Environmental scanning and industry analysis

Learning outcomes

At the end of this module you should be able to:

- discuss the major external factors that affect organisations;
- discuss the importance of monitoring external trends and events;
- identify and explain the key sources of external information;
- discuss important forecasting tools used in strategic management;
- discuss the importance of gathering competitive intelligence;
- evaluate the current external environment of an organisation operating within the industry.

Topics

Quotes of note

If you're not faster than your competitor, you're in a tenuous position, and if you're only half as fast, you're terminal.

George Salk

Competitive strategy must grow out of a sophisticated understanding of the rules of competition that determine an industry's attractiveness.

Michael Porter

Introduction

The environment in which modern businesses operate is very complex and nowhere is this truer than in the maritime industry. With politics and technology continually (and often unexpectedly) redefining the global landscape, competitors in the maritime trades are finding that a good understanding of the external business environment is becoming increasingly fundamental to survival.

Because of the 'life-and-death' power that the external environment exercises over business, it is vital that you learn how to deal with it, and more importantly, how to outwit it and anticipate its moves. Your objective: to make optimum use of the opportunities it provides and to find ways of circumventing or overcoming the many threats it cooks up. You must constantly scan the environment and then analyse the industry of which you are a part.

Scanning the business environment. Scanning means being aware, remaining constantly alert to what is going on around you. You should make it a habit, a part of your personal repertoire of behaviours that will help you succeed in business. Scanning does not involve intense effort or energy, just constant alertness to what is happening, very similar to driving a car. Sometimes we almost seem to drive automatically, yet most of us are constantly aware, if only on a subconscious level, of the activities of other road users, of pedestrians, of the traffic lights and signs. This awareness on the road, as in business, is what helps us get where we are going and avoid accidents along the way.

An organisation must scan or monitor the external environment to identify opportunities or threats.

Industry analysis. Industry analysis refers to and in depth examination of the key factors likely to have a significant impact on corporate success or failure.

By way of example, think about the following 'current issue' faced by the shipping industry. It is an issue that is part of any shipping organisation's external environment, one that could impact on the way managers have to work and organise work.

An example

Of the many forces influencing business today, one that is having a significant impact is the concept of quality. At the Quality Shipping Conference, organised by the European Commission in Lisbon in June, ICS emphasised that EU policy makers should not overlook the fact that shipping is an international industry and perceptions of what constitutes acceptable practices inevitably differ across the world.

As noted in Mariscene (1998) ICS supports the commission initiative to explore alternative and non-regulatory means of eliminating sub-standard operators. But it is important that the position of the rest of the world is taken into account and that the efforts to improve the quality of shipping are not interpreted as an attempt to set

standards which other countries cannot afford and which then act as non-tariff barriers to trade.

3.1 Understanding environments

The next reading provides a good discussion of the mechanics of the external environment. What we shall concentrate on in these study notes are a few tricks of the trade that can be particularly useful in dealing with the external environment. Figure 3.2 is quite useful.

Reading

David, F R (2003). Chapter 3 'The external Assessment'. In Strategic Management Concepts. 9th edition. New Jersey: Prentice Hall, pp. 78-101.

From your reading, you would have noted the emphasis that the authors put on the need to take an holistic approach in viewing the external environment. This was demonstrated to you by the discussion on segmenting the environment into main parts (forces, stakeholders and the impact on the organisation's opportunities and threats).

Key strategic management concept

Managers can use environmental scanning to spot budding trends and clues of change that could develop into new driving forces.

If you want to practice your skills:

Select a maritime organisation upon which to base your answer to this activity. Outline the major elements in the external environment that impact on this organisation and a major trend in each of the elements.

Explain the importance of environmental choice for ports and shipping. Try and give some specific circumstances where it would be vital for a strategic manager to do an assessment of the external environment.

For example, you may like to point out that since the maritime industry relies on derived demand (that is, its demand comes from trade), failure to monitor trade and economic activity trends could lead to catastrophic effects on shipping demand.

Can you think of other circumstances?

It is worth making an observation: every scanning and industry analysis process, regardless of name or content, follows the same generic pattern. You determine

what it is you want to find out and why, collect and analyse the necessary information and then interpret it in terms of the objectives you have drawn up. Where there are differences, they lie mainly in organisation or arrangement (authors do have a penchant for coining their own terms for the same concept) and the specifics of the topic being assessed.

