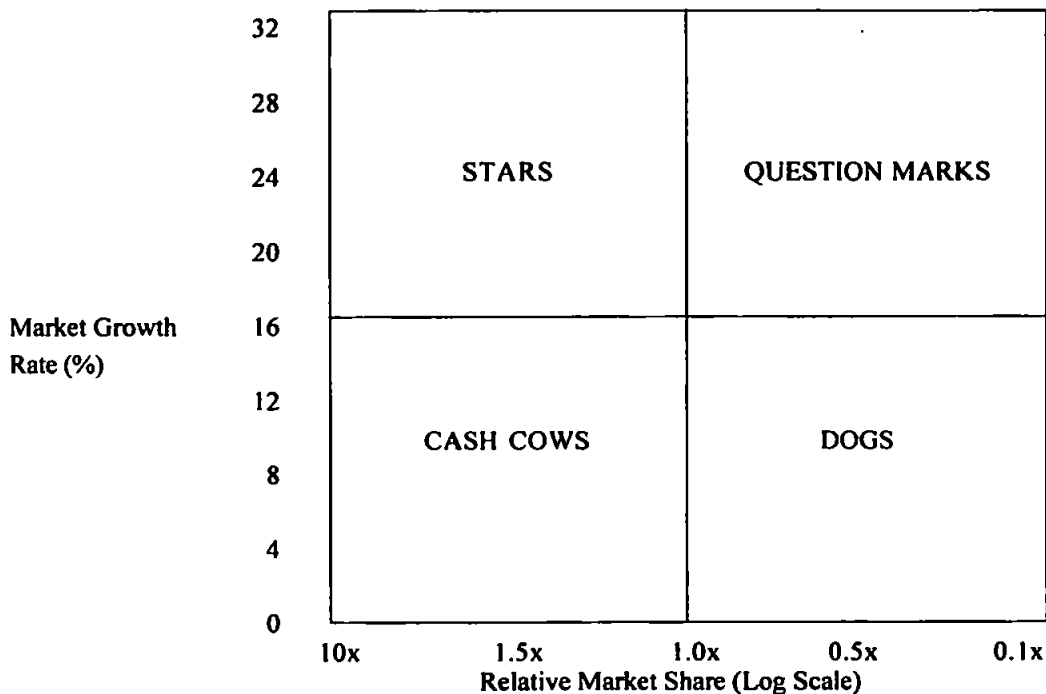
in model building, from the more simple models of BCG and GE to broader, more holistic approaches like the SWOT, grand strategy selection, and international competitiveness matrices. All models are still current, with the BCG model still leading the way.

## **5.2 BCG BUSINESS PORTFOLIO MODEL**

The BCG model, considered the progenitor of strategic planning matrices, uses two variables, market share and market growth, as bases for classifying single business units. For this reason, it is also widely known as the growth market/share matrix. The BCG model measures market share and market growth in terms of what might be called the experience curve principle, which states that 'each time the accumulated production of a product is doubled, unit costs in real terms shall decline by a percentage, characteristically in the vicinity of 20 to 30 percent' (Smith, 1985, p. 89; see also Day, 1986; Hax and Majluf, 1983a; Hedley, 1977).

Based on this principle, we can say that if a firm doubles its market share as it becomes more experienced with its product or market, it is likely to enjoy a 20 to 30 per cent cost advantage over its competitor. Simply, this means more cash for the firm, and the more experienced it becomes, the more cash it can generate. However, since the firm's market share is dependent on how fast the market grows, then the faster the market grows, the more cash the firm will need in order to compete. The relationship between market share and market growth is illustrated in Figure 5.1. On the horizontal axis is the market share of each business relative to the industry leader; on the vertical axis is the annual market growth rate for each business' particular industry. Within the cells are

four types of businesses: Stars, Cash Cows, Question Marks (also known as Problem Child and Wild Cats) and Dogs.



**Figure 5.1 The BCG market growth/share matrix**

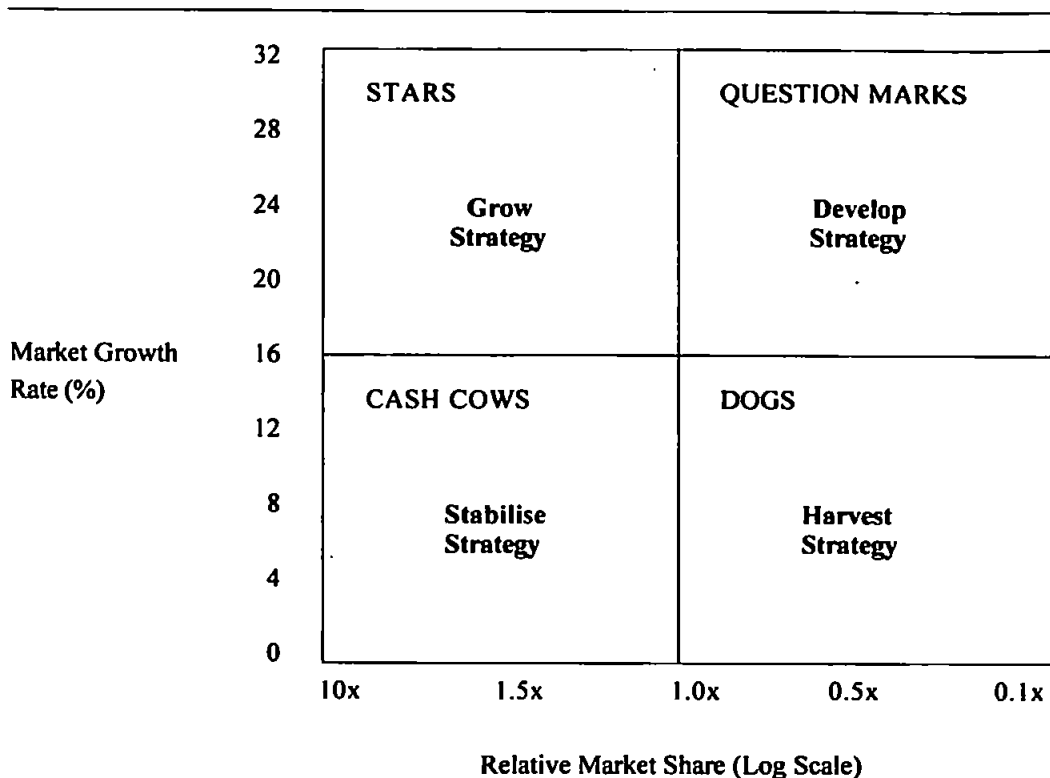
Source: Naylor, 1982, p. 7

- *Stars* are business units which are characterised by high market growth and high market share. They usually generate considerable cashflow but also absorb it in the form of investment to maintain market share. Stars usually show positive profits whether the cashflow is positive or not. A star eventually evolves into a cash cow when growth and reinvestment requirements slow down.
- *Cash cows* are business units which are characterised by a high market share and low market growth. They frequently generate a large amount of cash, but not all of this is ploughed back to them. They get back only what they need to maintain

their position, and any excess cash goes to other businesses, e.g. the Question Marks.

- *Question marks* are business units which are characterised by high market growth and low market share. They are typically at the very earliest stage of their life cycles. Question marks generate very little cash but they require considerable investment in order to survive. As their name suggests, their future is questionable: if all works well, they turn into Stars; if not, they become Dogs.
- *Dogs* are business units which are characterised by low market share and low growth. They are often cash traps: although they may be able to show positive profits, the profit must consistently be reinvested to maintain market share.

Viewing business units from this perspective certainly helps a firm maintain a balanced business portfolio. The basic strategy is simple: The first goal is to maintain the Cash Cows without investing too much in them. The cash generated by the Cows should be used to consolidate the position of the Stars, and any surplus could be devoted to developing *some* of the Question Marks. The Dogs must be recognised as the weak link for the company and handled ruthlessly; they should be managed for cash, with minimal or no investment (Smith, 1985). Figure 5.2 presents the corporate strategy types appropriate for each business category.



**Figure 5.2 Generic strategies for the BCG model**

Since its introduction, the BCG model has come under criticism. It has been described as too simplistic, with no allowance made for businesses that fall right in the middle of the matrix; it reflects no temporal qualities so that although it is based on long-term relationships, it is mistakenly used as a short-term adjustment technique; market share, which is used in the model to measure the competitiveness of a business, is not necessarily directly correlated to profitability or business strength; and finally, it does not address the issue of new business development, especially in determining growth rates (Harvey, 1988; Smith, 1985; Smith et al., 1985; Porter, 1980; Hofer and Schendel, 1978; Rumelt, 1974).

In spite of these criticisms, the BCG model continues to be widely used today. Although empirical support for the model is sparse (Hambrick et al., 1982, cited in Harvey, 1988), to many in the management field, the enduring power and popularity of



the BCG model is proof enough of the robustness of its precepts. Unlike other models that have come and gone after it, without leaving too much of a dent on the field, the BCG model continues to serve as a popular tool in strategy selection and analysis.

There have been a number of elaborations made on the BCG matrix since it was first articulated by the Boston Consulting Group in the mid-1960s. Michael Gould of the BCG has offered a revised matrix in which market share is replaced by competitive position as a measure of market leadership and products are regrouped in terms of the manufacturing process so as to reflect economies of scale in manufacturing (Smith, 1985). Others have substituted market share for an investment threshold cut-off rate, which should indicate to management when to withhold investment because present cash generation is more valuable than the future equivalent (MacMillan, 1986). Companies like Arthur D. Little and McKinsey and Company also offer planning models that are highly similar to BCG models (Naylor, 1982).

The rest of the models discussed in this chapter are all derivations of the BCG model. The main difference between these latter models and the BCG matrix is the move away from single measures of business strength (market share) and market conditions (market growth). Market share is broadened in these latter models to include a wide array of factors affecting a firm's business strength (or competitive position, as it is more commonly called in the literature), and market growth is replaced by the product/market life cycle as a measure of industry maturity or attractiveness.

### **5.3 GENERAL ELECTRIC'S BUSINESS SCREEN**

One popular elaboration of the BCG matrix is the General Electric Business Screen. Also called the GE Planning Grid or the Industry Attractiveness-Business Strength

Matrix, the GE model is broader in approach and more qualitative in nature. Instead of relying on market share alone, it uses a wide range of factors (size, growth, share, position, profitability, margins, technological position, strengths and weaknesses, image, pollution, people) as criteria for assessing a firm's position in the market. Its criteria for assessing industry attractiveness are similarly wide-ranging, including size, market growth, pricing, market diversity, competitive structure, industry profitability, and an array of technical, social, environmental, legal, and human issues (Porter, 1980).

The general approach to assessment is relatively straightforward. First, relevant factors are selected, then a weight is assigned to each factor to signify its relative importance. Using a rating scale, future conditions for each factor are forecast. The weight and rating assigned to each factor are then multiplied to produce a total score for that factor. While the combination of factors on both scales do have a weighted multivariate approach, there are no definitive weights per se. Ultimately, choices are made on the basis of judgment calls and consensus. Methodological frameworks for the use of the GE grid are provided by Hax and Majluf (1983b), Rothschild (1976, 1979) and Businessweek (1975).

On the GE grid, the outcome of the assessment is portrayed in the form of circles. Each circle represents the size of the industry in which a firm competes; thus, the bigger the circle, the bigger the industry. The pie slices within each circle reflects the firm's market share within the industry; thus, the bigger the slice, the bigger the share. The complete grid is presented in Figure 5.3, together with the generic strategies appropriate for each cell in the matrix. The other names by which each generic strategy is known are also presented (Porter, 1980; Hofer and Davoust, 1977).

		Business Strength		
		Strong	Average	Weak
Industry Attractiveness	High	Grow (invest, build)	Grow (invest, build)	Stabilise (improve, defend, hold)
	Medium	Grow (invest, build)	Stabilise (improve, defend, hold)	Harvest (divest)
	Low	Stabilise (improve, defend, hold)	Harvest (divest)	Harvest (divest)

**Figure 5.3 The GE business screen**  
 Source: Adapted from Pearce and Robinson, 1988, p. 287

As the figure shows, when both industry attractiveness and business strength are high, a firm should pursue a *grow* strategy, but when attractiveness and business strength are both low, the firm should *harvest or divest*. In intermediate positions, the firm would need to be selective in the way it allocates resources, giving priority to most attractive segments or in segments where the firm has a unique competence. The strategy is to *stabilise*, either by improving the business, or defending its market position and maintaining the status quo

Like the BCG matrix, the GE Planning Grid has received its fair share of criticism. Mainly, it is criticised for its failure to adequately represent new businesses in industries that are at an embryonic stage of evolution, a weakness it shares with the BCG model (Hofer, 1977). Hax and Majluf (1983b) also criticise the pseudo-scientific nature of the model's weighted-score approach which assigns quantitative values to highly judgmental assessments; they offer no alternative approach, however, as they

also admit that 'when dealing with multiattributes, a weighting process is unavoidable, whether done explicitly or implicitly' (Hax and Majluf, in Dyson, 1993, p. 91).

#### 5.4 DIRECTIONAL POLICY MATRIX

Like the GE grid, the Directional Policy Matrix, which was developed by Royal Dutch Shell specifically for the petroleum-based sector of the chemical industry, uses a weighted multivariate approach to determine a business' position in the market. It is designed to assist in the selection of appropriate criteria for defining and assessing the two dimensions of the matrix, business sector prospects and a company's competitive capabilities. The same analytical procedures as that applied to the GE grid are used; in addition, competitors' ratings can be represented alongside those of the firm. The directional policy matrix is illustrated in Figure 5.4, along with appropriate strategy options for each cell in the matrix. The corresponding generic corporate strategies are also identified.

		Business Sector Prospects		
		Unattractive	Average	Attractive
Company Competitive Capabilities	Weak	Disinvest (harvest)	Phased withdrawal (turnaround, harvest)	Double or quit (develop/grow)
	Average	Phased withdrawal (turnaround, harvest)	Custodial (stabilise)  Growth	Try harder (develop/grow)
	Strong	Cash generation (stabilise)	Growth (develop/grow)  Leader (stabilise)	Leader (stabilise)

**Figure 5.4 Directional policy matrix**  
Source: Adapted from Harvey, 1988, p. 158

There are eight likely strategies a firm can choose from depending on the position of a business on the matrix: disinvest, phased withdrawal, custodial, cash generation, double or quit, try harder, growth, and leader.

In low-growth areas, where the firm is not likely to make substantial earnings, the strategy is to *disinvest* right away or *withdraw* gradually. The difference between these two strategies is mainly one of time; like the generic harvest strategy (see Chapter Three), the ultimate objective is to cut losses and redeploy resources into more profitable areas. However, if the firm has strong competitive capabilities in such areas, so that the business is able to generate respectable profits for the firm, then the business should be nurtured with commensurate resources to enable it to continue being a cash generator. A similar approach should also be pursued in fairly stable areas where the firm has average to weak competitive capabilities; here the firm should take on a custodial role to ensure the business remains in stable condition and to shift to other strategies should conditions change.

Where business prospects are average to attractive, the firm has several choices depending on its competitive strength. In highly profitable areas where the firm is a weak competitor, there are two choices available: if it wants to stay it should significantly improve its competitive capabilities; otherwise, it should quit the sector altogether. In fairly stable areas where the firm's competitiveness is average to strong, the strategy is to grow through commensurate allocation of resources. The same is true in highly profitable areas where the firm is not as strong as its competitors; it can try harder by allocating the necessary resources to gain competitive equality. Finally in

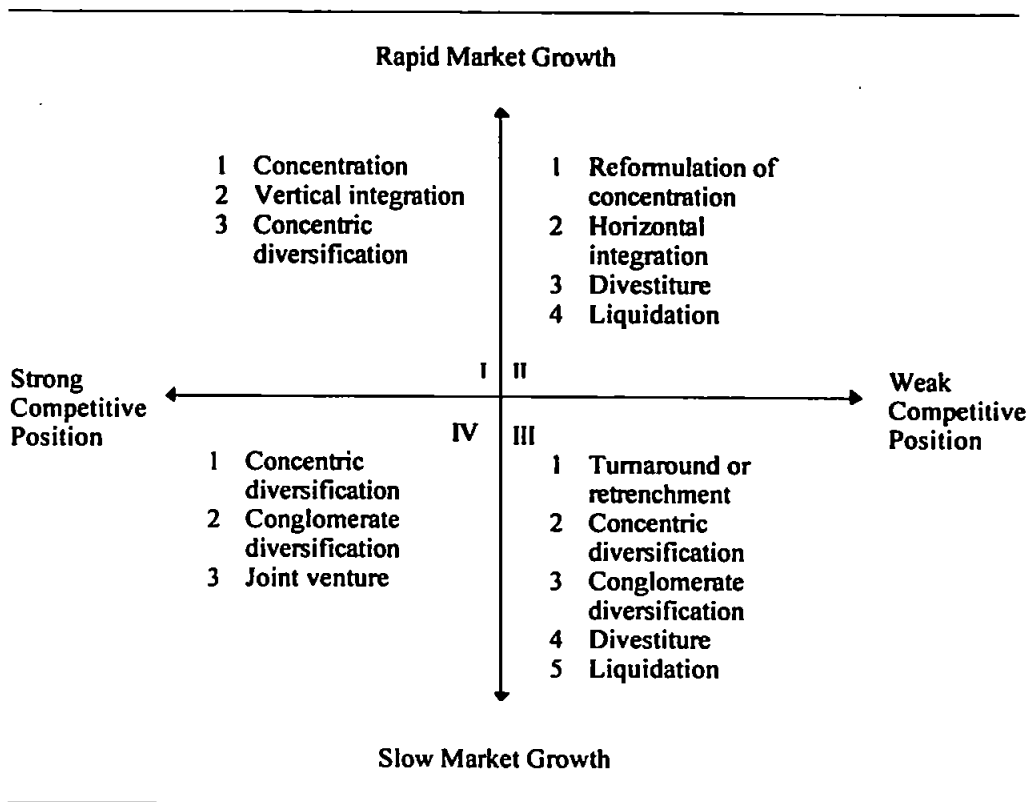
highly profitable areas where the firm is the undisputed leader, the strategy is to give businesses in these areas top priority to ensure they maintain market leadership.

## **5.5 THE THOMPSON-STRICKLAND MATRIX**

Another derivation of the BCG matrix is provided by Thompson and Strickland (1983). Their matrix retains market growth as a dimension of analysis, but like other post-BCG models, it uses the broader concept of competitive position in place of market share. The Thompson and Strickland matrix is presented in Figure 5.5. Using this matrix, businesses can be positioned in any one of four quadrants, and strategies appropriate for each quadrant identified. These strategies are described briefly in Chapter Four.

- *Quadrant I.* Businesses with a dominant market position. They should pursue strategies for growth or maintenance as the ones listed above to ensure they remain in this position.
- *Quadrant II.* Businesses with an uncertain outlook. There is scope for growth, as in the case of new businesses, but there is also a lot of risk involved. The appropriate strategy should be to focus on gaining a stronger competitive position while continuing to achieve rapid market growth. However, for businesses which are unable to achieve this, divestiture and liquidation are the appropriate strategies.
- *Quadrant III.* The worst position in the quadrant. Typically, businesses within a stagnant industry are found here. The strategy is to tightly manage the business for profitability and when appropriate, to divest and liquidate.
- *Quadrant IV.* Businesses with a promising future. They have slow market growth but strong cash flow. The most appropriate strategy is for a firm to pursue a

hold/maintain strategy for existing businesses and free up some of its cashflow for new ventures.



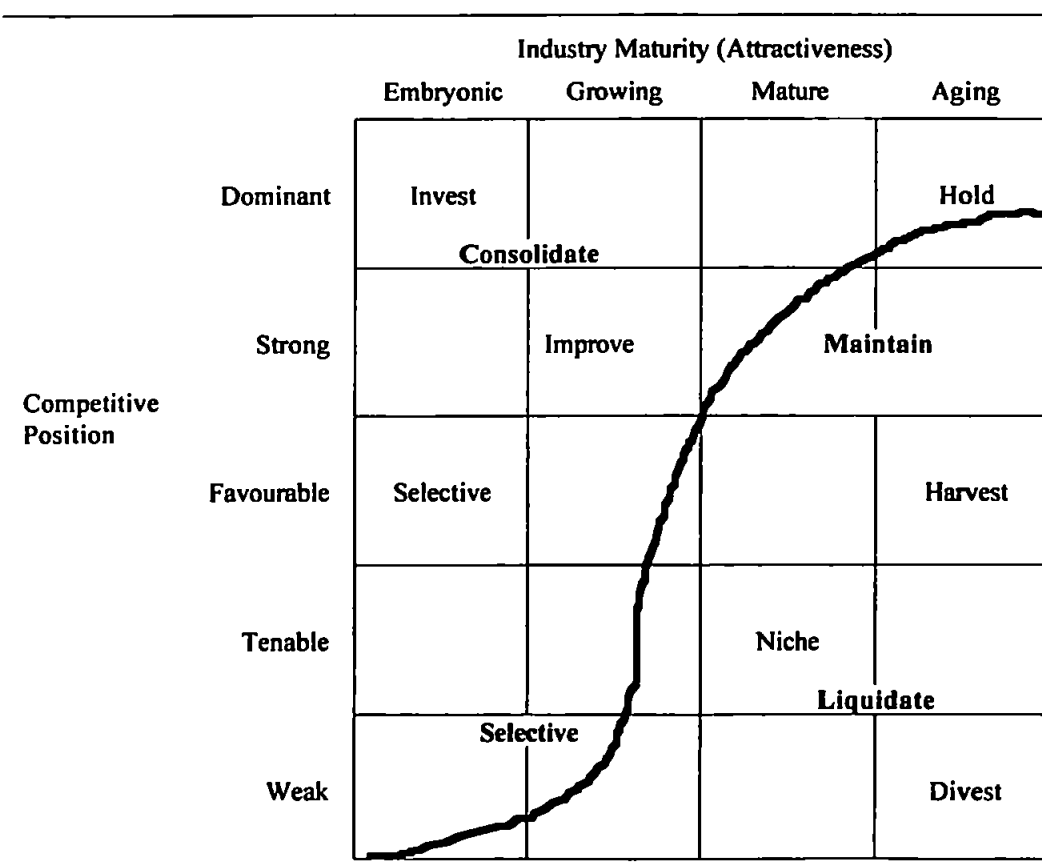
**Figure 5.5 Thompson-Strickland matrix**  
 Source: Adapted from Thompson and Strickland, 1983, p. 154

## 5.6 LIFE CYCLE MODELS

Other authors attempting to overcome the shortcomings of the BCG and GE matrices have not only replaced market share with competitive position, they have also replaced market growth with the product/market life cycle concept. The most well known include the consulting firm Arthur D. Little (Harvey, 1988), Porter (1985), and Hofer and Schendel (1978).

Arthur D. Little developed a nine-cell matrix to analyse the relationships between a business' competitive position and the stage of the industry life cycle at which it is found. According to this model, a business' competitive position is assessed in terms of

a five-point rating scale (dominant, strong, favourable, tenable and weak) while its attractiveness to the industry is assessed in terms of its position in the product/market life cycle (embryonic, growing, mature, aging). The circles follow the same principle as the GE grid; that is, the bigger the circles, the bigger the size of the industries they represent. Using this matrix, the typical strategy is to maintain a balanced mix of businesses, avoiding such pitfalls as having too many embryonic or aging businesses. Although businesses in their embryonic stages may have a bright future outlook, they can give the firm cash flow problems in the short term; those in the aging sector may offer short term profits but they may in fact have a very poor future outlook. The Arthur D. Little model is presented in Figure 5.6, together with some specific strategies that are appropriate for each cell in the matrix.



**Figure 5.6 Arthur D. Little's life cycle model**  
 Source: Harvey, 1988, p. 160



Porter (1985) provides an alternative perspective. In contrast to the Arthur D. Little model, Porter limits the product/market life cycle to three stages (growth, maturity, decline) and classifies a business either as leader or follower. His model also focuses more on a single business rather than on a complex firm. It is illustrated in Figure 5.7 and shows the range of strategies that are applicable for each cell in the matrix.

		Product/Market Life Cycle		
		Growth	Maturity	Decline
Strategic Position of the Organisation	Leader	Keeping ahead of the field	Cost leadership Raise barriers Deter competitors	Redefine scope Divest peripherals Encourage departures
	Follower	Imitation at lower cost Joint ventures	Differentiation Focus	Differentiation New opportunities

**Figure 5.7 Porter's life cycle model**  
Source: Johnson and Scholes, 1988, p. 182

A third life cycle model is provided by Hofer and Schendel (1978). Like Arthur D. Little and Porter, Hofer and Schendel also use product/market life cycle and competitive position in their matrix, but the life cycle is assumed to have five stages (development, shake-out, growth, maturity, decline) and competitive position is assessed on a four-point rating scale (strong, average, weak, drop-out). Like Porter's life cycle model, the focus is on a single business. In both cases, however, the models can be applied equally well to multiple-business firms. Conceptually, all three life cycle models vary little;

hence, there should be no problem in using any of them as alternative models for corporate strategy selection and analysis.

The Hofer and Schendel model is presented in Figure 5.8, together with suitable strategies for each cell in the matrix. Of the five stages of market evolution, changes in competitive position can occur most easily during the development, shakeout and decline stages.

Stage of Market Evolution	Relative Competitive Position			Drop-out
	Strong	Average	Weak	
Development	Share increase			Turnaround
Shakeout	Share increase			
Growth	Growth			Liquidation
Maturation	Profit		Market Concentration	Divestiture
Decline	Asset reduction			

**Figure 5.8 Hofer and Schendel's life cycle model**  
 Source: Adapted from Hofer and Schendel, 1978, p. 104

### 5.7 PORTER'S MODEL OF GENERIC COMPETITIVE STRATEGIES

Other models for strategic analysis offer slightly different variations. Porter, for instance, uses a two-dimensional grid to determine a firm's competitive advantage and its competitive scope. The grid is shown in Figure 5.9, together with the appropriate strategies for each quadrant. According to Porter, a firm must decide whether to aim for a broad or narrow target (competitive scope) and what it wants to be (competitive advantage); trying to be everything is simply a recipe for failure (what he calls 'being

stuck in the middle’). He identifies three appropriate generic strategies: cost leadership, differentiation, and focus. These strategies were introduced in Chapter Four.

		Competitive Advantage	
		Lower Cost	Differentiation
Competitive Scope	Broad target	Cost leadership	Differentiation
	Narrow target	Cost focus	Differentiation focus

**Figure 5.9 Porter's generic competitive strategies model**

Source: Porter, 1980, 1985, p. 12

According to this matrix, a firm has four options:

- To produce a highly standardised product/service and under-price the competition, that is, to be a *cost leader*
- To specialise on a particular product/service that is considered unique throughout the market and, thus, be able to charge higher than average prices (*differentiation*)
- To concentrate on a particular product/service or a particular segment of the market, and be known for:
  - providing a better product/service than others, and, like in the second option, be able to charge higher than average prices (*differentiation focus*), and/or
  - servicing this target at lower costs than most (*cost focus*).

Porter's model is one of the most popular in the field today. It has undergone a series of testing (Miller and Dess, 1993; Wright, 1987; Miller and Friesen, 1986; Galbraith and Schendel, 1983; Dess and Davis, 1982), and as would be expected in a healthy research

environment, this has revealed a number of weaknesses. The model's reliance on qualitative analysis has attracted the inevitable complaint that it lacks quantitative rigour (see, for instance, Asseldonk, 1988), but the more serious criticism comes from Quinn (1988) and Grimm et al. (1988) whose research dispute Porter's assertion that companies that are 'stuck in the middle' have inferior strategies. Grimm and his associates argue in particular that firm size plays an important role in determining the appropriate strategy: for example, they found out that larger companies did quite well when stuck in the middle while smaller firms did not.

## **5.8 SWOT ANALYSIS MATRIX**

This section marks the first of the third and last group of strategy selection models covered in this chapter. In contrast to the preceding models, the models in this last group are more holistic in their approach to strategy selection and analysis.

SWOT is an acronym for Strengths, Weaknesses, Opportunities and Threats. Strengths and weaknesses refer to a business' internal environment, and opportunities and threats, to its external environment. In this regard, therefore, the SWOT matrix can be used as a comprehensive tool for strategic environmental analysis. The main value of the SWOT framework is its emphasis on a holistic approach to environmental analysis. Its four cornerstone concepts—internal strengths and weaknesses, external opportunities and threats—are broad enough to encompass a full range of environmental factors (organisational, economic, psychological, social, technological, political, etc). Yet, they are also flexible enough to be tailored according to company specifications. A company interested only in economic variables, for instance, can tailor its SWOT analysis along this particular line.

Because a SWOT analysis is aimed at maximising a business' internal strengths and opportunities and at the same time minimising its weaknesses and threats, it is a particularly useful tool in strategy selection. Figure 5.10 is an example of a SWOT analysis matrix where appropriate strategies are selected for each cell in the matrix.

		Internal (Organisational)	
		Strengths	Weaknesses
External (Environmental)	Opportunities	I Aggressive strategy	II Turnaround strategy
	Threats	III Diversification strategy	IV Defensive strategy

**Figure 5.10 Sample SWOT analysis matrix**  
Source: Pearce and Robinson, 1988, p. 294

As this figure indicates, it is possible for a business to find itself in any of four quadrants.

- *Quadrant I.* This is clearly the most favourable position for a business to be in, and strategies should be directed at increasing and maintaining this dominant position.
- *Quadrant II.* Businesses in this quadrant have an uncertain future. While there are many opportunities for growth, internal weaknesses prevent them from taking advantage of these opportunities. Their main goal should be to select those strategies that can turn them around, that is, that can increase their internal strengths and help them compete more effectively in the market.
- *Quadrant III.* Businesses in this quadrant are typically good performers but they also face serious external threats. They should seek strategies capable of building

long-term opportunities in other environments where they can use their internal strengths to the fullest.

- *Quadrant IV.* This is the worst position for a business to be in. The appropriate strategy is to manage the business for cashflow or profitability and when appropriate to divest.

## 5.9 GRAND STRATEGY SELECTION MATRIX

The Grand Strategy Selection Matrix is an alternative to the SWOT matrix. Unlike the latter, which focuses on internal and external environmental factors, the Grand Strategy Selection Matrix is more specific: it targets two key variables in the strategy selection process: the purpose of the strategy (overcome weaknesses, maximise strengths) and the area of emphasis (internal, external). When the emphasis is internal, resources are redirected within the firm; if it is external, the firm may choose to acquire new assets or enter into a merger to improve resource capability. The Grand Strategy Selection Matrix is shown in Figure 5.11.

		Areas of Emphasis	
		Internal	External
Purpose of the Grand Strategy	Overcome weakness	<b>I</b> Vertical integration Conglomerate diversification	<b>II</b> Turnaround or retrenchment Divestiture Liquidation
	Maximise strength	<b>III</b> Concentration Market development Innovation	<b>IV</b> Horizontal integration Concentric diversification Joint venture

**Figure 5.11 Grand strategy selection matrix**  
 Source: Adapted from Pearce and Robinson, 1988, p. 296

The term 'grand strategy' in this case refers to both corporate strategies of multi-business firms and business-cum-corporate strategies of single-business firms. Like the other models discussed earlier, the Grand Strategy Selection Matrix leaves the selection of relevant factors to the company itself. The matrix allows four strategic choices:

- *Quadrant I.* A firm in this quadrant has limited growth opportunities in its existing business(es); therefore, the approach is to expand its external scope of operations. However, there are inherent risks with this approach, e.g. costs of expansion, learning to cope with significantly new and/or larger businesses, and gaining a position of strength. Care must be taken not to trade one weakness for another, otherwise, the firm may find itself in a worse position.
- *Quadrant II.* Businesses in this quadrant elect a more conservative approach; the basic strategy is to slim down the business and become more efficient as a result. Resources will tend to be redirected only towards more efficient or pressing activities. Many activities may also need to be consolidated, thus resulting in a much more leaner business.
- *Quadrant III.* This quadrant includes businesses who pursue an aggressive build/maintain strategy to support internal development.
- *Quadrant IV.* Businesses in this quadrant have similar options as in quadrant III, except the focus is on strategies that will support external development. The aim is to take advantage of market opportunities and strengthen one's position in the industry.

## **5.10 INTERNATIONAL COMPETITIVENESS MATRIX**

The International Competitiveness Matrix, the final one in this series, was developed by Leontiades (1985). The focus is international, and strategy selection is based on two

factors, market share objectives and geographical scope. The matrix is presented in Figure 5.12.

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		Market Share Objectives	
		High	Low
Scope	Global	Global high share	Global niche
	National	National high share	National niche

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**Figure 5.12 International competitiveness matrix**  
Source: Leontiades, 1985, p. 53

From Figure 5.12, it is readily evident that:

- Companies that desire high market share on a global level should pursue a high share strategy. However, this option is only really available to companies with substantial resources. Those with fewer resources are better off building a particular strength or niche in the market and then competing on this basis in the global market.
- Companies seeking to establish or maintain a high market share within a national market should limit the entry of global competitors into this market through such protective measures as entry barriers, providing costs advantages in local production/services, creating strong customer loyalty, etc. Companies that have carved special niches for themselves within a national market should do the same to limit the entry of both national and global competitors into their particular segments of the market.



## **5.11 A CRITIQUE OF STRATEGY SELECTION MODELS**

The strategy selection models presented in this chapter are among the most widely used in the management field today (Abell and Hammond, 1979). Although there are obvious differences, the similarities among the models far outweigh the differences. Indeed, what differences there are lie mostly in four areas: the terminology used to describe a company's position in the industry (e.g. competitive position v. business strength v. internal strength), the terminology used to describe generic strategies (e.g. stars v. cost leadership v. growth strategy v. aggressive strategy v. invest strategy), the number of stages in the product-market life cycle (e.g. Porter has three; Arthur D. Little, four; Hofer and Schendel, five), and scope (except for one, all the models focus on competition within domestic markets; while some limit their analysis of the industry to include economic variables only, others look at a wider range of environmental factors).

There is one key difference that should be highlighted, however: the models do differ in terms of the organisational level at which strategies are examined. Some models specifically focus on strategy selection at the corporate level; others, at the business level; and a few on a worldwide basis. However, it has been noted earlier in this chapter that this need not be a major concern; it is widely acknowledged that strategy selection models, particularly those examined in this chapter, are equally applicable to single-business or multi-business organisations. In Chapter Four, it has also been stressed that the division between corporate and business levels is more likely to be found in complex multi-business firms, whereas single-business firms are more likely to collapse these two levels into one. Thus, where a multi-business firm would use the models to decide on which businesses and industries it should be in, the single-business firm would use the same models to decide which products, services or markets it should be in.

In terms of the more important underlying concepts, all models exhibit highly similar characteristics. The one exception is the original BCG model whose basis of analysis remains firmly anchored on two simple measures, market growth and market share. Unlike the BCG model, the other models share two main assumptions. First, a company's position in the marketplace is not a function of market share alone, but is dependent on a host of interrelated factors (economic, social, technological, organisational, etc.). In addition, situations and conditions change, much faster in some industries than in others, and a firm must be able to act accordingly in the face of these changes. Consequently, strategy choices are seen as contingent on the set of circumstances and conditions under which a firm is operating at any one time.

The strategy selection models, again with the exception of the BCG model, also follow similar analytical procedures. They use a multivariate approach to assess the position of a company vis-a-vis its competitors; leave the selection, definition, weighting, and ranking of specific variables to individual companies; and rely heavily on qualitative analysis and judgment calls, while at the same time acknowledging the usefulness of reasoned and statistical arguments.

The critical examination to which the strategy selection models has been subjected over the years has allowed the field to further its knowledge of the use of strategy selection models, and the vastly different ways that individual businesses and industries are likely to behave under different organisational and market conditions. As the literature suggests, these models are not stale, static, pseudo-scientific approaches to strategic decision making. Rather, they are tools for 'asking questions' (Lewis et al., 1993, p. 224) and they provide decision makers with a disciplined method of evaluating

strategic decisions at the corporate, business and functional levels of the organisation. Most likely because of this, strategy selection models (or portfolio models, as they are still widely known in the field) continue to be very popular, even when empirical evidence on whether their use does lead to better performance hangs on the balance (Mintzberg, 1994). Haspeslagh (1982) provides a clue to the models' enduring success. In his research, he found a fairly high level of use of portfolio analysis among leading companies (36% of Fortune 1000 companies and 45% of Fortune 500 companies). Most importantly, he also found the use of portfolio analysis had profoundly affected the way executives thought about the way they managed their businesses. Today, over a decade later, executives apparently still think so.

## 5.12 A COMPOSITE STRATEGIC CHOICE MODEL

In addition to the similarities highlighted in the preceding section, a closer examination of all 11 models also reveals that regardless of the seemingly varied approaches advocated, they all recommend the same basic strategies. These strategic choices are listed in Figure 5.13, which shows a composite model for strategy selection and analysis.

---

		Organisational Competitive Factors	
		High (Strengths)	Low (Weaknesses)
Market Factors	High (Opportunities)	Grow	Develop or Turnaround
	(Threats) Low	Stabilise	Harvest

---

Figure 5.13 A composite model for strategy selection and analysis

The composite model assesses a firm's profitability and competitiveness on two dimensions: organisational competitive factors (high/strengths, low/weaknesses) and market factors (high/opportunities, low/threats). These two factors are designed to serve as umbrella concepts under which the various terms used by the models covered in this chapter can be categorised. The first would include competitive position, business strength, etc; the second would include market growth, product-market life cycle, etc. As the figure also indicates, the composite model is very similar to the SWOT framework.

At a general level, the matrix provides five basic corporate strategies: grow, develop, turnaround, stabilise, and harvest.

- *Grow strategies* are for firms with high quality business factors and high quality industry factors. These are the high fliers, the leaders.
- *Develop and turnaround strategies* are for firms with low quality business factors and high quality industry factors. Typically, the *develop* strategy applies more to new or emerging businesses while the *turnaround* strategy is more applicable to mature industries.
- *Stabilise strategies* are for firms with high quality business factors and low quality industry factors.
- *Harvest strategies* are for firms with low quality business factors and low quality industry factors.

In the next chapter, this composite matrix will be expanded to include the typology of strategies presented earlier (see Table 4.8). The integrated framework will then be used to guide the study's methodological approach.

## **Chapter Six**

### **THE CONCEPTUAL FRAMEWORK**

This chapter discusses the conceptual framework underpinning the study. The conceptual framework brings together the strategic management model introduced in Chapter One, the typology of strategies developed in Chapter Four, and the strategic choice model developed in Chapter Five. To put the discussion in its proper context, an overview of the strategic management process is first presented.

#### **6.1 THE STRATEGIC MANAGEMENT PROCESS**

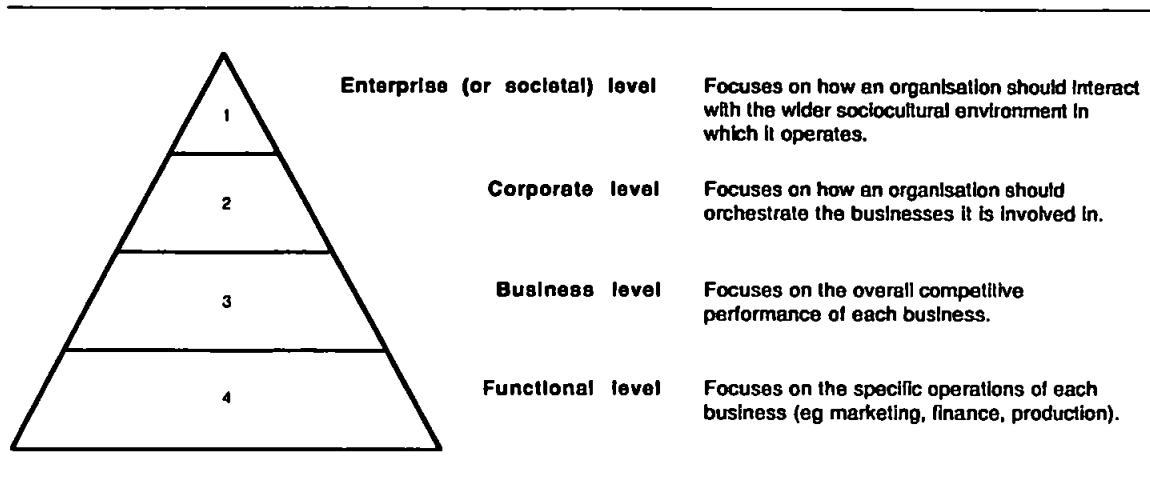
In the previous chapters, focus has been placed on the examination of strategy and strategy selection models. As a management activity, however, strategy selection does not take place in a vacuum; neither is it undertaken as an independent activity. Rather, it is an integral part of a dynamic and iterative process whose main aim is to keep an organisation profitable and competitive. This process is called strategic management, and its underlying assumptions and principles must be clearly understood because they set the foundation upon which the conceptual framework rests.

Strategic management can be defined as the process of formulating and implementing the most effective and efficient means of ensuring the long term survival and success of an organisation and of continuously evaluating its performance. Embodied in this definition are several critical attributes of strategic management:

- It is a process that is ongoing and dynamic, with any one step able to lead directly to another or with several steps taking place simultaneously. It is not a static system that moves along a closed linear loop.
- Its end goal is to enable an organisation to maintain a competitive advantage in the marketplace. The focus is on the long term, and the need for the organisation to embrace any change necessary to ensure the goal is attained.
- It involves three strategic activities: the formulation, implementation, and evaluation of the most effective and efficient means of achieving the end goal. To effectively undertake these activities, an organisation must have a broad and comprehensive understanding of its business and the environment in which it operates, and then use this knowledge to identify feasible outcomes that it should seek to achieve and implement, determine which options are most appropriate to pursue to achieve desired outcomes, integrate these options into a coherent plan of action, implement this plan, and at every point in the process know how well the organisation is doing and what corrective measures must be taken to ensure long-term success and continuously improve performance. Knowledge in this sense is the combined result of deliberate analysis, intuition, experience and judgment calls.

Effective strategic management requires the long-term involvement and commitment of the entire organisation, and because it involves major changes over a period of time, an effective system of managing the change process is also needed to help members at all levels of the organisation cope with and support such changes. While key strategic decisions may be made by senior managers, responsibility for strategic decision making and implementation goes all the way down to the operational levels. Figure 6.1, which is

an expanded version of Figure 4.1, illustrates the various organisational levels at which strategies are made and implemented (Hofer and Schendel, 1979; Mintzberg, 1973; Ansoff, 1965). It is essential that appropriate organisational mechanisms are in place to support strategic decision making and implementation at these various levels.



**Figure 6.1 Hierarchy of strategic decision making**

At the core of strategic management is the development and implementation of a plan of action that is aimed at ensuring the organisation's long-term success. This plan of action is referred to as the strategic plan. A lot of debate has surrounded the nature of strategic plans and the strategic planning process (Mintzberg, 1994). As noted earlier in Chapter Three, to a great extent this debate reflects the differences in perspective between the various schools of strategic management thought. The dominant view is that strategic plans are the products of deliberate thought, analysis and formulation, often presented as written blueprints describing how an organisation should act to maintain or improve its competitive edge. However, there is also ample evidence that shows that not all plans are written and formalised; and even if a written plan does exist, it may not necessarily be the complete version, with access to the more sensitive information limited to a few senior people and within the narrow confines of the boardroom. In other cases, no

'formal' planning may be conducted; instead, decision making is based on judgment calls ('gut sense') and the plan 'emerges' largely as a confluence of certain forces that happen to be at play during a particular period of time. Others argue that strategic decision making 'walks on two feet' (Mintzberg, 1987, p. 69), that is, it is both formal (deliberate) and informal (emergent) in nature. Some aspects may be planned, others may emerge based on current conditions and intuitive judgment. This last view of strategic planning has gained solid ground in recent years, in large part reflecting the steady maturation in strategic management research (Ansoff, 1987; Morris, 1988; Quinn et al., 1988; Mintzberg, 1994).

Regardless of the form it may take, a strategic plan is designed to help an organisation answer five key questions:

- 1 Where are we now?
- 2 Where can we go?
- 3 Where do we want to go?
- 4 Where should we go?
- 5 How do we get there?

