



E·I·U

The Economist
Intelligence Unit

DRIVING OVER A CLIFF?

Business Lessons
from the World's
Car Industry

GRAEME P. MAXTON
JOHN WORMALD

Contents

<i>Preface</i>	<i>ix</i>
Introduction	1
PART ONE	
SOCIETY AND THE DEMAND FOR AUTOMOBILES	7
1 From blessing to curse? The societal impact of road vehicles	9
From horse to horsepower	9
If you were sitting in 1890, would you do this?	10
Societal problems	12
Pollution and waste	13
Legislation is getting tougher	15
Noise pollution	18
Cars cause many deaths and injuries	19
The future	25
What can we do about this?	27
Traffic congestion	29
Other social factors	31
2 The ratchet effect: why cars are here to stay	33
The emotional ratchet	33
The social ratchet	34
The industry ratchet	39
The fuels ratchet	40
The design ratchet	42
Conclusion	43

3 From conveyance to icon...and back? The changing nature of demand	44
From unsatisfied demand to overcapacity	44
A changing market segmentation pattern	45
A changing image pattern	50
SUMMARY OF PART ONE	56
PART TWO	
THE AUTOMOBILE INDUSTRY AT A TURNING POINT	57
4 Getting what you want: the breakdown of product class barriers	59
A stable pattern of products today	59
A changing product segmentation pattern	61
5 A battle of Titans: the achievements of the vehicle manufacturers	66
The birth of the industry	66
Mass production and the birth of the corporation	68
The change to lean production	70
The growth of the Japanese	72
The motor industry today	77
6 Sweeping the globe: a still incomplete Japanese dominance	82
An industry in transition	82
The Japanese wave: moving the crossover point	83
The attack on the US market	84
Japan – the inviolate homeland	88
The attack on Europe	88
Japanese dominance is still incomplete	91
The impact on global car manufacturing: the transplant phenomenon	92
7 From slaves to partners: the restructuring of the components industry	94
The performance gap in components	94
Regional differences in structures	96
The need for alignment and change	98
A process of global convergence	99

8	The last frontier for competitive advantage? Distribution, the aftermarket and the customer interface	103
	Distribution: a neglected sector of the industry	103
	A fragmented sector, remarkably similar throughout the world	104
	A common set of problems and challenges, despite some regional differences	111
	Dealers wage a war on several fronts, disadvantaged on most of them	113
	The neglected opportunities of the aftermarket	115
9	The back seat drivers: the industry and its major constituencies	118
	The interested parties	118
	The automotive industry as a generator of wealth	119
	The industry as a powerful stimulant of unfulfilled expectations	120
	The industry's resistance to change	122
	Fuels and environmental policy	123
	Providing the road infrastructure	124
	The oil and fuel suppliers	125
	The interdependence of the oil and automotive industries	127
	The potential for long-term change in fuelling structures	128
	The role of legislation and limitations on substitute fuels	130
10	The Triad Club: outsiders need not apply	132
	The dominance of the Triad countries	132
	Countries that have played a strategy of integration into a mega-region	134
	Some countries have accepted that they cannot play a major role in the world automotive industry	137
	Other countries are scaling back their ambitions and liberalizing their markets more gradually	138
	A few countries are still pursuing the chimera of autarchic development	139
11	Bleak House? The state of the automotive industry today	142
	A maturing industry	142
	A competitive restructuring on a planetary scale	143
	SUMMARY OF PART TWO	147

PART THREE	
MARKETS AND THE OUTLOOK FOR DEMAND	151
12 Global cooling: the overall prospects	153
The political outlook	153
Drivers of demand	154
The automotive outlook	155
13 World War Three: the European battleground	157
The main battleground	157
Summary and conclusions	168
14 Peace in our time? The future for the NAFTA region	169
15 The new empire: the globalization of the Japanese industry	173
16 Not all that it seems: the future for the Pacific Rim	177
The region as a whole superficially looks attractive	177
The outlook for smaller countries in the region: Singapore, Malaysia, Thailand	178
The larger markets: China, Indonesia and India	179
Other constraints on growth	180
The competitive implications	181
17 No Eldorado: the future for South America	183
18 Marginal additions: the rest of the world	186
The former Eastern bloc countries	186
Other regions	190
SUMMARY OF PART THREE	190
PART FOUR	
OPTIONS FOR PRODUCTS, VEHICLE MANUFACTURERS AND THE INDUSTRY	193
19 Alternative technologies: options for the car itself	195
Existing design structures are predicated on historical environmental conditions	195
A wide range of design options exists for the future	197
The semi-utilitarian option prolongs existing designs and technologies	199
Alternative materials may allow other compromises between variety and cost	201
More radical options could be invoked under severe environmental pressures	204

Radically-different materials and drivetrain options could be used in extreme cases	205
The most radical options involve challenging the functional nature of the car itself	206
There are real practical obstacles to major change	206
20 A global oligopoly: options for the car manufacturers	208
Car manufacturers are moving towards a global oligopoly	208
A limited set of global players is already emerging	212
21 A global shake-out: the other actors and the future of the industry	217
The components sector faces an even greater shake-out than the vehicle manufacturers	217
An equivalent shake-out is coming in distribution – but when?	219
The industry's relations with governments will need to be put on a sounder footing	220
The future of the industry – a conclusion	221
SUMMARY OF PART FOUR	223
PART FIVE	
LEARNING FROM THE INDUSTRY	225
22 Managing change: the car industry and the lifecycle	227
The maturing car industry	227
The lifecycle is present in every facet of the industry	228
An imperfectly-structured and image-dependent industry	229
Understanding the need for change has always been difficult	231
Scale is the ultimate differentiator	232
Image is another historical positional asset – and potentially transient	235
Strengths can become weaknesses	235
Opportunities can become risks	236
Many markets are fragmenting	237
Environmentalism is here to stay	237
Conservatism is a dangerous weakness	239
Industries have ratchets that obstruct needed change	240
Dealing with governments is a necessity of life and can be an opportunity for advantage	241
SUMMARY OF PART FIVE	242
<i>Appendix: Lessons in business analysis</i>	<i>245</i>
<i>Glossary</i>	<i>249</i>
<i>Index</i>	<i>251</i>