The environmental scanning and industry analysis process is well discussed in the Wheelen and Hunger reading. Their treatment of the sources of information and forecasting tools and techniques is comprehensive enough and therefore needs no further elucidation. However, do note two points of interest:

- The list of external sources clearly shows us the breadth of information that can be accessed. Since those of us in the maritime trades are involved in an international industry, we must be aware of such sources and tap into them as required.
- Also, reference to the Porter model to describe the elements of the competitive environment is an approach that is well used in practice, mainly because it encompasses much of the microeconomic theory relating to market behaviour. Unfortunately, many analysts tend to misuse the technique, treating the five competitive forces as representing the *whole* environment rather than merely the *competitive* environment. By now you will appreciate that although the competitive environment is of immediate importance to any organisation, it is not the only environment to consider. General and remote environments must also be taken into account. So please be careful and avoid this rather common trap.

3.2 Looking for the right information

The value of collecting the right type of information at the right time cannot be over-emphasised. There is no point analysing the wrong information. This may sound like a truism, but you would be amazed at how often people ignore this fundamental precept. So that you do not waste valuable resources (both yours and your company's!) it is always good practice to evaluate your collection procedures.

One way of doing this is by asking yourself these questions:

- What is my objective – what do I aim to find out?
- What information will I require to meet this objective?
- Where is/are the best place(s) to find this information? (How do I know these are the best places?)
- What are the limitations of the available data?

How do you acquire the information? One way is by simply listening and observing what is going on around you. Among the noise and clatter of today's organisations there are many notes of change. As a manager, you should attempt to establish a network of informal, interpersonal sources of information. These can be established with people from outside the organisation, such as colleagues in a similar field and

previous employees. Often managers are members of professional organisations, for example, the Australian Institute of management. Most countries will have similar associations where one can become involved in professional activities such as functions with guest speakers and film nights.

These are opportunities to network and are ideal sources of informal information to add to formal sources. These organisations have newsletters and magazines that keep you up-to-date with what is happening in your industry. The *Management Today* articles are an example of one such publication from the Australian Institute of Management.

There is also information available from within your organisation: for example, in other departments and sections. There is a general acceptance of the importance of what have been termed *gatekeepers*. These are people with a variety of interpersonal and organisational contacts through whom information passes. Many gatekeepers are in the middle and lower levels of the organisation: for example, clerks, secretaries, salespersons, first-line supervisors and production line employees. Gatekeepers can be very useful, alerting managers to potential problems before they become serious.

Be a *trend watcher.* Look for trends when you are talking to people. Look for patterns in the changes you see. Take a proactive approach to responding to external influences rather than being reactive. Newspapers and other media are also a source of what is happening around you. An increasing number of managers are seeing the value of information in competitive intelligence, research and development and other activities concerned with ensuring that their organisation is sufficiently aware of the environment in which they are operating.

There are many tools and techniques for acquiring and dealing with information from the external environment. We have covered some of the popular methods in the previous section. You will no doubt have heard of the *SWOT analysis* (*Strengths, Weaknesses, Opportunities* and *Threats*), otherwise known humorously as the *WOTS up analysis*. A popular tool that is readily adaptable to any industry and situation, it brings together an analysis of the external and internal environments.

We will cover SWOT analysis (which you will need to understand for assessment purposes) in the next module after we have considered the internal environment.

An example: Looking for the right information

You want to compare the shipping industries' direct contribution to the balance of payments for all major nations in the Pacific Rim.

To do this you need to collect data on freight earnings for national (resident) operators.

Obvious places?

You check the national account of each country in question. You find that each country has some department that produces this information. For example, in Australia you would get this from the Australian Bureau of Statistics.

Looking good so far! However you trip over a snag...

You find that each country differs in its method of collecting or categorising data and its timing or the data collection process (or as I found once – the ABS changed its method of categorising data).

So what do you do?

In this case a more accurate way is to use the balance of payments statistics reports produced by the International Monetary Fund. Every effort has been made to provide comparable data within these reports.

Reading

David, F R (2003). Chapter 3 'The external Assessment'. In *Strategic Management Concepts*. 9th edition. New Jersey: Prentice Hall, pp. 101 - 114.

The following section considers more specifically sources of maritime information.

3.3 Sources of maritime information

If you were interested in evaluating the external environment of bulk shipping, what information sources would you use? Assume that you were most interested in the following five areas:

- rates and prices
- volume and patterns of trade
- fleet size
- fleet utilisation
- fleet productivity

There are many sources of information you can tap into, with some of the most reliable and timely listed in the following table.