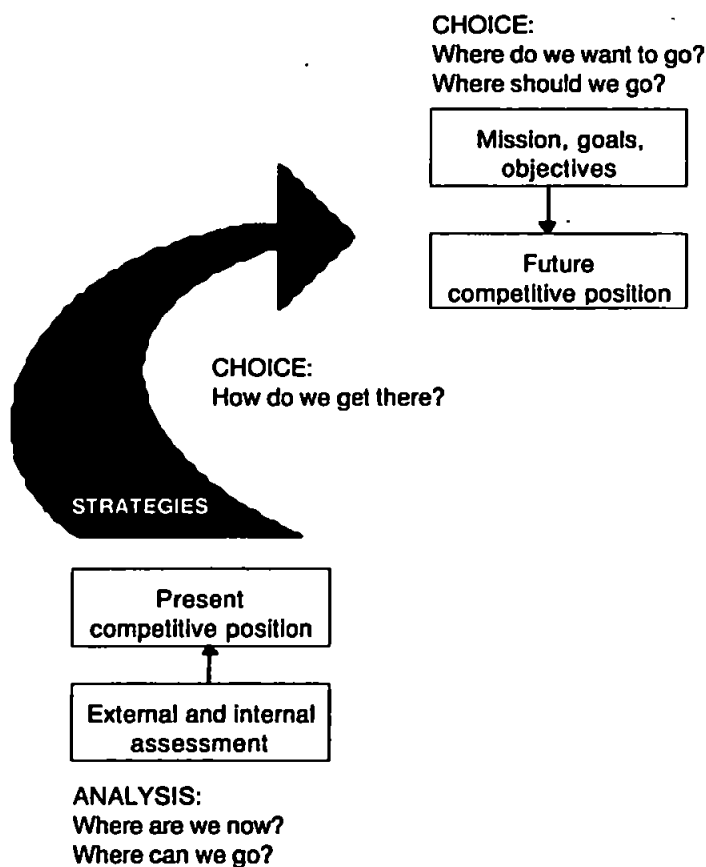
Questions 1 and 2 focus on an organisation's present competitive position—where it is at present and where it is possible to go. Answers to these questions are arrived at through an analysis of the internal capabilities (ie strengths and weaknesses) of the organisation and the opportunities and threats in its external environment.

Once both the present and the future are examined, the organisation's future competitive position—where it wants to go and where it is capable of going—is determined. This is what questions 3 and 4 address, the answers to which normally lead to a mission statement and strategic goals and/or objectives.



Question 5 focuses on how the organisation can achieve its mission, goals, and/or objectives. The result is a set of strategies that will enable the organisation to move from its current position to a more desirable position in the future.

An organisation's movement from a present to a future competitive position can be described as strategic leaping (Hawkins, 1993). Through careful strategic decision making, an organisation can make strategic leaps from its current position to a more desirable market position. Figure 6.2 illustrates the concept of strategic leaping and the key questions that must be addressed if the organisation is to achieve long-term success and survival.



**Figure 6.2 Strategic leaping**  
Source: Hawkins, 1993

## 6.2 THE STRATEGIC MANAGEMENT MODEL

How can an organisation make successful strategic leaps? Figure 6.3 provides a model of the process that an organisation must follow. This model was introduced earlier as Figure 1.2 in Chapter One (Problem Statement) and is reproduced here for easy reference. As noted in that chapter, this model has been chosen because it captures the dynamic, iterative and holistic nature of the strategic management process without necessarily presenting various strategic activities in a linear and sequential fashion.

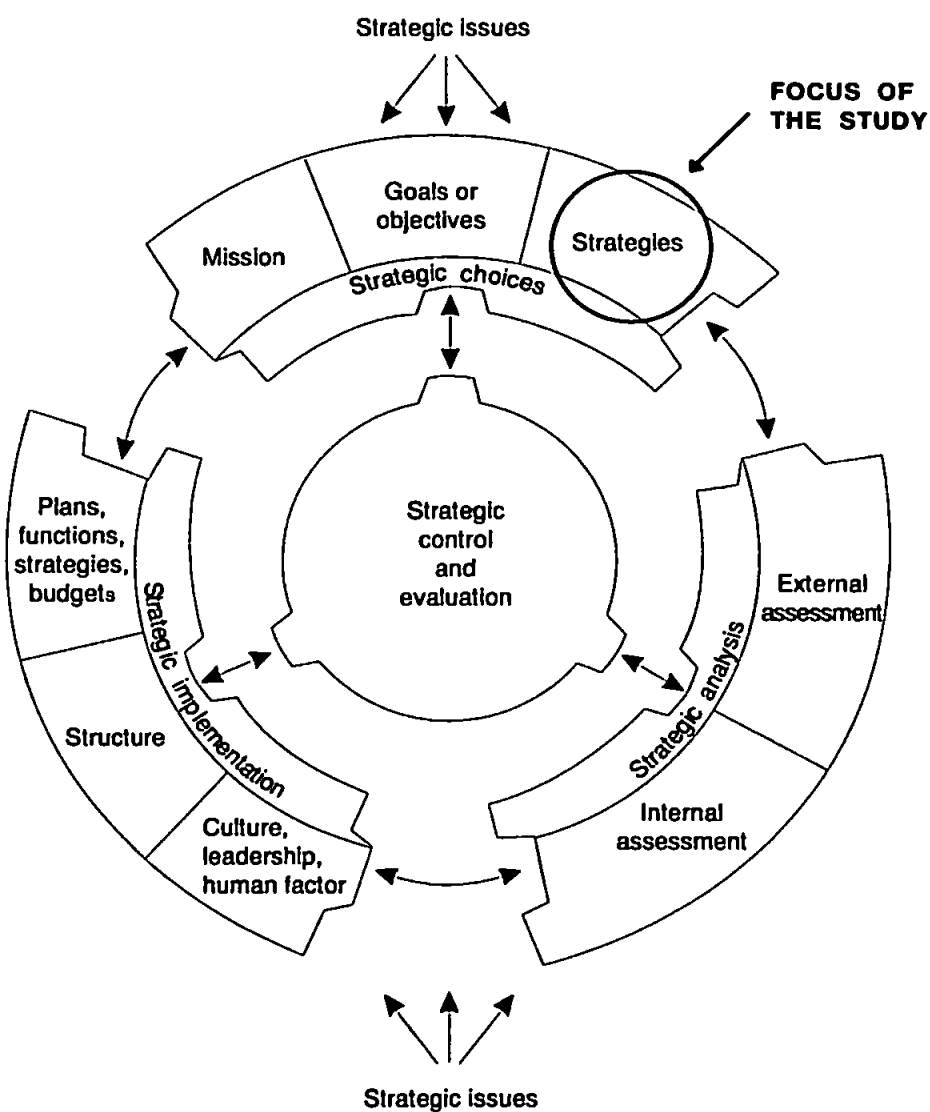


Figure 6.3 A model of the strategic management process  
Source: Hawkins, 1993

The model is represented as a circular flow to show the iterative and dynamic nature of the strategic management process. All the various activities in the process are closely interrelated, with any one activity able to lead directly to another and with some activities occurring simultaneously. All the components of the model also lock together, much like the pieces of a jigsaw puzzle, to form an integrated system. While the individual parts may each be taken as a discrete element, with its own particular function and focus, their respective roles and functions can only be properly understood when examined within the context of the whole. The close interrelationships between parts mean that consideration of any one aspect requires equal consideration of the others. As a strategy is formulated, for instance, issues affecting its implementation, control and evaluation must be simultaneously addressed. No matter how brilliant a plan may be, it is of little use unless it is implemented and controlled properly; further, although closely intertwined, formulation and implementation have significant differences that require significantly different skills.

The model also assumes that the process operates as an open system, with the potential to affect and be affected by a wide range of strategic issues in the external environment. This is why it is critical for the organisation to continually scan its internal and external environment and identify those aspects, both current and future, that can have a dramatic impact on long-term competitiveness. This is also why strategic evaluation and control is central to the process, because it allows the organisation to collect information about how it is going as a means of exercising better control over its performance.

The model organises the strategic management process into four broad areas of activity: strategic analysis, strategic choices, strategic implementation, and strategic control and evaluation.

- Strategic analysis and strategic choices form part of a broader activity, strategic formulation, where the aim is to set an organisation's future direction (mission, goals, objectives) and its means of getting there (strategies), based on an analysis of the organisation's strengths and weaknesses (internal assessment) and the opportunities and threats in the external environment (external assessment). While the analysis may be deliberate and systematised through the use of analytical and evaluation techniques, judgment calls based on intuition and experience play an equally important role in decision making. As noted earlier, the end result is a strategic plan, which sets out the specific ways by which the organisation is to reach its desired destination.
- Strategic implementation involves any action taken to carry out strategic decisions. At this stage, the focus is on ensuring that operational areas (finance, operations, personnel, etc) are able to support the organisation's strategic goals and objectives through the development and implementation of operational plans, that the organisational structure (ie reporting, communication, coordination, monitoring systems) is appropriate for implementing the strategic and operational plans, and that critical people issues—a supportive organisational culture, strong leadership, a sound human resource management policy—are effectively addressed.
- Strategic evaluation and control serves as the monitoring function whose primary objective is to ensure that all strategic activities goes according to plan and that any corrective action is taken to keep the organisation on track. As noted earlier,

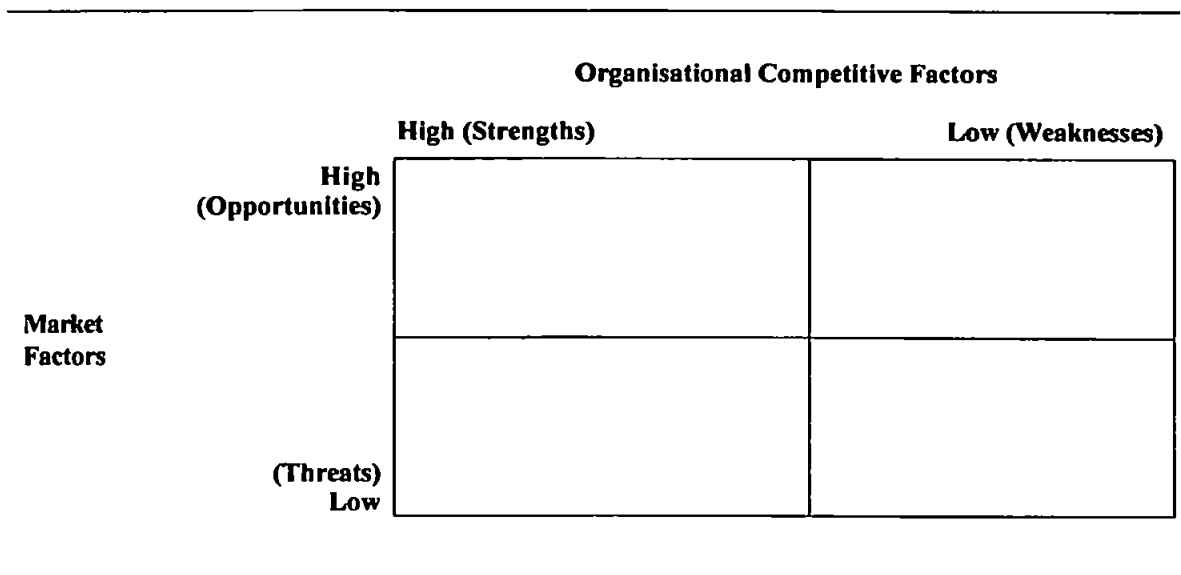
this function is central to the strategic management process, which is why it lies at the centre of the strategic management model. This central position means evaluation must be carried out at every main stage of the process to find out how good the strategic plan is and how well it is implemented, so that based on this information, better control over various aspects of the process can be exercised. The end goal of strategic evaluation and control is the continuous improvement of the organisation.

Of these key aspects of the strategic management process, of central concern to the study is that aspect of the process that deals with strategy selection, that is, the selection of the best means by which an organisation can realise its mission and achieve its strategic goals and objectives in a most effective and efficient way. As shown earlier in Figure 6.3, strategy selection corresponds to the 'strategies' aspect of the 'strategic choices' section of the model.

### **6.3 THE STRATEGIC CHOICE MODEL**

Strategy selection involves three activities: strategic positioning, evaluation of strategic alternatives, and selection of the appropriate strategy or strategies. First, the overall position of the organisation vis-a-vis its mission and strategic goals/objectives has to be analysed. In this analysis, the organisation's business or businesses are examined, individually and in relation to one another, to gauge the overall competitiveness of the organisation. Based on this analysis, strategic alternatives are identified and evaluated, resulting in a strategy or set of strategies that will enable the organisation to strengthen its position and maintain a competitive edge.

The positioning, evaluation and selection of strategies can be achieved using the strategic choice model illustrated in Figure 6.4. As noted in Chapter Five, where the model was first presented, this model draws on the common features of many strategy selection models but uses broader terminology that can be applicable to commercial shipping. It also integrates a SWOT approach to analysis to encourage an organisation to look at relevant strengths and weaknesses in its internal environment and opportunities and threats in its external environment when making strategic choices. As also noted in that chapter, the model should be used, not as a step-by-step how-to guide, but as a tool for 'asking questions' (Lewis et al, 1993, p. 224) whose objective is to provide strategic decision makers with a disciplined approach to evaluating strategies.



**Figure 6.4 The basic framework of the strategic choice model**

### **Dimensions of analysis**

The strategic choice model allows an organisation to evaluate its strategic position (or the strategic position of a business) along two dimensions: organisational competitive factors and market factors.

- **Organisational competitive factors** refer to an organisation's strengths and weaknesses vis-vis its competitors: a strength means the organisation does an activity better than any of its main competitors; a weakness means it does an activity more poorly than any of its competitors. Organisational competitive factors are internal to the organisation and over which the organisation has a high degree of control. Some examples include return on investment, profitability, quality of services and managerial skills, and efficiency of technology used (e.g. ships).
- **Market factors** on the other hand are factors that are external to the organisation and therefore are normally not within the organisation's direct control. These factors can either be opportunities or threats in the market place that can have a significant effect on an organisation's competitiveness. Some examples include freight rate trends, competition in the market, economic conditions in world trade, environmental and safety regulations, trade barriers, and protectionist measures.
- The high-low continuum for both organisational and market factors allows an organisation to plot its relative strategic position (or the relative position of a business) on the matrix. In terms of organisational factors, the more strengths an organisation has, the higher is its strategic position; the more weaknesses it has, the lower is its strategic position. In terms of market factors, the more opportunities there are in the market, the higher is an organisation's strategic position; the more threats there are, the lower the position. Based on this analysis, an organisation can identify the strategy or strategies most appropriate for it to pursue.

There are no set organisational or market factors to consider when analysing an organisation's strategic position. Shipping research suggests that the number and nature of organisational and market factors differ according to shipowner and market segment. They also change over time as markets and the competition change (Anderson et al., 1993; Brooks, 1995). The same is true in general management where, as Wind and Mahajan (1981, p. 160) found out, 'the factors defining the composite dimensions naturally vary among companies and even (though not often) among different businesses of the same company'. Therefore, an important assumption in the use of the strategic choice model is that the user must be able to define, or be cognisant of, the key success factors that are applicable to the time period under analysis.

To ensure that the analysis of organisational and market factors is thorough, the literature on shipping and ports (Rich, 1978; Arlt, 1987; Frankel, 1989; Hawkins, 1991a, 1991b, 1993) and on general strategic management (Johnson and Scholes, 1988, 1997; Montanari, 1990; David, 1995, 1997) recommend that the analysis should be broad-based, that is, it should take into consideration a broad range of factors against which the strengths and weaknesses of an organisation, and the opportunities and threats in its external environment, can be assessed. Frankel (1989), for instance, offers eight internal and external factors (competitive, adversity, technological, human relations, political/governmental, market, international relations, resources), all of which can be broken down into more specific subgroups. Hawkins (1991a, 1991b, 1993) takes a similarly broad approach, using a method called 'THE Full SCOPE' to assess an organisation's internal and external performance. 'THE Full SCOPE', which is an acronym for *t*echnological, *h*ealth and safety, *e*nvironmental, *f*inancial, *s*ocial, *c*ommercial, *o*rganisational, *p*olitical, and *e*conomic factors, is an organising framework



that allows an organisation initially to take a broad view of all success factors that are likely to affect its internal and external performance, and then focus on those factors that are most relevant to its current situation. Based on this analysis of current success factors, the organisation's strategic position can then be plotted on the matrix and strategic choices identified.

### **Strategic choices**

What strategic choices can an organisation pursue, given its strategic position? In Chapter Four (see Table 4.8), a comprehensive typology of strategies was developed to pull together the most well-known strategies identified in the strategic management literature. As noted in that chapter, the typology is meant to serve as a companion to the strategic choice model to show the range of strategies, from corporate to functional, that an organisation can pursue. The typology is reproduced in Table 6.1 for easy reference.

Of particular concern to the study are the five generic corporate strategies: grow, develop, stabilise, turnaround, and harvest. The justification, presented earlier in Chapter One (Problem Statement), is straightforward. Choosing the 'right' corporate strategy or strategies is essential if an organisation is serious about gaining long-term competitiveness; such strategies set the general direction of organisational strategic activities and define the specific strategies that must be pursued at the lower levels of the organisation. They help the organisation integrate its various strategic activities so that, instead of being pursued separately, strategic efforts are able to support one another. Under the integrating framework of a corporate strategy (or set of strategies), resource allocation also becomes more effective and efficient, since the organisation has a

broad understanding of the relative importance of various businesses, industries and markets in which it operates.

Table 6.1 Typology of strategies FOCUS OF THE STUDY

Strategy Level	Generic Strategy Type	Specific Strategy			
		Primary		Secondary	
		Internal	External	Internal	External
Corporate (General)	Grow Develop Stabilise Turnaround Harvest	A common pool of specific strategies can be used to support corporate or business level strategies. This pool is also the source of functional strategies. Among the more well known specific strategies are:			
Corporate (Multinational)	Global cost leader Global niche Protected national market National niche Intelligent follower	<i>Internal:</i> Concentration Diversification Divestiture Integration Liquidation Newgame Samegame Timing	<i>External:</i> Merger Acquisition Joint venture		
Business	Cost leadership Differentiation Cost focus Differentiation focus	Strategies are <i>internal</i> when they require a company's own resources; <i>external</i> when they require external resources.			
Functional		If they are first choice, they are called <i>primary</i> ; if they are alternative choices, they are called <i>secondary</i> (or ancillary or contingency).			

The five corporate strategies were discussed in detail in Chapter Four, hence, only a brief description of each strategy is provided here. An organisation may choose to *grow* or *develop* if it wants to compete in new high-growth areas; the two strategies differ only in that the first (*grow*) is used in relation to organisations that have achieved a foothold in the market while the second (*develop*) is used for those still in their embryonic stages. If an organisation chooses to *stabilise*, its aim is to maintain the status quo either by keeping to a tried and tested course, changing incrementally in response to environmental changes, or both. If it is in financial trouble, it is likely to choose a

*turnaround* strategy to enable it to reduce or eliminate those activities that are hurting its performance and restore financial viability; if this does not work, it may move on to a *harvest* strategy where the objective is to divest of a poorly performing business or parts of it that are.

On the strategic choice model, the five corporate strategies can be plotted into four quadrants, as shown in Figure 6.5. This model was first introduced in Chapter Five as Figure 5.13 but is reproduced here for easy reference.

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		Organisational Competitive Factors	
		High (Strengths)	Low (Weaknesses)
Market Factors	High (Opportunities)	<b>Quadrant 1</b> Grow	<b>Quadrant 2</b> Develop Turnaround
	(Threats) Low	<b>Quadrant 3</b> Stabilise	<b>Quadrant 4</b> Turnaround Harvest

---

**Figure 6.5 Corporate strategies on the strategic choice model**

- **Quadrant 1:** This is where the organisation or business unit is high on both organisational competitive factors and market factors. It has many strengths and few weaknesses vis-vis competitors, and market trends show many opportunities and few threats. Under these circumstances, the most appropriate strategy is to grow.
- **Quadrant 2:** This is where the organisation/business is low on organisational competitive factors and high on market factors. It has many weaknesses and few strengths vis-vis competitors, while market trends show many opportunities and few

threats. Under these circumstances, the most appropriate strategies are turnaround (if the organisation/business is mature) and develop (if the organisation/business is new and emerging), pursued either separately or together.

- Quadrant 3: This is where the organisation/business is high on organisational competitive factors and low in market factors. It has many strengths and few weaknesses vis-vis competitors, but market trends show many threats and few opportunities. Under these circumstances the most appropriate strategy is to stabilise, that is, to maintain the status quo.
- Quadrant 4: This is where the organisation is low on both organisational competitive and market factors. It has many weaknesses and few strengths vis-a-vis competitors, and market trends show many threats and few opportunities. Under these circumstances, turnaround and harvest strategies are the most appropriate.

As the model shows, of all the four quadrants, quadrant 1 represents the most favourable position (competitively strong, many market opportunities), closely followed by quadrant 3 (competitively strong, many threats); quadrants 2 (competitively weak, many threats); and 4 (competitively weak, many threats) are undesirable. Which strategy or strategies should be pursued if an organisation falls in a given quadrant? What happens when the organisation sits very close to or on the borderline? There are no straightforward answers to these questions, just as the model does not provide 'how-to' steps to resolve them.

Earlier, it has been noted that a major assumption in the use of the model is that the user must be able to identify those success factors that apply to current conditions. There is no magic formula for determining these factors; their correct identification requires an

intelligent combination of deliberate analysis and intuitive judgment. When it comes to making strategic choices, this same caveat applies. The user must be able to use good intuitive judgement in positioning the organisation, particularly when several choices may be available and the organisation (or a business) falls close to or on the borderline. This is where strategic thinking comes in: the user is expected to ask critical questions about the different strategy alternatives relative to the position of the organisation and then make decisions based on this appraisal.

Hawkins (1993, pp. 19-29) argues that the evaluation of corporate strategies should address 10 key questions. Basically, these questions seek answers on the strategy's organisational compatibility (questions 1-3), commercial value (questions 4-6), and intrinsic power (questions 7-10).

- Is the strategy consistent with the findings of the environmental assessment (internal and external) and with what the organisation intends to achieve (goals and objectives)?
- Are the right people available to support the strategy? Are the organisational culture and managerial skills adequate for the strategy to work?
- Are there sufficient resources (capital, facilities, managerial expertise, people) to make the strategy work?
- Does the strategy offer a genuine competitive advantage? Is it based upon something which is important to customers, and something which the organisation can do better than its competitors?
- Does the strategy offer an acceptable level of risk (relative to return) that the organisation is happy to live with?

- Is the strategy socially acceptable? Would society find the strategy to be within the norms of ethical behaviour?
- Is there sufficient flexibility in the strategy? Is there enough 'slack' in the strategy so that if environmental conditions give the organisation a surprise, the strategy may be adapted or modified?
- Is the strategy clear enough for all to understand?
- Can the strategy be measured so that it can be compared against other alternatives and its ability to meet its target be monitored?
- Is the strategy achievable and challenging enough so that people will be motivated to make it work, yet not so easy or conservative that they lose interest in it?

Once corporate strategies are selected, supporting specific strategies, such as those outlined in Figure 6.5, can then be identified. Specific strategies will not be discussed here as they lie outside the focus of the study.

#### **6.4 SUMMARY**

This chapter has discussed in detail the conceptual framework for the study, focusing specifically on strategy selection and the strategic choice model. The key attributes of the model can be summarised as follows:

- The model is a tool for evaluating an organisation's strategic position and determining what strategy or strategies are most appropriate for it to pursue.
- An organisation's strategic position and choice of strategy are determined on two dimensions: organisational competitive factors and market factors.
- Organisational factors refer to an organisation's strengths and weaknesses vis-a-vis competitors; market factors, to the opportunities and threats in the marketplace.

Organisational factors are internal to the organisation and therefore are under the organisation's direct control; market factors are external and are not within the organisation's direct power to control.

- The particular organisational (internal) and market (external) factors likely to have a significant effect on an organisation are called key success factors. These factors are expected to change over time as markets and the competition change.
- There are five corporate strategic alternatives to choose from depending on an organisation's strategic position: grow, develop, stabilise, turnaround, and harvest.
  - (a) *Grow strategies* are for organisations with many strengths and are in areas where there are many opportunities.
  - (b) *Turnaround develop strategies* are for firms with many weaknesses but are in areas where there are many opportunities.
  - (c) *Stabilise strategies* are for firms with many strengths but are in areas where there are many threats.
  - (d) *Harvest strategies* are for firms with many weaknesses and are in areas where there are many threats.
- The model requires the use of both quantitative (statistical data, etc) and qualitative (intuitive judgment, experience) approaches. It is best used as a tool for asking questions; indeed, as a framework for making the evaluation and selection of corporate strategies more integrated and disciplined.

## **6.5 TESTING THE APPLICABILITY OF THE MODEL TO ASIA-PACIFIC SHIPPING**

The assumptions underlying the strategic choice model are based largely on work done in areas outside commercial shipping, hence the extent to which they apply to Asia-

Pacific shipowners still has to be tested. If the model is correct, that it can be assumed that Asia-Pacific shipowners will:

- 1 change/modify their strategies in response to changing environmental conditions.
- 2 base strategic changes and the time frames for these changes on their future expectations of organisational and market conditions.
- 3 pursue a 'grow' strategy when internal organisational competitive (internal) and market (external) factors are high.
- 4 pursue a 'stabilise' strategy when organisational competitive factors are high and market factors are low.
- 5 pursue a 'turnaround' or 'develop' strategy when organisational competitive factors are low and market factors are high.
- 6 pursue a 'harvest' strategy when organisational competitive and market factors are both low.

It will be recalled that these assumptions were first introduced in Chapter One (Problem Statement), and their applicability to Asia-Pacific commercial shipping was brought into question. As was stated in that chapter, since not much is known about the strategic choices that Asia-Pacific shipowners make, it is necessary to establish if these assumptions do reflect what Asia-Pacific shipowners actually do. If theory and practice do not match, where do the differences lie? And if there are differences, what should a strategy selection model that is specific to Asia-Pacific shipowners look like? These are the questions that the study aims to answer. In the next chapter, the methodology for answering them will be discussed.



## **Chapter Seven**

### **METHODOLOGY**

In the preceding chapter, a generic strategic choice model that synthesises what is currently known about strategy selection was developed. The model depicts in matrix form the type of corporate strategies that are appropriate for an organisation to pursue under certain internal (or organisational) and external (or market) environmental conditions. Although the model focuses on corporate strategies, an underlying assumption is that once a corporate strategy is selected, supporting specific strategies then have to be identified. Thus, the strategic choice model has an accompanying typology of strategies to aid strategy selection. Like the model, the strategy typology is a synthesis of the most widely known and used strategies in the strategic management literature.

Because empirical evidence supporting the strategic choice model is drawn largely from manufacturing industries, the applicability of the model to service industries like shipping, and in particular to commercial shipping within a specific geographical area, the Asia-Pacific, has yet to be determined. As noted in earlier chapters, very little is known about how Asia-Pacific shipowners make strategic choices (Reker, 1997; Barton, 1995; Wong, 1991; Hawkins, 1989). In addition, a substantial body of research highlighting significant differences between service and manufacturing industries (Armistead, 1994; Herbert and Deresky, 1987; Schellenberg, 1983; Hambrick, 1983) has cast serious doubts on what has often been assumed as the universal and uniform applicability of strategy selection models. Thus, before the model can be used both as a

conceptual and practical tool to understand and aid strategic decision making by Asia-Pacific shipowners, its applicability to this particular group of users requires testing.

This chapter explains the methodology used to determine how applicable the strategic choice model is to Asia-Pacific commercial shipowners. It provides a detailed description of the research methods used for the study, the major sources of data, and the procedures for data collection and analysis. To provide a backdrop to the discussion, a brief overview of the research methods and data sources is presented first.

## **7.1 OVERVIEW**

How applicable is the strategic choice model to Asia-Pacific commercial shipowners? To answer this question, several data sources and research methods were used to guide data collection and analysis. The decision to combine several sources and methods was made to allow the researcher to cross-check information obtained from one source or through one method with information obtained from another source or through another method. It also made possible the combined use of qualitative and quantitative approaches to data collection and analysis. As Miles and Huberman (1984) strongly advise,

.... although words may be more unwieldy than numbers, they also enable 'thick description' ... That is, they render more meaning than numbers alone, and should be hung onto throughout data analysis. Converting words into numbers, then tossing away the words, gets a researcher into all kinds of mischief ... Focusing solely on number shifts our attention from substance to arithmetic, and thereby throws out the whole notion of qualitiveness; one would have done better to have started with numbers in the first place and saved a lot of time. Also, when word-derived numbers don't make sense, there is usually no very satisfactory way of making them more intelligible with more numbers, which is all one has at hand. The solution to this problem ... is to keep words and any associated numbers together throughout the analysis. Essentially words and numbers keep one another analytically honest (pp. 55-56).

This process of systematic verification, using both qualitative and quantitative data, is called *triangulation*. Triangulation is discussed more fully in section 7.2 of this chapter.

## **Data sources**

Data for the study was collected from three sources: shipowners, maritime experts, and maritime statistical and related documents. Shipowners were the primary source of information, with maritime experts and relevant documents used to verify, evaluate, or expand on information collected from or about shipowners. At this point, discussion of data sources will be limited to a brief overview; they will be treated more fully later in this chapter and in Chapters 8 through 10.

The shipowners included in the study were ship operators in the bulk and liner markets who were based in 12 Asia-Pacific countries: Australia, China, Hong Kong, Indonesia, Japan, Malaysia, New Zealand, the Philippines, Singapore, South Korea, Taiwan, and Thailand. Maritime experts included leading researchers and practitioners in the Asia-Pacific maritime field whose primary role was to verify whether and to what extent the information obtained from and about shipowners was congruent with what was known about the Asia-Pacific in general and Asia-Pacific commercial shipowners in particular. Maritime documents included available relevant material (trade journals, statistical series, annual reports, company reports, etc.) that provided information about the Asia-Pacific region in general and its commercial shipowners in particular.

A total of 748 respondents provided data for the study. Of these, 733 represented shipowners and 15 were maritime experts. Of the 733 shipping respondents, 109 participated in the survey, 54 in the interviews, and 570 in the simulation. A total of 130 shipowners were represented, or about 38 per cent of the original survey population (n=340).

To ensure comparability, background information was collected from all these shipping respondents. This included personal data about the respondent (position in the organisation, years in this position, experience and training in strategic planning, age, gender, nationality, ethnic background), company information (market sector and percentage of total operations, trade routes, company size), and general strategic planning practices (presence of a strategic plan, strategic planning process). Where possible, self-reports were cross-checked against information available in shipping statistical reports, trade journals, and annual company reports.

### **Research methods**

To collect information from shipowners, three research methods were used: a mail survey, interviews, and simulation. To verify information collected from shipowners or shed further light on specific issues under study, two other methods, expert review and document review, were also used. Only a general description is provided here; further details can be found later in this chapter.

A mail survey was initially administered to commercial shipowners in the Asia-Pacific to collect baseline information about their strategic practices. This was followed up by interviews with a sample of shipowners to allow for more in-depth examination and analysis of issues. At the same time, simulation sessions were conducted, during which shipowners made strategic decisions under computer-simulated shipping conditions.

The information collected from shipowners was sent to a number of maritime experts who were asked to provide feedback on the findings based on their knowledge of the maritime industry in the Asia Pacific. Depending on the location of the person, feedback was provided either in writing, by phone, or in person. Relevant documentation that

pertained to the issues investigated by the study was also reviewed to obtain further information.

Following the advice of Miles and Huberman (1984), data analysis commenced during data collection. This interweaving approach enabled the researcher to 'cycle back and forth between thinking about the existing data and generating strategies for collecting new—often better quality—data; [it also served as] a healthy corrective for built-in blind spots ... [and made the] analysis an ongoing, lively enterprise ...' (p. 49).

Data collected was both quantitative and qualitative in nature; hence, appropriate quantitative and qualitative methods were used to analyse the data and interpret the results. Overall, a qualitative approach to analysis, which allowed for emergent patterns and trends to be identified, categorised, and described, was used to integrate and interpret results obtained through the various methods and sources into a final set of findings and conclusions. The approach to qualitative data analysis is explained in Appendix 2.

## **7.2 TRIANGULATION AS A RESEARCH APPROACH**

Because of its highly applied nature, strategic management research has always been dominated by field studies. Field studies are undertaken in practical settings, involve real managers and organisations, and draw from a variety of research methods to examine strategic and organisational behaviour and processes (Snow and Thomas, 1994). Many of these field studies have taken a quantitative approach; in recent years however there has been a growing call for an expanded research perspective, one that reflects a better balance between theory building and testing, and between quantitative and qualitative methods. 'Multimethod approaches' to the study of strategy are particularly

recommended as an alternative to the dominant quantitative paradigm because they allow the collection and analysis of quantitative and qualitative data in a variety of ways and thus provide a far richer data base (Snow and Thomas, 1994; Lyles, 1990).

According to Snow and Thomas (1994),

... calls are being heard for research that explores the considerable unexplained variance that remains from the quantitative studies ... Invariably, these calls recommend that greater use be made of field methods, particularly multiple methods. In addition, we urge researchers to expand their research designs beyond the confines of field methods to include other types of methods [i.e. quasi-experiments, laboratory experiments, computer simulations]. While such between-method triangulation may be labour-intensive, the reward is likely to be increased validity. As an applied field, strategic management owes its constituents, particularly practitioners, the most robust results that it can provide (p. 474).

A term typically associated with multimethod approaches is **TRIANGULATION**, which is defined as a systematic process of using several methods, perspectives, and/or sources to evaluate or validate the same idea (Baker and Ahern, 1990; Miles and Huberman, 1984; McGrath et al., 1982; Patton, 1980; Cook and Reichardt, 1979; Denzin, 1978; Webb et al. 1965). According to Denzin (1978), there are four basic types of triangulation: data triangulation (use of several data sources in a study), investigator triangulation (use of several different researchers), theory triangulation (use of multiple perspectives to interpret a single set of data), and methodological triangulation (use of multiple methods to study a single problem). All these types can be used singly or in combination with one another.

The use of triangulation as a means of establishing the validity of data is not new. The process had been variously referred to as 'multi-trait', 'cross-validation' or 'multiple validation' procedures in earlier research literature (e.g. Campbell and Fiske, 1959; Becker, 1958) until Webb et al. (1965) coined the term 'triangulation' to depict a process of 'validating a finding by subjecting it to the onslaught of a series of imperfect measures' (Miles and Huberman, 1984, p. 234).

Miles (1982) elucidates:

The rhetoric of triangulation, a term drawn from the field of surveying, implies that three elements of a triangle are known ... Where there are two data points, all we have is a measure of agreement or disagreement .. Real triangulation requires additional information, which may be data from an actual third source (one whose position relative to the two other sources is known), a more general theoretical explanation that subsumes the apparent disagreement, or information about the trustworthiness of the two sources drawn from other data ... (p.224).

Triangulation uses both qualitative and quantitative methods to arrive at one conclusion (Northrup and Kraemer, 1982). Its effectiveness is based on the premise that the weaknesses of one method can be counterbalanced by the strengths of another (Jick, 1979; Cook and Reichardt, 1979). Through this process, the methods are used to check and build on one another. Convergence is said to be reached when evidence gathered in different ways from different sources support the same conclusion (Baker and Ahern, 1990; Kerlinger, 1973). Add Cook and Reichardt (1979), '... disparate methods which still converge on the same operations are better than similar ones because the former are likely to share fewer biases than the latter. Often qualitative and quantitative methods work well together because they are relatively disparate' (p. 23).

The research methods used in the study—mail survey, interviews, computer simulation, expert review and document review—have been selected on the basis of their ability to build on one another's strengths while minimising their respective weaknesses. As the following discussion shows, by triangulating findings collected through these various methods and sources, convergence, or the extent to which it is achieved, can thus be established.

### **The mail survey and interviews**

It is widely acknowledged in the literature (e.g. Zikmund, 1994; Gay and Diehl, 1992, Leedy, 1992; Hoaglin et al., 1982; Williamson et al., 1977; Kerlinger, 1973) that a survey

is particularly appropriate when the goal is to describe certain characteristics of a group of people. Information is systematically collected from members of this group, and based on this information, inferences about the characteristics of the whole group are then made. A survey is typically administered through the use of questionnaires mailed to respondents, interviews conducted in person or by phone, or both.

Of the various survey approaches in use today, a MAIL SURVEY is considered as particularly appropriate when a large sample is involved, the respondents are geographically dispersed (e.g. in different countries across the Asia-Pacific), and when response to questionnaire items require careful thought (e.g. describing strategy selection practices or identifying what strategies they choose under given circumstances). However, it suffers from two weaknesses: the risk of non-response is usually high, and it is not possible to check responses as they are given. To compensate for these limitations, the collection of data through other means (e.g. in-depth interviews), as well as steps to encourage a better response rate, are normally recommended (Snow and Thomas, 1994).

Unlike the mail survey, which takes a broad but superficial view of a subject under study, the INTERVIEW takes a narrower focus and examines it in-depth. Particularly when rapport and trust is established between interviewee and interviewer, an interview can result in data that respondents would not normally give on a questionnaire, as well as in more accurate and honest responses since the interviewer can explain and clarify the purposes of the research and individual questions, follow up on incomplete or unclear responses, and ask probing questions to determine the reasons behind a particular response. Because the interview gives interviewees the opportunity to express their



ideas in their own words, the interviewer develops a better understanding of the interviewee's perspective.

By its very nature however the interview is far more costly and time-consuming than the mail survey; where respondents are geographically dispersed, administration costs can be too prohibitive to justify its use as a primary research method. However, because the interview can produce rich qualitative data not possible with a questionnaire, a compromise research strategy often adopted is to use it in tandem with the mail survey. Under this strategy, a mail survey is initially administered for a broad look at the issues under study, and then follow-up interviews with selected respondents are held for a more in-depth examination of issues. This approach takes advantage of the interview's strength (in-depth examination of issues) and minimises its weakness (high administration costs) and those of the mail survey (low response rate, inability to verify responses).

The survey and interviews, although eminently suitable for collecting information about certain features of a population, have their drawbacks. Because both rely heavily on the memory and honesty of respondents, there is always the risk of inaccurate recall (people giving factually incorrect answers) or deliberate deception (people giving answers that put them in a good light or they consider socially acceptable). To compensate for these limitations, it is advisable to collect the same type of data through another method and check the extent to which data obtained from two different methods are congruent.

## **Simulation**

In relation to the current study, one method that lends itself well for the purposes of triangulation is simulation (Snow and Thomas, 1994). The same type of data is obtained (i.e. strategic choices made under given environmental conditions) but instead of relying on self-reports, as the survey and interviews do, the **SIMULATION** requires participants to make strategic decisions within a context set by the researcher. It recreates a particular environment, either through the use of a computer program or written case scenarios, and allows the user to manipulate this environment, make decisions based on their analysis of changing environmental conditions, and see the effect(s) of their decisions.

Simulation is a problem-solving technique that allows a user to see the effect of a decision without actually implementing that decision (Proctor, 1996; Render and Heizer, 1996; Kinnear et al., 1993; Fredrickson, 1986). A well-designed simulation is able to mimic actual conditions, and allows users access to the same type of information that they need for decision making as what they would normally find in the workplace. The main strength of the simulation lies in its ability to control variables, compress months or years of work into a matter of minutes or hours of computer time, and provide participants with the opportunity to make decisions they would normally make in real life without the associated real-life risks. These strengths are maximised when the simulation has gone through enough testing, and confidence in its ability to mimic actual conditions is firmly established.

In spite of its obvious advantages, the simulation has its drawbacks. Because the simulation takes participants out of their normal working context, the novelty of the experience may create more interest and motivation in the required task (i.e. strategic decision making) than would normally occur in real life (Lawler and Mohrman, 1987). In

addition, participants may treat the simulation merely as a game and thus may take more risks than usual. These limitations can be controlled to some extent by running the simulation under tight time pressure, and where applicable, under competitive conditions whereby participants compete with one another in pursuit of a given objective. Under the combined effect of peer and time pressure, participants are more likely to adopt the same decision-making style they normally use in real life. As research indicates, when making decisions dealing with complex problems or under conditions of uncertainty, individuals tend to simplify the decision-making process by opting for what is known and familiar (Robbins, 1991; Stoner, et al., 1994). The novelty effect can also be minimised through time and peer pressure; as a further measure, the simulation can be run long enough to allow the novelty of the experience to wear off (Lawler and Mohrman, 1987).

Two other research issues also require careful attention. If more than one simulation session is held, the researcher must ensure uniformity in information and administration across all sessions (i.e. inter-session reliability). Further, although the researcher must take care not to let participants know beforehand that the simulation is part of a research study, as knowledge of which might affect their behaviour during the simulation (i.e. the Hawthorne effect), for ethical reasons, their consent on the use of the simulation data for research purposes must be obtained after the simulation.

### **Expert and document review**

Although the simulation provides another means of collecting information about strategic choices, it still relies on the same source (i.e. shipowners) as do the mail survey and interviews. As a further aid to triangulation therefore the same type of data should

be obtained from other sources. This will allow the researcher to compare the responses of one source with those of another; the greater the congruence, the greater the confidence in the data's validity. For the study, two likely sources of information are **EXPERTS** in the Asia-Pacific maritime field whose knowledge of the research topic is widely acknowledged and therefore can verify or shed further light on information provided by shipowners, and maritime **DOCUMENTS** that provide general trade information (general shipping, Asia-Pacific shipping, shipowner-specific information, etc.) or specific company information (company records, strategic plans, etc.). Documents are a particularly rich source of information if access to them can be arranged. They provide valuable information because of what can be learned directly from them, and they can serve as springboards for generating questions and issues to pursue during the interviews.

A summary of data sources, the information sought from them, and the means of obtaining the information is provided in Table 7.1.

**Table 7.1** Types of information from data sources and means of collecting it: Summary table

Data Source	Type of Information Sought	Means of Data Collection			
		Mail Survey	Interview/ Discussion	Simulation	Document Review
Shipowners	General strategic planning approach	●	●	●	
	Selection of corporate strategies	●	●	●	
	Background information on the shipowner	●	●		●
Maritime experts	General economic and maritime trends in the Asia-Pacific region		●		
	Strategic practices of Asia-Pacific shipowners		●		
Maritime documents	Trade information on Asia-Pacific commercial shipping				●
	Strategic planning, strategy selection				●

### 7.3 DATA COLLECTION AND ANALYSIS

Figure 7.1 summarises the five stages in data collection and analysis.

