Preface to the Third Edition

1 INTERNATIONAL COMPARISONS

Summary

Manufacturing output
Exhibit 1.1 Comparative balance of payments on goods for selected countries, 1960–2007 ($millions)
Exhibit 1.2 Percentage share of world trade in manufactured goods for selected countries, 1980–96
Exhibit 1.4 Total manufacturing export-import ratio by region
Exhibit 1.5 Trade balance for electronic equipment and components for selected countries by value ($bn) for 1985, 1993 and 1998
Exhibit 1.6 The challenge of world competition: the North American auto lesson in the 1990s

Productivity: national comparisons
Exhibit 1.7 Trends in manufacturing output per hour for selected countries, 1960–2006 (1992 = 100)
Exhibit 1.8 Annual percentage growth in output per hour 1970–2006

Productivity: plant-level comparisons
Exhibit 1.9 Productivity in some of the world’s auto plants, 1997 and 1998
Exhibit 1.10 Best and worst productivity levels by auto maker and regional location (1998)

Why has this happened?
Exhibit 1.11 Production of machine tools without parts and accessories for selected countries (millions)
Exhibit 1.12 Gross domestic expenditure on R&D as a percentage of gross domestic product (GDP)
Exhibit 1.13 International trade balance for highly intensive R&D industries in 2005 ($ millions)

Top management’s lack of operations experience

Operations strategy

Reflections

Discussion questions

Notes and references

2 DEVELOPING AN OPERATIONS STRATEGY: PRINCIPLES AND CONCEPTS

Summary

Functional strategies within the context of a firm
Exhibit 2.1 Levels of strategy and their distinctive tasks

Functional executives: strategy versus other roles
Exhibit 2.2 Operations, by proxy, secures the second sale

Business unit strategy
Summary

Exhibit 10.1 Framework for reflecting operations strategy issues in corporate decisions

Exhibit 10.2 Strategic awareness ensures businesses identify market changes and develop the capability to support them

Issues to consider when developing infrastructure

Infrastructure development

Organizational issues

Exhibit 10.3 Typical phases in the evolution of specialist functions in an organization

Exhibit 10.4 The number of levels within a typical organization at different times

Exhibit 10.5 The separation between planning, doing and evaluating created by organizational structure

Developing infrastructure

Exhibit 10.6 Indication of how developments can be used to address infrastructure issues

Exhibit 10.7 Incorporating appropriate planning and evaluating steps into the doing tasks

Exhibit 10.8 Shop-floor workers are significantly more involved in world-class operations

Managing infrastructure

Exhibit 10.9 Varying quality conformance tasks and responsibilities by process choice

Exhibit 10.10 Baldrige Award (points allocation by category)

Exhibit 10.11 Three levels of mechanisms to cushion delivery systems from unstable markets

Analyze markets using cross-functional perspectives supported with data

Do not issue across-the-board inventory reduction directives

Exhibit 10.12 Benefits of using inventory by category and type

Exhibit 10.13 Balance between improving the cash, cost and market support of operations

Computer system makes operation more expensive and less effective

Systems not modified to meet changing business and market needs

One system used to support different market needs

Exhibit 10.14 Linking the master scheduling approach to operations and market needs

Exhibit 10.15 Linking materials planning approach to operations and market needs

Exhibit 10.16 Linking shop-floor control systems to operations and market needs

Reflections

Exhibit 10.17 The relevant manufacturing tasks and MPC system investments of two companies serving different markets

Discussion questions

Notes and references

Exploring further

11 ACCOUNTING, FINANCE AND PERFORMANCE MEASUREMENT IN THE CONTEXT OF OPERATIONS STRATEGY

Summary