Table 3.1 Information sources for bulk shipping
(Source: originally compiled by HRC Group [Adapted])

Rates and prices

Brokerage reports/data bases

Finn Engelsen A/S *Daily Chartering report*
A/S Hjalmar Bjorge *Weekly Report*
The Platou Report www.platou.com
Maritime Research Inc *Weekly Newsletter*

The Baltic Shipbroking and Shipagency
Client surveys
Clarkson's Research Studies Ltd

Weekly Market Review
World Tanker & Bulk Carrier Fleet – half yearly review

Drewry's Shipping Statistics and Economics
Fairplay Publications, for example, Fairplay Daily News see: news@fairplay.co.uk
Lloyd's Shipping Economist
Platt's Dirty Tankerwire
Platt's Oilgram News

Seatrade Week
World Maritime Analysis

Volume and pattern of trade

American Petroleum Institute
Association of Iron Ore Exporting Countries
BP Statistical Review of World Energy
Coal Statistics International
Drewry's Seaborne Trade and Transport series
Eurostat Quarterly Trade and Transport series
Eurostat Monthly Energy Statistics
Fearnley's Review
Fearnley's World Bulk Trades
International Bulk Journal
International Energy Agency Oil Market Reports
International Iron & Ore Institute reports
International Wheat Council Market reports
Japan Iron & Steel Federation monthly report of statistics
Lloyd's Shipping Economist
OECD Quarterly Oil & Gas Statistics
OPEC Bulletin
Petroleum Economist
Petroleum Intelligence Weekly
Proprietary Source for Oil Trade data
Proprietary Source for Grain Trade data
Proprietary Source for Coal Trade data
United Nations Monthly Bulletin of Statistics
US Department of Energy
    Petroleum Marketing Monthly
    Petroleum Supply Monthly
US Department of Agriculture reports
    World Grain Situation and Outlook
    USSR Grain Situation and Outlook
    World Oilseed Situation and Market Highlights

Fleet size [Orders scrappings, actual fleet size]

Clarkson's Research Studies Ltd
    Weekly Market Review
    World Tanker & Bulk Carrier Fleet-half yearly review
Drewry's Shipping Statistics and Economics
John I Jacobs World Tanker Fleet Review

Fleet utilisation [Laid up tonnage, idle tonnage, combination carriers]

Clarkson's Research Studies Ltd
    Weekly Market Review
    World Tanker & Bulk Carrier Fleet-half yearly review
Drewry's Shipping Statistics and Economics
Lloyd's Shipping Economist

Fleet productivity **[Speed, port time, load factors]**

Client surveys

Drewry's Shipping Statistics and Economics

John I Jacobs World Tanker Fleet Review

General

Chartered Institute of Transport publications. For example, Transport, Distribution & Logistics in the Asia-Pacific Region, CIT-Singapore; Global transport, CIT/ILDM).

Pdi Port Development International

CSR Shipping Consultants Reports

International Energy Agency Oil Market Reports

Intertanko

The Journal of Commerce

Lloyd's List

Lloyd's Register of Statistical Tables

Lloyd's Ship Manager

The New York Times

Ocean Bridge Shipping Consultants Reports

Ocean Industry

Oil and Gas Journal

Organisation for Economic Cooperation & Development (OECD)

- Economic Outlook
- International Economic Indicators
- Main Economic Indicators
- Maritime Transport

Seatrade Business Review

The Wall Street Journal

UNCTAD Review of Maritime Transport

US Department of Transport, Maritime

Administration Reports

Worldscale Association

There are many companies in the maritime industry that provide much of the data on the industry's external environment. You only need look at the advertisements in a number of shipping journals to see evidence of this.

Lloyd's Maritime Information Services is a good example. The big advantage of the Lloyd's database is that it is more comprehensive than most other database services. Lloyd's tend to specialise in providing quality information in four main areas: marketing, day to day shipping operations, research and development and specialised consultancy services. Table 3.2 gives a sample of the type of information they provide.

Table 3.2 Sample information types from Lloyd's
(Source: compiled by HRC Group)

Sea data
Ships on order/under construction
Ship particulars (technical data)
Ship movements
Ship owners, managers and parent companies
Ship casualties/demolitions
Shipbuilders & repairs
Shipbuilding service
Ship repair service
Marine product manufacturers
Marine product manufacturers
Engine builder and spare parts service
Ports
Port operations
Port marketing
Port development
Port safety control
Customs
Police
Port agents
Port services
Maritime inquiry
Special watch
Tracker
Maritime investigations
Cargo inquiries
Shipowners and managers
Market research (competition monitor, vessel details, vessel tracking, direct marketing, new buildings, cargo flows, fixtures)
Research and development (fleet analysis, tonnage replacement options, operation performance of the industry, trade analysis)
Liner shipping analysis
Analysis of petroleum exports (APEX)

However, maritime-related information does not come cheaply. As practitioners, you will need to be very choosy about where you obtain your data. Because of finite

resources, you may want to carry out a cost-benefit analysis to determine which information sources will suit your specific purposes. Many companies do.