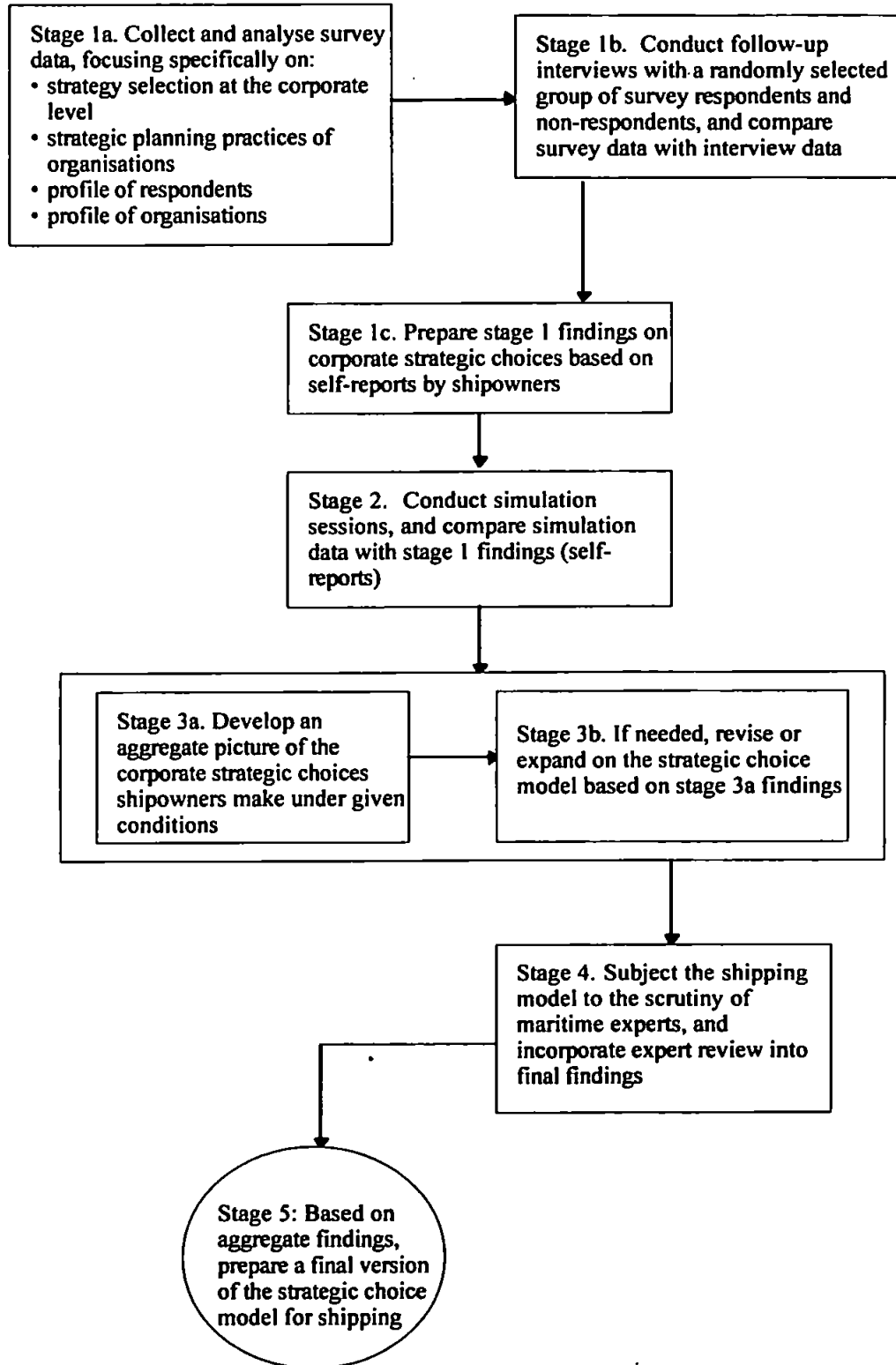


Figure 7.1 Stages in data collection and analysis

As the figure shows, at stage 1, initial data from shipowners was collected through a mail survey, followed by in-depth interviews with a randomly selected group of survey respondents and non-respondents. Both types of data were analysed, and initial findings on the strategic choices made by Asia-Pacific shipowners were arrived at. At stage 2, simulation data was collected and evaluated against stage 1 findings. At stage 3, findings from the survey, interviews and simulation were integrated to produce an aggregate picture of corporate strategic choices made by shipowners. A first iteration of the strategic choice model for shipping, based on information provided by Asia-Pacific shipowners, was prepared. At stage 4, experts were asked to review the strategic choice model for shipping. Their feedback was evaluated against shipowner-generated information, and results were incorporated into the final findings. Finally, at stage 5, the final version of the strategic choice model was prepared. At each stage, data obtained from relevant documents was also included in the analysis. These stages are discussed in further detail below.

### **Stage 1. Survey and interviews**

In preparation for the mail survey, the population of shipowners for inclusion in the study was identified. A survey questionnaire was also developed and pre-tested, and survey questionnaires were mailed to every shipowner in the list. Based on the survey responses, a group of shipowners was randomly selected for follow-up interviews.

#### **1 Identifying the shipowner population**

Using the Lloyd's Maritime Information Services, a list of all commercial shipowners for inclusion in the study was compiled. The list included all shipowners who:

- were based in Australia, China, Hong Kong, Indonesia, Japan, Malaysia, New Zealand, the Philippines, Singapore, South Korea, Taiwan, and Thailand (the major contributors to the economic growth of the Asia-Pacific region)
- managed and operated ships, i.e. ship operators, shipmanagers, managing agents, and disponent owners (this criterion excluded owners and leasing companies who did not directly operate them)
- traded in liner and bulk trades (the two major shipping markets in the Asia-Pacific region)
- operated any of the four major types of commercial cargo-carrying ships, i.e. tankers, bulk carriers, container ships and general cargo ships, as these made up more than 86 per cent of the Asia-Pacific fleet and 84 per cent of the world's fleet (this criterion excluded (a) passenger, RO-RO, gas, chemical and refrigerated cargo ships which made up a small percentage of the fleet and dealt with specialised trades, and (b) non-commercial cargo carrying ships like fish-catching, offshore supply, research, towing, dredging, ice breaking, cable and naval ships and yachts)
- engaged in regional trade within the Asia-Pacific region (this criterion excluded shipowners engaged solely in coastal trades or trades outside the region, e.g. European or American trades)
- operated more than five ships greater than 1000 grt (this criterion is widely used to identify major shipowners (e.g. Lloyd's Register), who are targetted here because they are more likely to use corporate strategies than those who only operate one to three ships)

The initial list of shipowners who met all these criteria was cross-checked against the listings in Lloyd's Electronic Maritime Directory (1996, 1995) and Fairplay's World

Shipping Directory (1996, 1995). A total of 340 shipowners was finally arrived at. Of these, five were selected to pre-test the survey questionnaire; the rest were included in the mail survey.

## **2 Administering the mail survey**

A 10-page questionnaire was developed to obtain information about the strategic decision-making practices of the identified shipowner population. The questionnaire sought information on four areas: the general strategic planning practices of the shipowner, the process normally followed by the shipowner to select and evaluate corporate strategies, the type of corporate strategies the shipowner was likely to make under certain environmental conditions, and background information about the respondent and the shipowner. Questions on corporate strategy choices were based on the strategic choice model presented in Chapter Six (Conceptual Framework).

To ensure that the questionnaire items were clear and the overall questionnaire design was appropriate for the intended respondents, the questionnaire was pilot-tested on a randomly selected group of five shipowners. As noted earlier, these shipowners were part of the identified shipowner population and were subsequently excluded from the survey list because of their participation in the pretest. Based on their comments, the questionnaire was modified and a final version prepared.

Two copies of the survey questionnaire were mailed to each shipowner in the sample, addressed to the senior people (e.g. CEO, president, executive director, managing director, etc.). To improve the response rate, a reminder letter, which included a copy of the questionnaire, was sent a month later. A third reminder was sent the following



month. The overall response rate was 32 per cent, with all completed questionnaires useable. A copy of the survey questionnaire is reproduced in Appendix 3.

### **3 Selecting the interview sample and conducting the interviews**

To cross-check survey information, follow-up interviews were conducted either face to face or by phone with a randomly selected group of survey respondents and non-respondents. Face-to-face interviews were conducted in Indonesia, Malaysia, Singapore, Australia and New Zealand, where simulation sessions were also held. The first three, all in East Asia, were considered the 'emerging tigers' in Asia; the last two represented western-style economies and thus served as a contrast to the Asian economies. Interviews for all other countries were conducted over the phone.

A total of 54 shipowners were interviewed; half represented 25 per cent of survey respondents and the other half were non-respondents. Non-respondents were included to determine comparability with respondents and thereby improve the generalisability of survey findings. The greater the similarity between respondents and non-respondents, the more generalisable the data (Zikmund, 1994). Inter-group comparability was initially established by comparing survey respondents and non-respondents in terms of general company information (geographical location, major market sectors, company size) collected from the shipping literature and company reports. During the interviews, inter-group comparability was further established by collecting the same background data about the interviewees and their organisations as that asked for in the survey questionnaire.

All face-to-face interviews were conducted by the researcher at shipowners' premises. An interview guide, which was based on the survey questionnaire, was used to ensure all

important issues were covered during each interview. The guide focused on open-ended questions to allow individual ideas and experiences to emerge. Efforts were also taken by the researcher to adapt the wording and sequence of the questions to suit the specific interview context.

#### **4 Analysis of survey and interview data**

The survey and interviews elicited both quantitative and qualitative data. Using the quantitative data from the survey questionnaire, a descriptive statistical analysis was conducted to develop a general profile of respondents (current position, years in this position, experience and training in strategic planning, age, sex, nationality, ethnic background), the organisations they belonged to (shipping sectors in which they operated, major Asia-Pacific trade routes, location of the head office, company size in terms of number of ships owned, revenue, and businesses or divisions operated), the general strategic planning practices of these organisations (whether they have a strategic plan, format and time frame of the strategic plan, importance given to strategic planning, estimated percentage of the annual budget spent on strategic planning, frequency of change, success rate), and their corporate strategies (whether they have specific corporate strategies, frequency of review, key factors that lead to changes in strategies, key people responsible for corporate strategy decisions, time spent on strategy selection and evaluation).

The open-ended questions in the questionnaire and the interviews focused on two aspects: the general processes followed by organisations for strategic planning and strategy selection and evaluation, and what specific corporate strategic choices they would make given certain environmental conditions. Data thus gathered was content-

analysed to uncover recurrent trends and patterns. Content analysis is a method used to analyse qualitative data. Like statistical analyses, content analysis also aims to identify 'consistent patterns in the data so that results may be studied and interpreted in a ... meaningful way' (Zikmund, 1994, p. 462). It follows the same process of systematically reducing data into understandable patterns and organising it into a compact form (using narrative text, matrices, graphs, charts, etc.) to permit conclusions to be drawn and verified. However, unlike statistical analyses, which deal with numbers, content analysis deals primarily with words. It is a process that involves chunking together the 'raw' data in the form of field notes, teasing out general themes and patterns from this data, establishing a coding index for easy access to all the data that relates to a particular topic or theme, elaborating on each major theme or pattern, and then drawing conclusions based on these major themes or patterns. Implicit in content analysis is an inductive process of analysis, which begins by identifying specific events or observations and building these into major themes or patterns (Miles and Huberman, 1984; Patton, 1980). Further discussion of qualitative data analysis is in Appendix 2, where the coding index used for the study is presented.

As a final step, findings from both the survey and the interviews were integrated into an initial set of findings. Relevant data obtained from documents was also incorporated at this stage.

## **Stage 2. Shipowner participation in the computer simulation**

Simulation sessions were conducted during the same period that the follow-up interviews were held. Thirty (30) sessions were held in five countries (Australia, New Zealand, Indonesia, Malaysia and Singapore), and a total of 570 senior managers

representing 86 shipowners participated. A qualitative approach was used to analyse simulation data, which came in the form of strategic decisions made by participants over 20 quarters (future outlook, strategic objectives, corporate strategy, fleet structure decisions, and operational decisions, all of which were based on their analysis of company and market conditions), the researcher's observations of participant/team behaviour during the simulation, and post-simulation feedback from a randomly selected group of 90 participants.

### **1 Preparing for the simulation**

Participation in the simulation sessions was voluntary; however, every effort was taken to ensure that those included in the study were members of the study population and that they held senior management positions with authority to make strategic decisions for their respective organisations. Data provided by participants who did not meet these two criteria was excluded from consideration.

To attract shipowner interest, the simulation was conducted as an intensive one-day shipping competition. A one-page flier, which invited shipowners to test their strategic decision-making skills against those of other commercial shipowners, was circulated to shipowners through national shipowner organisations, which organised the competitions in their respective countries. No deliberate effort was taken to invite specific shipowners to the competition; instead, competitions were announced through national shipowner bodies in the various countries and shipowners were asked to respond within a given period of time. There was no direct contact between the researcher and shipowners until the commencement of the competition.

## **2 Conducting the simulation**

The objective of the competition was to turn a financially-troubled shipping company around and earn as much profit as possible. Whoever posted the highest company value at the end of the competition was judged the winner. A computer-based strategic planning simulation program called 'Stratship' was used for this purpose. Produced by the Esmee Fairbairn Research Centre, Stratship is designed to simulate strategic decision making in a shipping company. A detailed description of the Stratship program, including the rationale for its use in the study, is provided in Appendix 4.

At the commencement of the competition, participants were grouped into teams of three or four each. Each team worked under strict time limits, with a maximum of eight (8) hours to complete the program. To ensure uniformity in the information provided to participants and in the administration of the competition, standard documentation was prepared and used during each simulation. This included a one-hour presentation by the researcher using overhead transparencies, a guidebook on the requirements and procedures of the shipping competition, a copy of the Stratship manual, and a booklet of decision sheets that participants must complete for each of the 20 quarters covered by the competition. The sequence of activities was also standardised, with a program of activities circulated to participants during the opening presentation. A description of the materials and administration procedures used for the simulation is found in Appendix 4.

During each simulation, the researcher closely observed participant/team behaviour to gain a better insight into their group dynamics and team decision-making styles. Observations gained through this manner served as another basis for intra-group comparisons.

The day after the conclusion of each simulation session, three participants, chosen at random (i.e. the first, middle and last participant on the list, or the next person if the selected participant was unavailable), were asked to comment on the realism and utility of the Stratship program as well as on overall administrative arrangements (timing and length of session, use of a competition format, and general conduct of the simulation). Discussions were held at the participants' work premises to create a comfortable atmosphere where participants would be at ease and thus would be more inclined to provide candid feedback.

### **3 Analysis of simulation data**

The simulation data collected were of three types: strategic decisions jotted down on quarterly decision sheets, researcher observations of participant/team behaviour during the simulation, and post-simulation participant feedback. Of the 190 sets of decision sheets submitted by the study teams, 174 were useable (i.e. provided all essential information); for the post-simulation evaluation, feedback from all 90 participants was used.

Every quarter, based on information provided by the simulation program, participants analysed the current financial situation of the company and market trends. From this analysis, they made strategic predictions, set strategic objectives and corporate strategies, and made specific strategic decisions affecting fleet structure and operations. The program 'implemented' these decisions, and then informed the participants of the financial outcome and the market response to their decisions. This process was repeated over 20 quarters, thus making it possible to conduct a qualitative analysis of decision patterns over a period of time. Using the coding tools in Appendix 2, responses of

participants on these areas were content-analysed to uncover general patterns of strategic choices. Choices taken under simulated conditions were then compared against shipowners' self-reports to determine the extent of congruence.

At the first stage of analysis, a set of data-classification criteria was developed so that specific quarterly information on company (vessel operating costs, route value, etc.) and market (route market share, market trade indices, etc) conditions could be systematically categorised into being either favourable or unfavourable. Once categorisation on all quarters was completed, strategic decisions were then summarised into a quarterly-decisions summary sheet. The summary included the type of company and market conditions that prevailed in each quarter, the type of strategy selected based on these conditions, and the time frame set for the strategy. This information was assessed in terms of the team's future outlook and the strategic objectives selected on the basis of this prediction. Initial analysis allowed the researcher to identify emergent decision-making patterns at the team level. At the second stage, all summary sheets were analysed to identify more general decision-making patterns and make intra-group comparisons. To complete the picture, researcher observations and post-simulation participant feedback were also incorporated into the analysis. Once this second stage was completed, it was then possible to determine whether the simulation data supported the six assumptions of the strategic choice model and if there were deviations where they occurred.

### **Stage 3. First iteration of the strategic choice model for shipping**

With the data from shipowners integrated into a single set of findings, preliminary conclusions were made about the strategic choice model, particularly in terms of the

research objectives and questions. These initial conclusions were used to make any necessary modifications or changes to the generic strategic choice model and prepare a shipping-specific version of the model.

#### **Stage 4. Expert review of the strategic choice model for shipping**

To test the robustness of the shipping model, 15 leading researchers and practitioners in the maritime field within the Asia-Pacific region were asked to review the model. For this purpose, each expert was given a briefing paper that provided a full description of the strategic choice model, and was asked to critique the model based on a set of open-ended questions. Communication between the experts and the researcher was mainly written, but discussions by phone or fax were also conducted to discuss any issue or provide further information. The reviews from the experts were content-analysed, evaluated against shipowner-generated information, and then incorporated into the final set of findings.

#### **Stage 5. Final version of the strategic choice model for shipping**

At this last stage, the integrated set of findings from shipowners, experts, and documents was used to make final conclusions about the research assumptions. A qualitative approach, against using content analysis, was used for this final synthesis of findings into major conclusions. Based on these conclusions, a final version of the strategic choice model for shipping was prepared. At this stage, implications for further research were also discussed.



## **7.4 SUMMARY**

To determine the applicability of the strategic choice model to Asia-Pacific shipowners, the study used a multi-method research approach called triangulation. Triangulation involves the use of several methods, perspectives, and/or sources to evaluate or validate the same idea. For the study, five methods (mail survey, interviews, computer simulation, expert review, document review) and three sources (shipowners, maritime experts, documents) were used to examine what corporate strategic choices Asia-Pacific commercial shipowners pursued under given environmental conditions. Data gathered was both quantitative and qualitative. Quantitative data was subjected to a descriptive statistical analysis, qualitative data to content analysis. In both types of analysis, the aim was to uncover consistent patterns of behaviour so that meaningful conclusions can be drawn about strategy selection by Asia-Pacific shipowners. Results are discussed in the next three chapters.

## **Chapter Eight**

### **RESEARCH FINDINGS: SURVEY AND INTERVIEWS**

This chapter and the next two present the results of the study. The sequence corresponds to the stages in data collection and analysis discussed in the preceding chapter (see Figure 7.1). In this chapter, survey data is presented first, followed by interview data, and then both sets of data are synthesised into an initial set of findings.

In Chapter Nine, simulation data is analysed and evaluated against survey and interview data. In Chapter Ten, initial conclusions are drawn about corporate strategy selection by Asia-Pacific shipowners; from these conclusions, revisions are made to the generic strategic choice model to reflect more accurately the behaviour of Asia-Pacific shipowners. Finally, comments from experts who reviewed the shipping-based model are presented and evaluated against information provided by shipowners; from this aggregate set of findings, a final version of an Asia-Pacific shipping strategic choice model is then offered.

To set the context for the ensuing discussion, the chapter commences with an overview of the research findings and a profile of the shipping respondents and the organisations they represent.

#### **8.1 OVERVIEW OF RESEARCH FINDINGS**

To what extent were the results, as obtained through several research methods (survey, interviews, simulation, expert review, document review) and from different data sources (shipowners, shipping experts), congruent with one another? The general picture that

emerged was that they were highly congruent, with interview data confirming survey data, and simulation data confirming shipowners' self-reports. Expert opinion also supported shipowner-generated data; however, the quality of the feedback provided was uneven and therefore less useful than anticipated.

### **Primary findings**

In both the survey and interviews, and as evident in the decisions they made under simulated conditions, shipowners provided clear support for the strategic choice model, either following it precisely as intended or modifying its parameters to suit their own strategic ends. Modifications typically involved disregarding environmental conditions when selecting a strategy, pursuing a strategy under conditions not called for by the model, or combining several strategies instead of limiting themselves to the one or two choices prescribed by the model. This trend consistently came up in the survey, interviews, and simulation, highlighting the point that strategic choices were not as clearcut as the model assumed. The shipping-specific strategic choice model, which incorporates these variations, is presented in Chapter Ten.

### **Secondary findings**

In addition to the primary findings on corporate strategy selection, other key secondary trends also became evident. Mostly, these trends involved intergroup comparisons (e.g. liner v. bulk, Asian v. European, large v. small, high performers v. low performers, etc) based on a wide range of factors, for instance, strategic management training and experience, approaches to strategic planning and corporate strategy selection, management/decision-making styles, cultural differences, and methodological considerations. Secondary findings are discussed separately under their respective section

or chapter headings, and their implications to the primary findings and to further research are discussed fully in the final chapter, 'Conclusions and Issues for Further Research'.

## 8.2 SHIPPING RESPONDENTS

A total of 748 respondents participated in the study: 109 in the survey (32 per cent of the survey population), 54 in the interviews (divided equally into survey respondents and non-respondents), 570 in the simulation sessions, and 15 in the expert review. The first three groups provided data on shipowners' strategy selection practices, which was then used to draw up a shipping-specific strategic choice model; the last group reviewed the strategic choice model as a further check of the model's robustness. Table 8.1 shows the distribution of respondents by country and type of research method.

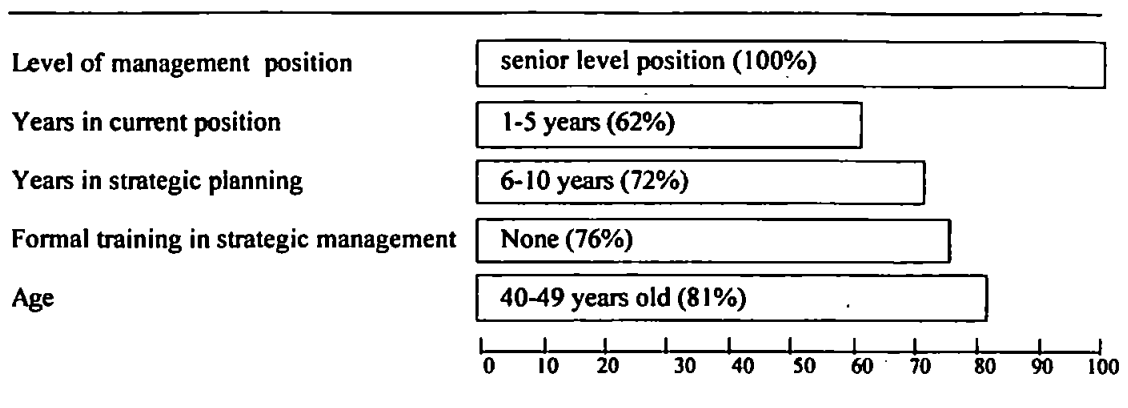
**Table 8.1** Distribution of respondents by country and research method

	Survey	Interviews	Simulations	Expert Review	Total
Australia	6	4	52	2	64
China	7	4	–	–	11
Hong Kong	13	6	165	3	187
Indonesia	10	7	91	1	109
Japan	25	10	–	3	38
Malaysia	7	4	88	1	100
New Zealand	5	4	41	1	51
Philippines	4	2	–	1	7
Singapore	13	6	133	2	154
South Korea	9	2	–	–	11
Taiwan	6	3	–	1	10
Thailand	4	2	–	–	6
<b>Total</b>	<b>109</b>	<b>54</b>	<b>570</b>	<b>15</b>	<b>748</b>

In a number of instances, the same people participated in both the survey and interviews (n=27), in both interviews and simulations (n=13), or in both the survey and simulations (n=8). Taking these overlaps into consideration, the total number of individuals participating was 685. With the 15 shipping experts, the total tally goes to 700.

What were the general characteristics of the shipping respondents? As required by the study, all shipping respondents held senior management positions in their organisations. These positions included senior executive positions (21 per cent) with responsibility for the entire organisation (e.g. chairman of the board, chief executive officer, president, managing director, executive director), senior divisional level positions (66 per cent) with responsibility for major areas/divisions within the organisation (e.g. director, senior manager, general manager), and corporate level positions (13 per cent) with responsibility for the organisation's corporate and/or strategic management activities (e.g. corporate/strategic manager, development & planning manager, corporate planner/strategist).

More than half of the respondents (62 per cent) had been in their current positions for 1-5 years; the remaining 38 per cent for 6-10 years. Many (72 per cent) had been involved in strategic planning for about 6 to 10 years but much of what they knew about it had been learned on the job, with the majority (76 per cent) having had no formal training (university degree or short courses) in strategic planning or management. Most were 40-49 year old males (81 per cent) who held the nationality of the country in which they worked. In terms of ethnic background, the majority were Chinese (42 per cent), European or North American (19 per cent), Indian (12 per cent), and other South Asian (11 per cent); the rest were scattered among the various nationalities represented in the study. The main characteristics of shipping respondents are summarised in Figure 8.1.



**Figure 8.1 General profile of shipping respondents**

Background data on the 54 survey respondents and non-respondents who participated in the interviews showed a high level of similarity between the two groups; they differed only in that on average survey respondents were younger and had more formal training and experience in strategic planning than non-respondents. Data on the simulation participants followed the same set of general characteristics as described above.

### **8.3 PROFILE OF SHIPOWNERS**

The 733 shipping respondents represented 130 shipowners, or about 38 per cent of the shipowner population (n=340) drawn initially for the survey. These shipowners operated in two major market sectors, bulk (53 per cent) and liner (47 per cent). Of these, 19 per cent could be classified as large operators, 46 percent as medium-sized, and 35 per cent as small. Company size was based on the number of ships and businesses/divisions in the company. A shipowner was classified large if it had more than 35 ships and more than 5 businesses/divisions; medium-sized if it had between 10-35 ships and between 3-5 businesses/divisions; and small if it had 5-10 ships and 0-3 businesses/divisions.

### **Strategic planning practices**

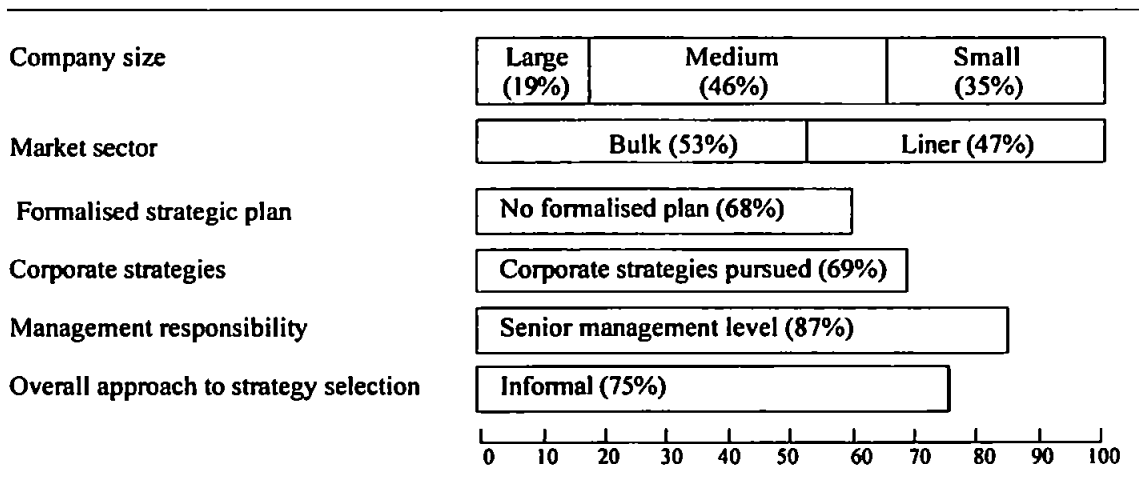
As part of the background data on shipowners, shipping respondents were asked whether their organisations had strategic plans. The general picture that emerged was that the majority of shipowners (68 per cent) had no formalised strategic plans; however, most (84 per cent) did report following a systematic process of decision making. A key feature of this process involved intensive discussions among senior management during which long-term goals and objectives were set and specific means or strategies to achieve them were selected. A small minority (23 per cent) reported using specific analytical techniques (SWOT being the most frequently cited) during these discussions.

The 32 per cent who had strategic plans described their plans as formalised documents that normally covered a 5 year period and were subject to review and change every year or every one and a half years. Strategic planning was a top priority in their companies, with about an average 28 per cent of the company's annual budget spent on strategic activities. Majority of these respondents (82 per cent) were satisfied with their plans, giving them an average of 70 per cent success rate.

### **Corporate strategy selection**

Regardless of whether they had strategic plans or not, majority of shipowners (69 per cent) reported having corporate strategies. Corporate strategies were defined as those strategies that focused on a company's mix or portfolio of businesses and determined which businesses the company should be in and how these businesses should be managed. According to the respondents, senior management was primarily responsible for selecting corporate strategies (87 per cent), which were reviewed every year (74 per cent) and changed when necessary (65 per cent). In most instances, the selection of corporate strategies did not progress into formal plans (75 per cent), mirroring the trend discerned

earlier with regard to the development of strategic plans. These two trends indicated that while the majority might have followed a systematic process of setting goals and objectives and then selecting strategies in support of these goals and objectives, the overall process of strategic planning and strategy selection remained informal. This issue will be raised more fully in the section on interview data. The main characteristics of the shipowners represented in the study are summarised in Figure 8.2.



**Figure 8.2** General profile of shipowners represented in the study

#### **8.4 CORPORATE STRATEGY SELECTION: KEY ISSUES**

Having established that the majority of the respondents had corporate strategies, the next task was to explore the key questions that lay at the heart of the study: What types of corporate strategies would shipowners select under what environmental conditions? How often would these strategies be changed and for what reasons? At a more specific level, would Asia-Pacific shipowners:

- change/modify their corporate strategies in response to changing environmental conditions?



- base strategic changes and the time frames of these changes on their future expectations of environmental conditions?
- pursue a 'grow' strategy when internal (or organisational competitive) and external (or market) environmental factors were both favourable (i.e. the organisation was competitively strong and there were many market opportunities)?
- pursue a 'stabilise' strategy when internal environmental factors were favourable but external factors were not (i.e. the organisation was competitively strong but there were few opportunities and many threats in the market)?
- pursue a 'develop' or 'turnaround' strategy when external environmental factors were favourable but internal factors were not (i.e. there were many market opportunities but the organisation was competitively weak)?
- • pursue a 'turnaround' or 'harvest' strategy when internal and external environmental factors were both unfavourable (i.e. the organisation was competitively weak and there were many threats in the market)?

It will be recalled that these strategic-choice questions are the main assumptions of the strategic choice model. For a review of the model and its assumptions, please refer to section 1.3 of Chapter One (Problem Statement) and section 6.3 of Chapter Six (The Conceptual Framework).

A reminder about nomenclature is also needed at this point. When the model was discussed in Chapter Six, the environmental factors were formally called 'organisational competitive factors' and 'market factors'. The first covered an organisation's competitive strengths and weaknesses; they were internal to the organisation and thus within its direct control. The latter referred to opportunities and threats in the shipping sector(s) in which

the organisation operated; they were external to the organisation and thus outside its direct power to control. Both organisational competitive and market factors were depicted in the form of a continuum, with one end marked 'high' and the other marked 'low'. The more strengths an organisation had and the more opportunities the market offered, the higher was the organisation's strategic position on the matrix; conversely, the more weaknesses an organisation had and the more threats there were in the market, the lower was the organisation's strategic position.

To simplify the terminology and keep it in line with what shipowners typically used, these two formal variable names were also called 'environmental conditions', with 'organisational competitive factors' referred to also as 'internal' or 'organisational' conditions and 'market factors' as 'external' or 'market' conditions. Further, environmental conditions or factors were described as either 'favourable' or 'unfavourable'. They were 'favourable' when an organisation had many strengths and few weaknesses and the market held many opportunities and few threats; they were 'unfavourable' when the converse was true. In the following discussion of results, this latter set of nomenclature is used; however, when it is time to summarise or synthesise results and strategies are plotted in matrix form and compared against the original version of the strategic choice model (see Figures 8.3), the formal variable names (organisational competitive factors and market factors), differentiated in terms of strengths/weaknesses and opportunities/threats along a high-low continuum, are used instead.

## **8.5 SURVEY DATA**

Survey data (32 percent of the survey population, or 109 respondents) indicated strong support for the strategic choice model. Results are summarised in Table 8.2.

**Table 8.2 Survey responses to the six assumptions of the strategic choice model (n=109)**

Assumptions of the Model	Categories of Responses (%)				
	Yes	Yes, but	Unsure	No	No Reply*
Asia-Pacific shipowners will:					
1 change/modify their corporate strategies in response to changing environmental conditions	85	7	5	–	3
2 base strategic changes and the time frames of these changes on their future expectations of environmental conditions	80	–	9	9	2
3 pursue a 'grow' strategy when internal and external environmental factors are both favourable	76	8	4	9	3
4 pursue a 'stabilise' when internal environmental factors are favourable but external factors are not	72	9	9	5	5
5 pursue a 'develop' or 'turnaround' strategy when external factors are favourable but internal factors are not	68	–	16	12	4
6 pursue a 'harvest' strategy when internal and external environmental factors are both unfavourable	52	17	21	9	1

\*Please note that 'no replies' are not referred to in the discussion.

Discussion of survey results is organised around the six assumptions of the strategic choice model, which are presented in the form of questions. Responses to the first two assumptions were drawn from survey questionnaire items 14-15 (how often corporate strategies were reviewed/changed, and why), 17 and 19 (process for selecting and/or evaluating strategies), and 22-25 (conditions under which any of the five corporate strategies would be pursued). Responses to the next four assumptions were drawn from questionnaire items 22-33, which asked respondents to identify either the conditions under which any of the five corporate strategies would be pursued or which corporate strategy to pursue given certain internal and external environmental conditions. For those with strategic plans, their responses to questionnaire items 8-9 (how often strategic plans were reviewed/changed and why) were also used. Responses per questionnaire item were categorised using the coding index in Appendix 2. A copy of the survey questionnaire is in Appendix 3. The list of internal (organisational) and external (market) environmental

conditions or factors is found in Appendix 5; this list incorporates the major conditions identified by respondents in the survey, interviews and simulation. The code numbers in parentheses preceding each question (SQ-Q1, etc) stand for 'Survey Questionnaire-Question 1' etc.

**(SQ-Q1) Will Asia-Pacific shipowners change/modify their corporate strategies in response to changing environmental conditions?**

There was strong agreement among respondents (85 per cent) that they would change their corporate strategies in response to changing environmental conditions, whether these were internal or external to the organisation. The need to remain flexible and be able to respond to changing times was high in respondents' lists, and was seen as the key to survival. A further 7 per cent gave a qualified yes, saying that although they would tend to do so, they would not if the change would compromise the objectives they wanted to achieve. In such instances, some suggested that they might ignore environmental trends altogether. 'If for instance external conditions suggested lowering a freight rate objective that we'd set,' said a respondent, 'we'd be more inclined to ignore the market signals and stick to our objective.' The remaining 5 per cent were not prepared to commit to a definite position, saying it would depend a lot on the circumstances; in the words of a corporate strategist, 'some changes you can leave alone, others you have to act upon; so it all depends'.

**(SQ-Q2) Will Asia-Pacific shipowners base strategic changes and the time frames of these changes on their future expectations of environmental conditions?**

Majority (80 per cent) agreed that they would, and did, base changes to corporate strategies and the time frames of these changes on what they perceived the future of their organisations and the market would be. Respondents indicated that such future

expectations were based not only on their own perceptions but also on the preferences and priorities of primary stakeholders (shareholders, boards of directors, etc.) Some 9 per cent were unsure whether they would take this course of action, saying it would depend on the magnitude of the change contemplated. A final 9 per cent disagreed, saying that there were many more factors than mere future expectations to influence strategic changes. The most frequently cited factors were strategic vision (i.e. a company's long term goals and objectives), financial credit availability (i.e. ability to expand), global and regional political and economic conditions, and strength of the competition (as one managing director put it, 'if our competitors are weaker than us, why change?').

**(SQ-Q3) Will Asia-Pacific shpowners pursue a 'grow' strategy when internal and external environmental conditions are both favourable?**

There was clear agreement on this question, with 76 per cent saying they would pursue a 'grow' strategy under favourable environmental conditions, that is, they would seek to expand if the organisation was competitively strong and the market offered many opportunities. Another 8 per cent also said yes, but qualified their response by adding that as a matter of strategic policy, they would seek to grow regardless of external conditions, provided their organisation was capable of carrying out the strategy. Some 4 percent were unsure whether they would, saying their decision depended on other factors such as the strength of their competitors and the objectives and targets set by their organisation. The remaining 9 per cent disagreed, saying that environmental factors were not their primary basis for choosing a strategy; in many instances, owner/major stakeholder preferences and priorities dictated strategic choices, regardless of environmental conditions.

**(SQ-Q4) Will Asia-Pacific shipowners pursue a 'stabilise' strategy when internal environmental factors are favourable but external environmental factors are not?**

There was also clear consensus on this question. The majority (72 per cent) would choose to stabilise if the organisation was strong but the market posed many threats, that is, they would aim to maintain the status quo, making minor changes only to better deal with these threats. Another 9 percent also said yes but qualified their response by stating that they would do so only 'under normal circumstances'; it was not clear, however, what 'non-normal' circumstances were, as most did not elaborate on this response. However, the comment of one executive director could be an indication of likely scenarios when organisations chose not to take the safe course. According to this respondent, if their competitors were not strong, they would 'take a gamble and milk the market for as much as we could; we would decide to expand [i.e. grow], for instance, even when market conditions were supposed to be bad for business'. Around 9 per cent were unsure whether they would choose this strategy, saying it would depend on current circumstances; a number opted for the 'grow' strategy as a likely alternative. A further 7 per cent said that they would not choose 'stabilise' at all.

**(SQ-Q5) Will Asia-Pacific shipowners pursue a 'develop' or 'turnaround' strategy when external environmental factors are favourable but internal environmental factors are not?**

Majority of respondents (68 per cent) agreed that they would choose a 'develop' or 'turnaround' strategy to take advantage of favourable market conditions particularly if their organisation was competitively weak and facing financial problems. Responses accompanying this choice indicated that a 'turnaround' strategy, which involved reducing or cutting out unprofitable activities or operations to contain the financial haemorrhage, was seen as an emergency 'do it now' measure to avoid financial failure, while the

'develop' strategy, which involved entering into profitable trades where the organisation was weak but where it could build its competitive strength, was a more deliberately planned rescue attempt. Another 16 percent were unsure as to what strategy to pursue, opting for the typical 'depends on circumstances' reply but providing no further elaboration. The remaining 12 disagreed, saying that to escape from a bad situation one required a more innovative approach such as a 'grow' strategy, as this allowed the organisation to optimise its strengths.

**(SQ-Q6) Will Asia-Pacific shipowners pursue a 'harvest' strategy when internal and external environmental factors are both unfavourable?**

Responses to this item were more dispersed. Although 69 per cent said yes to this item, their answers fell into three categories: (a) 52 per cent firmly agreed that a 'harvest' strategy, which involved selling off an unprofitable business (or parts of it), would be the preferred choice when the market held few opportunities and the organisation was weak or in financial trouble; (b) 7 per cent were more tentative, saying they would do so most of the time, but would make an exception if they had strategic reasons for staying in the area (e.g. if they believed the market would improve); (c) 10 per cent said that they would pursue a 'harvest' strategy regardless of environmental conditions if they found better alternatives elsewhere or if there had been a change in strategic direction.

Of the remaining respondents, 21 per cent were not certain whether to take this course of action, while 9 per cent firmly disagreed, saying they would not choose a 'harvest' strategy regardless of environmental conditions, preferring a 'turnaround' strategy or occasionally a 'grow' strategy. A likely reason for the last group's reluctance could be discerned from the responses of some respondents: shipping was their business, and they would find it difficult to get out of the area unless there were better alternatives in sight.

Thus it was more acceptable to try turning around the fortunes of the company [i.e. turnaround] or, to a lesser extent, seek to grow.

### **Summary of primary survey findings**

From the six main findings about strategy selection among Asia-Pacific shipowners, several primary trends could be identified:

- Survey data provided strong support for the strategic choice model. Agreement was particularly strong with regard to the model's first four assumptions: a big majority said they would change or modify their corporate strategies in response to changing environmental conditions (85 per cent), base strategic changes and their time frames on future expectations of environmental conditions (80 per cent), pursue a 'grow' strategy when internal (or organisational) and external (or market) conditions were favourable (76 per cent), and pursue a 'stabilise' strategy when internal conditions were favourable but external conditions were not (72 per cent). However, agreement slightly weakened when it came to the use of 'develop' and 'turnaround' strategies (68 per cent) and even more with 'harvest' strategies (52 per cent).
- A likely explanation for the lesser degree of agreement in the use of the 'develop', 'turnaround', and 'harvest' strategies lies in the nature of these strategies. All three are prescribed when the organisation is weak and/or in financial trouble; they are meant to bail the organisation out to allow it to regain financial health. One involves taking a gamble by venturing into areas which are profitable but where the organisation is not competitively strong; the other two involve excising unprofitable operations to stop further financial loss. Under these circumstances, survey data revealed two sets of responses: one was aggressive, the other conservative. Those who took an aggressive stand preferred to gamble, opting for more risky strategies like 'grow' and 'develop'



to get themselves out of trouble because while the risks were high so were the rewards; they would also try 'turnaround' before 'harvest'. Those who took a more conservative approach preferred strategies which carried less risk, such as 'stabilise', or if they were in trouble, they would opt for a 'turnaround' or 'harvest' strategy rather than pursue a 'grow' or 'develop' strategy.

- Another trend that emerged from the survey data was the link between experience in strategic management/planning and level of uncertainty when making strategic choices. Those who said they were not sure which strategy to pursue under which environmental condition tended to be younger and less experienced; underlying their uncertainty (typified by such answers as 'not sure' or 'depends on circumstances') could have been a simple lack of knowledge of the field (i.e. of shipping and strategic decision making) to enable them to make educated guesses, and as a result, a lack of confidence in providing definitive answers.
- While there was overall consensus on the choice of strategies, survey data also showed that choices were not as clearcut as the strategic choice model assumed. Rather than restrict themselves to the choices offered by the model, respondents tended to widen the field by combining or substituting strategies. Among those who supported the model, the 'grow' strategy emerged to be a popular choice, pursued regardless of environmental factors and often in combination with other strategies to give an organisation a better strategic balance. The most frequently used combinations of strategies are plotted in the four quadrants of the matrix in Figure 8.3, with those in parentheses representing shipowners' additions.

		Organisational Competitive Factors	
		High (Strengths)	Low (Weaknesses)
Market Factors	High (Opportunities)	<b>Quadrant 1</b>  <b>Grow</b>	<b>Quadrant 2</b>  <b>Develop Turnaround (+ Grow)</b>
	(Threats) Low	<b>Quadrant 3</b>  <b>Stabilise (+ Grow)</b>	<b>Quadrant 4</b>  <b>Harvest (+ Turnaround)</b>

**Figure 8.3** Matrix of strategic choices based on survey findings

As noted earlier, environmental conditions or factors were described as ‘favourable’ when an organisation had many strengths and few weaknesses and the market held many opportunities and few threats; they were ‘unfavourable’ when the converse was true. Thus the more favourable the conditions were, that is, the more strengths the organisation had and the more opportunities the market offered, the higher was an organisation’s strategic ‘position’; conversely, the less favourable the conditions, the lower its position.

- It should also be noted that the answers given by respondents did not always fit easily into the four quadrants of the model. In a few cases, respondents chose to pursue more of the functional-type strategies, with marketing strategies cited frequently. In other instances, the strategy could not be firmly ascertained because of poor wording. However, because such cases were very few, they had been excluded from the discussion.

### **Other survey findings: Secondary trends**

The following secondary trends also emerged from the analysis:

- *Company size.* The larger the company, the greater the likelihood that a formal strategic planning system was in place. Data showed that larger liner operators (58 per cent) were more likely to have strategic plans than small liner operators (23 per cent) and bulk operators (19 per cent).
- *Training and experience in strategic management.* Younger respondents (up to 50 years old) were more highly trained/educated in management but lacked experience; older respondents (older than 50 years old) were more experienced but lacked formal training. About 74 per cent of the first group had received some formal management training (short course or degree) in contrast to 17 per cent of the second group. Only a small percentage (9 per cent) reported having both attributes. In terms of nationality, respondents from Australia, Japan, New Zealand and Singapore (68 per cent) had more training and experience in strategic planning/management and applied more resources to strategic activities than those from the other countries. They also provided more details on their survey forms.
- *Language difficulties.* Some indication of language difficulties surfaced in the survey responses. Responses that showed greater fluency in English were more detailed (71 per cent), while those that did not were more sparse and/or difficult to understand.

### **8.6 INTERVIEW DATA**

Interview data came from 54 respondents, half of whom (or 25 per cent) were randomly selected from the group of survey respondents and half from the group of non-respondents. Background data collected on both groups showed a high level of

comparability, both in terms of respondent and company characteristics.

During the interviews, survey non-respondents were asked why they had not responded to the questionnaire. A small majority (41 per cent) cited lack of time and 'too many commitments' at the time the questionnaire arrived. Others (22 per cent) cited difficulty in answering the questions because they were not very fluent in the use of the English language or were unfamiliar with strategic planning concepts and therefore had great difficulty putting their ideas into words. 'We do talk of strategies', one respondent said, 'but not in the terms you had them in the questionnaire, so I was not sure how to proceed.' Others (27 per cent) cited confidentiality of information; as one respondent frankly said, 'putting down in writing our ideas on how we keep our company competitive and then giving this information to some outside organisation which we don't know much about is not very prudent; it is being very foolish. For all we know you might be working for the competition'. To these interviewees, concern was strong that commercially sensitive information could be used for purposes not favourable to the company, hence, their decision not to respond to the questionnaire. The rest (10 per cent) preferred not to give any explanation.

In contrast to the survey, requests for personal interviews were met with interest mainly for two reasons: one, because the interview was seen as a good chance to learn more about strategic planning and corporate strategy selection (44 per cent) and two, because the interviews were arranged through personal contacts, who vouched for the researcher's credibility and intent (34 per cent). As one CEO smilingly put it, 'If it weren't for my good friend ... putting in a good word for you, I would be somewhere else right now.' The remaining 22 per cent agreed to the interviews either because they had the time so

they gave it, especially since the researcher had travelled a long way to see them, or because they were curious about what the researcher had to say.

On the main question of corporate strategy selection, interview data followed similar trends as survey data; however, some key differences also surfaced. In particular, interviews revealed a greater tendency to combine strategies and that an informal approach to strategic planning and strategy selection was more widely practised than suggested by survey data. Findings are discussed below and summarised in Table 8.3. The conditions upon which responses in the table are based are listed in Appendix 5. To maintain uniformity in data presentation and facilitate comparison, interview findings are also organised according to the six assumptions underlying the strategic choice model. The code numbers in parentheses preceding each question (I-Q1, etc) stand for 'Interview-Question 1' etc.

**Table 8.3 Interview responses to the six assumptions of the strategic choice model (n=54)**

Assumptions of the Strategic Choice Model	Categories of Responses (%)			
	Yes	Yes, but...	Unsure	No
Asia-Pacific shipowners will:				
1 change/modify their corporate strategies in response to changing environmental conditions	75	12	6	7
2 base strategic changes and the time frames of these changes on their future expectations of environmental conditions	44	16	35	5
3 pursue a 'grow' strategy when internal and external environmental factors are both favourable	63	22	8	7
4 pursue a 'stabilise' when internal environmental factors are favourable but external factors are not	61	19	15	5
5 pursue a 'develop' or 'turnaround' strategy when external factors are favourable but internal factors are not	52	25	16	7
6 pursue a 'harvest' strategy when internal and external environmental factors are both unfavourable	65	–	31	4

**(I-Q1) Will Asia-Pacific shipowners change/modify their corporate strategies in response to changing environmental conditions?**

Majority (75 per cent) agreed on this item, saying flexibility was critical to long-term survival. They followed this approach as a matter of policy, but the magnitude of the change depended on the specific issues involved. Citing the current financial crisis gripping East Asia, one company president said, 'So far this monetary curse has spared [our country], but our trading partners [elsewhere in the region] are in real trouble. Here [in our company] we have ongoing top-level meetings to keep a close eye on things so can plan ahead. We have two or three contingency plans on the drawing board, so we'll see what happens next.'

The other 12 per cent also said yes, but they did so on a more selective basis. 'Most of the time' they would change or modify their corporate strategies due to environmental changes but they would *not* do so if they wanted to take a gamble, alternative strategies were not acceptable to management, and/or organisational politics dictated otherwise. On this last point, if a proposed change led to disagreement among the senior people, for instance, the group might decide to keep the status quo rather than change to avoid further arguments and dispute (the groupthink problem).

About 6 per cent would not commit themselves either way, saying that any action taken would depend on the type and magnitude of the environmental change(s) involved. The remaining 7 per cent said environmental changes, particularly external ones, would not influence their choice of corporate strategies. 'We would follow our vision and long-term objectives,' confided a general manager, 'rather than be swayed by changes in environmental conditions, which we see as mostly short term. Of course we need to take precautions when major problems hit, like this currency crisis we're having now, but it

does not mean we need to change our long-term goals and strategies.’ Another commented: ‘We are here for the long run; we need to project what we want to be 10-15 years from now, so we must be able to take current changes in the environment within this long-term perspective.’

**(I-Q2) Will Asla-Pacific shipowners base strategic changes and the time frames of these changes on their future expectations of environmental conditions?**

Unlike the other five assumptions, consensus on this point was weaker, with responses dispersed more widely. A slight majority (44 percent) firmly agreed, saying that future expectations played a major role in their strategic choices. ‘If we do not believe the market is going to be good,’ said one, ‘then we would have to decide whether we stay or we go.’ ‘That’s why we need to keep on top of things,’ explained another, ‘and know what the market trends are. The problem though is getting the right information when you need it; if it’s not there, and often it isn’t, then you rely on yourself, on your own intuition, to help you make the decision.’

A smaller group (16 per cent) also agreed, but they qualified their response by saying that if there were attractive opportunities around, they would disregard future expectations and take advantage of current opportunities. Thus even if market conditions were predicted to be bad, if they could obtain credit or purchase new tonnage under highly favourable terms, they would do so. ‘It will be taking a big risk,’ said one respondent, ‘but if we pull it off, then we gain a lot.’ Others indicated favouring a similar approach, which could be aptly described as the ‘gambler’s choice’.

A large number of respondents (35 per cent) were not sure if they would consistently take this approach. While they agreed that future expectations of environmental conditions, particularly market conditions, were an important factor to consider, they

were less certain as to whether they would actually institute strategic changes based on market expectations alone. This group preferred a broader base for their decision making so that along with market expectations, other key factors areas as organisational goals and objectives, ship prices, financial credit availability, and current freight rate levels were also taken into consideration. How opportunities in these various areas balanced up determined the type and time frame of strategic changes.

The remaining 5 per cent said they would not change: for some, it was a case of 'once we make a decision, then we follow it through'; for others, it was a case of organisational politics. With senior management performance increasingly assessed against strategic plans (or, in the absence of plans, against long-term goals and objectives), many senior managers in this group voiced a reluctance to advocate changes, especially major ones, for fear this would lead to a loss of current privileges, incentives, and/or bonuses or to the adoption of performance criteria that would be less favourable to them. A number of respondents also said the attitudes and perceptions of the board of directors could be a deterrent to change; in some cases, changes were vetoed because influential members of the board did not like or were suspicious of major or too many changes. At other times if senior management did not express any strong views toward the need to change, the status quo prevailed.

**(I-Q3) Will Asia-Pacific shipowners pursue a 'grow' strategy when internal and external environmental conditions are both favourable?**

About 63 per cent agreed they would pursue a 'grow' strategy when market opportunities were excellent and their organisation had the capability to push through the strategy. As one manager put it, 'In this game you can only get ahead if you are willing to take chances. When things are good and there are lots of opportunities about, you need to



take swift action. If you're too cautious or indecisive, you get left behind.' A further 22 per cent also agreed but said that they would not necessarily restrict themselves to a 'grow' strategy alone but would use it in combination with other strategies such as 'develop' and 'stabilise'. This seemed to be a preferred option of larger operators which owned or operated several businesses/divisions. In areas where they were more vulnerable, they said they would choose a 'develop' strategy to improve their competitive strength; in areas that were more stable, they would choose a 'stabilise' strategy to maximise profits.

Some 8 per cent were unsure, saying 'it would depend on the circumstances'. Even after reviewing previous decisions, they remained unsure as to whether environmental factors had been the single most influential factor leading to the use of a 'grow' strategy. However, a number did say that their choice of strategy often depended on the level of risk the board was prepared to accept: if pursuing a 'grow' strategy would expose their organisation to too many risks, either they would lower the target or objective they had set or they would choose an alternative strategy to reduce the risks.

The remaining 7 per cent firmly disagreed, offering arguments similar to those given by the 'unsure' group. To them a 'grow' strategy was always a risky proposition and even under favourable conditions, they would look for a less risky strategy, such as 'stabilise', that would give them consistent returns. These respondents pointed out that a lot of shipowners pursued 'grow' strategies regardless of environmental conditions; there had been too much expansion due to this indiscriminate pursuit, which was why profitability in shipping was low (i.e. 7-12 per cent return in investment was frequently cited). Rather than grow, therefore, this minority group opted to stabilise, which carried less risk.

**(I-Q4) Will Asia-Pacific shipowners pursue a 'stabilise' strategy when internal environmental factors are favourable but external environmental factors are not?**

Majority (61 per cent) said yes to this item, particularly when they were in a position to maximise profits. This strategy was widely accepted as a short-term measure. As one strategist put it, 'If we're on top, or at least close to it, we'd milk the market for as much and for as long as we could. Then we'd change tactics.'

Another 19 per cent also said yes but qualified their response by saying that they would not limit themselves to a 'stabilise' strategy alone but would use other strategies such as 'grow', 'develop', and 'harvest' either in combination or as substitutes. According to this group, they would take this approach to balance off strengths and weaknesses, spread out the risks, and thus give themselves better protection from market uncertainties. Some respondents in this group (12 percent) attested to the virtue of combining strategies, bringing out internal documents that showed how the use of alternative strategies had helped improve the company's financial performance.

Around 15 per cent were unsure, saying their choice of strategy would depend on circumstances, particularly on the longevity and severity of market threats. They wouldn't categorically say a 'stabilise' strategy would be appropriate unless they knew what the specific circumstances were. The remaining 5 per cent said that they would not use a 'stabilise' strategy at all; they would opt for a 'grow' or 'develop' strategy instead because these strategies would enable them to increase their market lead and allow them to achieve greater returns than was possible with the more conservative 'stabilise' strategy.

**(I-Q5) Will Asia-Pacific shipowners pursue a 'develop' strategy or 'turnaround' strategy when external environmental factors are favourable but internal environmental factors are not?**

A slight majority (52 per cent) firmly agreed, with a further 25 per cent saying that they would do so in combination with a 'grow' strategy. Both groups gave the same line of reasoning as proffered by the strategic choice model: they would pursue a 'turnaround' strategy to get out of financial trouble; and in areas where the organisation was competitively weak but had the capacity to surge ahead, they would pursue a 'develop' strategy to improve the organisation's competitive strength. The second group, however, went a step further; in addition to these two strategies, which they called short-term, they also said they would pursue a more long-term 'grow' strategy to build on their strengths. 'You really need a package of strategies,' said one respondent, 'so that you can dodge bullets here, beat the enemies there, and have a rest in between.'

Another 16 per cent were unsure, stating no preference for either strategy or saying that they were not sure what answer to give. Even when asked further what they would do if they were weak but there were many opportunities in the market, this group showed a reluctance to commit themselves to either strategy which they saw, in the words of one respondent, as 'risky steps for an already shaky organisation'. There were several likely reasons for this reluctance: lack of confidence, particularly among the younger and less experienced managers; fear of failure, particularly where the organisational climate was not very forgiving of managerial/strategic mistakes or miscalculations; or simple managerial laziness. However, none of these underlying reasons were brought into the open with this group of respondents; because of the potential for conflict and antagonism, the researcher decided not to probe further.

The remaining 7 per cent said that they would not use either strategy, opting for the 'grow' strategy instead because in an environment where there were lots of opportunities, it was better to take an aggressive approach to give them the capacity and economies of scale to improve their competitive position. To a great extent, this last group served as the counterpoint of the 'unsure' group: where the 'unsure' group dithered, the 'grow' group gambled.

**(I-Q6) Will Asia-Pacific shipowners pursue a 'harvest' strategy when internal and external environmental factors are both unfavourable?**

Majority (65 per cent) said that they would pursue a 'harvest' strategy when internal and external environmental conditions were both unfavourable. 'Better cut your losses while you can' easily summarised the sentiments of this group. However, a large 31 per cent were unsure. The question generated a lot of emotive statements from interviewees because a 'harvest' strategy meant getting out of a business which they knew and possibly into a new one which they did not, or even getting out of shipping permanently unless they had a way of turning the company's fortunes around. Most said they would try as hard as they could to save the business before they would even contemplate a 'harvest' strategy. Explaining this 'do or die' approach, a chairman of the board said: 'Shipping is our business, so we will fight to the bitter end for our survival. The only acceptable strategy is one that will enable us to save the business, especially one which is focused on establishing a sound financial base within a niche area. This could mean a significant downsizing of the company, so we'll have to be prepared to get out in some areas [i.e. harvest] and improve those with greater potential for success [i.e. turnaround].'

The remaining 4 per cent disapproved of this strategy altogether, saying they would choose other strategies instead. Again, the 'turnaround' strategy emerged a popular

choice, with the group echoing the same views and sentiments as those expressed by the 'unsure' group. However, while the 'unsure' group was willing to move to a 'harvest' strategy when all things failed, this last group was not. It was unclear, however, whether this 'last stand' approach was mere bravado or a true test of strategic grit ('defeat is not part of our vocabulary'); in the end, if efforts to save an ailing business failed, the result would still be 'harvest', except this time it would be forced upon a company that would have used up all its options.

### **Summary of primary interview findings**

The analysis of interview data revealed the following primary trends:

- Like the survey, interviews revealed a close adherence to the strategic choice model; however, as the percentages in Table 8.3 show, agreement was less strong and responses more widely dispersed. The majority of interviewees would change or modify their corporate strategies in response to changing environmental conditions (75 per cent), and they would pursue a 'grow' strategy when internal (or organisational) and external (or market) conditions were favourable (63 per cent), a 'stabilise' strategy when internal conditions were favourable but external conditions were not (61 per cent), and a 'harvest' strategy when both internal and external conditions were unfavourable (65 per cent). However, agreement slightly weakened when it came to 'develop' and 'turnaround' strategies, with a little over a half (52 per cent) giving a firm yes, and even more to the use of future expectations of environmental conditions as basis for strategic changes, where less than half (44 per cent) agreed without offering any qualifications.
- To a great extent, this wider dispersal of responses, particularly between those that gave an unqualified 'yes' response and those that also said 'yes' but attached

qualifications to it, could be attributed to the fact that the interviews gave both the researcher and interviewees the opportunity to explore the questions in greater depth and to tease out various possible ways organisations would act under changing environmental conditions. Interviewees were able to spell out the various factors that influenced their strategic choices, and these factors did not always coincide with what the model assumed. For instance, future expectations, while important, were often weighed against other considerations and they did not always end up as the primary arbiter of change; in fact there were occasions when they were disregarded in favour of higher-value factors. Interviews also provided further support for two trends that surfaced from survey data: one, that the uncertainty shown in choosing strategies was due to a relative lack of experience in shipping and management and a resultant lack of confidence; and two, that in terms of strategy selection, shipowners fell into two streams: those who were prepared to gamble and thus chose aggressive proactive strategies (grow, develop), and those who took a more cautious ('tried and tested') route, opting for strategies that allowed them to reduce or spread the risks (stabilise, turnaround, harvest). Finally, interviews also led to a fuller explanation of shipowners' reluctance to pursue a 'harvest' strategy. While they would not admit it in writing, a number of respondents saw the 'harvest' strategy not in simple hard-nosed, strategic terms but at a more emotional level: it was a sign of failure, it brought on fear of the unknown (i.e. how to compete in areas where the organisation had no requisite resources and expertise), and it posed a major threat to the respondents' own lives and careers.

- As in the survey, interviews also showed a strong tendency to 'mix and match' strategies, with the 'grow' strategy emerging as the most popular choice, its selection

based more on the strategic objectives set by the organisation and its future expectations rather than on environmental conditions. Many respondents said they would pursue a 'grow' strategy even when market conditions were not favourable or the organisation was competitively weak. To optimise opportunities and spread risks, they would combine 'grow' with (a) stabilise and/or develop, (b) stabilise, develop, and/or harvest, and (c) develop and/or turnaround. These choices are plotted in matrix form in Figure 8.4.

		Organisational Competitive Factors	
		High (Strengths)	Low (Weaknesses)
Market Factors	High (Opportunities)	<b>Quadrant 1</b>  Grow (+Stabilise) (+Develop)	<b>Quadrant 2</b>  Develop Turnaround (+Grow)
	(Threats) Low	<b>Quadrant 3</b>  Stabilise (+ Grow) (+ Develop) (+ Harvest)	<b>Quadrant 4</b>  Harvest (+ Turnaround)

Figure 8.4 Matrix of strategic choices based on interview findings

It is worthwhile noting that while most choices fell within the quadrants of the model, there were instances when categorisation became initially problematic because the respondent could not explain the strategy in a manner the researcher could comprehend or would choose a business-type strategy such as lowest freight rate strategy (cost focus) or tailored service strategy (differentiation). Further discussion, however, clarified much of this initial confusion.

#### Other interview findings: Secondary trends

In addition to the major findings on corporate strategic choices, other secondary trends emerged from the interviews. Foremost among these were the role of the top executive in

strategic decision making, the lack of external information to guide strategy selection, the lack of formal training in strategic management, and the prevalence of an incremental approach to corporate strategy selection. Differences in strategic planning practices also emerged between various sub-groups in the interview sample.

- *The role of the top executive.* One finding that surfaced in the interviews but not in the survey was the role of the top executive in strategic decision making. In the survey, respondents simply listed the key people involved in strategic decision making without delineating their relative importance in the decision-making process. During the interviews, however, one major difference emerged: among some shipowners, the decision-making structure was more participative; among others, it was more autocratic. Among managers of European descent, decision making was seen as a participative process involving several layers of management: senior management had primary responsibility but lower to middle level managers were also expected to contribute to the process; even within the senior ranks, responsibility for decision making was shared. Among East Asian managers, however, the top executive (e.g. CEO, President, Chairman) emerged as *the* decision maker, who decided who among those below him or her would contribute to the decision-making process and to what extent they were expected to do so. All other managers were expected to play a supportive role, as follower and adviser.
- *Lack of external information and evaluation tools to guide strategy selection.* Interviews showed that the majority of respondents did not have access to a wide range of information sources to help guide their choice of the most appropriate corporate strategy. While most used internal financial information, very few used a



lot of external information sources, especially statistical information sources and databases on market trends like Fearnley's or Lloyd's. Shipbroker reports and trade journals like Fairplay, Lloyd's Shipping Economist, Lloyd's Maritime Asia, and Asian Shipping were the most frequently cited sources of external information.

- *Lack of training in strategic management.* Another major issue that surfaced during the interviews was the difficulty faced by many interviewees in conceptualising and describing their strategies. To a great extent, this could be attributed to their lack of familiarity with the strategic management field. In response to a side question asked of interviewees, many said they read trade journals and popular business magazines almost exclusively; of the many journals on strategic management today, they could only cite a few (the Harvard Business Review was the most frequently cited) and admitted to having read them only once or twice (or 'occasionally') or not at all.

This lack of familiarity with strategic management ideas and practices could in turn be attributed to a lack of training in the area, as evidenced by the number of respondents in senior level positions with no formal strategic management training (see section 8.1). This is also borne out by a recent survey, conducted by the Far Eastern Economic Review, on management needs in Asia (Granitsas and Saywell, 1997). According to the Review's estimates, various Asian countries 'do not have enough skilled business managers to cope with demand over the next 10 years' (p. 2). The Review also cites another survey, conducted by the executive search firm Korn/Ferry International, which shows that all across Asia, demand for senior and middle executives is particularly acute. These people are expected to have a good grasp of finance and marketing, understand how multinational companies do

business, and demonstrate a good working knowledge of their chosen industry, management thought and practice, and commercial realities. Although steps are being taken by government and private industry alike to solve this enormous need for skilled managers, at present, demand is far outstripping supply.

- *An incremental approach to corporate strategy selection.* Another major pattern that emerged from the interviews was that the most prevalent strategic approach used by respondents, regardless of trade (i.e. liner, tanker, dry bulk), was far more informal than that reported in the survey or prescribed by the formal planning model (with its emphasis on rational and analytical planning procedures and techniques) and more closely resembled the incremental model (which saw planning as an informal, fragmented, intuitive, evolutionary, and political process). Indeed, interviewees voiced a strong reliance on what one senior manager described as 'an intuitive, trial-and-error approach' to strategy development. This approach was particularly popular among Asian senior managers who said it came naturally to them and had served them well in the past. Further discussions showed that apart from natural inclination, another reason for the popularity of the incremental approach could be that it reduced the level of risk that managers had to take, particularly as the shipping environment became more globalised, more competitive, and therefore more uncertain and risky, and as managers were increasingly held accountable for strategic decisions and organisational performance.

The use of an incremental approach, however, did not necessarily mean a deliberate adherence to the incrementalism school of thought; many respondents were as unfamiliar of this area of management thought as they were of the rational-analytical

or formal planning approach. Neither had many used theoretical and/or analytical models offered by the strategic management field to assist in strategy selection. The few who showed familiarity with some models voiced a suspicion toward them; as one managing director put it, 'what we have seen so far are way up in the air; they are not practical and they don't tell you how you can actually apply them to your work.' Most senior managers, however, did reveal a need for practical evaluation tools that could help them choose and evaluate strategies more rigorously. 'Our evaluation approach,' said a company president, 'is a bit rudimentary, not sophisticated at all. We ourselves know we need a better method of finding out whether we are doing the right thing, but so far we are still working on it.'

- *Differences between liner and bulk operators.* On the question of corporate strategy selection, liner and bulk operators displayed a high level of similarity in their responses. Differences surfaced in three areas only: (a) liner operators, especially container operators, used more external information sources than tanker or dry bulk operators, with dry bulk using the least amount of information; (b) the liner sector put more time and effort into strategic planning than bulk shipping, and within bulk shipping, the tanker sector did more planning than dry bulk; and (c) although the liner sector did more planning than bulk shipping, this gap was closing as more and more bulk operators were being forced to take a more strategic approach and to do more planning to remain competitive in an increasingly uncertain and risky environment.
- *Effect of company size.* Company size emerged to be an influencing factor on the extent to which corporate strategies were formalised. Discussions with senior managers revealed that in general the larger the company, the greater the effort put

into strategy selection and the more formal the approach used. Conversely, the smaller the company, the more informal the strategy selection process was and the less likely was the strategy articulated into a formal plan; the strategy or plan was also less transparent to the organisation because more likely than not it was 'articulated' only in the minds of the senior managers who released key aspects on a need-to-know basis.

- *Differences in management approaches.* Another trend that emerged from the interviews was that senior managers of European descent differed from their Asian counterparts in several ways. They conducted more formal discussions as a means of selecting a preferred strategy, expected the middle management level to participate in the decision-making process, shared information more widely within the organisation, and encouraged the lower management levels to offer strategic ideas and suggestions. In contrast, Asian senior managers (mainly of Chinese, Indian, Malay and Indonesian backgrounds) tended not to include middle managers in their strategic decision making and did not share information as widely as their European counterparts did. Asian senior managers saw the key role of middle management as providing information only and therefore saw no need to involve them, much less the lower management level, in strategy selection.
- *Methodological considerations.* A final issue that emerged out of the interviews concerned the relative merits of surveys versus interviews. While a mail survey might allow the collection of information from a broad group of people, the information was often superficial; it was not until interviews were conducted that 'richer' data was accessed and better insights into the respondents' thoughts and perceptions

were gained. Overall the interviews yielded far more reliable information on the type of strategies organisations were likely to pursue; they also gave the researcher greater confidence that the right type of person (i.e. a key decision maker responsible for selecting and evaluating corporate strategies) provided the information sought.

As noted in the beginning of this section, during the interviews, survey non-respondents cited two main reasons why they did not respond to the survey questionnaire: lack of time, difficulty in answering the questionnaire (lack of familiarity with strategic concepts, language barriers), and confidentiality of information. An initial consideration of the questionnaire told them it would require far more time and attention than they were willing or able to give; since English was to many of them a second or even a third language, conveying their thoughts on a relatively difficult topic like corporate strategy, one they had not done before, was seen as a major chore. Further, the nature of the information sought involved commercially sensitive information that they were not sure should be shared with an organisation that they did not personally know. Interviews, however, allowed the establishment of this personal relationship, which in turn encouraged a more honest sharing of ideas and insights into actual corporate strategy selection practices. The use of personal contacts to arrange interviews, particularly with survey non-respondents, had been very beneficial in this regard because by vouching for the researcher's credentials and personal integrity these contacts helped facilitate the exchange of ideas and information during the interviews.

Even among the survey respondents, interviews revealed that the information provided on the questionnaire was kept, in the words of one respondent, 'general

enough so that it would be safe to share outside the organisation'. Only during the interviews were the answers fleshed out, with qualifications made on which strategy or combination of strategies to use under which conditions. The actual process of selecting corporate strategies was also explained more clearly, so that what emerged was a process that was less systematic, and more informal, intuitive and incremental, than was indicated in their survey responses.

## 8.7 SYNTHESIS: SHIPOWNERS' VIEWS ON CORPORATE STRATEGY SELECTION

What then can be learned from shipowners' self-reports? Table 8.4 summarises the majority views that emerged from the survey and interviews with regard to the six major assumptions of the strategic choice model. The 'qualified yes' column is the same as the 'yes, but...' columns in previous tables and represent all 'yes' responses that deviated slightly from the model.

**Table 8.4 Comparing survey and interview findings with the strategic choice model**

	Survey		Interviews	
	Yes	Qualified Yes	Yes	Qualified Yes
The model assumes that Asia-Pacific shipowners will:				
1 change/modify their corporate strategies in response to changing environmental conditions	85	7	75	12
2 base strategic changes and the time frames of these changes on their future expectations of environmental conditions	80	—	44	16
3 pursue a 'grow' strategy when internal and external environmental factors are both favourable	76	8	63	22
4 pursue a 'stabilise' when internal environmental factors are favourable but external factors are not	72	9	61	19
5 pursue a 'develop' or 'turnaround' strategy when external factors are favourable but internal factors are not	68	—	52	25
6 pursue a 'harvest' strategy when internal and external environmental factors are both unfavourable	52	17	65	—

As the table shows, both survey and interview data supported the assumptions of the strategic choice model: however, as the 'qualified yes' columns suggest, the choice of strategies was more dispersed and less clearcut than what the model assumed. A strategy would be pursued regardless of environmental conditions to enable an organisation to grow fast, or it would be combined with any of the other four strategies to give the organisation greater flexibility and protection from risk. A popular choice was the 'grow' strategy which was selected even when conditions were unfavourable. The various choices are plotted in Figure 8.5, with items preceded by a plus (+) sign added by shipowners either during the survey (SQ) or interviews (I) and are therefore new to the model.

		Organisational Competitive Factors	
		High (Strengths)	Low (Weaknesses)
Market Factors	High (Opportunities)	<b>Quadrant 1</b>  Grow + Stabilise (I) + Develop (I)	<b>Quadrant 2</b>  Develop Turnaround + Grow (SQ, I)
	(Threats) Low	<b>Quadrant 3</b>  Stabilise + Grow (SQ, I) + Develop (I) + Harvest (I)	<b>Quadrant 4</b>  Harvest + Turnaround (SQ, I)

**Figure 8.5 Matrix of corporate strategic choices based on survey and interview data**

As the matrix shows, while the tendency to combine strategies was evident in both the survey and interviews, this tendency became more marked and noticeable during the interviews. To a great extent, this difference could probably be attributed to the relative merits of mail surveys and personal interviews; as discussed earlier, the latter allowed a more in-depth discussion of key issues, thus making possible a greater clarification and

clearer delineation of strategic choices that otherwise would have been missed by the mail survey.

In the next chapter, these shipowners' views will be compared with strategic decisions made by shipowners under simulated conditions to determine the extent to which these sets of findings are congruent.



## **Chapter Nine**

### **RESEARCH FINDINGS: SIMULATION**

In this chapter, focus now shifts to data obtained through another research method, the simulation. Like the survey and interviews, the simulation relied upon information provided by shipowners; unlike the first two, however, which relied primarily on self-reports, the simulation required shipowners to make strategic decisions under conditions that simulated a typical competitive shipping environment. The computer-based simulation program Stratship was used for this purpose (see Appendix 4 for details on Stratship). To attract shipowner interest, the simulation was run as a shipping competition among commercial shipowners. A total of 570 senior managers participated, representing 86 Asia-Pacific shipowners all of whom were part of the shipowner population (n=340) used for the survey. Participants worked in teams of three or four each, with members from the same company typically working together. Each team was required to complete a decision sheet for each of the 20 quarters that the simulation was programmed to run. Of the 190 sets of decision sheets submitted, 174 were useable and served as the basis for the data analysis. A copy of a decision sheet is in Appendix 4.

#### **9.1 SIMULATION VARIABLES FOR STRATEGIC DECISION MAKING**

The aim of the simulation was to make a shipping company financially profitable, and had 20 quarters within which to accomplish this aim. The basic decision-making structure was simple: analyse the information provided by the program, and then make strategic decisions. Two types of quarterly information could be accessed: the company's financial status and market conditions. Information on the company's

financial (or internal environmental) conditions changed according to the strategic decisions taken by participants; information on market (or external environmental) conditions changed as determined by the program, independent of any decision taken by participants. Changes to market conditions varied in magnitude; some were slight (e.g. interest rates) while others were major (e.g. trade indices). Such a program setup made it relatively easy to delineate the specific conditions under which a certain strategy was chosen.

Table 9.1 summarises the types of company and market information available to participants and the strategic decisions they were expected to make on the basis of this information.

**Table 9.1 List of quarterly variables**

<b>Company Information</b>	<b>Market Information</b>	<b>Strategic Decisions*</b>
<b>Total vessel operating costs</b>  <b>Route accounts</b> <i>For each route:</i> <ul style="list-style-type: none"> <li>• cash surplus/deficit</li> <li>• capitalised route value</li> </ul> <b>Accounts summary</b> <ul style="list-style-type: none"> <li>• operational cashflow</li> <li>• financial cashflow</li> <li>• net cashflow</li> <li>• current liquid assets</li> </ul> <b>Company value</b> <ul style="list-style-type: none"> <li>• total fleet value</li> <li>• liquid assets</li> <li>• value of routes</li> </ul>	<b>Route trends</b> <i>For each route:</i> <ul style="list-style-type: none"> <li>• leg</li> <li>• market share</li> <li>• load factor</li> </ul> <b>Market trends</b> <i>For each route:</i> <ul style="list-style-type: none"> <li>• trade indices</li> <li>• liner rates</li> </ul> <b>Vessel price</b>  <b>Construction lag</b>  <b>Charter rates</b>  <b>Interest rates</b>  <b>Oil prices</b>  <b>Exogenous shocks</b>	<b>Future outlook for quarter(s)</b>  <b>Strategic objectives</b>  <b>Corporate strategy (ies)</b>  <b>Fleet structure decisions</b> <ul style="list-style-type: none"> <li>• order</li> <li>• buy</li> <li>• sell</li> <li>• scrap</li> <li>• charter in or out</li> <li>• re-charter</li> </ul> <b>Operational decisions</b> <ul style="list-style-type: none"> <li>• add/delete routes</li> <li>• (re)allocate vessels to routes</li> <li>• decide on port setup costs, vessel speed, joint ventures, freight rates, marketing expenditures</li> </ul>

\* Strategic decisions were made by participants, and affected company information but not market information; market conditions were programmed to change every quarter, irrespective of strategic decisions and changes in company information.

As columns 1 and 2 of the table show, information on the company's financial status included total vessel operating costs, the financial viability of each trading route (route accounts), cashflow and liquidity status (accounts summary), and overall company value; information on market conditions covered route trends, market trends, vessel prices, construction lags, charter rates, interest rates, oil prices, and exogenous shocks. Participating teams analysed this information, jotting their findings on their decision sheets for that quarter, and from this analysis, they made strategic decisions for the next quarter, or if they wished, for several quarters ahead. They predicted what the outlook for the next quarter(s) would be, set what strategic objective(s) to pursue within this time frame, selected a specific corporate strategy (or a combination of strategies) to enable them to achieve their objective(s), and translated this strategy (or set of strategies) into specific fleet structure decisions (i.e. order, buy, sell, scrap, charter in, re-charter, or charter out) and operational decisions (i.e. add/delete routes or legs, (re)allocate vessels to routes, or decide on port setup costs, vessel speed, joint ventures, freight rates, and marketing expenditures). These decisions were also jotted down on the quarterly decision sheet. The effect of these decisions on the company's current fleet structure and route status was also recorded.

## **9.2 PRIMARY FINDINGS ON CORPORATE STRATEGY SELECTION**

Simulation findings were arrived at using a qualitative approach to data analysis. The general approach was to identify the corporate strategies used by the teams over the simulation period (i.e. 20 quarters), check these strategies against prevailing environmental conditions, and determine the extent to which decisions followed the assumptions of the model. Data was summarised onto quarterly-decisions summary

sheets and entries coded according to the coding index in Appendix 2. Using the summary sheets, key trends and patterns were identified, first at the individual team level and then at an aggregate level to arrive at more generalised and broader patterns of behaviour.

Like the survey and interview data, the discussion of simulation findings is organised around the six assumptions of the strategic choice model. For each assumption, simulation decisions are categorised according to whether they adhered to or deviated from the strategic choice model; then the nature of this adherence or deviation is explained, with emphasis given to the various modifications made to the model. Decision categories are based on the following types of decision makers, which were identified during the initial analysis of simulation data:

- those who followed the strategic choice model without deviations (consistent followers),
- those who often followed the model but changed parameters when it suited them, for instance, disregarding environmental conditions to pursue strategic objectives or combining/substituting strategies to strengthen their hand (eclectic users),
- those who followed the model occasionally (occasional samplers), and
- those who did not follow it at all (non-users).

Each category had a cut-off point of 75 per cent; to qualify for any one category, a team should have taken the action called for at least 75 per cent of the time required to complete the simulation (20 quarters). A team would be considered a 'consistent follower', for instance, if it adhered to the model without making any modifications 75

per cent of the time. Findings are summarised in Table 9.2 and discussed in succeeding pages.

**Table 9.2 Simulation responses to the six assumptions of the strategic choice model (n=570)**

Assumptions of the Model	Categories of Responses (%)			
	Consistent Follower	Eclectic User	Occasional Sampler	Non-user
Asia-Pacific shipowners will:				
1 change/modify their corporate strategies in response to changing environmental conditions	58	18	15	9
2 base strategic changes and the time frames of these changes on their future expectations of environmental conditions	74	–	14	12
3 pursue a 'grow' strategy when internal and external environmental factors are both favourable	55	30	6	9
4 pursue a 'stabilise' when internal environmental factors are favourable but external factors are not	67	14	11	8
5 pursue a 'develop' or 'turnaround' strategy when external factors are favourable but internal factors are not	44	32	19	5
6 pursue a 'harvest' strategy when internal and external environmental factors are both unfavourable	79	7	5	9
	Support for the model			

**(SIM-Q1) Will Asia-Pacific shipowners change/modify their corporate strategies in response to changing environmental conditions?**

On this count, the majority of participants (58 per cent) strictly followed the model, that is, they changed/modified their corporate strategies in response to changing environmental conditions. However, the level of deviation was only slightly lower, with 42 per cent of respondents deciding on a different course of action. Some (18 per cent) followed the model more often than not, deviating only when they wanted to speculate; others (15 per cent) followed the model only occasionally, preferring to take a gamble the rest of the time; the rest (9 per cent) did not make any changes at all. To a lesser degree, the deviation could also be attributed to errors/miscalculations in participants'

assessments of environmental conditions (i.e. overstating/ understating the environmental conditions).

Although deviations totalled 42 per cent, when those who faithfully followed the model (consistent followers) and those who frequently followed the model but deviated occasionally (eclectic users) were bracketed together, their combined support for the first assumption of the model rose to a high 76 per cent.

Another clear trend that emerged from the data was that future predictions had a significant effect on all simulation participants. That is, the firmer their future predictions of internal and external environmental conditions were, the more likely were they to change their corporate strategy even if it was not appropriate to current environmental conditions or trends. Conversely, if they expressed uncertainty in what the future held, they were less likely to make changes to their corporate strategy.

**(SIM-Q2) Will Asia-Pacific shipowners base strategic changes and the time frames of these changes on their future expectations of environmental conditions?**

The simulation program addressed the question of future expectations more narrowly than the survey and interviews. Unlike the latter which allowed respondents greater latitude in answering this question (e.g. many respondents said for instance that they would base their decisions not only on their own expectations but on a range of factors as well), the simulation locked participants into a narrower decision path where they had to specify their outlook for the next quarter or number of quarters, and based on this outlook, determine their strategic objectives and strategies for that time frame, and then make their decisions.

Overall, simulation data supported the second assumption of the model. The majority of decisions (74 per cent) showed that decision makers relied a lot on their future expectations of environmental conditions when making strategic changes and selecting the time frames for these changes. This finding confirmed the trend initially identified in SIM-Q1, which showed that future expectations were a major influencing factor on shipowners' decision to change/modify corporate strategies and that the extent of the strategic change depended on how strongly decision makers felt about the change (i.e. the stronger the views, the greater the likelihood to change). Data also showed that the time frames chosen for corporate strategies were typically short term: very few went more than 7 quarters ahead, with the average falling within 3-6 quarters. Further, the longer the time frame set, the more conservative the change predicted, almost as if forecasts were averaged over the period. For example, the freight rates that decision makers would predict within say 5-6 quarters would be half as much as what was predicted within say 1-3 quarters.

Deviations were a minority, with 14 per cent following the model only occasionally and 12 per cent not doing so at all. On average those belonging to these groups were not in strong financial positions when they made their decisions. They disregarded future expectations in times of financial crisis, or when both internal (e.g. dropping company value) and external (e.g. declining trade routes, dropping market share) environmental conditions were bad. Their response was to do either of two things: do nothing and just wait and see (maintain the status quo), or say they would pursue a certain strategy but would not carry out changes that reflected such a strategy. For example, they might say they would pursue a 'grow', 'develop', or 'turnaround' strategy to improve their financial situation but the changes they subsequently implemented were so minor that

any effect was negligible or hardly visible (e.g. lowering freight rates slightly to say 5-8 per cent or reducing the speed of the fleet on 1 or 2 routes from say 20 knots to 18 knots).

**(SIM-Q3) Will Asia-Pacific shipowners pursue a 'grow' strategy when internal and external environmental factors are both favourable?**

Only a slight majority (55 per cent) followed the model without deviation (i.e. pursued a 'grow' strategy when both internal and external environmental factors were favourable), with the rest (45 per cent) deviating from the model in varying degrees. A big group (30 per cent) did follow the model but chose to spread risks by combining 'grow' with other strategies (18 per cent) or diverted occasionally in favour of another strategy or in spite of unfavourable conditions (12 per cent). The rest either followed the model intermittently (6 per cent) or did not do so at all (9 per cent). In spite of these deviations, however, when those who faithfully followed the model (54 per cent) and those who followed it but at times changed directions for strategic reasons (30 per cent) were combined, support for the third assumption of the model rose to a strong 86 per cent.

The most common 'grow' strategies used by participants were expansion and diversification. Typically, participants expanded and diversified into more trade routes and/or added more ships to their most profitable trade routes. Ships were mostly secondhand tonnage rather than newbuildings because of the long lead time required to build vessels (defined as 'construction lag' in the program) and the cheaper cost of purchasing relative to the availability of finance (defined as 'borrowing limit' in the program). Another popular 'grow' strategy was diversifying operations, which took four major forms: ship operating (i.e. operating trade routes only), ship chartering,



playing the sale and purchase market (i.e. buying and selling ships), and joint ventures. Of these four approaches, a combination of (a) ship operating with chartering in, chartering out and rechartering was the most used, followed equally by (b) chartering and sale & purchase, and (c) chartering, sale & purchase, and a limited amount of ship operating. Joint ventures were the least preferred form of diversification.

A trend that clearly emerged from the data was the dominance of external environmental factors over internal factors. While both external and internal factors had to be favourable before a 'grow' strategy was pursued, more 'grow' choices were made when external factors were stronger than internal factors. For instance, if participants thought that the market held many opportunities that were simply too good to miss, they would choose to grow even if they might not be as competitively strong or ready as they needed to be.

For those who combined 'grow' with other strategies (18 per cent), the most popular choices were 'develop' and 'stabilise': the first ('develop') to help the company expand and diversify into new and existing high growth areas (e.g. new trade routes, reallocation of vessels to routes, charter-in vessels for high market share/demand routes), and the second ('stabilise') to maximise the revenue value of a profitable trade route or charter without increasing costs. To a much lesser degree a 'harvest' strategy was also used in conjunction with 'grow' to divest of routes which were still profitable but did not show as much potential as other routes, or to divest of charters, ships, and occasionally joint venture arrangements to maximise opportunities.

Those who deviated from the model only occasionally (12 per cent) did either of two things: they pursued a 'grow' strategy even when conditions were not favourable or

they substituted another strategy. A 'stabilise' strategy was the most frequently used: the aim was to maximise profits by minimising costs and maximising revenue opportunities, and this typically involved making minor adjustments like increasing/decreasing ship speeds (average 2 knot change), marketing expenditures (average 7 per cent change) and freight rates (average 8 per cent change).

With the remaining 15 per cent of the population, who represented significant deviations from the model, some 6 per cent used a 'grow' strategy only occasionally, giving greater preference to a 'stabilise' strategy to minimise operating costs, maximise revenue, and thus increase overall profits; the other 9 per cent did not use it at all. With this last group, responses were so widely dispersed and varied that no clear trend emerged as to why a 'grow' strategy was not pursued under favourable conditions or what alternative strategies would have been acceptable under these conditions.

**(SIM-Q4) Will Asia-Pacific shipowners pursue a 'stabilise' strategy when internal environmental factors are favourable but external factors are not?**

A majority of shipowners (67%) did pursue a 'stabilise' strategy under the conditions assumed by the model, that is, when internal environmental factors were favourable and external environmental factors were not. Data showed that most used this strategy to maximise profits by maintaining their internal operating structure (e.g. maintain same trade routes or charters as in previous time frames) and reducing costs. With a stable, albeit slightly declining, revenue base and reduced costs, they were able to increase route performance and profits. Typically, costs were decreased by reducing vessel speeds (average 4 knot reduction), marketing expenditure (average 16 per cent cut), and route size. Route size was normally decreased by removing route legs (average 1 leg removed) and indirect routes.

The 'stabilise' strategy was mostly used by trading route operators and charterers, with those in the sale & purchase markets using it the least. All three groups used the 'stabilise' strategy as a short term measure. Most participants used it over an average of 3 quarters; very few used it continuously beyond 5 quarters. The 'stabilise' strategy proved to be most used during times of relatively high freight rates and when participants perceived the market demand to be high but the threat of decline imminent, or, as one team described it in their decision sheet under future predictions, when 'the freight rate is at or near the peak of the business/shipping cycle and likely to decline soon—next 1-2 quarters'.

Of those who deviated from the model, 14 per cent also used the 'stabilise' strategy under conditions stipulated by the model, but rather than restrict themselves to this one choice, they usually combined it with other strategies. 'Grow' and 'develop' were the most commonly used; 'harvest' the least. The most typical approach of this group was to (a) maintain an existing route with a 'stabilise' strategy (either change nothing or make minor adjustments to vessel speeds, freight rates, marketing expenditure, and vessel allocation to routes), (b) pursue a 'develop' strategy to expand or diversify into new trade routes or scope of operation (i.e. instead of just operating vessels, increase scope of operation by adding more charters, pursuing the sale and purchase market and/or less frequently, setting up joint ventures), and (c) pursue a 'grow' strategy to expand or diversify into existing routes (i.e by increasing the number of legs or vessels on a route, marketing expenditure, and freight rate adjustments). When the 'harvest' strategy was used, the most typical approach was to use (a) the 'stabilise' strategy in the most profitable areas, (b) a limited amount of the 'grow' strategy in existing areas that were predicted to be profitable, and (c) a 'harvest' strategy in the most threatened areas or

when poor trading conditions were predicted. By using a combination approach, this group of eclectic users aimed to maximise internal strengths while the market still gave acceptable returns. Like the majority group (consistent followers), they used the 'stabilise' strategy as a short term measure, rarely going beyond 7 quarters but using it for about 1-2 quarters longer than the former.

With the remaining 19 per cent of the population, which represented significant deviations from the model, a number followed the model only occasionally (11 per cent) while the rest (8 per cent) did not do so at all. Instead of the 'stabilise' strategy, other strategies, notably 'harvest', 'grow' and 'develop', were preferred. The 'harvest' strategy was most used in the sale & purchase market where participants sold vessels while ship prices were still high to strengthen their cashflow and financial and operating positions. At the opposite end, others pursued 'grow' and 'develop' strategies to take advantage of strong internal environmental factors (i.e. a healthy financial position) amidst what they perceived to be a declining market. Under these circumstances, chartering in vessels over longer time periods (4-6 quarters ahead was the norm) to take advantage of reduced charter rates was the most frequently used approach.

In spite of these deviations from the model, when those who faithfully followed the model (67 per cent) were added to those who followed the model frequently (14 per cent), a strong support for the model's fourth assumption emerged (81 per cent).

**(SIM-Q5) Will Asia-Pacific shipowners pursue a 'develop' or 'turnaround' strategy when external environmental factors are favourable but internal factors are not?**

On this assumption, strict adherence to the model was lower, with less than half of the participants (44 per cent) using a 'develop' or 'turnaround' strategy under the assumed

conditions, that is, when external environmental factors were favourable and internal factors were not. Of this group, 'turnaround' was more widely used than 'develop', and each strategy tended to be used differently. The 'develop' strategy was used more on a rising market (i.e. increasing freight rates and trade demand), where the approach was to go into new high profit areas and earn good revenue so that a company's competitiveness, particularly its financial position, could be strengthened. The 'turnaround' strategy on the other hand was used mostly on existing areas of operations, and it did not matter whether market conditions had been on the rise or stable for a period of time (i.e. 3-4 quarters of strong market conditions). The turnaround approach was to reduce internal costs and market exposure as much as possible while maximising good revenues. This was usually done by reallocating the majority of the fleet to the most profitable routes, reducing route size by deleting indirect and some direct (but unprofitable) ports of call on a particular route (e.g. reducing 4 ports of call or legs to 2), reducing vessel speed and marketing expenditure, and forming joint ventures on routes where they perceived would not be high growth in the longer term (7-10 quarters ahead normally).

Another important distinction in the way the two strategies were used was that 'turnaround' involved a greater degree of change than 'develop'. However, this was to be expected: a 'develop' strategy normally required a major infusion of resources to become viable, but companies in the circumstances typically limited lacked the financial capacity (i.e. insufficient cashflow to purchase/charter vessels and buy into new trade routes) to fully realise the strategy's potential.

Among those who deviated from the model (56 per cent), four groups emerged: (a) those who also followed the model but modified its parameters as they saw fit, either by occasionally substituting another strategy (13 per cent) or regularly using other strategies in combination with develop/turnaround (19 per cent), and (b) those who showed the least support for the model, either by following it only intermittently (19 per cent) or not doing so at all (5 per cent).

The two groups in the (a)-category followed a similar approach. The first group substituted a 'grow' strategy on occasion, while the second group frequently combined 'grow' with 'develop/turnaround'. To a far lesser extent, a 'harvest' strategy was also used by the second group to divest of trade routes that still showed earning potential and were less of a financial drain on internal operations. The 'grow' strategy was popular to both (a)-groups because it helped them expand and diversify into existing areas of strength without creating significant increases in costs, which was often the limitation of the 'develop' strategy. The typical growth approach was to increase the capacity of existing operations by purchasing and/or chartering in more vessels (mostly secondhand, as new vessels were more expensive). Wherever possible, positioning costs (i.e. the cost of getting a vessel allocated to a particular route) were minimised by allocating vessels to their closest route; this was an area where many made good cost savings.

For those in the (b)-group, which deviated from the model the most, their general tendency was not to make any strategic changes to take advantage of favourable external conditions and halt worsening internal conditions. While the first (b)-group would occasionally try a 'grow' or 'harvest' strategy to improve financial health/avoid a

financial crisis, more often than not both groups did nothing more than maintain their current strategies and wait and see if internal operations improved.

Of all of the strategies used when external conditions were favourable but internal conditions were not, 'turnaround' proved to be the most successful, that is, it provided the greatest increase in company value in the shortest period of time. It was successful because it was better able to pit market opportunities (i.e. high levels of revenue) against internal weaknesses (lack of capacity and finance). Unlike 'grow' and 'develop' strategies, for instance, it did not require a major infusion of funds and other resources. This was one of the major problems that financially weakened companies typically met when they tried to implement 'grow' or 'develop' strategies. They simply did not have the internal capacity (lack of cashflow, limited access to charters and finance due to poor route values) to improve operations (number of trade routes, vessels on routes and chartered vessels) and take full advantage of good market opportunities.

Although a slight majority did deviate from the model (56 per cent), support for this assumption still proved to be strong when the numbers of those who also followed the model but occasionally substituted another strategy (13 per cent) or frequently combined strategies (19 per cent) were added to those who faithfully followed the model (44 per cent). Based on these figures, a healthy majority (76 per cent) emerged in support of the model.

**(SIM-Q6) Will Asia-Pacific shipowners pursue a 'harvest' strategy when internal and external environmental factors are both unfavourable?**

A large percentage of decisions (79%) showed strict adherence to the model, pursuing a harvest strategy under the assumed conditions, that is, when both internal and external environmental conditions were unfavourable. The most common approaches were to

abandon poorly performing trade routes and sell off vessels to improve internal conditions. In contrast with the 'grow' strategy where external factors tended to dominate over internal factors, internal factors tended to prevail in 'harvest' decisions. Indeed, the weaker the organisation was (poor cashflow and liquidity, declining company value), the greater the magnitude of divestment.

Within this majority group of consistent followers, there were two main groupings: diversified operators and sole ship operators. The diversified group, which operated in various trade routes and were major charterers as well, divested most of their trading operations by abandoning routes and selling off vessels; at the same time, they maintained their charter operations as their new core base. The ship operating group on the other hand divested either most of their trade routes and vessels (i.e. from 4 trade routes down to 1 and from a fleet size of 25 down to 7) or pursued selective trade route, ports of call and vessel divestments. A typical approach of this second group was to divest of one trade route, make direct port calls only on the remaining routes, and sell off most of the fleet and maintain the minimum level of vessels on routes (normally 2 vessels per route).

Deviations from the model (21 per cent) fell into three groups: those who frequently combined 'harvest' with other strategies (7 per cent), those who followed the model only occasionally (5 per cent), and those who did not do so at all (9 per cent). The most popular combination pursued by the first group was 'harvest' and 'turnaround': a 'harvest' strategy for areas or operations perceived to have limited future value or were most vulnerable to worsening conditions, and a 'turnaround' strategy for areas that could be improved if costs could be better controlled relative to revenue earning



potential. For those who used 'harvest' occasionally or not at all, the most commonly used substitute was the 'turnaround' strategy. The typical approach was to reduce costs and the scope of operations as much as possible to improve cashflow and liquidity, reduce vessel speed to the minimum, significantly cut freight rates and marketing expenditure, reduce ports of call, and carefully balance vessel allocation to routes which minimised their exposure to high operating costs on routes. For this last group, they often had no choice but to pursue a 'turnaround strategy if they wanted to continue with the simulation. Choosing to harvest when they were running out of options would have meant not having any vessels, charters, or trade routes with which to carry on with the simulation. Under these conditions some tried the 'grow' strategy but they were generally unsuccessful because they did not have the financial capacity to grow significantly enough to halt their worsening fortunes. Those who chose the 'turnaround' strategy often produced better results, which allowed them to stay in the simulation longer than those who chose the 'grow' strategy.

Of all the strategies used here, the selective combination of 'harvest' and 'turnaround' strategies proved to be the most successful in increasing company value, for example, a selective 'harvest' strategy on trade routes and areas of operation showing limited future potential (i.e. getting out of joint ventures, charters or trade routes; selling vessels at the appropriate time) and a 'turnaround' strategy on those areas perceived to show good future potential. Pursuing a 'turnaround' strategy on its own was the next most successful strategy.

Overall, when both the majority group of consistent followers (79 per cent) and those who also used 'harvest' but in combination with other strategies (7 per cent) were

bracketed together, a very strong level of support (86 per cent) for this final assumption of the model emerged.

### **Summary of primary simulation findings**

As the preceding discussion has shown, like the survey and interviews, simulation data strongly supported all six assumptions of the model. The general pattern of response was also the same.

Support came from two main groups: those who followed the model without making any changes to it, and those often followed the model but modified its parameters for strategic reasons. Again, as in the survey and interviews, modifications typically involved disregarding environmental conditions when strategic considerations required it, using a strategy under environmental conditions not called for by the model, or combining several strategies to spread risk instead of just limiting themselves to the one or two choices offered by the model.

The most frequently used combinations of strategies during the simulation are plotted in Figure 9.1. Those in parentheses indicate other choices made by shipowners in addition to the strategies assumed by the model. When compared with Figure 8.5 (see Chapter Eight), which shows the results from shipowners' self-reports, the high degree of congruence becomes easily noticeable. Choices were the same except in quadrants 1 and 2, where the 'harvest' strategy appeared as another choice. It should be stressed here, however, that 'harvest' was only chosen on a few occasions. While on this basis it can be argued that it should not appear on the matrix along with the more widely used strategies, the decision has been to include it to show the range of choices that the majority of respondents pursued during the simulation.

		Organisational Competitive Factors	
		High (Strengths)	Low (Weaknesses)
External Environmental Factors	High (Opportunities)	<p style="text-align: right;">Q1</p> <p style="text-align: center;">Grow (+Develop) (+Stabilise) (+Harvest)</p>	<p style="text-align: right;">Q2</p> <p style="text-align: center;">Develop Turnaround (+Grow) (+Harvest)</p>
	Low (Threats)	<p style="text-align: right;">Q3</p> <p style="text-align: center;">Stabilise (+Grow) (+Develop) (+Harvest)</p>	<p style="text-align: right;">Q4</p> <p style="text-align: center;">Harvest (+Turnaround)</p>

Figure 9.1 Matrix of corporate strategic choices based on simulation data

### 9.3 OTHER SIMULATION FINDINGS: SECONDARY TRENDS

In addition to the main findings on corporate strategy selection, a number of key secondary findings were also identified. These involved decision-making styles, patterns of information use, environmental focus, competitive performance of participating teams, and cultural differences. The first was based on the researcher's observations of team behaviour during the simulation sessions, the next three on data provided by participants on their decision sheets, and the last on a combination of researcher observations and participant data.

#### Decision-making styles

Four major styles of strategic analysis and decision making were displayed by the participating teams: autocratic, democratic, delegating, and adaptive.

In the **AUTOCRATIC TEAM**, the most senior person in the team took control and became the key strategist while other members became the implementors and followers. It was a very hierarchical approach, with the most senior people having the greatest input. This

was the preferred style of many East Asian senior managers, particularly those from a Chinese ethnic background (Hong Kong, Singapore, and Indonesia were the main countries of domicile).

In the **DEMOCRATIC TEAM**, everyone got equally involved in the team's strategy analysis, strategy development, and decision making. Each team member was expected to be equally participative; as a result, there was a lot more discussion and debate than in other teams. The main negative aspect of this type of decision making was lack of leadership; there were occasions when no one was in charge. This style was observed most frequently in teams whose members were of East Asian and European origins (with Singapore, Malaysia, and Australia as main countries of domicile).

In the **DELEGATING TEAM**, team members allocated the various tasks among themselves and each became responsible for his or her own area. They did not do much collective brainstorming or decision making. Instead responsibility was delegated over three areas: assessing and providing key information on key environmental trends, making strategic policy and setting strategic directions, and policy implementation and operational decision making. In terms of ethnic makeup, unlike the previous two teams (autocratic and democratic), no clear trend emerged, with the ethnic backgrounds of team members too varied to allow general patterns to be observed.

In the last group, the **ADAPTIVE TEAM**, the roles of individual team members changed as the simulation progressed. Like the delegating team, members assumed any of three key responsibilities: information providers, strategic policy makers, and operational decision makers. During the simulation, they rotated their roles to remain motivated and creative. Brainstorming and decision making was always done as a group. The team leader was

much more participative than those in the other groups; it was also not uncommon for the leader to change during the simulation to improve group dynamics. Members of adaptive teams were of East Asian and European descent, with a slight dominance of the latter (the main countries of domicile were Hong Kong, Singapore, Indonesia, and New Zealand).

Of the four groups, adaptive teams were observed to be the most empowered and highly motivated; on average they also achieved the highest levels of performance (measured in terms of the highest company value achieved). However, autocratic teams tended to be just as successful due to the high level of individual competence of their team leaders. The big difference between the two was in the degree of team spirit: as a rule, members of adaptive teams were highly participative; in contrast, there were occasions when members of autocratic teams appeared not to be involved and/or interested due to dominant team leaders. The other two teams, delegating and democratic, did not perform as well as the first two. Members in these teams often lacked the strong commitment and enthusiasm displayed by other teams, and team leadership was often lacking to set key strategic directions and get the best out of team members. In terms of the simulation's objective, they performed the worst, that is, they achieved the lowest company values.

### **Use of Information**

A key trend that emerged from the simulation data was the way participating teams used the information provided by the simulation program. Three main user types were identified: those whose use of external information was limited to the trades in which they operated (limited external information users), those who overemphasised internal

information (internal information users), and those who made extensive use of both external and internal information (extensive information users).

The first group, the **LIMITED EXTERNAL INFORMATION USERS**, usually used all available internal information (ie route accounts, cashflow, fleet value, liquid assets, value of routes and company value), and as much external information as was available to them *but only* on those areas in which they were operating. Seldom did they venture beyond their trade routes. For example, if they were involved in Europe-Japan-USA routes, they only looked for information pertaining to these routes and ignored other routes; as a result, they often missed the opportunities that lay in these areas. If they did look at other routes, they did so haphazardly or intermittently, rather than consistently and proactively, with an eye for new opportunities. Among the key external environmental factors they usually overlooked were trade indices and freight rates for routes in which they were not involved. Surprisingly, there were more risk takers than conservative decision makers in this group; there were also more dry bulk operators.

The second group, the **INTERNAL INFORMATION USERS**, spent most of their time analysing internal information, often at the expense of external information. Typically, this group spent more time on internal information than on external information. The group tended to view internal trends more by the percentage difference between quarters than by changes in external conditions (i.e. changing trade indices). It focused primarily on the 'bottom-line' approach: How much profit are we making on routes? What is our company value relative to previous quarters? Financial information (i.e. route profit, cashflow, company value) was also given more emphasis than operational information (i.e. number of vessels on routes, vessel speed, ports of call). Interestingly enough, this

group also made more internal graphs than any other group to assist decision making. While all participants took advantage of the option of viewing key variables in graph form, as preset by the simulation program, this group made more graphs than other groups to plot their key internal variables. Because of their preoccupation with internal variables, like the first group, they missed a lot of key external trends. Unlike the first group, however, this second user group was dominated by conservative decision makers. It was also made up of a wide range of industry sector operators with no one sector dominating.

The third and last user group, the **EXTENSIVE INFORMATION USERS**, made extensive use of all external and internal information provided in the simulation. This group often spent more time analysing information than the other two groups; as a result, it took them longer to progress through the quarters. While this group included both conservative and risk-taking decision makers, the latter slightly outnumbered the former. In terms of industry sectors, there were also more liner and tanker operators.

Of the three user groups, the last group, which spent more time analysing information and made more extensive use of both internal and external information, achieved the highest levels of performance (i.e. achieved higher company values), followed by the first group, which limited its use of external information to what was relevant to its areas of operation.

### **Environmental focus**

Another key trend that emerged from simulation data was the dominance of either an external or internal environmental focus among participating teams. **EXTERNALLY FOCUSED TEAMS** put more emphasis on external rather than internal factors in the choice and

selection of corporate strategies. Although they analysed both external and internal environmental factors in their decision making, they tended to align their corporate strategies more closely with external factors than internal factors; for instance, if external environmental conditions were good, they would pursue a 'grow' strategy even if they lacked the cashflow to adequately fund the growth that such a strategy called for. Externally focused teams were found to be more responsive to market conditions; they were able to change faster than internally focused teams and/or maintain strategies that were flexible enough to adapt to changing market conditions. In most cases, because of their external focus, these teams were able to maintain the intent of the selected strategy while retaining their ability to respond to changing external conditions.

In contrast, INTERNALLY FOCUSED TEAMS tended to be a lot less flexible and adaptable in the face of changing market conditions, and were thus slower to respond to such changes. They tended to wait until external trends started affecting internal trends (e.g. declining trade route revenues and profits) before acting; often this was 2 quarters later than the externally focused teams. They also tended to be more conservative in their decision making, preferring minor changes to major ones. In many ways, internally focused teams were also the internal information users, the second group of information users identified in the preceding sub-section, who put far undue reliance on internal information.

### **Competitive performance**

Another key trend that came out of the simulation data related to the teams' competitive performance. Among the various participating teams, three definite categories of performers emerged: high performers, average performers, and low performers. The objective of the simulation was to make an ailing company become financially profitable, hence, the higher the company value that a team posted at the end of the simulation, the



more successful it was deemed to be. At the beginning of the simulation, the company value stood at \$614.74 million. At the end of the competition, the high performers (19 per cent) climbed to a company value of greater than \$1 billion, the average performers (53 per cent) reached between \$600 million to \$1 billion, and the low performers (28 per cent) reached less than \$600 million.

Major differences between the higher and lower performers are highlighted below. Comparisons with the average group proved much more difficult because most teams in this group straddled both ends, making comparisons less reliable; thus, no trends are highlighted for this group.

#### *High performers*

- The most successful teams, defined as having a company value of greater than \$1 billion, were those who consistently came up with corporate strategies that achieved their objectives, and more importantly, *within the limits of what the environmental conditions dictated*. These teams succeeded by matching external environmental conditions with the best internal or organisational attributes (healthy cashflows, high growth trade routes), and came up with corporate strategies that captured the organisation's best future opportunities and also defended its most vulnerable areas from external threats.
- There was, however, no one approach used by this group that was clearly superior to others. All—for instance, having a high market share (large number of vessels and trade routes), playing the sale and purchase market, being a major charterer, or combining all three—led to profitable results *depending* on environmental conditions. While some used some of these methods more than others, the data

showed no clear trend as to which method led to higher performance. Each of them worked well provided environmental factors were appropriate.

- High performers also consistently chose more longer-term strategies (4-7 quarters ahead) and modified them to suit environmental conditions, particularly external conditions, as opposed to others who had short-term strategies and changed them a lot more frequently. Longer-term strategies were also more strategic in outlook thus enabling high performers to better predict broader trends and prepare for change. They also spent far greater time analysing information than any other group.
  - » Amongst the highest performers were those from the liner sector of the shipping industry. In terms of country or ethnic background, results showed that high performers represented a good mix of different countries and ethnic backgrounds.

#### *Low performers*

- The least successful performers were those whose company value went below \$600 million, which was lower than what they started with. Their hallmark was chronic lack of resources and capabilities. The least successful teams went into new trade routes or new areas of business (e.g. from ship operating to ship chartering) without the requisite capabilities (i.e. good liquidity). They failed to live within their means, often trying to expand without the requisite resources (e.g. buying new vessels with poor cashflow). They often did not make much profit from such changes and their performance was generally mediocre.
- For many within this group, their corporate strategies were too short-term (1-3 quarters ahead) and operational. They frequently changed their strategies before these strategies had a chance to work. For example, they might have been pursuing

a 'grow' strategy when external trends were good but as soon as the market showed any signs of decline, they dropped that strategy for another (e.g. 'stabilise').

- This group also spent more time in reactive, rather than proactive, mode. They often played the simulation from quarter to quarter, always reacting to circumstances that happened in the previous quarter. They also lagged behind changes in market conditions. Their main rationale for this short-term approach was to take advantage of short term gains or opportunities but this was often at the expense of long-term performance. However, there was too much concentration on short periods of high profits which were either not repeatable in the longer term or affected longer term performance. For example, they might have made good profits from selling vessels when prices were high but then they didn't have the capacity to earn good profits when the route had improved due to the reduced fleet.
- Low performers tended to put too much emphasis on internal information and paid inadequate attention to external trends. Indeed they showed a strong tendency to underestimate or overestimate market conditions, resulting in poor performance. In this group were a lot of conservative decision makers who were slow to act—and react—and did so only when external conditions affected internal conditions (loss of revenue on trade routes, dropping ship prices, reduced charter rates). Their corporate strategies were middle-of-the-road play-safe strategies which rarely produced high results. For many, performance throughout the simulation progressively declined, with some eventually going bankrupt.
- The greatest number of bankruptcies came from three types of decision makers: (a) those who pursued rigid and inflexible strategies, and who, in the face of changing environmental conditions, were either very slow to respond or did not respond at

all, sticking to what they had previously decided to do; (b) those who took on too much risk at the wrong time and had inadequate financial resources and capability to recover from overexposure; and (c) those who pursued very short-term (quarter by quarter) strategies and were highly conservative and reactive in their decision making. Most bankruptcies were the results of wrongly timed joint ventures, which led to heavy financial losses and severe reduction of operating flexibility (e.g. some had to use valuable fleet capacity on a loss-making route when they could have used them on a route which was making high profits).

- In terms of industry sector, country or ethnic background, no discernible trends were observed; this group could perhaps be best described as an unfortunate mix of all types.

To summarise, top performers had clearly articulated strategies, which conveyed what was to be achieved and how it was to be achieved. These strategies were usually long-term but they were also flexible. In many instances, they included several types (e.g. grow, develop, stabilise) for greater strategic balance. These allowed top performers to map out long-term plans for growth while at the same time maintaining the ability to adapt to changing conditions. High performers were proactive; they were sensitive to environmental information, especially on external conditions; and they were quick to adapt to environmental changes.

Low performers on the other hand often had unclear or confusing strategies, either as a result of sloppy presentation or because the changes they implemented did not match with the selected strategy. Their strategies were usually short term, but they were also inflexible. Once chosen they were kept, even if environmental conditions called for a change. As reflected in this approach, performers were reactive and conservative, slow

to react, even slower to change. While they did look at external factors, they put more emphasis to internal factors.

### **Cultural differences**

To a great extent, the four decision-making styles discussed earlier were indicative of a range of behavioural differences between East Asian managers (from Malaysia, Singapore, Indonesia), and managers of European descent (from Australia, New Zealand, and a few European countries e.g. UK, Germany, Norway). For ease in reference, the latter group will simply be called 'European'. In general, East Asian shipowners took more risks (but suffered the most bankruptcies), made decisions more quickly, were slower to change strategies, displayed a more autocratic team management style, were more aggressive and competitive, and were less likely to revisit previous decisions when deliberating on new decisions.

- East Asian shipowners took greater risks but they also had the greatest number of bankruptcies. In contrast, European shipowners tended to be a lot more conservative. Those East Asian shipowners who took the greatest risks came from the bulk sector of the industry (both dry bulk and tanker) while the majority of European shipowners were from the liner sector. Among East Asian shipowners, the level of risk taken didn't seem to correlate with market conditions; with European shipowners, the level of risk taken increased as their performance declined (i.e. as company value dropped).
- East Asian shipowners made their decisions much faster than European shipowners. Based on time differences noted in posting quarterly results, on average, they were close to a quarter of an hour faster (13 minutes) at making quarter by quarter decisions. In contrast, European shipowners spent more time

analysing information before making a decision, which accounted for the time difference. Those from the liner sector tended to spend more time analysing information than from the bulk sector.

- The simulation structured more periods of environmental changes than stable conditions. While this led European shipowners to change strategies more frequently, the same could not be said of East Asian shipowners. On average East Asian shipowners tended to keep the same strategic objectives for a longer period of time than their European counterparts. However, this did not mean that East Asian shipowners had longer-term objectives and European shipowners had shorter-term ones. More correctly, the latter made changes depending on what the environmental conditions were: when conditions were stable, they kept their strategic objectives for a longer period of time; when conditions were unstable or rapidly changed, the more frequently were these objectives changed. Shipowners from the bulk sector (both dry bulk and tanker) were quicker to change their objectives than those from liner sector, especially those from container trades who were usually the last to change.
- As was found during the interviews, when leading teams, both East Asian and European shipowners stressed the need for team work; but while the Europeans tended to maintain team harmony and cohesiveness through greater individual participation, East Asian shipowners in contrast leaned toward a more autocratic and hierarchical approach. Either approach was observed to work well when the members of a team, regardless of cultural origin, had the same mindset (i.e. supporting either a democratic or an autocratic style); however, conflict arose when

members had differing mindsets, especially in the area of decision making and leadership.

- East Asian shipowners displayed a more aggressive and competitive behaviour ('we must win and get a higher company value than the other teams') than European shipowners who, while also promoting competitiveness, gave equal emphasis to team harmony ('let's work together and produce the best result under the circumstances'). Along the same vein, East Asian shipowners consistently pursued more aggressive strategies than their European counterparts; in contrast, the latter pursued conservative strategies when they were doing well (e.g. stabilise instead of the East Asian approach of high growth) but changed to equally aggressive strategies when they were not doing so well. In general, the tanker and liner sectors pursued more aggressive strategies than the dry bulk sector. East Asian shipowners in both tanker and liner sectors were found to be equally aggressive, while European tanker operators were a lot more aggressive than European liner operators.
- European shipowners frequently revisited previous decisions to evaluate whether these decisions had indeed been good and whether, as a result of this information, a change in their current approach was warranted. The information from this constant evaluation also influenced future decisions: it worked as a form of experience record which shipowners referred to when making new decisions ('we did this in the past and it produced this kind of result'). In contrast, East Asian shipowners rarely did this systematic 'looking back'; once a decision was made, their approach was to live with the outcome, good or bad, and 'get on with it'. Even when faced with a similar decision in the future, the previous decision was often not cross-referenced; unlike

their European counterparts, they put little weight on previous decisions to guide future action.

Despite these differences, data and observations from the simulation provided no clear evidence that one particular approach or style led to a higher level of performance. While it was probable that different approaches/styles could lead to different levels of performance, the simulation was unable to categorically determine the influence of these factors on performance.

#### **9.4 POST-SIMULATION EVALUATION FINDINGS**

The post-simulation feedback provided by 90 participants focused on two areas: the realism of the simulation, and the overall conduct of the competition (including administrative arrangements). In both areas, problems were identified and specific suggestions for improvement were offered.

##### **How realistic was the simulation?**

In general, most participants agreed that the simulation was realistic (80 per cent said 'yes' and 16 per cent said 'no' to 'not really'). The majority view was that the simulation provided a competitive maritime commercial environment where they could apply different strategies to maximise company performance. However, many commented that the format of the Stratship program and the information it provided were different from what was normally found in their work environment. As one shipping CEO commented, 'This is not the way we present information in our company or even in the previous companies I have worked for. But once I adapted to it, it was no problem.'



Evaluation respondents cited six major limitations of the program, discussed below, which they said might have had an influence on the quality of the decisions and approaches they took during the simulation.

- *Too much (or too little) information was provided.* One group of participants felt overwhelmed by the information provided by the program, saying that they normally did not have access to—much less use—that much information in real life. In contrast, another group complained that the information provided was inadequate, saying that they were used to much more detailed analyses upon which to base their strategic decisions.
- *The simulation was too structured.* Participants found the simulation too structured. Because decision screens were sequentially displayed (route decisions → fleet structure decisions → fleet allocation decisions), many participants tended to follow this program sequence, rather than selecting which aspect (or decision screen) to focus on first.
- *The range of strategic choices available was too narrow.* A number of participants, mostly the more experienced ones, felt restricted by the narrow range of choices available to them. In real life, they would have opted for strategies not provided by the program. Unfortunately, the program did not allow for differences in individual competence, assuming equality in this area and leaving those who were more experienced and competent with very little room to manoeuvre.
- *There was too much time pressure.* In real life, some participants commented, they would normally have more time to make decisions than was available to them during the simulation. There were times when they had to rush through their decision making so as not to lag behind.

- *The temptation to experiment was never far away.* A few participants saw the simulation as a good opportunity to experiment and gave in to temptation. They said they experimented more and took more chances than they would normally have done in real life, justifying their action by telling themselves that the simulation was just a game.
- *The market statistics provided were not current.* A number of participants had expected all information in the Stratship program to accurately reflect current market conditions (e.g. current freight rates, ship prices, charter rates), and felt disappointed when they had to use outdated figures. Although they did say that the available figures were realistic, nonetheless they would have preferred to work with current figures.

Counterbalancing these limitations were also several strengths of the simulation, which participants agreed made up for the program's weaknesses.

- *Competing with peers was a big incentive.* Participants found the opportunity to compete with other shipowners who had similar commercial shipping experience and expertise, and who were often their competitors in real life, a great incentive to participate in the simulation. It encouraged them to be very competitive because, as one participant put it, 'everyone wanted the distinction of coming out on top and beating the pants off their competitor'. Many said that if this opportunity to compete had not been provided, that is, if the simulation had been played individually and results were not compared, then they would not have put in the same effort or encouraged others to compete.

- *Because of time pressure, their behaviour during the simulation approximated their normal behaviour.* The limited amount of time set for the simulation was seen both as a limitation and a strength. While some felt rushed in their decision making, others found that time pressure kept them closer to the bounds of normal working behaviour. 'If we had more time,' confessed one participant, 'we would have done a lot more experimenting, which would not have reflected our normal behaviour. As it was, being under time pressure forced us to stick to what we normally did under similar circumstances.'
- *Working in teams made decision making more realistic.* Participants particularly liked the simulation's team approach because this was the way they normally worked in real life; very rarely did they make such strategic decisions on their own. Team politics under simulated conditions also proved to be very similar to workplace politics, with the more senior ones assuming authority over the more junior team members, and some individuals tending to dominate others.

A secondary benefit of the simulation was that it gave participants a good opportunity to see how strategic analysis and strategy selection worked. Many said that they did not do as much strategic analysis in the workplace as they did in the simulation. To these participants, therefore, it was a big challenge to undertake intensive 'what if' analysis and to follow a disciplined approach of defining their future expectations, setting strategic objectives and coming up with realistic corporate strategies that would enable them to increase their company value. Participants also stated that they used more focused information in the simulation than they did in their organisations.

### **Problems encountered during the simulation**

On the whole, participants had no problems using either the computers or the simulation program. They said that they encountered no administrative problems and found the competition environment satisfactory; that is, the room size, seating arrangement and location of computer screens were all appropriate. Some, however, did mention instances when their computers malfunctioned and had to be reset or replaced, but although this meant loss of valuable time they did not consider it a major problem. Participants also said that they were given adequate time and instruction on the use of the Stratship program before they began the competition.

There were, however, three areas where participants experienced some difficulty during the simulation, and all three involved the use of certain information on the decision sheets.

- *Setting strategic objectives.* Many found it difficult to set strategic objectives. The data also supports this, showing that in a lot of cases objectives were either too broad, not measurable enough to be used as targets to achieve and often, not consistently used or followed. In fact, many teams simply modified them to suit circumstances rather than as targets to achieve.
- *Difficulty in articulating the corporate strategy.* Many found it difficult to put into words the type of corporate strategy that they would pursue. In some cases, this meant that valuable data was not used because of this.
- *Using time frames.* Once they experienced the level of uncertainty built into the simulation program, many had difficulty having to always put a time frame on their future predictions, strategic objectives, and corporate strategies.

The major reasons given for the first two problems were language difficulties and lack of strategic management training. The simulation was conducted in English (both verbal and written), and for most participants, English was their second or even third language. Some thus found it difficult to express themselves, especially when they had to explain their corporate strategy. The lack of strategic management training, which limited their familiarity with formal strategic management concepts, also added to the difficulty.

## **9.5 SUMMARY**

Primary findings from the simulation showed strong support for all six assumptions of the strategic choice model, indicating the model's applicability to Asia-Pacific shipping. However, slight modifications to the model were needed to reflect a general tendency among shipowners to use other strategies in combination with those offered by the model. Secondary findings highlighted differences in team decision-making styles, use of information, environmental focus, and competitive performance. Cultural differences between East Asians and Europeans were also identified. Post-simulation evaluation feedback showed that despite the limitations and difficulties encountered during the simulation, the overall majority view was that the simulation was a realistic assessment of shipowners' strategic behaviour. In particular, participants found that the simulation represented a fair assessment of their performance, the simulation environment was just as competitive, tough and/or hard to foresee as reality was, and the strategies they pursued, and the conditions upon which these strategies were based, reflected what they would have actually done in real life. Overall, participants found the simulation a useful and stimulating learning tool for honing strategic decision-making skills. For many of

them, unfortunately, such simulation programs or similar tools to assist strategy selection were not available in their organisations.

In the next chapter, the discussion on research findings moves on to the final stages, where primary findings from the survey, interviews, and simulation are synthesised to produce a shipping-based strategic choice model.

## **Chapter Ten**

### **RESEARCH FINDINGS: SYNTHESIS**

This final chapter brings to a close the discussion on research findings. It commences with a synthesis of shipowner-generated information and the revision of the strategic choice model into a shipping-based model. Then feedback from shipping experts who reviewed this shipping model is presented. Finally, a revised version of the model for use in Asia-Pacific commercial shipping is offered.

#### **10.1 FIRST ITERATION OF THE MODEL: SHIPOWNER FEEDBACK**

As discussed in Chapter Six (The Conceptual Framework), the strategic choice model assumes that under certain environmental conditions, certain generic corporate strategies are more appropriate to pursue than others. The model provides a system by which environmental conditions are assessed on the basis of market (or external) and organisational competitive (or internal) factors that are relevant to the organisation at the particular time when strategic choices are made. As noted earlier, internal or organisational competitive factors refer to an organisation's strengths and weaknesses vis-a-vis competitors; external or market factors refer to the opportunities and threats in the environment in which the organisation competes. On the strategic choice model, the overall strategic position of a business or organisation is ranked on a sliding scale, with a 'high' or a 'low' rating marking either end of the continuum. The more strengths and opportunities a business/organisation has, the higher is its strategic position; the more weaknesses and threats, the lower the position. Judgments on such strategic positions

are typically qualitative, based on the decision maker's knowledge, experience and intuition, bolstered by access to good external information.

The original model is reproduced in Figure 10.1. As the model shows, when an organisation rates highly on both organisational and market factors, which means it is competitively strong and the market offers many opportunities, its best course of action is to 'grow' (quadrant 1). If it is competitively strong but there are many threats in the market, a better alternative is to 'stabilise', that is, to keep the status quo (quadrant 3). If an organisation is competitively weak but the market offers many opportunities, it should take advantage of these opportunities by pursuing a 'develop' strategy in new areas or a 'turnaround' strategy in existing areas (quadrant 2). However, if the organisation is weak and there are more threats than opportunities in the market, a 'harvest' strategy is more appropriate (quadrant 4).

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		<b>Organisational Competitive Factors</b>	
		High (Strengths)	Low (Weaknesses)
<b>Market Factors</b>	High (Opportunities)	<b>Quadrant 1</b> Grow	<b>Quadrant 2</b> Develop/Turnaround
	(Threats) Low	<b>Quadrant 3</b> Stabilise	<b>Quadrant 4</b> Harvest

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**Figure 10.1** The original version of the strategic choice model



### **Assumptions of the strategic choice model**

Because the assumptions underlying the strategic choice model had been drawn largely from non-shipping areas, the extent to which they applied to Asia-Pacific shipowners required testing. As presented earlier, if the model was correct, then Asia-Pacific shipowners would:

- 1 change/modify their strategies in response to changing environmental conditions.
- 2 base strategic changes and the time frame for these changes on their future expectations of environmental conditions.
- 3 pursue a 'grow' strategy when both internal (i.e. organisational competitive) and external (i.e. market) factors were high (competitively strong, many market opportunities).
- 4 pursue a 'stabilise' strategy when internal environmental factors were high and external factors were low (competitively strong, many market threats).
- 5 pursue a 'turnaround' or 'develop' strategy when internal environmental factors were low and external factors were high (competitively weak, many market opportunities).
- 6 pursue a 'harvest' strategy when internal and external environmental factors were both low (competitively weak, many market threats).

### **Shipowners' response to the six assumptions**

To what extent did shipowner data support the model's assumptions? Table 10.1 summarises the majority views obtained from the survey, interviews, and simulation. The 'yes' columns represent those who strictly adhered to the model, that is, without any deviations; the 'qualified yes' columns, those who also followed the model but modified it occasionally or regularly for strategic reasons.

**Table 10.1 A summary of shipowners' feedback on the strategic choice model**

	Survey		Interviews		Simulation	
	Yes	Qualified Yes	Yes	Qualified Yes	Yes	Qualified Yes
The model assumes that Asia-Pacific shipowners will:						
1 change/modify their corporate strategies in response to changing environmental conditions	85	7	75	12	58	18
2 base strategic changes and the time frames of these changes on their future expectations of environmental conditions	80	–	44	16	74	–
3 pursue a 'grow' strategy when internal and external environmental factors are both favourable	76	8	63	22	55	30
4 pursue a 'stabilise' when internal environmental factors are favourable but external factors are not	72	9	61	19	67	14
5 pursue a 'develop' or 'turnaround' strategy when external factors are favourable but internal factors are not	68	–	52	25	44	32
6 pursue a 'harvest' strategy when internal and external environmental factors are both unfavourable	52	17	65	–	79	7

From the table, several key trends can be observed:

- Data obtained through the three research methods (survey, interviews, simulation) revealed a similar pattern of response. Shipping respondents supported all six assumptions of the strategic choice model, with survey respondents giving an overall support rating of 79 per cent; interviewees, 75 per cent; and simulation participants, 79 per cent. The aggregate majority vote averaged around 78 per cent.
- As the 'qualified yes' columns indicate, strategic choices were not always limited to those assumed by the model. In both self-reports (survey and interviews) and

simulation data, the tendency to modify the model's parameters for strategic purposes was evident. Shipowners either changed direction occasionally to pursue a strategic objective (e.g. disregarding future expectation of market conditions or pursuing a particular strategy under conditions not called for in the model) or regularly combined the strategy specified in the model with other strategies (e.g. 'grow' with 'develop' and/or 'stabilise').

The 'mix and match' practice by shipowners initially emerged from the survey data, but the extent to which it was done, and how it was done, did not become clearer until during the interviews and simulation. To a great extent, this process of gradual clarification was to be expected given the relative merits of the research methods used. The mail survey provided initial baseline information about the shipping respondents, but it relied solely on the ability and willingness of individual respondents to provide the necessary information. In contrast, interviews allowed further probes into interviewees' thoughts and practices so that the nature and frequency of modifications made to the model, as well as the reasons behind them, were more clearly explained. The simulation also made a high degree of clarification possible because participants were required to make specific strategic decisions under changing environmental conditions, thereby allowing specific linkages to be established between strategies and environmental conditions. That all three methods led to a similar pattern of responses confirmed their convergence as called for by the triangulation approach.

#### **An Asia-Pacific shipping strategic choice model: Initial version**

Based on the analysis of shipowners' data, the following conclusions could thus be drawn regarding strategy selection among the Asia-Pacific shipowners who participated in the study:

- The generic strategic choice model was applicable to Asia-Pacific commercial shipping, but certain modifications were required.
- As a rule, Asia-Pacific shipowners changed/modified their corporate strategies in response to changing environmental conditions, but where strategic objectives or other organisational considerations (notably, preferences of major stakeholders and internal politics) ran counter with market conditions, the former took precedence and changes were not always implemented even if called for by the model.
- Asia-Pacific shipowners based strategic changes and the time frames of these changes on their future expectations of environmental conditions; however, there were occasions when such expectations, particularly of market conditions, were subordinated to other, more significant, strategic considerations.
- When organisational competitive (or internal) and market (or external) factors or conditions were both favourable (competitively strong, many market opportunities), a 'grow' strategy was the preferred choice, pursued alone or in combination with 'develop' and 'stabilise' strategies.
- When organisational competitive factors were favourable but market factors were not (competitively strong, many market threats), a 'stabilise' strategy was the preferred choice, pursued alone or in combination with 'grow' and 'develop' strategies, and to a much lesser extent, with a 'harvest' strategy.
- When market factors were favourable but organisational competitive factors were not (competitively weak, many market opportunities), 'develop' and 'turnaround'

strategies were the preferred choices, pursued jointly or independently of each other, or in combination with a 'grow' strategy.

- When organisational competitive factors and market factors were both unfavourable (competitively weak, many market threats), a 'harvest' strategy was the preferred choice, either pursued alone or in combination with a 'turnaround' strategy.

These preferred strategy choices are plotted in matrix form in Figure 10.2. This figure now represents the revised version of the original strategic choice model and is the first iteration of a shipping-specific strategic choice model. Strategies preceded with a plus (+) sign are the additions made by shipowners. It should be noted that in the simulation data, the 'harvest' strategy appeared as another choice; however, because it was not as widely and as frequently used as the other strategies, it has been excluded from the model.

		Organisational Competitive Factors	
		High (Strengths)	Low (Weaknesses)
Market Factors	High (Opportunities)	<b>Quadrant 1</b>  Grow (+Develop) (+Stabilise)	<b>Quadrant 2</b>  Develop Turnaround (+Grow)
	(Threats) Low	<b>Quadrant 3</b>  Stabilise (+Grow) (+Develop) (+Harvest)	<b>Quadrant 4</b>  Harvest (+Turnaround)

Figure 10.2 The Asia-Pacific shipping strategic choice model: First iteration

## **10.2 EXPERT REVIEW OF THE SHIPPING MODEL**

A final aspect of the research approach used in the study was to subject the shipping-based model to an expert review. The objective was to compare results obtained from shipowners with another data source, in this case, a combination of academics and practitioners who knew Asia-Pacific commercial shipping and were experienced in corporate strategy selection. The expert panel used for this purpose comprised of maritime management (6) and strategy (2) consultants, maritime academics (2), shipowner associations' representatives (3), and shipping research institutes' representatives (2). All were based in the Asia-Pacific region.

A briefing paper describing the strategic choice model for Asia-Pacific commercial shipping was sent to each expert for review. They were asked to comment on the model's realism (i.e. whether it represented what Asia-Pacific shipowners actually did) and its utility as an analytical/evaluation tool to help shipowners in their strategic analysis and strategy choices, and to recommend specific ways by which the model's applicability to Asia-Pacific shipowners could be enhanced. Comments received were compared against shipowner data so that a final version of the strategic choice model for Asia-Pacific shipping could be drawn up. These comments were mostly in written form, although some were given over the phone or in person.

While all 15 experts reviewed the model, the quality of the feedback provided was uneven. Some reviews were sketchy, providing a brief and/or general critique of the entire model ( 40 per cent or 6 experts); others were more specific and useful, singling out certain aspects of the model and expanding upon them (60 per cent or 9 experts). The experts' feedback to each question they were asked is summarised in Table 10.2.

As the table shows, support for the model's realism was strong (87 per cent), and majority (67 per cent) agreed it was a useful tool for strategic decision making. However, in both areas, a number of issues were raised which could diminish the model's realism and utility unless adequately addressed; these are discussed below under their respective headings. Several specific suggestions to improve the model were also offered.

**Table 10.2 Expert feedback on the strategic choice model for Asia-Pacific shipping (%)**

	Very realistic	Realistic	Unsure	Somewhat realistic	Not at all
How realistic is the model, that is, to what extent does it reflect what you know about Asia-Pacific shipowners?	20	67	13	0	0

	Very useful	Useful	Unsure	Somewhat useful	Not at all
How useful would Asia-Pacific shipowners find the model as a tool for analysing and selecting corporate strategies?	20	47	20	13	0

	Suggestion	Times cited
In what specific ways can the model be improved to enhance its realism and utility?	Improve the rating scale <ul style="list-style-type: none"> <li>• Add a rating scale to the model</li> <li>• Use % for rating scale</li> </ul>	4
	Improve terminology: <ul style="list-style-type: none"> <li>• Add the word 'shipping' to 'market factors'</li> <li>• Delete the word 'competitive' from 'organisational factors'</li> <li>• Add 'key success factors' to each variable name</li> </ul>	6
	Provide training in the proper use of the model	3

### **Realism of the model**

A big majority agreed that the model was realistic (87 per cent); that is, that its six assumptions represented what Asia-Pacific shipowners generally did in real life. However, two experts (13 per cent) expressed some uncertainty. While they may represent a minority view, their comments are worth noting because they reflect concerns also aired in the strategic management literature. Both experts were concerned

that the model might be too simplistic because of its reliance on the matrix approach to strategy selection and evaluation. They thought the use of a two-dimensional scale was too narrow a view and queried what would happen when strategies or factors fell right on the borderline between quadrants. While they were not able to offer any alternative approach, leading one expert to add that 'this model was better than none at all', both emphasised the need for 'better guidance or some means of measurement otherwise the model would become unrealistic'.

A few other experts also queried the model's assumption that the user would be able to competently define key environmental factors. According to one, the model would be realistic only to the extent that users knew how to use it: 'This would be difficult for some shipowners who are not skilled in strategic analysis; I wouldn't put much store on its realism if put in the hands of an unskilled user'. Suggested another: 'Detailed instructions should accompany the model so that even the novice could follow it; either that or give them some training.'

#### **Utility of the model as an evaluation tool**

Opinion on this question was more dispersed, with a smaller majority (67 per cent) seeing the model as a useful evaluation tool. Some of these experts likened the model to a strategic map on which strategic alternatives could be viewed and plotted, providing a broad-picture perspective of the strategic terrain. One expert explained:

[Asia Pacific] shipowners get so caught up in day-to-day operational decisions that it is often very difficult to get them to step back and take a look at the broader picture of how they intend to achieve their objectives and what corporate strategies they will use to guide the organisation. As a result, their decisions are more likely to be operational and short term rather than strategic. They also often miss the broader emerging trends. This is where the model can help them if they use it. It will force them to look beyond their narrow operational focus because of the emphasis given to thinking about and identifying key environmental information.



Among those who were unsure of the model's usefulness as an analytical/evaluation tool (33 per cent), the lack of training and expertise in strategic analysis was cited as a major hindrance in the use of the model. A typical comment was that 'because of the lack of training in [strategic] management and the usual approach by a lot of shipping people to make decisions based upon intuition as opposed to using planning tools like this one, it may not be useful simply because they won't know how to use it properly. Only if they are trained in its use and can appreciate the benefits of using it will it truly be useful to them.'

Another threat to the model's utility is the tendency of many people to follow it blindly, instead of making an intelligent use of it as an analytical model to aid in the selection and evaluation of corporate strategies. As one expert described it, 'There is always the danger of these sorts of models being used as some sort of 'cookbook'. Some people will expect it to provide all the answers to their prayers and tell them exactly what to do. They don't have to think because the model will provide all the answers and a step-by-step recipe to success. Then when they find out that it doesn't work like that, the model is branded as useless.' Another expert added, 'If the model is used properly, it will tend to raise a lot more questions that it attempts to answer. However, that is a big if!'

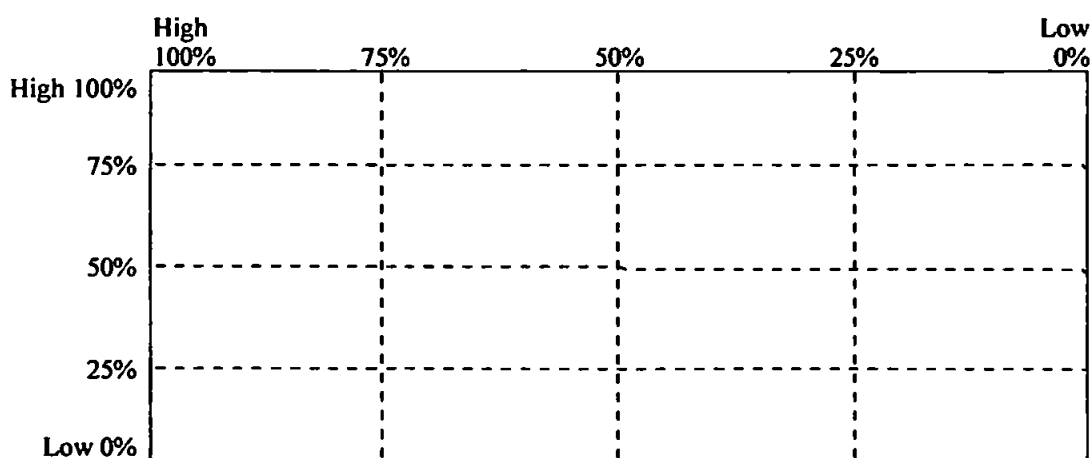
### **Suggestions for Improvement**

Given these concerns, what improvements should be made to the model? According to the few experts who provided specific suggestions, changes could be made in two areas: the use of a rating scale and changes to the terminology.

*Rating scale.* A frequently cited limitation of the model is its lack of a rating scale for plotting the strategic position of a business or organisation. While judgmental calls were essential, commented one, it would help if there was some standard basis for decision making: 'everybody around the table should have the same yardstick.' Such a scale should also overcome the problem of 'fence-sitters', that is, those businesses or organisations that sit on or close to quadrant borders because it would make it easier to plot a business' or organisation's position relative to its strengths and weaknesses and to the opportunities and threats it faces.

It was also suggested that an effective rating scale would be expressed in percentage points, rather than the usual numeric scales (e.g. 1-5, 1-10), even though conceptually they were the same thing. According to one expert, 'shipowners are so used to dealing with percentage figures that it would be much easier for them to rate their business(es) in this manner. The moment you changed this to a 1-10 scale, which is saying the same thing, you will have problems because this will require a change in mindset for some.'

The application of this suggestion could thus produce a 5-point rating scale (that is, 0%, 25%, 50%, 75% 100%) such as the one illustrated below:



*Terminology.* Three changes to the terminology were suggested to tighten up the meaning of variables: add the word 'shipping' to market factors to emphasise the model's shipping orientation, delete the word 'competitive' from 'organisational competitive factors' since competitive factors depended on overall organisational health ('if the organisation isn't fit, it can't compete'), and rename each set of variables to 'shipping market success factors' and 'organisational success factors'.

As the preceding discussion shows, shipping experts lent their support to the model, both in terms of its realism and utility as an evaluation model. No major conceptual criticism was made, with suggestions focusing more on technical areas, e.g. the rating scale and terminology. As the next section shows, these suggestions were incorporated into the final version of the model.

### **10.3 A STRATEGIC CHOICE MODEL FOR ASIA-PACIFIC SHIPPING: FINAL VERSION**

Figure 10.3 represents the final version of the strategic choice model for Asia-Pacific commercial shipping. It synthesises the study's primary findings on corporate strategy selection by Asia-Pacific commercial shipowners. These findings were obtained through a triangulation process that allowed the researcher to successively cross-check and confirm information obtained through three research methods (survey, interviews, simulation) and from two data sources (shipowners, shipping experts). The researcher's review of relevant documents and observations of simulation activities also provided additional data. Throughout, a qualitative approach to data analysis was used, except where the data lent itself to statistical analysis, as was the case with some survey data for which a descriptive statistical analysis was conducted. The high degree of congruence

among the various sets of findings establishes strong support for the model's applicability to Asia-Pacific commercial shipping.

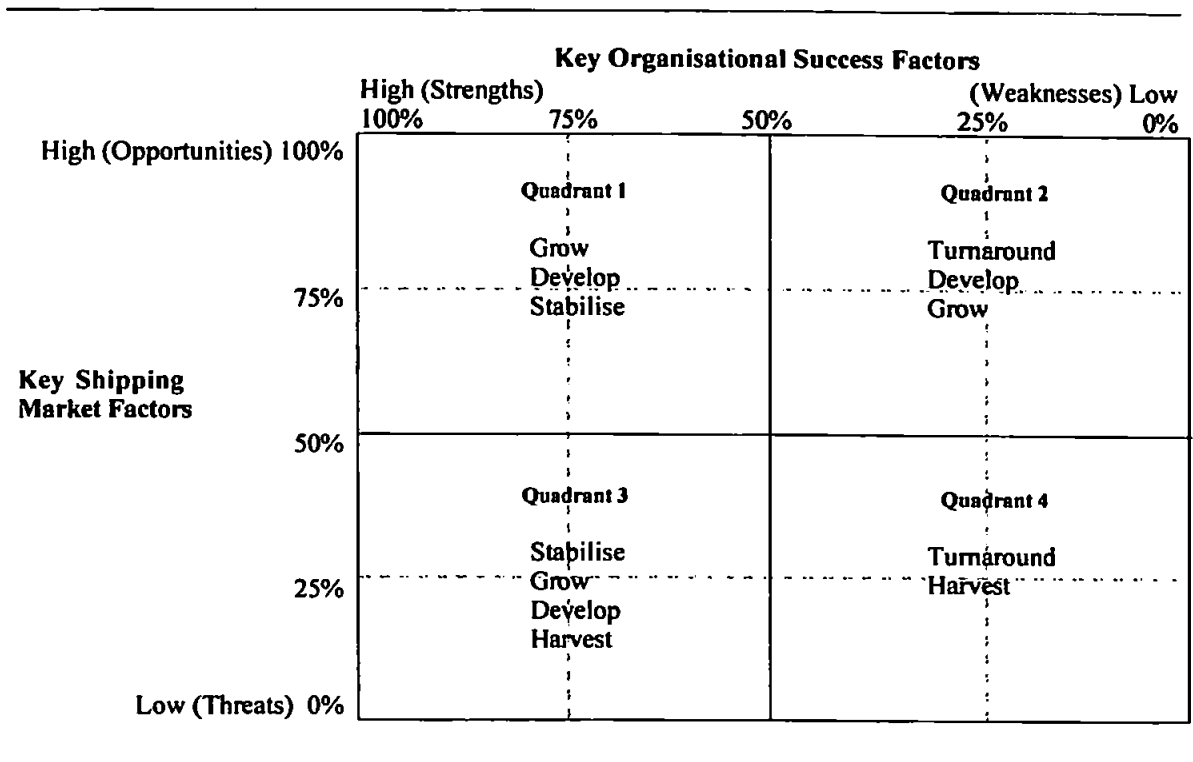


Figure 10.3 Final version of the strategic choice model for Asia-Pacific shipping

#### Focus of analysis

The model can be used to analyse the strategic position of a single business unit, or the relative positions of different business units operated by an organisation, or the relative position of an organisation vis-a-vis its main competitors.

#### Variables for the environmental assessment

The model bases strategy selection on an assessment of an organisation's internal and external environment. The internal environment is described on the horizontal axis in terms of organisational success factors; the external environment on the vertical axis in terms of shipping market success factors. Organisational success factors refer to an organisation's strengths and weaknesses relative to its major competitors; shipping

market factors refer to the opportunities and threats in the particular area(s) in which the organisation competes. This type of analysis is popularly known in the literature as the SWOT approach, with SWOT being an acronym for strengths, weaknesses, opportunities, and threats.

### **Rating scale**

The rating scale is used to plot the relative position of an organisation on the two dimensions discussed above, that is, in terms of organisational success factors (strengths and weaknesses) and shipping market success factors (opportunities and threats). The scale has 5 cut-off points, expressed as percentages, with 0% representing the 'low' end of the continuum and 100% the 'high' end. The more strengths an organisation has and the more opportunities there are in the market, the higher is the organisation's strategic position; conversely, the more weaknesses an organisation has and the more threats there are in the market, the lower is the organisation's strategic position. The 5 cut-off points on the scale are interpreted as follows:

	<b>Organisational Success Factors</b>	<b>Shipping Market Success Factors</b>
100%	many strengths and no weaknesses	many opportunities and no threats
75%	many strengths but a few weaknesses	many opportunities but a few threats
50%	strengths and weaknesses balance out	strengths and weaknesses balance out
25%	many weaknesses with a few strengths	many threats but a few opportunities
0%	many weaknesses and no strengths	many threats and no opportunities

A qualitative or quantitative approach can be equally used to plot an organisation's position on the matrix; however, a combination of both is advisable as this provides a more solid basis for decision making. Qualitative assessment involves the use of judgment, intuition ('gut sense'), and experience to gauge the relative position of the organisation. Quantitative assessment involves a more systematic measurement of

success factors by assigning specific weights and ranks to each success factor and calculating an overall ranking. The combined use of judgment calls and systematic measurement serves as an effective check-and-balance tool during decision making, with one method informing and enriching the other.

### **Types of corporate strategies**

The five corporate strategies shown in the model have been discussed in detail in Chapter Four, hence, only a brief description of each strategy is provided here. An organisation may choose to *grow* or *develop* if it wants to compete in high-growth areas; the two strategies differ in that the first (*grow*) is used when the organisation has already achieved a foothold in the market while the second is used when the organisation wants to enter a new niche area or market. If an organisation chooses to *stabilise*, its aim is to maintain the status quo either by keeping to a tried and tested course, changing incrementally in response to environmental changes, or both. If it is in financial trouble, it is likely to choose a *turnaround* strategy to enable it to reduce or eliminate those activities that are hurting its performance and restore financial viability; if this does not work, it may move on to a *harvest* strategy where the objective is to divest of a poorly performing business or parts of it that are and/or get out of a particular market.

### **Strategic choices**

Figure 10.3 shows the different combinations of strategies Asia-Pacific shipowners are likely to pursue within each quadrant of the matrix. This 'mix and match' approach is preferred to the one or two choices offered by the original strategic choice model because it makes it easier for organisations to achieve strategic balance and reduce the risks to the organisation.

In quadrant 1, where there are many market opportunities and the organisation is competitively strong, a 'grow' strategy is typically pursued to further strengthen an organisation's position in highly profitable areas where it already operates, but it may also pursue a 'develop' strategy to enter into new high-profit areas and/or a 'stabilise' strategy to maintain its strong position in more mature markets.

In quadrant 2, where there are many market opportunities but the organisation is competitively weak, the more appropriate approach is to pursue a 'develop' and/or 'turnaround' strategy, and to a lesser extent, a 'grow' strategy. The first and last are both aggressive approaches, aimed at building the organisation's competitiveness in, respectively, new and existing highly profitable areas of operation; the second is an emergency measure, designed to overcome serious financial problems and restore financial health and viability. Whether these strategies are pursued singly or in combination with one another depends on the shipowner's number of businesses and the level of risk it is prepared to take.

In quadrant 3, where there are many market threats but the organisation is competitively strong, the main strategy pursued is 'stabilise', where the objective is to maintain the status quo, with changes kept to a minimal and incremental level. However, 'grow', 'develop', and to a lesser extent, 'harvest' strategies may also be pursued, either as a substitute to or in combination with 'stabilise', to offset market threats and spread the risks. 'Grow' and 'develop' are normally pursued when the organisation decides to speculate; 'stabilise' is chosen when the organisation decides to sell up and get out of the business while it is still highly marketable.

In quadrant 4, where the organisation is competitively weak and faces many market threats, a 'harvest' strategy is usually pursued, with the organisation selling up and getting out of the unprofitable area, but it may also be substituted or combined with a 'turnaround' strategy in an attempt to turn the organisation's fortunes around and make it financially viable again.

### **Using the model**

The process of analysing an organisation's environment to determine its strategic position and subsequently choose the most appropriate strategy or combination of strategies involves three main steps.

*Step 1* Identify key organisational and shipping market success factors of particular relevance to the organisation at the time the analysis is conducted.

This step requires a broad outlook, rather than a myopic or parochial one, because there are no set factors to draw on. Factors differ according to shipowner and market segment, and they change over time. It is important, therefore, for the organisation to look both inside (which is relatively easy) and out (which is more difficult as access to rich external information may not always be easy to obtain) to spot new and potential opportunities and threats, and select those strategies that will optimise the organisation's strengths and reduce its weaknesses. With a reasonably wide scan of the external environment, balanced by a realistic estimate of the organisation's competitiveness, strategic decision makers would be better placed to gauge their organisation's relative strength and profitability in the market.



**Step 2** Using the rating scale, rate and plot the relative position of each business area of the organisation on the matrix.

This can be based on 'gut sense' and judgment calls, with decision makers using their knowledge of the organisation's various business areas to position them along the x-and y- axes of the matrix. An alternative approach is to assign weights to specific success factors to standardise the rating process. However, as in step 1, there is no standard set of weights available; every organisation would have to decide on these themselves, depending on the relative importance they attach to the environmental factors they have identified in step 1. A third approach is to take a combined qualitative and quantitative approach to enhance confidence in the decisions made.

**Step 3** With the relative position of each business area plotted on the matrix, evaluate which or whether the strategies recommended by the model are appropriate to pursue, given the organisation's strategic objectives and environmental assessment.

Again, there is no magic formula to reach the 'right' answer; when selecting strategies, particularly when several choices are available and the organisation falls close to or on the borderline, decision makers would need to depend on intuitive judgment, to ask critical questions, to think strategically, so they can make wise choices.

### **Strategy selection as part of a process**

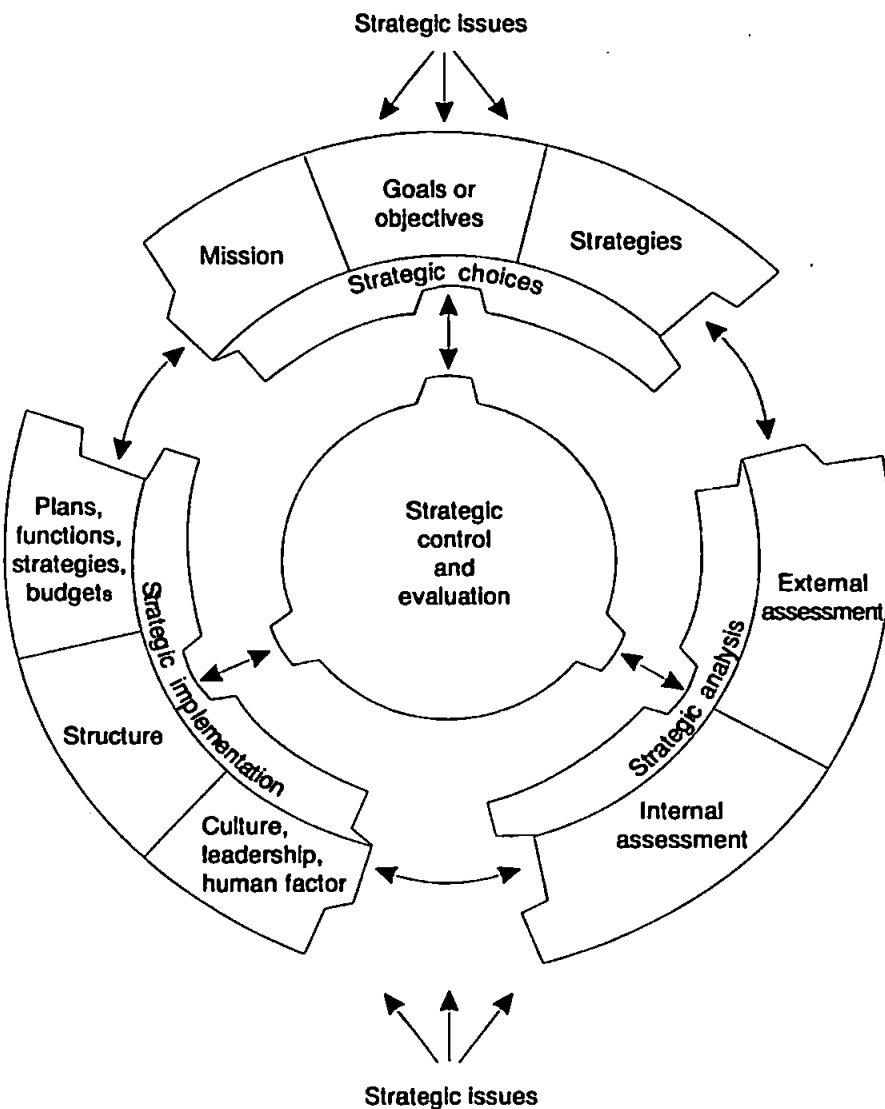
While selecting the 'right' corporate strategy is essential to survival in an increasingly competitive and globalised shipping market, it is also wise to reiterate what has been

said earlier in this thesis: that strategy selection is but one aspect of the broader strategic management process and that corporate strategies are but one level of strategies that an organisation should be concerned with. Thus while this study has focused on strategy selection, in practice, there is a need for a constant zooming in and out, the first to focus on the fine details on any one aspect of the environment, the second to take in the broader picture and the various opportunities and threats it holds.

Table 10.3 shows the three main strategy levels (corporate, business, functional) that an organisation should orchestrate and monitor, and the various strategy types that fall under each category, while Figure 10.4 shows where strategy selection fits within the strategic management process. Both the table and the figure appear elsewhere in the thesis (Tables 4.8 and 6.1; Figures 1.2 and 6.3); they are reproduced here for easy reference.

**Table 10.3 Typology of strategies**

Strategy Level	Generic Strategy Type	Specific Strategy			
		Primary		Secondary	
		Internal	External	Internal	External
Corporate (Generic)	Grow Develop Stabilise Turnaround Harvest	<p>A common pool of specific strategies can be used to support corporate or business level strategies. This pool is also the source of functional strategies. Among the more well known specific strategies are:</p> <p><i>Internal:</i> Concentration Diversification Divestiture Integration Liquidation Newgame Samegame Timing</p> <p><i>External:</i> Merger Acquisition Joint venture</p> <p>Strategies are <i>internal</i> when they require a company's own resources; <i>external</i> when they require external resources.</p> <p>If they are first choice, they are <i>primary</i>; if they are alternatives, they are <i>secondary</i> (or ancillary or contingency).</p>			
Corporate (Multinational)	Global cost leader Global niche Protected national market National niche Intelligent follower				
Business	Cost leadership Differentiation Cost focus Differentiation focus				
Functional					



**Figure 10.4 A model of the strategic management process**  
 Source: Hawkins, 1993

To put the research findings synthesised in this chapter into perspective, it is essential to reiterate what was said earlier in Chapter Six (The Conceptual Framework): ‘The [strategic management] model is represented as a circular flow to show the iterative and dynamic nature of the strategic management process. All the various activities in the process are closely interrelated, with any one activity able to lead directly to another and with some activities occurring simultaneously. All the components of the model also lock together, much like the pieces of a jigsaw puzzle, to form an integrated system.

While the individual parts may each be taken as a discrete element, with its own particular function and focus, their respective roles and functions can only be properly understood when examined within the context of the whole.'

## **Chapter Eleven**

### **CONCLUSIONS AND ISSUES FOR FURTHER RESEARCH**

This study had three objectives: to analyse the strategic choices that Asia-Pacific shipowners pursued at the corporate level, compare actual shipowners' behaviour with strategic management theory on strategy selection, and develop a strategy selection model that was applicable to Asia-Pacific shipowners and consistent with strategy management theory.

To achieve these objectives, the first step was to conduct a review of the literature to determine what was currently known about corporate strategy selection within the context of Asia-Pacific shipping. The review began with a broad look at the Asia-Pacific region and commercial shipping in the region (Chapter 2), and at the development of strategic management as a field of inquiry (Chapter 3). Next, the nature of strategy was examined in depth, and the various types and levels of strategies identified were synthesised into a typology of strategies (Chapter 4). The main strategy selection models found in the strategic management literature were also reviewed, and a generic strategic choice model based on these models was drawn up (Chapter 5). Finally, a conceptual framework, which incorporated the generic strategic model and typology of strategies, was developed (Chapter 6). The framework had one primary question to answer: would the model's six assumptions on corporate strategic choices hold true for Asia-Pacific shipowners?

To find out, the next step in the study was to get some answers from Asia-Pacific shipowners themselves, and these were elicited through a mail survey, interviews, and a

computer-based shipping simulation (Chapter 7). Results showed that all six assumptions of the strategic choice model applied to Asia-Pacific shipowners (as represented by those who participated in the study), but some modifications were required (Chapters 8 and 9). These modifications, as well as suggestions made by shipping experts from the Asia-Pacific region, were then incorporated into a shipping-specific strategic choice model. While the model focused on corporate strategy selection, it also reiterated the need to view strategy selection and corporate strategies as an integral part of the broader strategic management process, and a constant zooming in and out was necessary to retain the big picture even while fine-tuning specific details (Chapter 10).

In all the three chapters on research findings, specific conclusions were drawn about corporate strategic choices made by shipowners; this was a necessary process in qualitative data analysis, which required that general patterns and themes be progressively teased out of the data throughout data collection and analysis. From these specific conclusions, broader conclusions, as well as issues for further research, can now be drawn regarding strategy selection in general and strategic choice patterns of Asia-Pacific shipowners in particular. In the discussion that follows, it should be noted that the term 'European' is used in a generic sense; it includes not only those born in Europe but also North America, Australia, and New Zealand.

## **11.1 CONCLUSIONS**

Three sets of conclusions are presented in this section. The first deals with the practical aspects of corporate strategy selection by Asia-Pacific shipowners; the second, with

methodological considerations, and the third, with the theoretical implications of the findings to the applicability and utility of the generic strategic model.

### **Corporate strategy selection by Asia-Pacific shipowners**

1 Who is responsible for corporate strategic choices? On this question, the study echoed what is widely acknowledged in the strategic management literature, that is, that senior management is primarily responsible for making corporate strategic choices. Senior management in this case represents three levels: the top executives who are responsible for the entire organisation, divisional managers responsible for major areas/divisions within the organisation, and managers responsible for providing corporate-level advice and assistance on strategic planning and strategic management. All three groups are expected to contribute to the decision-making process, but to a great degree, culture dictates the way their respective roles are interpreted.

From the interview and simulation data, the study found that among managers of European descent, the decision-making process was more democratic and participative; among East Asians, it was more autocratic and hierarchical. Interviews in particular revealed that while the former viewed strategy selection as a shared responsibility among senior managers, the latter expected the top executive (e.g. CEO, President, or Chairman) to take control of the reins while the rest followed and provided support. These differences extended to the breadth of organisational involvement. Although European senior managers saw corporate strategy selection as primarily their concern, they expected the lower to middle management levels to be involved in the process; in contrast, East Asians had no

such expectations; to them, corporate strategy selection was the sole domain of senior management, requiring little or no involvement by the lower levels.

- 2 Perhaps far more significant than the 'who' was *how* Asia-Pacific senior managers made strategic choices. The study showed that senior managers did not necessarily behave as assumed by the strategic choice model or the dominant rationalist school of strategic management thought.

Strategies were selected regardless of environmental conditions to pursue strategic objectives, or they were maintained even when changes were called for by environmental conditions because of management conflict, inertia, fear, or inexperience. The study also found that Asia-Pacific shipowners in general did not follow a formalised approach to strategic planning and/or strategy selection; strategic planning was carried out, but it did not necessarily lead to formal documentation. Rather, the preferred process emerged to be informal, intuitive, and incremental. Further, while discussions and consultations were held to make strategic choices, formalised approaches to analysing the environment and evaluating strategic alternatives, such as scenario analysis and computer simulation, were not widely used. Neither it seemed was there an extensive use of external information sources; these, to many, were too unreliable and costly to warrant usage. Much of the decision making was based on personal knowledge, experience, and intuition.

- 3 To a great extent, managerial frames of reference (Hamel and Prahalad, 1993), or what are more colloquially known as 'mindsets', determine an organisation's strategic choices.



The study found that where senior managers were more willing to take risks and speculate, an organisation was more likely to choose aggressive strategies and disregard prevailing environmental conditions to pursue strategic objectives; where senior managers were more cautious, preferring to stay within safe margins, the organisation was more likely to pursue less risky strategies and keep within the parameters of the strategic choice model. Where senior managers were more conservative, the organisation was also more likely to have in place formalised strategic planning systems. In this study, such organisational differences surfaced between bulk and liner trades, and between large and small operators. Shipowners in the bulk trades pursued more aggressive strategies and took more risks; in contrast, their counterparts in the liner trades opted for 'safer' choices that would reduce financial risks. More shipowners in the liner trades were also found to have strategic plans than their counterparts in the bulk trades; this was true as well with large operators, who tended to follow more formalised strategic planning processes than smaller operators. Differences also extended to national cultures. East Asian shipowners were found to take more risks, pursue more aggressive strategies, and follow a more informal process than their European counterparts. As noted earlier, they also tended to be more autocratic in the way they made decisions, limiting discussions to senior management only and expecting lower-level ones to follow and implement; in contrast, European managers tended to consult more broadly and include more formalised planning approaches in their decision making.

- 4 Within Asia-Pacific shipping, there is a prevailing lack of familiarity with the theories and models of strategy selection (and strategic management as a whole) and with recent developments in this field of study.

Although Asia-Pacific shipowners did pursue corporate strategies, a big majority did not show much familiarity with the mainstream literature on strategy selection (i.e. types and levels of strategies, strategy selection models, strategy selection process, analytical/evaluation tools, relationship between strategy selection and overall strategic management). To a great degree, this could be traced to a lack of training in general management and/or strategic management, and a subsequent lack of exposure to current developments in these fields. Throughout East Asia especially, the explosive growth of the various economies in the region over the last two-three decades has significantly increased demand for managers at middle and senior levels who knew how to do business in a highly competitive and increasingly globalised market. Unfortunately, as recent surveys show (Granitsas and Saywell, 1997), this demand has so far been largely unmet.

While similar figures specifically for shipping are not available, and while the current financial crisis gripping the region may well have dampened some of this demand, it would still be fair to assume that the demand for experienced and well-trained senior managers is still acutely felt in the Asia-Pacific shipping industry. The industry has grown rapidly in recent decades to meet regional and world transport needs; it now controls about 38 per cent of the world fleet, second only to Europe, which controls 44 per cent. A fleet this large, whose growth has been compressed into a remarkably short period of time, would not have had the time to groom managers with the training, experience, and expertise in both intra-regional and global trading. Neither would it have found a ready pool of qualified managers from European countries, as there has been a steady decline in their numbers in the last two decades (Bennett, 1996). Current efforts by international

organisations now focus on the need to provide strategic management training; UNCTAD (1995), for instance, conducts various formal and on-the-job training programs to upgrade strategic planning and management skills within the maritime industry. In recent years, seminars on strategic planning for senior shipping management in the Asia-Pacific region have been conducted, and strategic planning courses for shipping managers developed under UNCTAD's TRAINMAR program.

The general profile of the Asia-Pacific shipowner that emerges here bears strong resemblance to what studies outside the maritime field have found (e.g. Lasserre and Schutte, 1995; Napier and Albert, 1990; Hofstede, 1980). In terms of general organisational management perspectives and practices, Asia-Pacific shipowners exhibit similar behavioural trends observed in other industries in the region: among East Asians, a deference to authority and conformance to the group; among Europeans/North Americans, democratic decision-making approaches and emphasis on individualism (Hofstede, 1980). In terms of strategic planning, the pattern of response is also similar: East Asians follow a more intuitive, informal, and incremental approach to decision making; Europeans/North Americans, a more formalistic process. Lasserre and Schutte (1995) and Napier and Albert (1990), as well as other political and business authors (e.g. Fitzgerald, 1997; Chu, 1995) attribute these differences in strategic approaches not only to cultural norms but also, and especially in relation to the last two-three decades, to the environments in which these two cultural groups operate. Because East Asian economies have grown rapidly in the last two-three decades, the market environment has generally been unstable and turbulent, marked by rapid change and uncertainty. Under these conditions, it is not surprising why a fluid and flexible planning and decision-

making process, unfettered by formalistic rules of planning and analysis, is viewed as critical to competitive survival, and why there is strong concern for secrecy and a general reluctance to share or seek for information widely. Napier and Albert (1990) also suggest that the devaluing of planning among East Asian managers might be an offshoot of deliberate government intervention, arguing that when an industry is targeted for growth in the interest of the national economy, grow it will regardless of whether senior managers within the industry engage in strategic thinking and decision making. The presence of government support is substantiated by the World Bank (1993) which has reported on the extent to which most governments in East Asia have assisted local businesses to grow through a range of supportive and protective measures. However, there is no evidence that this has led to less reliance on planning; indeed, it is just as likely that strategic planning did occur but not in the way assumed by western models and researchers (i.e. formalised and accompanied by documentation) and hence was less transparent. This alternative explanation certainly emerged from data obtained by this study from Asia-Pacific shipowners.

Lasserre and Schutte (1995) also offer the view, based on their studies of Hong Kong Chinese, that an incremental approach to business lessens the need for strategic decision making. Business owners seize opportunities only as they come and pursue these opportunities with a fatalist's expectation of both success *and* failure; to reduce risks, therefore, one need not plan, one need only to diversify into multiple ventures with the expectation that some of these will succeed and some will not. This view, however, runs counter to what this study has found about East Asian shipowners: firm-level strategic planning did occur, albeit informally and often without recourse to formalised procedures and documentation; at the same time, incremental steps ('taking a few steps

at a time') were favoured to give the organisation greater flexibility. This was why combining strategies was highly popular among the shipowners; it helped them maintain a better strategic balance and reduce their exposure to market risks. To some extent, this approach is reminiscent of Hamel and Prahalad's (1993) idea of strategy as stretch and leverage where the organisation manoeuvres to get the best out of its assets and resources through a creative combination of strategies.

These broad similarities between Asia-Pacific shipowners and other businesses/industries in the Asia-Pacific region and elsewhere have significant implications to the maritime industry because they help chisel away at a prevailing industry view of 'differentness', typified by the oft-quoted statement 'it may apply to them, but we're different'. Often this view of being different becomes an active deterrent against experimentation and adaptation in the field. Thus, while important differences do distinguish the maritime industry from others, it is essential that similarities are also identified and acknowledged to advance both shipping strategy theory and practice.

#### **Methodological considerations**

5 To what extent has triangulation been effective as a research approach? As described in Chapter Seven (Methodology), triangulation is the systematic use of several research methods, perspectives, and/or data sources to evaluate or validate the same idea. For the study, four research methods (survey, interviews, simulation, expert review) and two data sources (shipowners, shipping experts) were used as the primary means to examine corporate strategy selection among Asia-Pacific shipowners. Secondary methods used were a review of relevant statistical yearbooks and company papers and researcher observations of simulation activities. In their typology of research methods in strategic

management, Snow and Thomas (1994) classify surveys and interviews at one end of the continuum (highly realistic, uncontrolled) and computer simulations at the other (highly artificial, controlled).

The study has shown that the use of several methods and sources has been very effective in overcoming weaknesses in individual methods. Had the study relied solely on the mail survey, the low response rate (32 per cent), the lack of certainty that the appropriate people had completed the questionnaires, and the inability to clarify responses would have greatly reduced confidence in the results. If interviews had been the sole means of collecting data, the dispersed geographic distribution of respondents and the prohibitive costs of international travel and communication would have led to a small number of shipowners being reached. While data would potentially be rich, it would also be narrow, and the problem of generalisability would be difficult to overcome. Compounding the problems of the survey and interviews was the additional problem of response errors: people giving factually incorrect answers or giving answers that would put them in a good light or that they considered more socially acceptable. As for the simulation, if used alone it too would have raised many methodological questions, foremost of which was whether results obtained under simulated conditions could be relied upon as a reflection of actual shipowner behaviour.

Together, however, these three methods were able to compensate for the others' weaknesses. Interviews, which included both survey respondents and non-respondents, confirmed initial survey findings, thus allaying concerns over lack of representativeness, and fine tuned information on strategy selection practices of shipowners; simulation sessions showed that decisions taken under simulated

conditions were not that far away from shipowners' self-reports. Results obtained through these three methods were highly congruent, which significantly built confidence in the data to a degree that would not have been possible had only one method been used. Using shipping experts as another data source further enhanced confidence because they confirmed the information provided by shipowners in the shipping-specific strategic choice model.

Multi-method approaches have not been used extensively in management research, much less in shipping management research, but they have been found to be effective; indeed, although difficulties in applying such an approach are acknowledged, Snow and Thomas (1994) speak of growing calls for their use.

#### **Applicability and utility of the strategic choice model**

Of the strategic choice model, two main conclusions can be drawn about it:

- 6 The generic strategic choice model has been modified to reflect more accurately what Asia-Pacific shipowners do, but even in its original form, the model has wide applicability across industries and businesses, *provided* it is used as a 'thinking' tool and not as a step-by-step recipe to success.

The strategic choice model does not lend itself well to formula management (Ketelholm, 1997); it is not a set of specific instructions that can be manipulated to arrive at some specific decision. Rather, as Lewis et al. (1993) put it, it is a tool for asking questions, and when used for this purpose, it can be an effective aid to strategy analysis and selection, irrespective of business or industry. The best use of the model is as a template that provides the general structure and parameters for analysis, but leaves the rest to the decision maker: what to look for in the

environment, which success factors to use, which strategies to pursue. This latitude in decision making is critical because of significant inter-industry differences that have already been documented both in the maritime industry (Brooks, 1995) and elsewhere (e.g. Campbell and Verbeke, 1994; Barlett and Goshall, 1989; see also Armistead, 1994).

The model also puts discipline into an otherwise informal and intuitive strategy selection process by requiring the decision maker to (a) maintain a close watch over the organisation's internal and external environment, (b) identify key success factors in this environment that are of particular relevance to the organisation at the time the analysis is made, (c) decide on the relative importance of each factor, (d) gauge the strategic position of the organisation based on these success factors (by plotting it on the model, which comes in matrix form), and (e) evaluate whether the strategies offered by the model will support this strategic position, and if they do not, what alternative strategies should be pursued. The mere act of following this process adds greater transparency to strategy selection, and makes decision makers more aware of what they need to do to enhance confidence and reliability in strategic choices made.

When used in this manner, the model facilitates wider applicability of strategy selection concepts and principles because it allows individual users to tailor their analysis to their specific organisations, businesses, market sectors, or industries as well as to the specific time periods during which the analysis is conducted. However, the model does require a reasonable amount of knowledge, experience, and expertise on the part of the user, particularly in the identification of relevant success factors in an organisation's internal and external environment and in the



evaluation of the relative merits and appropriateness of various strategic alternatives. In this respect therefore the model's utility relies a lot on the user's ability to make an intelligent assessment of the environment and use this assessment to make wise strategic choices.

- 7 While the generic strategic choice model can be applied widely in its original form, its applicability to specific businesses or industries still has to be proven to broaden its usage and enhance confidence in its applicability.

Industry validation is necessary for two reasons. As the study has found, there is very little evidence to suggest that strategy selection theories and models are widely used in Asia-Pacific commercial shipping. Shipping practitioners in the region therefore still have to be convinced that the strategic choice model does apply to their specific circumstance. Giving them a model that has been tested in other industries is not good enough; while they may say they need evaluation/analytical tools to help them with strategic decision making, as was the case with the shipowners who participated in the study, they are likely to be more suspicious of models 'tried elsewhere' and more accepting of models that have been applied to their own industry and subsequently 'validated' by prevailing industry practice. The second reason is academic. Theorists and researchers need to work with a substantial store of empirical evidence so that they can continue extending the boundaries of existing theories and models, and in so doing enhance the descriptive, prescriptive, or predictive power of these theories and models. The more evidence there is that the generic strategic choice model works in a variety of industrial and business contexts, the more robust and useful it becomes, because such evidence leads to a better understanding of differences and

similarities between and within industries and adds more precision and detail to theoretical discussions of corporate strategy selection.

By examining the strategy selection practices of commercial shipowners in the Asia-Pacific region, an area about which very little has been written about, this study has added further evidence of the robustness of the strategic choice model. As the study has shown, Asia-Pacific shipowners support the model, but they prefer to combine strategies rather than be restricted to the one or two choices assumed by the model. Further, of the five corporate strategies, the 'grow' strategy is by far the most popular choice, often or regularly combined with the other corporate strategies to spread risks and improve strategic balance. There is evidence to show that this pattern of strategic choices made by Asia-Pacific shipowners is similar to that observed throughout the region (leading Lasserre and Schutte (1995) to call the region the most growth-obsessed region in the world) and elsewhere in the world (Harvey, 1988). Synthesising the results of earlier studies, Harvey (1988) has drawn up a table showing the relative frequency with which corporate strategies have been used. Harvey's figures are reproduced in Table 11.1; to highlight similarities in the pattern of responses, the results obtained from Asia-Pacific shipowners are also provided.

**Table 11.1** Frequency of use of corporate strategies (%)

Corporate Strategies	Frequency of Use	
	Other Industries (Harvey, 1988)	Asia-Pacific Shipowners (Hawkins, 1997)
Grow/Develop	54.4	61
Stabilise	9.2	12
Turnaround/Harvest	7.5	9
Combination	28.7	18

Confirmation from various industries and geographical regions is essential for the continuous improvement of the field. It enhances confidence in the strategic choice model because it shows that the model works both within the shipping industry and elsewhere; at the same time, it advances theory building and testing because it allows researchers to fine tune the concepts, principles, and assumptions of the model. Obviously further research is needed to gain a better understanding of strategy selection in commercial shipping, particularly in relation to the Asia-Pacific, and these research issues will be discussed later in the chapter. First, however, a discussion of the study's limitations is in order to put the research findings and conclusions in their proper context.

## **11.2 LIMITATIONS OF THE STUDY**

In the course of data collection and analysis, several limitations of the study were identified. These limitations and their implications to the study's findings and conclusions are discussed below.

### **Language difficulties**

A lack of facility in explaining and describing strategy selection practices proved to be a common problem in the use of all three methods (survey, interviews, and simulation). Because the medium of communication was English, which was a second or even a third language to many respondents, a number had difficulty articulating their thoughts on strategy selection. Compounding this lack of fluency was a prevailing lack of familiarity with strategy selection (and strategic management) as a field of study.

In the mail survey, those with greater fluency in English tended to provide more information than those who did not. The same would have held true during the

interviews had not the researcher taken greater effort to probe further and explain more fully; however, interview sessions with this latter group tended to be more laborious and time-consuming. Simulation data, as shown on completed decision sheets and backed up by post-simulation evaluation feedback, reflected the same pattern. Due to the combined effect of lack of fluency in English and unfamiliarity with the strategy field, many initially found it difficult to clearly describe their strategic objectives and corporate strategies. Though the majority picked up the pace shortly thereafter, a small minority did struggle throughout the simulation.

#### **Limitations of a 'snapshot' approach to data collection**

Another limitation of the study was its 'snapshot' approach to data collection. All participants responded within a particular time frame (1994-1997) and were only given a single opportunity to respond (either in the survey, interviews, or simulation). While data would likely be valid for the particular period during which the survey, interview or simulation was conducted, it cannot be reliably established whether such data would hold true over time. Only a longitudinal study which tracked down the activities of a number of decision makers over a period of time would achieve this objective.

#### **Limitations of individual research methods**

While triangulation has helped overcome the weaknesses of individual research methods, it would still be useful to discuss these weaknesses in greater detail to aid future research.

*Low response rate from the mail survey.* Although the mail survey is very popular as a means of collecting data, its potential for generating a low response rate is remarkably high. Research methods authorities (e.g. Dillman, 1978; Erdos, 1970) accept that a response rate of 80 per cent and upwards is a rarity, but argue that 75 per cent is

attainable provided proper measures are taken to increase the response rate. According to these authors, when used alone, a survey should achieve at least a 50 per cent response rate to be considered reliable, and it should be able to verify that survey respondents and non-respondents are comparable. While the desired 75 per cent rate has been achieved by a number of studies (Snow and Thomas, 1995), in general, the response rate falls far below this standard. The average response rate has been reported to hover around the 30 per cent mark for small companies and even lower for large companies (Cullinane, 1991). Where the target group are senior managers (CEO, etc), response rates go even lower, ranging anywhere from 10 to 20 per cent (Gopinath and Hoffman, 1995; Pekar and Abraham, 1995), although Snow and Thomas (1995) did find an average of 52 per cent response rate among a number of strategic surveys published in three major strategy research publications.

In his survey of shipowners' attitudes toward market risk, Cullinane (1991) suggests that a contributory factor to the low response rates of mail surveys in the maritime field is the secretive nature of the industry; strong competition within various shipping markets generally predisposes shipowners against sharing commercially sensitive information with outside parties. Napier and Albert (1990) offer a similar explanation in their study of strategic thinking by East Asian senior managers. Rather than administer a survey, they interviewed these senior managers; interviews were considered more acceptable than surveys presumably because they allowed managers to personally gauge the integrity of the interviewer.

What are the implications of these previous findings to the study? The study achieved a 32 per cent response rate, which could be considered satisfactory in light of previous surveys involving senior managers. However, the reliability of the data would still be

suspect unless the comparability of survey respondents and non-respondents was established, and generalisability would remain compromised because of the relatively small percentage of responses. For the study, what served as an effective way of increasing confidence in the survey data was to use other methods such as interviews with survey respondents and non-respondents, simulation, and expert review to collect the same type of information (i.e. corporate strategic choices). Results obtained through these various methods were then compared and the extent of congruence determined. As noted earlier, while individually all these methods were imperfect measures, their combined use made up for their respective weaknesses and provided enough confidence in the veracity of the data.

Because the mail survey is relatively easy to administer, it will most likely continue to be a popular means of collecting data. However, because the likelihood of non-response is high, the use of other research methods as well as other measures to improve the mail survey (Zikmund, 1994; Dillman, 1978) should be built into the research design.

*Limitations of the simulation.* There were also aspects of the simulation that posed a number of limitations to the study. One involved the geographical distribution of participants; the other, the use of the Stratship program as the simulation model. Because participation in the simulation was voluntary, sessions were held only in those countries where there was a sizeable number of interested participants. Of the 570 simulation participants, over half (55 per cent) came from Southeast Asia (Indonesia, Malaysia, Singapore), and the rest from Hong Kong (29 per cent) and Australasia (16 per cent). The other countries included in the study were not represented. This geographical distribution could very well skew the findings in favour of Southeast Asian shipowners at the expense of other shipowners in the region, particularly those in

Northeast Asia, whose decisions might not necessarily be the same as those made by their Southeast Asian counterparts. Obviously, the only way to establish representativeness firmly is by conducting simulations for Northeast Asia shipowners, which can be explored for further research.

The other limitation of the simulation involved the use of the Stratship program as the simulation model. The program could be criticised on four grounds: one, it had a narrow focus, which limited participants to the number of strategic options they could pursue; two, it was not flexible enough to allow for varying levels of competence among users, thus leaving the more experienced ones with little latitude to explore other strategic avenues; three, decision making, although conducted in a realistic environment, was still not 'real life' and decisions made under such simulated conditions might not necessarily represent actual workplace decisions; and four, the program was used for both liner and bulk trades, but because it was designed primarily for liner trades, its assumptions and parameters might not work as well for the bulk trades.

These limitations could very well throw doubt on the veracity of simulation data; however, the following points could also be argued. One, it should be remembered that the primary objective of the simulation was to determine which of the five generic corporate strategies (grow, develop, stabilise, turnaround, harvest) would be pursued under certain company and market conditions. This should thus be the thrust of the simulation so that definitive answers to the six assumptions of the strategic choice model could be generated. While critics might see this as restricting participants' choices, it could be further argued that such parameters are necessary to control simulation variables more effectively and focus the research process.

Two, confidence in the simulation data would certainly be weaker if it was the only method used to generate information about strategic choices; the very process of making decisions under 'safe' simulated conditions, away from the real-life pressures of the workplace, and where the novelty of the situation and the opportunity to experiment could drastically affect participants' behaviour, would be grounds enough to doubt the representativeness of the data. However, because similar data was collected through a mail survey and interviews, and this data confirmed what was obtained through the simulation, greater confidence in the representativeness of the simulation data could thus be established.

Finally, while the Stratship program was originally designed for liner trades, it had wider applicability, as evidenced by its successful use as a training tool in a variety of business settings, not all of which were in the shipping industry (Esmee Fairbairn Research Centre, 1993). Further, it could also be argued that the main concern of the simulation was not so much on the specific details affecting the company but on the general principles of strategic decision making and strategy selection, a point that was stressed throughout the simulation.

### **11.3 ISSUES FOR FURTHER RESEARCH**

Out of this study a number of key issues for further research can be drawn out. These include:

#### **A need for an Integrative review of shipping strategy research**

As this study has found, a lot more research into shipping strategy (strategic management, strategic planning, strategy selection) both in relation to the industry in general and the Asia-Pacific shipping in particular, is badly needed.



Strategy research in shipping is a fairly nascent field, with very little written about it. As discussed in Chapter 2 (Asia-Pacific Shipping), much of what is available in the literature is unsubstantiated by empirical evidence (Frankel, 1989). A quick perusal of leading shipping management journals published in recent years would show that contributions to the subject comprise mainly of essays, arguments, or commentaries that draw on personal views and anecdotal evidence rather than on scientific inquiry. Management texts also devote minimal attention to the subject or base their discussion mainly on general strategic management literature. There has also been a general lack of training in strategic management. This is true in the Asia-Pacific, as this study has found, and there is some evidence that this may also be true elsewhere in the shipping industry (Chapman, 1989).

Given the importance of strategy and strategic planning to competitive success, particularly in turbulent environments (where shipping is typically found), more and better information about strategy and its application to the shipping industry is obviously needed (Miller and Cardinal, 1994). Studies that analyse, evaluate, and synthesise what has been done so far in shipping strategy research and that then draw up an agenda for future research (integrative literature reviews) are sorely needed to give both researchers and practitioners a general picture of the field's development: how it began, where it has been, what it has accomplished, what major schools of thought have emerged, where it is headed. Through such integrative reviews, collective knowledge about the field can be significantly enhanced. This is something that more established fields of inquiry (e.g. the general strategic management literature) regularly do, and which shipping strategy research would benefit a lot from.

### **Applicability of Western strategy models to Asia-Pacific shipping**

An evaluation of different approaches to strategy development and strategic planning is needed to determine their appropriateness to Asia-Pacific shipping.

In 1983, Lasserre (1983) argued that a formal approach to strategy formulation, as propounded and practised in the West (North Europe, North America), is inappropriate for the Asia-Pacific region, particularly in relation to East Asian countries.

In a more recent publication, Lasserre and Schutte (1995) again stressed the same argument, pointing to major differences between Asians and Westerners in the way they think, live their lives, and conduct their businesses.

One frequently cited evidence of this cultural divide is the way these two groups approach strategic planning: Asians are said to prefer an informal, inductive, and incremental approach to planning, while Westerners use a more formalised and systematic approach. Writers of popular books (e.g. Chu, 1995; Naisbitt, 1995) essentially say the same thing. In shipping, there is some evidence that shows that the intuitive and informal approach to decision making is prevalent within the industry (Datz, 1971; Aries, 1989); if this is the case, then the argument that Asia-Pacific shipowners follow an informal approach would be stronger, because it has both cultural and industry backing.

Because most of the widely used analytical tools and models reflect a rational-analytical perspective, which contrast with an informal and incremental approach, their applicability to Asia-Pacific decision makers thus becomes suspect. If they are to be of use to shipowners, their appropriateness has to be determined. To what extent are they applicable? To what extent would they have to be changed or modified to make them

relevant to Asia-Pacific (especially East Asian) users? Research must be able to provide answers to these questions.

Another area of investigation should focus on the actual strategic process taken by Asia-Pacific shipowners. While this study gives support to an Asian preference for informal planning and strategy selection, it does not necessarily accept the argument that, ergo, little or no planning is needed or done. What is probably more correct is something in between; as noted earlier, an equally likely explanation is that East Asian shipowners do plan, but they are more likely to keep these plans, and the planning process, informal and hence less transparent to outsiders. To determine whether this is indeed the case, longitudinal and observational studies of workplace behaviour would be needed.

#### **A typology of shipping strategies**

The development of a research-based typology of shipping strategies, particularly at the corporate and business levels, is needed to better understand similarities and diversities in shipowners' strategic choices.

A typology of strategies, covering the corporate, business, and functional levels, has been developed as part of this study (see Table 10.3). Of these, however, only the five generic corporate strategies were tested on a sample of Asia-Pacific shipowners. The next task is to extend this test to other shipowners. Would other shipowners in the region behave similarly? Would the model be equally applicable to another geographical region, say, Europe, which holds the largest percentage of the world fleet (44 per cent in 1997)? Only further research will answer this question.

Research is also needed on business strategies in shipping. Porter (1980, 1985) is the dominant authority in business strategy, and his work is widely cited in the shipping

literature and is taught to executives studying shipping business management. However, a number of studies have questioned his business strategy models, particularly their applicability to other industries (Miller and Dess, 1993; Grimm et al., 1988; Wright, 1987; Mathur, 1986) and to the Asia-Pacific region (Fitzgerald, 1994), and are calling for more research into the area. In light of Porter's popularity in shipping, it would be useful to test whether this popularity is well-deserved. To what extent do Porter's models apply to shipowners' strategic choices? One effective way of finding out is through simulation as this will require shipowners to select specific business strategies under given environmental conditions; data from such simulation can also be backed by self-reports (obtained through surveys and/or interviews) from shipowners for greater confidence in the data.

With more research into corporate and business shipping strategies, the link between the two, and with supporting specific strategies, can be established more reliably, which should significantly improve current shipping strategy theory and practice. The need for an integrating framework is becoming particularly acute because of the growing number of studies looking at specific strategies in individual shipping trades or markets (e.g. Glen, 1997; Knudsen, 1997; Ballis et al., 1997; Cho and Perakis, 1996; Lee, 1996; Bendall and Stent, 1996; Ariel, 1989). Thus far, no serious attempt has been made to link these specific strategies to the broader categories of business or corporate strategies, which can greatly hamper the development of our understanding of shipping strategy. As one writer on creative thinking (de Bono, 1993) puts it, a general strategy is needed to direct the choice of specific strategies: the first sets the strategic direction of the organisation; the second provides more precise measures of achieving the first. He

likens this process to painting, where 'an artist sets out the general composition, or placing, of [the] figures on the canvas. Then the detailed painting can start' (p. 148).

### **Strategic decision making**

There are two areas in strategic decision making that provide a rich ground for research: the role and influence of individual strategic decision makers, and intra-industry differences.

Strategic decision making, as this study has found and as confirmed elsewhere in the strategic management literature, is the primary responsibility of senior managers. However, what is not so clear is what these senior managers actually do during the decision-making process and how much influence or power they wield to affect the outcome. Who actually does the 'strategising'? Would they all have the same influence or power or would one area or level have greater power than the others? While research on these and related issues has been done elsewhere (e.g. Whittington, 1996; Schilit, 1990; Hegarty and Hoffman, 1987), the same cannot be said with the shipping industry. In an industry that is known to be secretive and conservative, would strategic decision-making powers be broad-based or would they be, as in the case of East Asian shipowners, vested in the chief executive and a few trusted subordinates? Would distinctions in decision-making styles be made on the basis of culture, or would other industry-specific variables have greater influence? In today's highly globalised and competitive markets, these are timely questions to address, particularly for those who intend to compete in the Asia-Pacific region, where decision-making styles, processes, and structures are said to differ drastically from those used in the West. There is a definite attractiveness in the idea that if one knew how the chief strategists of a

competitor thought and worked, one would be in a better position to gauge the steps that the competitor would take.

Differences in decision-making patterns and processes can also be extended to various sectors of the shipping industry. This study has highlighted some differences in approach between the liner, dry bulk, and tanker sectors of the industry; in general, the liner trades were found to be more conservative and risk-averse than the bulk trades, opting for strategies that exposed them to less risk. Areas of research on this and related issues already exist, notably those investigating the risk preferences of shipowners (Cullinane, 1991; Harvey, 1987; Hope and Boe, 1981; Lorange and Norman, 1972), but these bodies of knowledge do not yet cohere together to provide a comprehensive picture of intra-industry differences in strategic decision making. Clearly, more work is needed to integrate and extend what is currently known about differential approaches to strategic decision making within the shipping industry.

#### **Extending the applicability of the strategic choice model**

The exploratory nature of this study has led to the use of a qualitative approach to data collection and analysis. The analysis has shown that the model is applicable to Asia-Pacific shipowners, with some modifications. The next task now is to extend the applicability of the model even further. This can be done by testing it on another group of shipowners, using quantitative methods of analysis, and/or conducting longitudinal case studies of individual shipowners. Another way of extending the model is by incorporating game theory principles (see, for instance, Dixit and Nalebuff, 1991 and Camerer, 1991). Thus far, most strategy research has focused on internal positioning, that is, on the relative positioning of various business units within an organisation, with little attention given to external positioning, that is, on the relative position of an

organisation vis-a-vis its competitors. In the Asia-Pacific region especially, Lasserre (1995) argues for an 'overall corporate ambition for the region' (p. 29), which can be realised only through a good understanding of who and where one's competitors (and friends) are and what opportunities and threats the regional markets hold, and through an effective system of strategic stretch and leverage (Hamel and Prahalad, 1993).

#### **11.4 COMPETING FOR THE FUTURE**

Strategy, according to a recent survey of management executives, consultants and academics, is considered the single most important management issue today and will remain so for the next five years (Bryne, 1996). As markets become globally interconnected and as business environments become more turbulent and competitive, organisations are increasingly urged to be more proactive and creative in their use of strategy to effectively compete for the future (Hamel and Prahalad, 1994). Synthesising recent management trends, Taylor (1997) says that greater stress is being placed on more ongoing strategic discussions not only among senior people but also between senior managers and all relevant parts of the organisation; on networks, alliances, and joint ventures to gain access to new markets or technologies; and perhaps most importantly, on changing managerial mindsets so that those responsible for leading organisations into the future will be better equipped to meet the challenges of the new century.

With the continuing turmoil in the Asia-Pacific and growing signs that many shipowners in the region are becoming uncompetitive, these calls, particularly the need for a proactive and creative approach to strategy and the need for a radical change in managerial mindsets, carry immense implications.

## **Appendix 1**

### **THE ASIA-PACIFIC REGION: BACKGROUND NOTES**

Note: This paper summarises the economic record of the Asia-Pacific region up to the end of 1996; thus no reference is made to the currency crisis that hit the region in mid-1997 and whose worsening effects continue to be felt, creating widespread economic and political turmoil in many countries in the region. Short-term predictions are uniformly dark, and because of continuing market uncertainty, long-term predictions, which came fast and thick pre-crisis, are significantly absent.

This background paper covers 12 countries in the Asia-Pacific region: Australia, China, Hong Kong, Japan, Indonesia, Malaysia, New Zealand, the Philippines, Singapore, South Korea, Taiwan, and Thailand.

Of these 12 countries, six (Japan, Australia, New Zealand, and more recently, Hong Kong, Singapore, South Korea, and Taiwan) are considered high-income economies, while the others (Indonesia, Malaysia, the Philippines and Thailand) are middle income. The exception is China, which remains within the low-income group, although this should not be for long if it sustains its more than 8% annual growth rate (World Bank, 1996).

A World Bank study on East Asia (1993) also classifies eight of the 12 countries as high performing Asian economies, or HPAEs, because they have sustained very rapid economic growth over a long period of time. These include, in the first group, Japan, Hong Kong, Singapore, South Korea, and Taiwan whose remarkable growth has spanned over 30 years; and in the second group, Indonesia, Malaysia, and Thailand, who have joined the HPAEs within the last two decades. Hong Kong, Singapore, South Korea and Taiwan are usually referred to as the 'Four Tigers', while the rest are called 'newly



industrialising economies', or NIEs. China and the Philippines have since been added to the group of Asian NIEs.

All 12 countries are also members of the Asia-Pacific Economic Cooperation (APEC) forum. The other six APEC members are: from Asia, Brunei, and Papua New Guinea; from North America, Canada and the United States; and from Latin America, Chile and Mexico. These 18 countries make up almost half of the world economy (Bergsten, 1997).

#### **1 GROWTH IN THE ASIA-PACIFIC REGION**

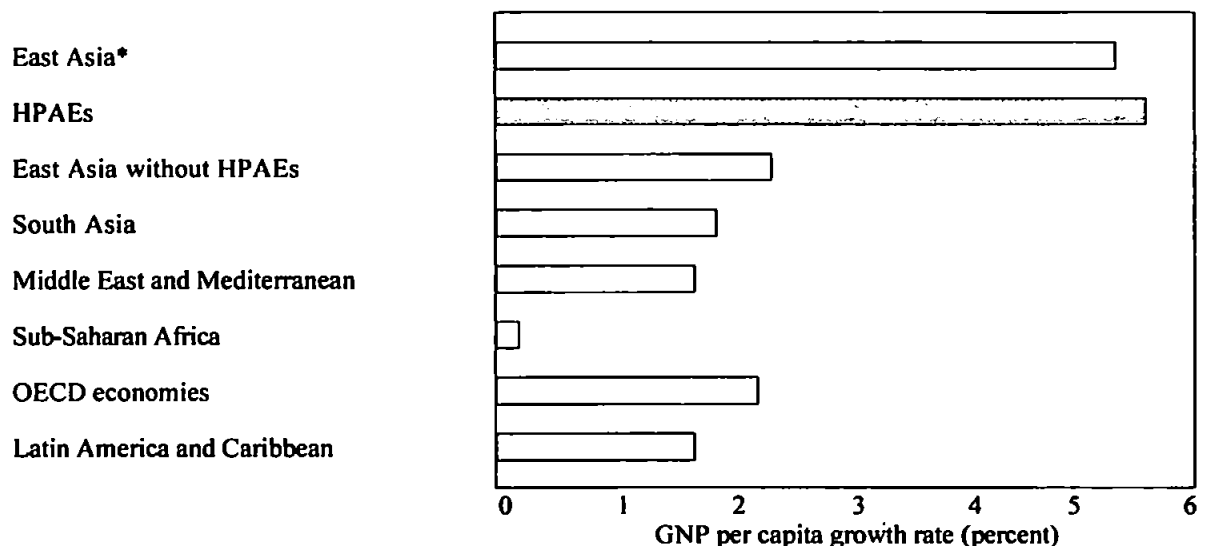
The growth of the Asia-Pacific region as an economic powerhouse is usually attributed to 10 East Asian economies: Japan, China, the Four Tigers (Hong Kong, Singapore, South Korea, Taiwan), and four NIEs (Indonesia, Malaysia, the Philippines, Thailand). Of these, the Philippines is the latest to come on board; only since 1993 has it started posting annual growth rates of 5-6%, which although healthy are still much lower than those that have been achieved by the other NIEs. China's growth is much stronger, resembling that of the Four Tigers. What has made this growth remarkable is not only its strength and duration, but also because it has been accompanied by a significant decline in poverty. In no other economy has this type of growth been achieved.

#### **Very rapid growth In East Asia**

The last three decades (1960 to 1990) have been a remarkable period of growth for East Asia. In large part this was made possible by stable world economic conditions that spurred worldwide production and trade in the years following the end of the second world war. In this hospitable environment, the East Asian economies, notably Japan and the Four Tigers, were able to 'set sail towards industrial catching-up when the gust

of wind was strongest'. As a result, they were able to compress the industrialisation process into 25 to 30 years, compared to the 100 to 150 years that it took most OECD countries (Tan and Wee, 1995, p. 41). By the end of the 1980s, the region has become the third largest economic region, after the United States and Europe, and it has also become the fastest growing (Drewry, 1993). According to World Bank (1993), and as illustrated in Figure 1,

Since 1960, the HPAEs have grown more than twice as fast as the rest of East Asia, roughly three times as fast as Latin America and South Asia, and twenty-five times faster than Sub-Saharan Africa. They also significantly outperformed the industrial economies and the oil-rich Middle East-North Africa region. Between 1960 and 1985, real income per capita increased more than four times in Japan and the Four Tigers and more than doubled in the Southeast Asian NIEs. If growth were randomly distributed, there is roughly one chance in ten thousand that success would have been so regionally concentrated (p.2).

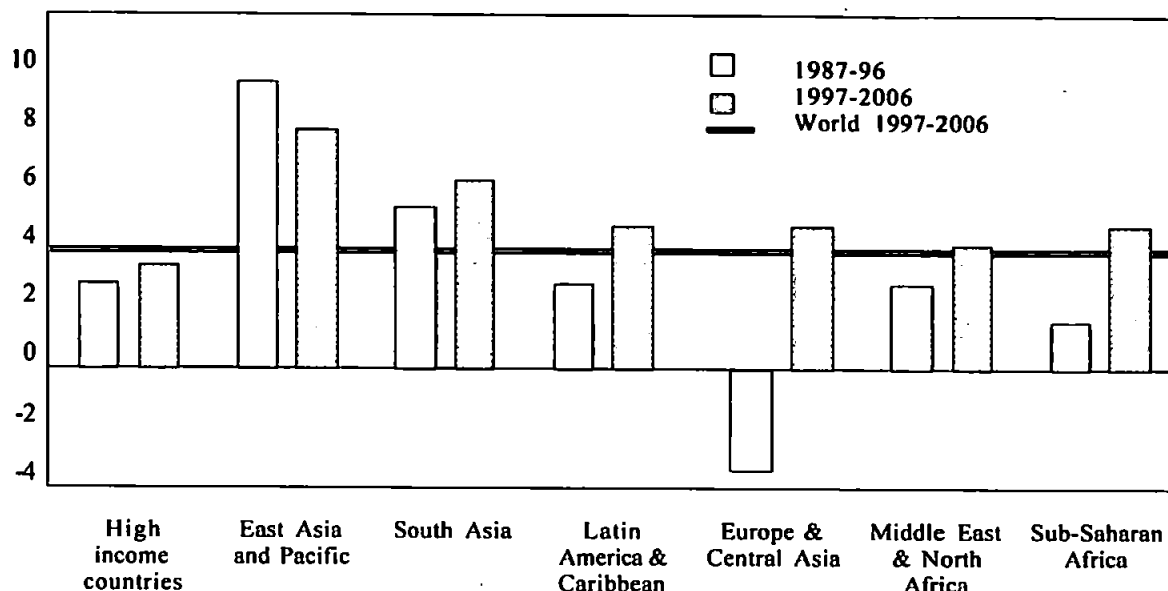


**Figure 1 Average growth of GNP per capita, 1965-90**

\*East Asia includes all low and middle income economies of East and Southeast Asia and the Pacific, east of and including China and Thailand. The HPAEs covered by the 1993 World Bank study included Japan, Hong Kong, Indonesia, Malaysia, Singapore, South Korea, Taiwan, and Thailand.  
Source: World Bank, 1993

Even with the 1997 currency devaluation crisis which hit Indonesia, Malaysia, the Philippines, and Thailand, as well as the overall slowdown in regional growth, the prognosis for the region still remains good. Although the crisis has created greater

financial uncertainty within the region and is likely to slow down growth in the short term, over time the region will still be able to outpace all other regions in the world (see Figure 2).



**Figure 2 Real and predicted growth rates, 1987-2006**  
Source: Far Eastern Economic Review, 1997

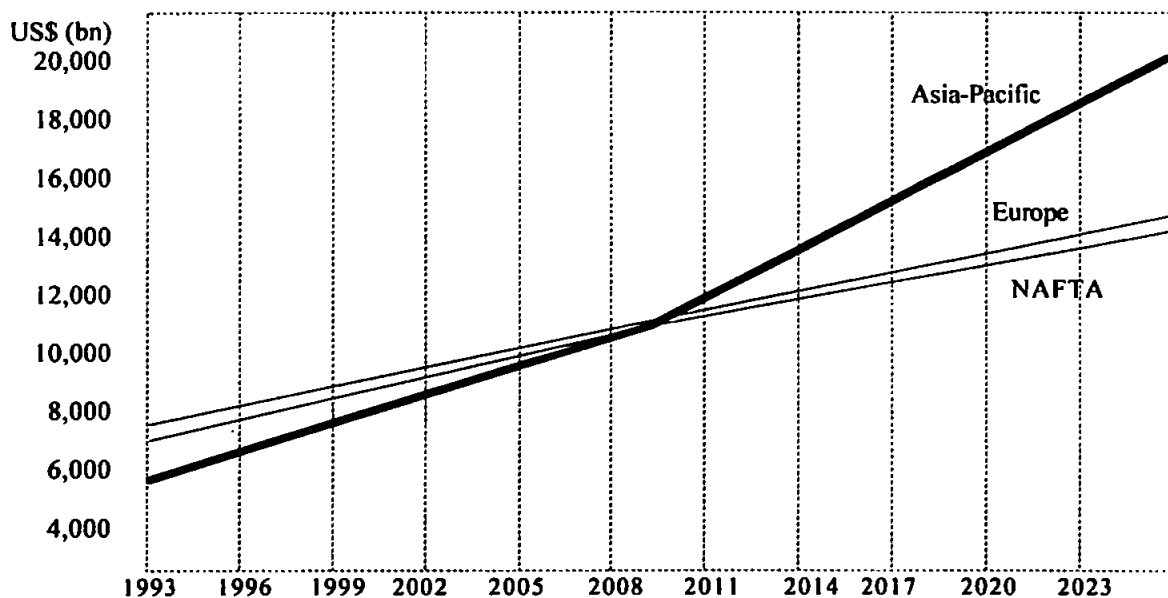
In one of its recent updates, the World Bank (1997a) has written:

The recent financial crises in the region have called into question the sustainability of the “East Asian Miracle.” The collapse of the Thai baht in July 1997 led to speculative attacks in other financial markets. Since then, the Philippine and Indonesian governments have floated their currencies, and the Malaysian ringgit has depreciated as well. These events have put pressure on banks and financial entities. China and Vietnam, with their closed capital accounts, have to date remained relatively insulated from the direct financial pressures of these currency depreciations.

[However, the] region’s countries confront this financial turbulence with comparatively high savings ratios, low debt burdens, historically strong fiscal positions, and a history of market-friendly policies that have produced economic success. These strong fundamentals mean that if ongoing economic reforms, especially in the financial and public sectors, are implemented swiftly, the countries are well positioned to regain the growth momentum that has been their hallmark in recent years (p. 2).

As this 1997 World Bank assessment indicates, the East Asian countries are economically strong and resilient enough to recover from the recent financial turbulence and regain lost ground. Other extrapolations of Asia-Pacific growth, while predating the

1997 currency crisis, carry the same message. Based on his analysis of 20 years of Asian growth (1974 to 1994), Leger (1994) is optimistic that although there has been a regionwide slowdown in growth, the region's 'economic boom will continue ... [as all] over Asia, governments are privatising industry, cutting taxes, welcoming foreign investment and developing their financial markets' (p. 49). Another study (Lasserre and Schutte, 1995), which compares the Asia-Pacific region with Europe (European Union and European Free Trade Area) and NAFTA (North American Free Trade Agreement between the United States, Canada and Mexico), shows that assuming an average growth rate of 4% for the Asia-Pacific (without Australia and New Zealand) and 2% each for Europe and NAFTA over a 20-year period (1993-2023), the Asia-Pacific region is predicted to outrank the other two in terms of world output from 2010 onwards (see Figure 3).



**Figure 3 Growth in GNP: Asia-Pacific, Europe and NAFTA, 1993-2023**  
 Source: Lasserre and Schutte, 1995

In a more recent assessment, which was presented during the World Bank/IMF annual meeting in Hong Kong in September 1997, Garnaut (1997) echoes similar predictions,

rejecting the argument that the 1997 currency crisis will mean the end of the region's economic dynamism. He also disputes the argument now gaining currency that China's growth will seriously threaten the newly industrialising economies of Indonesia, Malaysia, the Philippines, and Thailand. According to him, China's strong growth has contributed significantly to the economies of Hong Kong, Taiwan and South Korea, whose prosperity in turn has been critical to trade and investment expansion in Southeast Asia. These intra-regional economic linkages are a major reason why East Asia will continue to grow. As Garnaut points out, it was China's growth upsurge in the early 1990s that enabled the East Asian developing economies to keep growing strongly in spite of an OECD recession. While it may be true that the East Asian countries initially depended on the United States and Europe for their export markets and subsequent economic gains, increasingly and rapidly, the region as a whole is becoming what Tan and Wee (1995) call an 'independent engine of growth', drawing much of its strength from within itself.

### **Growth with equity**

What has made East Asia's growth even more remarkable is that it has been accompanied by an improvement in income distribution and declining inequality. It is growth with equity. Unlike all other economies, the gains from rapid growth have been shared with the rest of the population. The best performers, Japan and the Four Tigers, are the most equal in income distribution (World Bank, 1993).

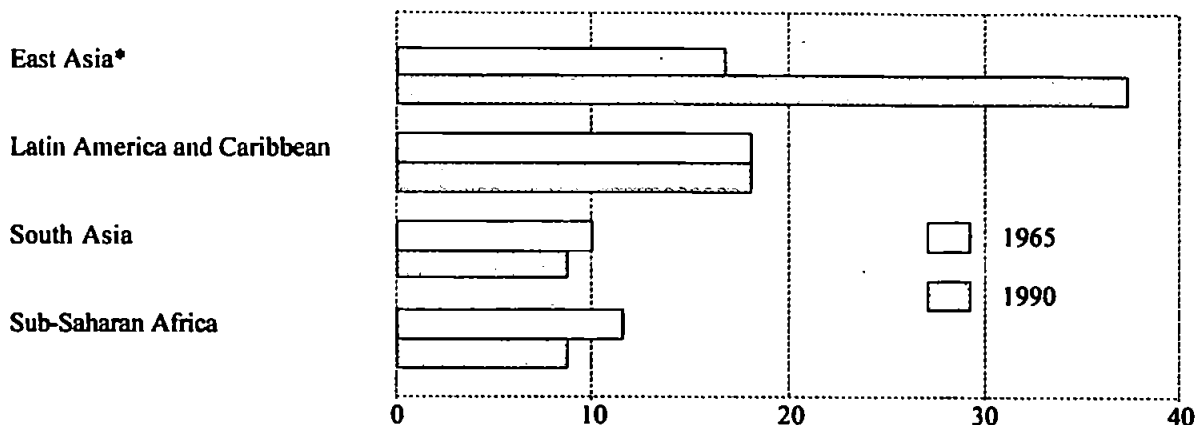
This rapid shared growth has also led to a significant improvement in human welfare. Most importantly, life expectancy has risen and poverty has declined. Birth rates have also fallen. Spending on public education has also increased. While similar gains have been made by other developing countries, none have reached the same levels and at

similar speed as those experienced by East Asia (World Bank, 1993). In terms of raw numbers, this has meant that 'between 1970 and 1990, the number of people classified as very poor in East Asia fell from 400 million to 180 million, even though the population in the region grew by 400 million during the same period. Now, fewer than one in 10 East Asians lives in extreme poverty, compared with half the people in Africa and a quarter of the people in Latin America' (Leger, 1995). This achievement continues to be sustained as a 1997 World Bank update shows:

East Asia has been the world's fastest growing region and has made dramatic progress in reducing poverty. In the past few decades, rapid growth and major expansions in social services have brought some of the most remarkable declines in poverty in history, along with large improvements in the educational and health status of the poor. In 1975-85, East Asian countries reduced poverty by 27 percent; between 1985-95, the reduction was an astonishing 35 percent. This is the fastest pace of poverty reduction in any part of the developing world. During this period, East Asia was the only major region to experience declining numbers of people living in poverty. In particular, Indonesia's poverty fell by 82 percent, Thailand's fell by 90 percent, and Malaysia's fell by 95 percent ... (World Bank, 1997a, p.1).

### **Sharp Increase In savings**

Another result of this rapid shared growth, and which has also been instrumental in vastly improving the quality of life, has been a sharp increase in savings rates over the last two decades. This has been critical in financing domestic spending on education, infrastructure, communication, etc. Except for the Philippines (where savings have actually fallen over the same period), savings rates in all East Asian countries have increased far more rapidly than in other developing economies (see Figure 4). Today, the savings rates in East Asian countries are some of the highest in the world.



**Figure 4 Gross domestic savings in East Asia and other developing regions, 1965 and 1990**

\* Japan, Hong Kong, Indonesia, Malaysia, Singapore, South Korea, Taiwan, and Thailand only (China and the Philippines excluded)

Source: World Bank, 1993

### **The rise of the consumer class**

What the World Bank study (1993) calls the twin virtues of East Asian growth, rapid growth and declining inequality, have also been instrumental in the expansion of the middle class, particularly in the newly industrialising economies of Southeast Asia, and their growing consumer demands are triggering further growth in the region. This trend is likely to continue as economic growth is sustained, incomes rise, and people become better educated. It will further accelerate as other countries in East and South Asia (Vietnam and India being the most notable) join in the 'catch-up' effort. Based on their analysis of recent trends and developments in East Asia, Tan and Wee (1995) contend:

With sustained economic growth, rising income and educational level, the rapid emergence of the middle class in East Asia will have significant economic, social and political impact on the region and beyond. The region is no longer merely a low cost production base. It is becoming a considerable consumer market. Japan and the NIEs has reached per capita income ranging from US\$6,000 to US\$27,000. In addition, the ASEAN countries of 320 million people with income levels of US\$600 to US\$2,500 have passed the subsistence level and will generate a vast demand for manufactured goods and many high ticket consumer durables like cars, home appliances and electronics. More significantly, due to the demographic and income distribution structure for East Asian countries, a modest 25% rise in average income over 5 years could lead to a tripling size of the middle income group and hence create more potential consumers. Based on existing trends of growth in output and consumption expenditure, by the year 2000 the East Asian market is projected to be comparable in size to that of Western Europe ... (p. 46).

This projection may not be too far-fetched. The 10 East Asian economies covered by the study account for about 30% of the world's population (see Table 1), more than 60% of whom are between 25 to 65 years old and with some consumer spending power. Asia as a whole, with its more than 3 billion people, makes up about 60% of the total world population. If the patterns of economic growth in the region are sustained, this would mean that other Asian countries are likely to join the 'catch-up' wagon and enjoy the benefits of this growth; already, Vietnam and India are forging ahead, their annual growth rates averaging about 5% in the last several years. By the turn of the century, some predict about a billion consumers whose needs and demands have to be met (Lasserre and Schutte, 1995). Rohwer (1996) sees in this an Asia rising, whose middle class, poised to be history's biggest, will significantly change world dynamics.

**Table 1 Population distribution in the Asia-Pacific region (millions), 1995 and 2010**

Country	1995	2010	Growth Rate (%)
Australia	18.1	21.0	1.1
China	1 200.2	1 371.4	1.2
Hong Kong	6.2	8.1	1.8
Indonesia	193.3	236.9	1.6
Japan	125.2	130.3	0.3
Malaysia	20.1	26.0	2.3
Philippines	68.6	94.5	2.5
Singapore	3.0	4.0	2.0
South Korea	44.9	49.7	0.9
Taiwan	21.4	24.4	0.9
Thailand	58.2	67.7	1.2
Total (12 Asia-Pacific)	1 762.8		
Total Asia	3.5 bn		
Total World	5.7 bn		

Source: World Bank, 1997

### **The task ahead**

While the gains achieved by East Asia's 10 'tigers', both young and old, are impressive by all accounts, so much more still has to be done if these benefits are to spread to the



rest of the region, and to Asia as a whole. Speaking of the entire East Asian region, the World Bank (1997a) writes:

East Asia's gains have been remarkable, but the task ahead is daunting. East Asia still has a per capita Gross National Product (GNP) of only \$890. The region includes close to 40 percent of the developing world's population, and about 80 percent of its population live in countries with average incomes of less than about \$600 per capita. Almost 350 million people are estimated to be living on less than \$1 a day ... In addition to widespread poverty in the new economies in transition—Cambodia, Lao PDR, Mongolia, and Vietnam—there is a growing concentration of poverty among specific groups in the region's middle-income countries. Sustaining income growth and expanding social services will be critical to the continued reduction of poverty (p. 2).

Growth with equity is clearly pivotal to the region; only through this can such dreams as an 'Asia rising' be realised.

## 2 TRADE IN THE ASIA-PACIFIC REGION

It is often remarked that East Asian economies are like flying geese, with Japan at the lead, followed by the Four Tigers (Hong Kong, Singapore, South Korea, Taiwan), and then the newly industrialising economies (Indonesia, Malaysia, the Philippines, Thailand, and more recently, China).

This analogy was first made by the Japanese economist Akamatsu (1943, 1961, cited in Yamasawa et al., 1991) who used it to describe the pattern of industry development in a newly industrialising Japan. This pattern of development involved initial import substitution followed by a strong export push; according to Akamatsu, the shape of the growth curves resulting from this pattern of development resembled that of geese as they flew in formation.

As Japan industrialised and prospered as an exporter nation, and as its income levels and production costs rose, it transferred its high capital and labour intensive industries to less developed countries, where labour and production costs were much lower, and shifted its focus on higher value-added goods and more advanced technologies. These

countries in turn closely followed Japan's lead, and within a short period of time achieved unprecedented economic gains. They became the Four Tigers: Hong Kong, Singapore, South Korea, and Taiwan. The benefits of this 'flying geese' pattern of development continues to spread. The latest beneficiaries are China, Indonesia, Malaysia, the Philippines, and Thailand, all of which are in various stages of industrialisation. Vietnam is also gearing up; so is India (although located in South Asia, India's population size makes its potential contribution to East Asia and Asia as a whole highly significant).

Within a matter of two to three decades, the Four Tigers have succeeded in lifting themselves out of the poor-nations category into the group of high-income economies. They are now investing heavily in their less developed neighbours, which in turn are prospering from this close association. Investments from the Four Tigers (and to a lesser extent, Japan) have enabled the newly industrialising economies of China, Indonesia, Malaysia, the Philippines and Thailand to grow significantly within the last two decades; only the Philippines has lagged behind, posting annual average growth rates of 5% since 1993 only. Following the flying geese pattern of development, the next group of beneficiaries are predicted to be Vietnam, Cambodia and Laos.

This pattern of economic development in East Asia defines much of the trade in the region. It is distinguished by shifting comparative advantage as countries advance in tandem and by a mixture of competition and complementarity, making the interplay between and among countries in the region far more dynamic (Shibusawa et al., 1992).

## World market share

Recent estimates of the Asia-Pacific region's share of total world market peg it at around a quarter of total world trade, second only to the European Union (see Table 2), and this share is expected to increase as the countries in the region continue to industrialise and grow in tandem. China in particular is expected to significantly boost the region's share of world trade, if current growth and trade trends are sustained.

**Table 2** Distribution of world trade (%), 1996

Economic/Trading Zones	Share of total world trade (%)
EAST ASIA (Japan; Hong Kong, Singapore, South Korea, Taiwan; China, Indonesia, Malaysia, Philippines, Thailand; Brunei)	24.6
ASIA PACIFIC (East Asia, Australia, New Zealand)	25.9
APEC (Asia-Pacific + Canada, Chile, Mexico, United States)	45.0
NAFTA (Canada, Mexico, United States)	18.7
EU (14 countries)	37.4
MECROSUR (Argentina, Brazil, Paraguay, Uruguay)	1.5

Source: Bergsten, 1997

## Intra-regional trade

Of its current share of world trade, an increasingly significant proportion remains within the region. Drawing on the international economic databank of the Australian National University and the IMF, Kunkel (1995) shows in Figure 5 the shift in the region's trading patterns since the mid-1980s. While intra-regional trade has increased from about 38% to 46% between 1985 and 1993, the region's trade with the United States, its major trading partner, has decreased from around 30% to 23% during the same period.

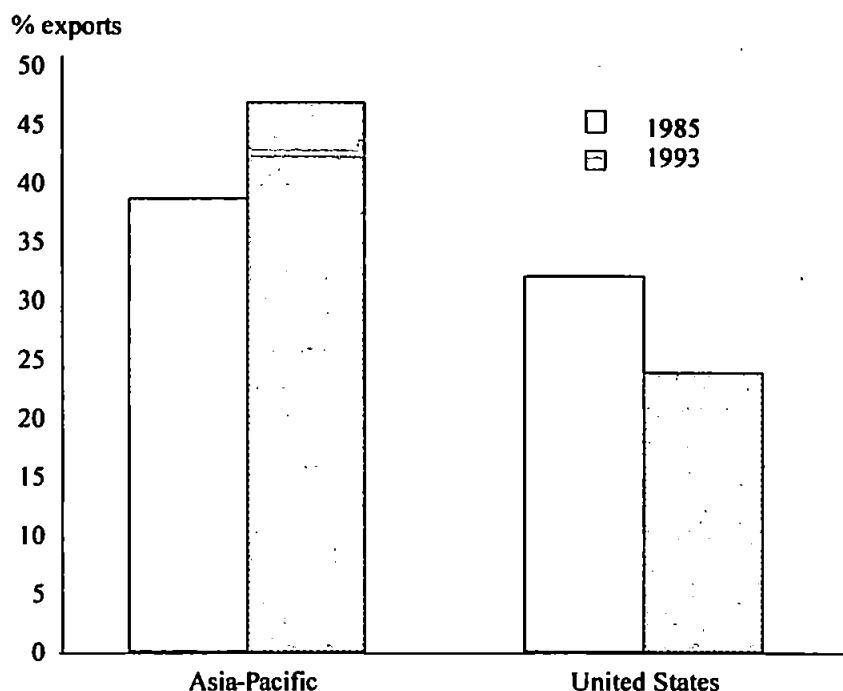


Figure 5 Intra-regional trade v. trade with the U.S. market (%), 1985 and 1993  
Source: Kunkel, 1995

Intra-regional trade is bound to increase in the coming years as countries within the region continue to take advantage of the benefits they can gain from one another. Majority of Asia-Pacific exports already go to the Four Tigers, as Table 3 shows.

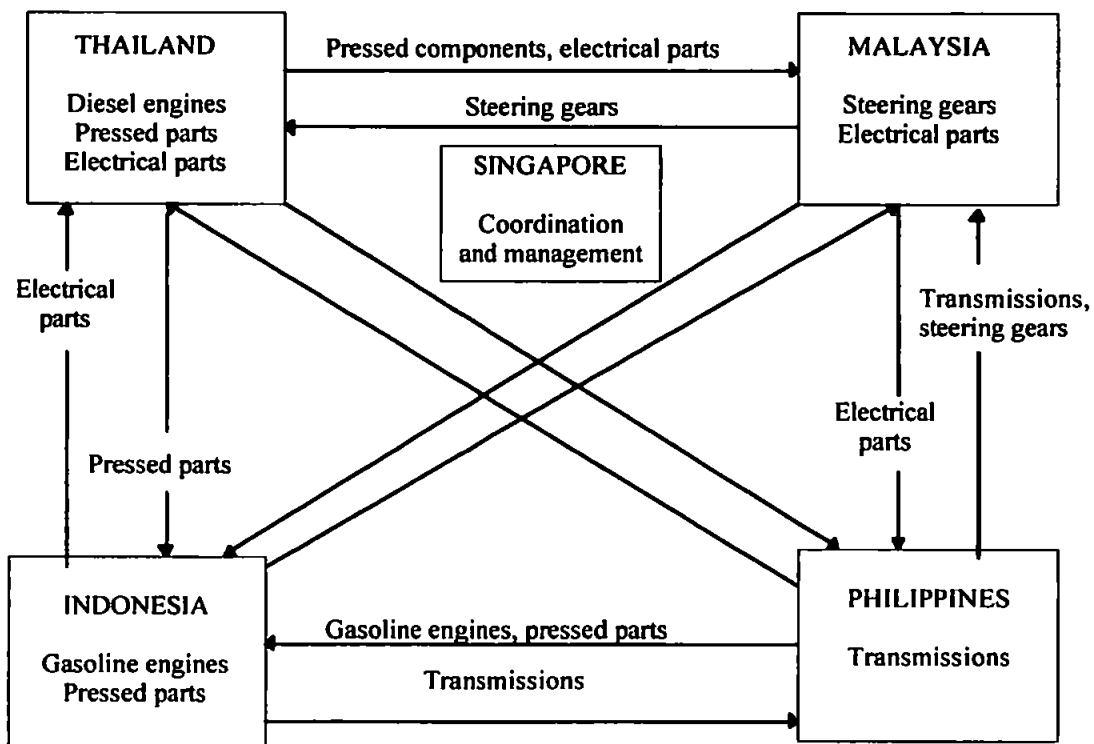
Table 3 Percentage of Asia-Pacific exports purchased by the Four Tigers, 1993

ASEAN*		Japan		U.S.	
<i>Purchaser</i>		<i>Purchaser</i>		<i>Purchaser</i>	
Tigers*	33.6	U.S.	43.3	Tigers*	33.6
U.S.	28.1	Tigers	32.8	Japan	26.4
Japan	26.4	ASEAN	13.3	ASEAN	6.1
ASEAN	6.1	China	7.0	China	3.2
China	3.2	Australia & NZ	3.6	Australia & NZ	2.5
Australia & NZ	2.5				

Source: Japan Review of International Affairs, as cited in Leger, 1995

Indeed, economic complementarity is on the rise, as countries in the region establish a highly integrated division of labour depending on the comparative advantages provided by each country's location, infrastructure and resources. In car manufacturing, for

instance, a typical production network involves several countries, each doing a specific aspect in the production chain. This is illustrated in Figure 6, which summarises the production chain for Toyota (Menon, 1996). It is a pattern than is prevalent throughout East Asia, with manufacturers taking advantage of the benefits of economic complementarity and comparative advantage.



**Figure 6 Economic complementarity: Building a regional automobile for Toyota**  
 Source: Petri, 1993, cited in Menon, 1996

The continuing increase in intra-regional trade is also largely due to the emergence of growth triangles, which has further enhanced an integrated division of labour within the region based not so much on competition as on complementarity. The two most prominent ones are the Singapore-Johor-Riau (SIJORI) triangle, comprising Singapore, the state of Johor in Malaysia, and the Riau province in Indonesia; and the Great South China Economic Zone, comprising Hong Kong, Macau, Taiwan, and the southern

coastal provinces of Guangdong and Fujian in China (Yue and Yuan, 1994; Yamasawa, 1994). Both these sub-regional zones began operating in the mid-1980s. Each has enjoyed a long history of border trade, which has been accelerated in recent years by direct foreign investments into these areas. Singapore and Hong Kong are considered as the 'growth poles' in these triangles, providing the much needed capital to allow their partners in the triangle to develop. Johor in Malaysia and Riau in Indonesia provide cheap land, labour and physical infrastructure, while Singapore provides advanced technological and management services. Hong Kong is the major investor in China; in exchange, the neighbouring provinces of Guangdong and Fujian provide it with cheap land and labour, as well with fresh food and water. Several other triangles, including a more formalised free trade zone (the ASEAN Free Trade Area), are in various stages of development.

Apart from the multi-national enterprises and growth triangles, another factor spurring the growth of intra-regional trade are growing consumer demands from within the region itself. As noted earlier in this background paper, economic growth has led to a substantial rise in income and educational levels. The benefits of this growth have also been shared with a broad base of the population, which has sharply reduced the number of poor people in the region, particularly in Southeast Asia. The net effect has thus been the emergence of a consumer class with growing purchasing power. The increased demand for manufactured goods within the region can be attributed to a large degree to the growing consumption needs and demands of East Asia's millions. In part, this explains why a growing proportion of the region's exports now remains within Asia. As countries in the region continue to industrialise, these patterns can be expected to continue.

## Investments

A part and parcel of this burgeoning intra-regional trade is the massive inflow of investments from the region's leading economies to the newly industrialising ones. Majority of foreign investments into the NIEs now come from the Four Tigers and Japan, with the Tigers increasingly taking the lead. Table 4 shows some comparative figures for 1990 for Indonesia, Malaysia, the Philippines, and Thailand, as compiled by Merrill Lynch and Co.

**Table 4** Percentage of investment distribution in four Asian NIEs, 1990

From	To	Thailand	Philippines	Malaysia	Indonesia
Asia		75.6	75.9	85.1	56.8
Japan		26.7	37.5	28.5	25.7
Tigers*		44.7	40.0	47.8	29.3
Hong Kong		29.0	21.6	2.2	11.4
Singapore		4.6	1.5	5.2	2.5
South Korea		3.1	2.2	2.6	8.3
Taiwan		10.4	14.7	37.8	7.1
Europe		7.4	4.7	8.3	13.5
United States		6.5	3.2	3.0	1.8
World total		100.0	100.0	100.0	100.0

\*Tigers: Hong Kong, Singapore, South Korea, Taiwan

Source: Tan and Wee (1995)

More recent figures published by the Far Eastern Economic Review (Leger, 1995) reflect the same trend. As of 1994, Taiwan was the biggest investor in Malaysia, Hong Kong in China and Indonesia, and Japan in Hong Kong; as a group, the Tigers are the biggest investors in the Asian NIEs. Of the NIEs, China now has the biggest share of direct foreign investment.

## **Appendix 2**

### **QUALITATIVE DATA ANALYSIS: CODING SYSTEM**

The analysis of qualitative data is acknowledged as problematic: words can be ambiguous, carry multiple meanings, and easily become voluminous and unwieldy. Because of this, the tendency to reduce words to numbers is strong. Unlike words, numbers are more clearcut, they are more economical to use, and replicability is relatively easier to achieve. A major problem with qualitative data is 'word overload': words accumulate very rapidly, and unless measures to organise data have been taken prior to data collection, data analysis can deteriorate into a nightmarish task, becoming extremely 'difficult to retrieve the words that are most meaningful, to assemble chunks of words that go together, and to reduce the bulk into readily analysable units' (Miles and Huberman, 1984, p. 56).

To avoid this problem, a typical solution is to set up a CODING SYSTEM prior to data collection and fine tune it during data collection and analysis. A coding system is a means of organising and retrieving data (collected through the survey, interviews, discussions, and simulations), researcher notes (summaries, retrospective notes, observations, etc), and various materials collected during the study. It is made up of codes that refer to specific research themes or topics (e.g. 'SP' for 'strategic planning', 'CS' for 'corporate strategy'). Such codes help the researcher tag data that 'belong' together, group them into meaningful chunks, and link them directly to research themes or topics. For the study, the following coding system was developed to facilitate qualitative data analysis. Prior to data collection, an initial index derived from the research objectives and questions was prepared. During data collection and analysis, other categories were added as new themes and patterns emerged.



## CODING INDEX: CORPORATE STRATEGY SELECTION

<b>BACKGROUND CONTEXT</b>	<b>BC</b>
BC-Demographics Respondents Shipping organisations	BC-DEM BCRESP-DEM BCORG-DEM
BC-Current status of the AP region	BC-REG
BC-Current status of AP shipping	BC-SHIP
<b>STRATEGIC PLANNING</b>	<b>SP</b>
SP-Characteristics of the strategic plan	SP-CHAR
SP-Importance to organisation	SP-IMPT
SP-Process Formalised system Informal approach	SP-PROC SPFORM-PROC SPINF-PROC
SP-Change patterns Frequency of change Reasons for change	SP-CH SHWHEN-CH SPWHY-CH
SP-Track record Estimated success rate Success factors	SP-GOOD? SPHOW-GOOD SPWHY-GOOD
<b>CORPORATE STRATEGY SELECTION</b>	<b>SS</b>
SS-Presence of corporate strategies Corporate strategies pursued No corporate, other strategies pursued	SS-CORP SSYES-CORP SSNO-CORP
SS-Change patterns Frequency of change Reasons for change People involved	SS-CH SSWHEN-CH SSWHY-CH SSWHO-CH
SS-Process Formalised process Informal approach	SS-PROC SSFORM-PROC SSINF-PROC
SS-Types Grow Develop Stabilise Turnaround Harvest	SS-T SSG-T SSD-T SSS-T SST-T SSH-T
<b>ENVIRONMENTAL FACTORS</b>	<b>EF</b>
EF-Internal factors Favourable (Strengths) Unfavourable (Weaknesses)	EF-I EFF-I EFU-I
EF-External factors Favourable (Opportunities) Unfavourable (Threats)	EF-E EFF-E EFU-E

<b>STRATEGIC DECISIONS</b>	<b>SD</b>
SD-Response to changes in environmental conditions Change corporate strategy No change to corporate strategy	SD-CHG SDY-CHG SDN-CHG
SD-Basis for change Future expectations Future expectations and others (mix)	SD-BASIS SDFUT-BASIS SDMIX-BASIS
SD-Conditions when OK to pursue Grow Stabilise Develop Turnaround Harvest	SD-Y SDG-Y SDS-Y SDD-Y SDT-Y SDH-Y
SD-Conditions when NOT OK to pursue Grow Stabilise Develop Turnaround Harvest	SD-N SDG-N SDS-N SDD-N SDT-N SDH-N
<b>METHODOLOGICAL ISSUES</b>	<b>METH</b>
MI-Shipowners (respondents) perceptions Pros & cons of survey & interviews Pros & cons of simulations	METH-SHIP METHS&I-SHIP METHSIM-SHIP
MI-Researcher observations Pros & cons of survey & interviews Pros & cons of simulations	METH-RES METHS&I-RES METHSIM-RES
<b>EMERGENT PATTERNS</b>	<b>EP</b>
EP-Strategic choice model Convergence with model (support assumptions) Deviation from model (qualifications, deviations)	EP-M EPSAME-M EPDIFF-M
EP- Decision makers/model Consistent follower Eclectic user Occasional sampler Non-user	EP-DECM EPCF-DECM EPEU-DECM EPOS-DECM EPNU-DECM
EP-Strategy selection process Official version As practised	EP-P EPOFF-P EPPRAC-P
EP-Shipowner's familiarity with strategic management Knowledge of literature/field Use of strategy selection models	EP-SO EPKNOW-SO EPUSE-SO
EP-Variations in strategic approaches Market sector Company size Nationality Training & experience Team decision making Information use Environmental focus Competitive performance	EP-VAR EPSECT-VAR EPSIZE-VAR EPNAT-VAR EPT&E-VAR EPDEC-VAR EPINF-VAR EPENV-VAR EPCOMP-VAR

## Appendix 3



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PO Box 40, Launceston, Tasmania, Australia 7250  
Phone 61 3 6327 2453 Fax 61 3 6327 1807

### Survey Questionnaire STRATEGY SELECTION BY ASIA-PACIFIC SHIPOWNERS

Dear Sir/Madam:

The Asia-Pacific region is predicted to dominate international trade in the next century, and already many forward-looking companies in the maritime industry are strategically positioning themselves to take full advantage of this dynamic growth in the region.

That strategic decision making is critical to market success is widely accepted, but we don't really know much about what actually works in the maritime industry, particularly in a growing economic power like the Asia-Pacific. Much of what we know about strategy is drawn from manufacturing industries; very little comes from the service industries, and even less from the maritime industry.

If we are to optimise our use of strategic decision making, then it is critical that we know more about how strategic decision makers in the maritime industry make strategic choices. This is what this survey aims to find out.

I would deeply appreciate it if you could find the time to participate in this survey. As you will find in the attached questionnaire, information is needed on four areas:

- the general strategic planning process followed by your company
- the process that your company normally follows to select and evaluate corporate strategies
- what strategic decisions you will make under certain market and organisational conditions
- some background information about your company and yourself

The results of the survey will form part of my doctoral thesis on strategy selection, for submission to the University of Plymouth (England). Please rest assured that all individual responses will be held in strictest confidence, and that all data collected will be aggregated into overall industry trends. No specific details about companies and respondents will be reported. A summary of survey results will be sent to you as soon as it is available.

It would be preferable if you faxed your completed questionnaire to +61 3 6327 1807. This fax number guarantees the confidentiality of all survey responses. If you wish, however, you could also mail it to the address listed above.

Thank you for your kind assistance. I look forward to hearing from you soon.

Yours sincerely,



Captain Jeffrey Hawkins  
Managing Director, HRC Group

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Enclosed is an extra questionnaire that I hope you would pass on to a colleague who may also be able to participate in the survey. Your assistance would be deeply appreciated.

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7 What percentage of your company's annual budget goes to strategic activities?

- 1  My estimate is \_\_\_\_\_% of the annual budget
- 2  Don't know
- 3  Other \_\_\_\_\_

8 How often is your strategic plan changed?

- 1  Every two years
- 2  Yearly
- 3  Every six months
- 4  Every quarter
- 5  Other (please specify) \_\_\_\_\_

9 What are the key reasons for changing the strategic plan?

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10 Out of a total score of 100, what would you say is the success rate of your current strategic plan? Please explain why you have given it this score.

I'd give it a success rate of \_\_\_\_\_ %.

Comment: \_\_\_\_\_

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11 *If you answered No to question 1:* In the absence of a strategic plan, what process (steps, approach, etc) does your company follow when making strategic decisions?

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**Part B: CORPORATE STRATEGY SELECTION**

*In this section, our concern is with corporate strategies. For the purpose of this survey, we shall define corporate strategies as those strategies that focus on a company's portfolio of businesses and determine which businesses the company should be in and how these businesses should be developed. They are different from business strategies in that business strategies focus on a specific business and how to improve that business's competitive advantage.*

*Please answer questions 12-21 on the basis of these definitions.*

12 Does your company have any specific corporate strategy(ies) to pursue?

- <sup>1</sup>  Yes (please go directly to question 14)                      <sup>2</sup>  No

13 If you answered No to question 12: If you have no corporate strategies, what type of strategies does your company pursue?

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*(After completing question 13, please go directly to question 21)*

*If you answered Yes to question 12:*

14 How often is/are your strategy(ies) reviewed?

- <sup>1</sup>  Yearly                      <sup>3</sup>  Every quarter                      <sup>5</sup>  Other (please specify) \_\_\_\_\_  
<sup>2</sup>  Every six months                      <sup>4</sup>  Every month

15 What key factors influence your company to change or modify your corporate strategy(ies)?

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16 Who are the key people who select your company's corporate strategy(ies)? Please identify them by the position they hold in the company. \_\_\_\_\_

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17 What process does your company follow to select your corporate strategy(ies)?

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18 Once you select the strategy(ies), do you evaluate it/them before actual implementation to ensure you have made the right choice?

- 1  Yes  
2  No, once a strategy is selected, we go ahead and implement it (please go directly to question 20)

19 If your answer to question 18 is Yes, what process does your company take to evaluate the strategy(ies)?

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20 How much time does it normally take your company to select and/or evaluate the strategy(ies)? Please indicate in terms of number of hours, days, weeks or months.

Strategy selection \_\_\_\_\_ Strategy evaluation \_\_\_\_\_

21 If a model for selecting and evaluating corporate strategies were made available to you, which type would you find more useful, given your company's strategic needs and requirements: one that is specific to shipping, or one that is applicable to the service industry in general?

- 1  A shipping-specific model will be more useful  
2  A model applicable to the service industry in general will be more useful  
3  Both types will be equally useful  
4  I won't find either type useful

**Part C: SCENARIOS FOR STRATEGY SELECTION**

*In this section, you are asked to make strategic choices depending on your analysis of market and organisational conditions. If you were reviewing your company's portfolio of businesses, what would you do in each of the following situations?*

*In answering questions 22-25, please consider conditions in both your company AND the market(s) you operate in.*

**22 Under what conditions would you expand an existing business or start a new one?**

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**23 Under what conditions would you wind up an existing business?**

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**24 Under what conditions would you maintain a business (ie keep it pretty much as is)?**

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**25 Under what conditions would you seek to save an ailing business?**

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In questions 26-33, you are presented with a range of market and organisational conditions which have to be taken into consideration when making strategic choices. You are also offered five strategic choices.

For each set of conditions described below, please choose **ONE STRATEGY** that you think would be the most advantageous for your company to pursue. Please put a tick  in the appropriate box.

26 Your organisation is very profitable, with a strong competitive edge over other major shipowners operating in your area. However, there are many threats in the shipping markets in which you operate. What strategy would you pursue under these circumstances?

- 1  start a new business or expand an existing one
  - 2  maintain an existing business
  - 3  seek to save an ailing business
  - 4  wind up an ailing business
  - 5  pursue another strategy (please specify) \_\_\_\_\_
- 

27 Your organisation is not as profitable or as competitive as many of the other shipowners operating in your area. However, excellent opportunities abound in the shipping markets in which you operate. What strategy would you pursue under these circumstances?

- 1  start a new business or expand an existing one
  - 2  maintain an existing business
  - 3  seek to save an ailing business
  - 4  wind up an ailing business
  - 5  pursue another strategy (please specify) \_\_\_\_\_
- 

28 Your organisation is not as competitive as other shipowners. There are few potential opportunities and many threats in the shipping markets in which you operate. What strategy would you pursue under these circumstances?

- 1  start a new business or expand an existing one
  - 2  maintain an existing business
  - 3  seek to save an ailing business
  - 4  wind up an ailing business
  - 5  pursue another strategy (please specify) \_\_\_\_\_
- 

29 Your organisation is the leading competitor in your areas of operation and there are a lot of opportunities available in the various shipping markets. What strategy would you pursue under these circumstances?

- 1  start a new business or expand an existing one
  - 2  maintain an existing business
  - 3  seek to save an ailing business
  - 4  wind up an ailing business
  - 5  pursue another strategy (please specify) \_\_\_\_\_
-

30 Your organisation is not as strong a competitor as many other shipowners. However, there are really good opportunities available in the various shipping markets. What strategy would you pursue under these circumstances?

- 1  start a new business or expand an existing one
  - 2  maintain the existing business
  - 3  seek to save an ailing business
  - 4  wind up an ailing business
  - 5  pursue another strategy (please specify) \_\_\_\_\_
- 

31 Your organisation has considerably greater organisational strengths (ie higher profits, low cost structure, more competent and motivated staff) than other shipowners operating in your area. There are also a lot of good opportunities available in the shipping markets. What strategy would you pursue under these circumstances?

- 1  start a new business or expand an existing one
  - 2  maintain the existing business
  - 3  seek to save an ailing business
  - 4  wind up an ailing business
  - 5  pursue another strategy (please specify) \_\_\_\_\_
- 

32 Your organisation is an industry leader in the shipping markets you are operating in. However, the shipping markets are not very profitable (low freight rates) and do not show much promise of improvement. What strategy would you pursue under these circumstances?

- 1  start a new business or expand an existing one
  - 2  maintain the existing business
  - 3  seek to save an ailing business
  - 4  wind up an ailing business
  - 5  pursue another strategy (please specify) \_\_\_\_\_
- 

33 Your organisation has a much higher cost structure than other shipowners and as a result, your freight rates are much higher. This situation is exacerbated by very poor market conditions (very low freight rates) which you believe will continue for quite some time before they improve. What type of strategy would you choose under these circumstances?

- 1  start a new business or expand an existing one
  - 2  maintain the existing business
  - 3  seek to save an ailing business
  - 4  wind up an ailing business
  - 5  pursue another strategy (please specify) \_\_\_\_\_
-

**Part D: BACKGROUND INFORMATION**

*Could you please provide us with some background information about your company and yourself. This information will enable us to better interpret the results of this survey.*

*Questions 34-37 pertain to your company; questions 38-44 are about yourself.*

**34 Sector(s) in which your company operates and the size of your operations in each sector**

Sector	Percentage of total operations
1 <input type="checkbox"/> Dry bulk	_____
2 <input type="checkbox"/> Liner	_____
3 <input type="checkbox"/> Tanker/Products	_____
4 <input type="checkbox"/> Other (please specify)	_____
_____	_____
_____	_____

**35 Your company's major trade routes in the Asia-Pacific region**

\_\_\_\_\_

\_\_\_\_\_

**36 Where is your head office located?**

\_\_\_\_\_

**37 Size of your company**

Number of ships owned/operated \_\_\_\_\_

Gross turnover/revenue \_\_\_\_\_

Number of different businesses/divisions in your company \_\_\_\_\_

**38 Your current position in the company**

Title \_\_\_\_\_

Department \_\_\_\_\_

Number of years in this position \_\_\_\_\_

**39 Your experience in strategic planning**

- 1  None
- 2  1-2 years
- 3  3-5 years
- 4  6-10 years
- 5  over 10 years

**40 Your previous training in strategic planning**

- 1  None
- 2  University degree(s)
- 3  Short course(s)
- 4  On-the-job training
- 5  Other (please specify) \_\_\_\_\_

41 Age

- 1  under 30  
2  30-39  
3  40-49  
4  50-59  
5  60 and over

42 Sex

- 1  Male  
2  Female

43 Nationality (eg Singaporean, Australian) \_\_\_\_\_

44 Ethnic background (eg Indian, Chinese, Malay etc) \_\_\_\_\_

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Survey Questionnaire  
Strategy Selection by Asia-Pacific Shipowners

Thank you very much for helping us in this survey.

As we noted in the cover letter, please fax your completed questionnaire to +61 3 6327 1807. This fax number guarantees the confidentiality of all survey responses.

Alternatively, you can mail it to Capt Jeffrey Hawkins, PO Box 40, Launceston, Tasmania, Australia 7250.

May we also take this opportunity to reiterate that all responses will be held in strict confidence and that no details about individual companies or respondents will be reported. We shall send you a copy of the survey results as soon as they are available.

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## **Appendix 4 STRATSHIP**

'Stratship' is a computer-based simulation program designed to simulate strategic decision making in a shipping company. The rationale for its use in the research study is explained in this appendix. An overview of the decision-making model underlying the Stratship program is also presented, as well as a description of how the one-day shipping competition was conducted.

### **1 RATIONALE FOR THE USE OF STRATSHIP**

The two most popular strategic planning simulations currently used in shipping are 'Stratship', produced by the Esmee Fairbairn Research Centre at Heriot-Watt University, and 'The Shipping Game', produced by the Centre of Maritime Studies at the University of Turku. Both programs are designed to simulate strategic decision making in a liner shipping company.

To test which program was more appropriate for Asia-Pacific commercial shipowners, both programs were pilot tested with three different commercial shipowners. Two separate test sessions were organised, and in each session, two representatives from each company tried out both programs. Twelve (12) people completed the pilot tests. All were commercial shipowners holding senior management positions and were from companies included in the study population. None of these participants subsequently took part in the actual simulations. At the end of each session, participants were asked

to evaluate the two programs and select the one they thought was more appropriate to Asia-Pacific shipping.

Most of the participants found that Stratship was more appropriate (84.2 per cent), citing the following as key reasons:

- Stratship provided a more realistic portrayal of the commercial shipping environment: output figures were more realistic to market conditions, the type and volume of information provided was similar to the type of information shipowners normally had access to, the range of available strategies was more appropriate for commercial shipowners, information was more clearly presented.
- The standard of performance in Stratship was controlled by the program; in The Shipping Game, it was dependent on the participants. In Stratship the effect of an individual's decisions affected only that person's performance; in The Shipping Game, the decisions of one person affected and were affected by the decisions of the others.

It should be noted that for the minority who chose The Shipping Game, it was this dynamic nature of the game that they particularly liked. Because the decisions of one team affected the decisions of the other teams, this created more uncertainty and thus made the simulation more interesting.

- The Shipping Game had too much complexity built into it, making it difficult to see the cause and effect of decisions. At times, there was no way of knowing whether decisions were effective or not. In contrast, Stratship appeared to produce more reliable results for the type of decisions made.

- The consensus was that Stratship would generate more interest in the Asia-Pacific region because it was widely known as a program that could realistically mimic a tough commercial shipping environment; The Shipping Game, in contrast, was not well known.

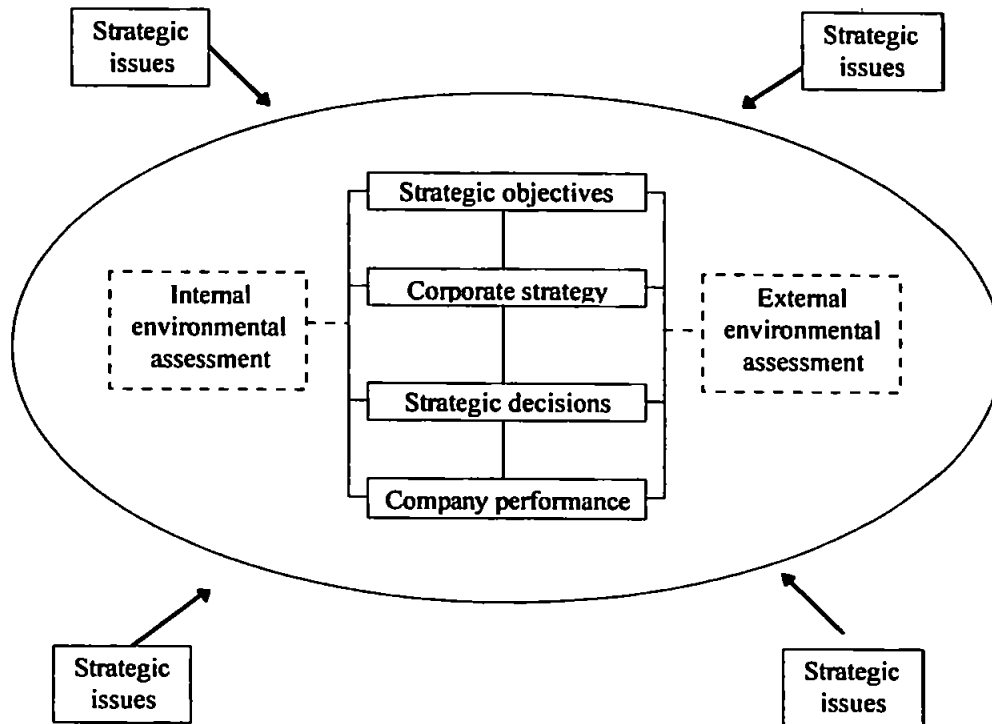
These results of the pilot test are consistent with what is widely known about the two programs. Stratship is regarded as a more robust program because it has been tested in different contexts over a longer period of time, leading to revisions that have enhanced the program's ability to mimic shipping conditions (Esmee Fairbairn Research Centre, 1993). It has also been used by the researcher over the last six years as an instructional tool in two contexts: in commercial training courses conducted through the HRC Group, and in maritime management courses conducted at the Australian Maritime College. Feedback from these courses has provided further validation of the model's robustness.

For the purposes of the study, another major consideration in the choice of simulation program was the ability to control variables. Stratship is a static simulation; that is, it gives exactly the same conditions and information to all participants. The Shipping Game, on the other hand, is a dynamic simulation; that is, conditions and information change depending on the responses of participants. On this basis, therefore, Stratship is a more effective research tool: it provides greater internal validity and better control over the interpretation of results (Zikmund, 1994). It is, therefore, a more reliable and valid simulation instrument.

As a result of these findings and research considerations, the Stratship program has been selected for use in this study.

## 2 THE STRATSHIP MODEL

How does Stratship actually work? Figure 1 illustrates the major stages involved in the simulation and how they are interrelated.



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**Figure 1** Stages in the Stratship simulation

As the figure shows, there are four key stages in the simulation process:

- Setting strategic objectives
- Selecting a corporate strategy (or strategies, based on the strategic objectives and environmental assessment)
- Making strategic decisions
- Evaluating company performance

Of these, the first three are done by the user; the last by the program. The process is iterative: every quarter, strategic objectives for that quarter must be set (or



restated/adjusted after the initial quarter), the company's internal and external environment must be analysed, corporate strategies must be selected, and based on the above, strategic decisions must be made. Decisions are processed by the program, which generates a performance record for that quarter.

**Setting strategic objectives.** Because Stratship is designed to aid strategic decision making in shipping, it firmly adheres to the precept that there must be strategic objectives to guide strategic decision making. At this first stage, therefore, the user sets the strategic direction for the company. That is, the user makes predictions about the company's future outlook over a given period of time, explores and analyses information provided by the program (company's previous history, information of relevance to the current quarter, general market trends), and then uses this information, plus management experience and intuition, to set strategic objectives. Predictions and strategic objectives are jotted down in the quarterly decision sheet.

**Selecting the corporate strategy.** Once strategic objectives are set, the next stage is to determine the corporate strategy or strategies that the company should pursue. Here the user can access two types of computer-generated information: quarterly information on the company's internal and external environment, and general market trends. The program allows the user to manipulate this information to explore various alternatives prior to making decisions. The user also has the option to study the information on screen or in print, and to translate data into graph form, either using computer-generated graphs or designing one's own. As with strategic objectives, the environmental assessment (total vessel operating costs, route accounts, accounts summary, company

value, route and market trends, exogenous shocks) and corporate strategy (or strategies) are jotted down on the quarterly decision sheet.

**Making strategic decisions.** Having decided on a corporate strategy (or strategies), the user must now make specific strategic decisions regarding fleet structure (i.e. order, buy, sell, scrap, charter in, re-charter, charter out) and operations (i.e. add/delete routes, add/delete legs, port setup costs, vessel speed, joint ventures, liner rates, marketing, reallocate vessels to routes). It is at this stage that the user actually feeds data into the computer program; and once the command to execute the decision is made, the decision becomes irrevocable. In this sense, the program resembles real life; once a decision is implemented, the manager must be prepared to live with the consequences of this decision. Because of the irrevocable nature of this decision-making stage, the program allows the user to manipulate information and conduct sensitivity analysis to study the likely cause and effect of contemplated changes. However, this is possible only with internally-generated information (e.g. vessel speed, repositioning costs); the function is not extended to externally-generated information (competitor freight rates, market share, trade demand or ship prices). As in previous stages, strategic decisions are entered in the quarterly decision sheet.

**Evaluating company performance.** Once the user makes a final decision, the program 'implements' the decision, that is, it processes the data provided by the user and generates information about the company's performance for use in the next quarter.

This process—setting strategic objectives, selecting corporate strategies (based on the objectives and an environmental assessment), making strategic decisions, and evaluating company performance—is repeated over 20 quarters (begins in quarter 10 and ends in

quarter 30), at the end of which the user must evaluate the aggregate effect of the strategic decisions on the company's overall market value.

### **3 MATERIALS USED IN THE SIMULATION (SHIPPING COMPETITION)**

Four sets of materials were used during each simulation session: a set of overhead transparencies used for the introductory presentation, a guidebook outlining the requirements and procedures of the shipping competition, a booklet of quarterly decision sheets covering 20 quarters for participants to complete, and a copy of the Stratship manual. The first three sets of materials were designed and developed specifically for use in the simulation, whereas the Stratship manual was the standard documentation provided with the software. All three sets of materials have been used by the researcher as instructional tools and have undergone extensive testing and revision. The guidebook was for participants to keep, but the manual and the decision sheets booklet had to be returned to the competition presenter at the end of the competition.

- **OVERHEAD TRANSPARENCIES** were used by the researcher for an introductory presentation on the shipping competition and the Stratship program. Participants used this period to ask for clarification or further explanation on the nature and rules of the competition and the running of Stratship.
- A more detailed explanation of the shipping competition and Stratship was provided in a **COMPETITION GUIDEBOOK**, copies of which were given out to participants at the commencement of the competition. The guidebook explained the nature, requirements and procedures of the competition, and provided specific instructions on how to make the best use of the Stratship program.

- A copy of the **STRATSHIP MANUAL** (Esmee Fairbairn Research Centre, 1993), which detailed the various aspects of the program (company history, vessel and route characteristics, vessel allocation, quarterly operations and results, messages and exogenous shocks, graphics), was also provided to participants. The manual was distributed the day prior to the competition to allow participants to study it and be prepared to ask questions about the program during the introductory presentation.
- A **BOOKLET OF QUARTERLY DECISION SHEETS** was also provided to participants for them to complete each quarter. Each two-page decision sheet required information about the company's current situation (total operating costs, route accounts, accounts summary, company value, route and market trends, exogenous shocks) and various aspects of strategic decision making (future outlook, strategic objectives, corporate strategies, fleet structure decisions, operational decisions, company status as a result of the decisions).

#### **4 ADMINISTRATION PROCEDURES**

The procedures for conducting the simulation are detailed below:

**Preparatory stage.** Participation in the simulation was voluntary, hence, steps had to be taken to attract shipowner interest and motivate them to participate in the simulation. To do this, the simulation was conducted as an intensive one-day shipping competition. A one-page flier, which invited shipowners to test their strategic decision making skills and pit skills with other commercial shipowners, was circulated to Asia-Pacific shipowners through national shipowner organisations, which organised the

competitions in their respective countries. There was no contact between the researcher and the participants during this preparatory stage, and neither the shipping organisations nor the participants had prior knowledge that the competition was being held as part of a research study.

A total of 30 sessions were held in five countries (Australia, Indonesia, Malaysia, New Zealand, Singapore). Between three-four months was allocated to set up each simulation session, from initial contact with a national shipowner organisation to the actual competition day; however, in some instances, the actual competition date had to be rescheduled to accommodate other national commitments.

On the day prior to the competition, participants were given copies of the Stratship manual to study in preparation for the competition. The researcher also used this day to set up the computers, provided by the host countries, load and test the Stratship program, and ensure it was ready to run on each computer.

**Competition day.** On the day of the competition, the researcher spent the first hour on introductions. After an initial ice-breaking, he introduced himself as the competition presenter and then spent the rest of the hour explaining the requirements and procedures of the competition and showing participants how to run the Stratship program. The competition guidebook and the decision sheets booklet were also given out during this period. Participants used this period to clarify unclear points or seek further explanation.

Soon after, the competition was declared open. Participants worked in teams of normally three people each, with representatives from the same company grouped together. Each team was given a maximum of eight (8) hours to complete the simulation.

No minimum time limit was set. Morning, lunch and afternoon breaks were scheduled during this period, but it was left to participants to decide when (or whether) to take these breaks. Teams were required to complete a decision sheet for each quarter they worked on.

At the close of the competition, an evaluation session was held to discuss team performance and declare the competition winner. During this session, participants were also debriefed about the simulation's use for research purposes and their permission to use the simulation data was sought.

**Evaluation stage.** The day after the competition, three (3) participants, randomly selected, were asked by the researcher during separate face-to-face interviews to evaluate the simulation in terms of (a) whether it was realistic in mimicking commercial shipping in the Asia-Pacific region, and (b) whether their strategic behaviour under simulated conditions was consistent with their behaviour under normal working conditions. A total of 90 participants (three from each of the 30 sessions) provided individual assessments.

## **5 ATTACHMENTS**

Four further details about the simulation, the following materials can be found at the end of Appendix 4:

- 1 introductory information given to participants as part of the Competition Guidebook
- 2 a copy of a quarterly decision sheet

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## **An introduction to the shipping competition**

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The shipping competition will be run using a shipping-based computer simulation program called Stratship. The program simulates strategic decision making in a shipping company and challenges you to chart a course that will allow the company to gain a competitive advantage in the market place.

### **The scenario**

You and the other participants will be organised into several management teams, and each team must aim to make as much profit as it can. Each team begins with the same scenario: the Board of Directors of a shipping company sacks the previous management team for poor performance and hires your team to help the company make some healthy profits. As you might have guessed, your team inherits the financial problems caused by the poor performance of the previous management team! Your job then is to get the company out of its financial doldrums so that it can gain a competitive advantage and make healthy profits.

### **How realistic is the simulation?**

Stratship is designed to help shipping managers apply their strategic decision-making skills to realistic problems and test the outcomes of their decisions. To achieve this objective, the program simulates the same type of commercial shipping environment as you would expect to find in real life.

Each team is given the same type of information that can normally be found within a commercial shipping company—detailed company costs and revenues, freight rates for various trades, trade demand figures, charter rates, new and secondhand prices, scrap prices and many more. The trick is not to get caught up in deciding whether you have enough information or not; rather, focus on what information your team should have to meet your objective.

During the simulation, your team can expect to make the same types of decisions that most commercial shipowners constantly make. These may include deciding on the best trades to be in (and to get out of!), allocating the right mix of vessels to those trades, deciding on the appropriate level of freight rates and other vital areas like marketing expenditure, or whether or not to form a joint venture operation. There are also a host of other decisions like which vessels to sell, order, charter in or out, scrap or buy on the spot market.

Your team can pursue a range of different strategies like playing the sale and purchase market, chartering in or out tonnage, or operating either niche markets or going for market share. To implement these strategies, your team will have the authority to spend millions of company dollars. However, as in real life, this authority carries with it a commensurate responsibility to use resources wisely. If you become insolvent, you may have to sell your assets, or the bank may force you to do so. At the worst case, you may have to declare bankruptcy.

## **The way to success**

As in real life, your team's success in the competition depends on two things: your team's overall strategy throughout the competition, and how effectively and efficiently your team makes use of its scarce resources. Each team's performance stands and falls on the strength of its own decisions.

The performance of any one team is not affected by the decisions of the other teams—so do not try to 'strategise' against other teams. Your 'opponent' is the Stratship program itself, and the challenges it plants all along the way.

## **Rules of the competition**

The following basic rules will govern the competition:

- 1 Every one will be assigned to a competing team.
- 2 The simulation begins at quarter 10 and finishes at quarter 30.
- 3 Each team will be given a limited amount of time to practise using the Stratship program before the competition begins.
- 4 The measure of your team's performance in the Stratship program is the amount of money your company is worth on the open market at the end of the competition. Your team's objective therefore is to maximise COMPANY VALUE.
- 5 The team with the highest company value for quarter 30 is the winner of the competition.
- 6 The quarterly decision sheets in your Quarterly Decision Sheets Booklet must be completed for each quarter. Failure to complete all decision sheets will invalidate a team's results.
- 7 At the end of quarter 10, your team must have your decision sheet for that quarter verified by the competition presenter before proceeding to the next quarter.
- 8 At the end of the competition, your team must submit your completed Quarterly Decision Sheets Booklet AND a computer printout of your quarter 30 results. The printout will serve as a verification of your team's final results.
- 9 All Stratship Manuals must also be returned to the competition presenter at the end of the competition.
- 10 Each team must complete the competition within the allocated time.
- 11 Teams are not allowed to collaborate with one another and to share information or decision making.

## **What you can expect to get out of the competition**

Competing within a computer-simulated environment is a perfect opportunity to test your creativity and innovativeness without inflicting any harm to yourself or your company. Not only will you be able to *make* multi-million-dollar decisions, you will also be able to *act* on them, without having to face the real-life risk of sending your company bankrupt and you to the unemployment lines!

The simulation is entertaining, and provides a stimulating forum for the exchange of ideas and strategic approaches. There will be group discussions at the end of the day to pull together observations, experiences and conclusions. Strategies and decisions will be analysed to improve future performance.



## STRATSHIP SIMULATION v3

Beginning of Quarter

**CURRENT SITUATION**

<b>1</b>	<b>TOTAL VESSEL OPERATING COSTS</b>				
<b>2</b>	<b>ROUTE ACCOUNTS</b>				
	Cash surplus/deficit	Route 1	Route 2	Route 3	
	Capitalised route value			Route 4	
<b>3</b>	<b>ACCOUNTS SUMMARY</b>				
	Operational cashflow	Financial cashflow	Net cashflow	Current liquid assets	
<b>4</b>	<b>COMPANY VALUE</b>				
	Total fleet value	Liquid assets	Value of routes	Company value	
<b>5</b>	<b>TRENDS</b>				
	Route Trends*			Market Trends	
	Leg	Market share	Load factor	Trade Indices	Liner rates
	Route 1				
	Route 2				
	Route 3				
	Route 4				
	* Direct routes only				
	Vessel price**	Construction lag	Charter rates***	Interest rates	Oil prices
	** new 1500 TEU		*** 1 yr 1500 TEU for 5 periods		
<b>6</b>	<b>EXOGENOUS SHOCKS</b>				

**DECISIONS**

Quarter

<b>7</b>	<b>PREDICTION/FUTURE OUTLOOK</b>		
<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Number of quarters ahead</td> <td style="width: 30px;"></td> </tr> </table>		Number of quarters ahead	
Number of quarters ahead			

<b>8</b>	<b>STRATEGIC OBJECTIVES</b>		
<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Number of quarters ahead</td> <td style="width: 30px;"></td> </tr> </table>		Number of quarters ahead	
Number of quarters ahead			

<b>9</b>	<b>CORPORATE STRATEGY</b>		
<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Number of quarters ahead</td> <td style="width: 30px;"></td> </tr> </table>		Number of quarters ahead	
Number of quarters ahead			

<b>10 FLEET STRUCTURE DECISIONS</b>	<b>OPERATIONAL DECISIONS</b>				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Reminder Notes:</td> </tr> <tr> <td style="padding: 2px;"> <ul style="list-style-type: none"> <li>• Order</li> <li>• Buy</li> <li>• Sell</li> <li>• Scrap</li> <li>• Charter in</li> <li>• Re-charter</li> <li>• Charter out</li> </ul> </td> </tr> </table>	Reminder Notes:	<ul style="list-style-type: none"> <li>• Order</li> <li>• Buy</li> <li>• Sell</li> <li>• Scrap</li> <li>• Charter in</li> <li>• Re-charter</li> <li>• Charter out</li> </ul>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Reminder Notes:</td> </tr> <tr> <td style="padding: 2px;"> <ul style="list-style-type: none"> <li>• Add/delete routes</li> <li>• Add/delete legs</li> <li>• Port setup costs</li> <li>• Vessel speed</li> <li>• JOC</li> <li>• Liner rates</li> <li>• Marketing</li> <li>• (Re)allocate vessels to routes</li> </ul> </td> </tr> </table>	Reminder Notes:	<ul style="list-style-type: none"> <li>• Add/delete routes</li> <li>• Add/delete legs</li> <li>• Port setup costs</li> <li>• Vessel speed</li> <li>• JOC</li> <li>• Liner rates</li> <li>• Marketing</li> <li>• (Re)allocate vessels to routes</li> </ul>
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<b>11</b>	<b>STATUS AFTER DECISION</b>																																																																																																																										
<table style="width: 100%;"> <tr> <td style="width: 60%;"></td> <td style="text-align: center;"><b>Current Fleet Structure Status</b></td> </tr> <tr> <td style="padding: 5px;">Number of vessels owned</td> <td style="text-align: center; border: 1px solid black;">F4</td> </tr> <tr> <td style="padding: 5px;">Number of vessels chartered in</td> <td style="text-align: center; border: 1px solid black;">F4</td> </tr> <tr> <td style="padding: 5px;">Number of vessels chartered out</td> <td style="text-align: center; border: 1px solid black;">F4</td> </tr> <tr> <td style="padding: 5px;">Number of vessels under construction</td> <td style="text-align: center; border: 1px solid black;">F4</td> </tr> <tr> <td style="padding: 5px;">Total TEU capacity</td> <td style="text-align: center; border: 1px solid black;">F4</td> </tr> <tr> <td style="padding: 5px;">Average age of fleet</td> <td style="text-align: center; border: 1px solid black;">F4</td> </tr> </table>			<b>Current Fleet Structure Status</b>	Number of vessels owned	F4	Number of vessels chartered in	F4	Number of vessels chartered out	F4	Number of vessels under construction	F4	Total TEU capacity	F4	Average age of fleet	F4																																																																																																												
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## **Appendix 5**

### **LIST OF ENVIRONMENTAL FACTORS**

This appendix includes major categories of internal (organisational) and external (market) environmental factors or conditions identified by shipping respondents during the survey, interviews, and simulation sessions. They are best approached from the perspective of a continuum, with one end representing 'most favourable' and the other 'least favourable'. The more competitive an organisation is and the more opportunities the market holds, the more favourable are the conditions, that is, the stronger is an organisation's strategic position and the higher is its probability of success. Conversely, the weaker an organisation and the fewer the opportunities, the less favourable are the conditions and the lower are the chances of success.

Specific survey, interview and simulation responses were initially coded using the coding index in Appendix 2, and the entries aggregated and arranged according to frequency of citation. From this initial analysis, several major clusters of conditions emerged (3 for internal, 4 for external). The factors in cluster 1 for both internal and external conditions were the most frequently cited. To put the use of environmental factors in the right perspective, a caveat is in order. It should be stressed that environmental conditions are highly time-related. Many respondents qualified their responses by saying that environmental factors should not be viewed as static, that they could 'change tomorrow depending on what the wind blows in'. This concern is validated by previous research which has shown that not only do environmental factors have differential effects depending on the trade, their importance also changes over time (Brooks, 1995).

Most favourable



Least favourable

### INTERNAL CONDITIONS

#### *Cluster 1*

Profitability/return on investment  
Economic and technological efficiency of ships/equipment  
Experience and quality of managerial and technical staff  
Organisational culture  
Customer satisfaction

#### *Cluster 2*

Operating efficiency (service frequency)  
Company image and reputation  
Utilisation of shipping capacity  
Employee satisfaction and loyalty  
Cashflow and asset management  
Safety culture

#### *Cluster 3*

Operating flexibility  
Level of training  
Quality of information and communication  
Internal systems to monitor and control quality of service

### EXTERNAL CONDITIONS

#### *Cluster 1*

Freight rates and market expectations  
Technological innovations  
Competitive rivalry (new and existing competitors)  
Seaborne trading patterns (include seasonal fluctuations)  
Supply and demand in shipping markets  
Changing customer demands

#### *Cluster 2*

\$US and oil price  
World economic outlook  
Business cycles  
Substitute services  
Financial credit availability  
Quality of maritime infrastructure to support shipping

#### *Cluster 3*

Political and commercial influences of government, regulatory  
and international bodies  
Information technology  
Government support mechanisms for shipping (tax incentives, subsidies)  
Safety and environmental trends and regulations

#### *Cluster 4*

Union influences  
Shipyard capacity  
Changing patterns of labour supply  
Transport costs  
World shipping fleet productivity

Most favourable



Least favourable

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