Other than Lloyd's, for example, Drewry publications have annual seaborne trade and transport reports, annual shipping and economic statistics and individual reports (that is, world shipbuilding market or trade outlook for cape-sized bulk carriers).

Key strategic management concept

The challenge is to analyse the environment to separate the major causes of change from the minor ones.

3.4 Some problems with maritime information

Most industries, particularly manufacturing, are fortunate in that they have quite a number of good quality information sources from which to draw. Some industries are not so lucky, however and it is the misfortune of the maritime industry to belong – at least for now – to this sorry lot. It suffers, not from lack of data, but from the lack of comparability in data. If you are studying port productivity, for instance, you will soon find that the variables used in many studies and databases are so diverse that attempting to make valid comparisons can be a futile exercise.

Surely, you ask, there are some standard classifications and variables that can be used across the board so that the industry has a set of norms to compare against? You would be right; there are. Unfortunately though, rather than striving for comparability, many performance statistics available tend to 'do their own thing' (that is, to produce their own set of data). This would be a very good project for someone or a group of people to embark on. Think about how commercially valuable this information could be!

Another drawback to data collection is the degree of secrecy with which those involved in the maritime industry guard their databases. Try to see how far you can get if you want quality information on estimated shipping costs (capital, operating and voyage costs). True, there are some good sources that provide some information (for example, Drewry Shipping Consultants, Lloyd's Shipping Economist), but in the main such information is of little value for decision-making. To protect the interests of individual shipowners, Drewry, for example, publish aggregate figures only, which provide nothing more than a broad guide to where shipping costs may be headed. Furthermore, the sampling error in their data is extremely high.

3.5 Techniques for analysing threats and opportunities

You will find many assessment techniques or types of analysis in the literature on general business, but in this section we shall focus only on two: the generic

threat/opportunity matrix discussed and a shipping-based threat/opportunity matrix. These have been chosen because of their relevance to the maritime industry.

3.5.1 Threat/opportunity matrix

One of the most popular environmental assessment techniques used in general business and in the maritime industry is the threat/opportunity matrix.

Applying the matrix is relatively straightforward. As the figure shows, relevant environmental factors are arrayed on the horizontal scale (F1, F2, etc) and their probability of occurring as either opportunities or threats is estimated along the vertical scale.

The trickier work lies in the choice of relevant environmental factors. Careful thought is required in determining which factors to include and which to leave out; otherwise you may find yourself wasting valuable time and effort. If you wish, you can also add time periods to your assessment; this is common practice in business (for example, short term = 1–3 years, medium term = 3–5 years, long term = 5–10 years).

Probability of occurring (%)

As an opportunity					
As a threat					
	F1	**F2**	**F3**	**F4**	**F5**

Figure 3.1 *A generic threat/opportunity matrix*

When evaluating environmental factors always keep an open mind. What may initially appear as a threat of the first order could be turned into an opportunity. For instance, let's take the UNCTAD Code of Conduct on Liner Conferences. More commonly known as the 40-40-20 rule, this code stipulates that if two trading countries agree, each country will transport 40% of their trade share in their national shipping companies and leave the remaining 20% to third parties. Say, for example, that two countries with which your company is trading decide to enforce the code. Immediately, this makes you a third party operator, with access to only 20% of both countries' trade. As manager, how would you respond to this? At first glance, you might say it is a threat. ... Think again.

Firstly, everybody who is not a registered shipowner in either country is in the same position you are, so that flattens out the playing field. Secondly, who says that both countries could immediately take over the transport of 80% of their trade? This is something that most countries could not manage at present. So where does this leave you? Most likely, in the thick of intensified competition among third party operators for the 20% share (but this could go higher, depending on the capabilities of the countries involved). Now you, as strategic manager, must see how you can turn this situation to your company's advantage.

3.5.2 Frankel's shipping-based matrix

The generic threat/opportunity matrix is often adapted to suit more specific purposes. In Figure 3.2 we have one such adaptation, developed by Frankel (1982) and focusing specifically on one shipping issue, the 40-40-20 rule for third party share imposition.

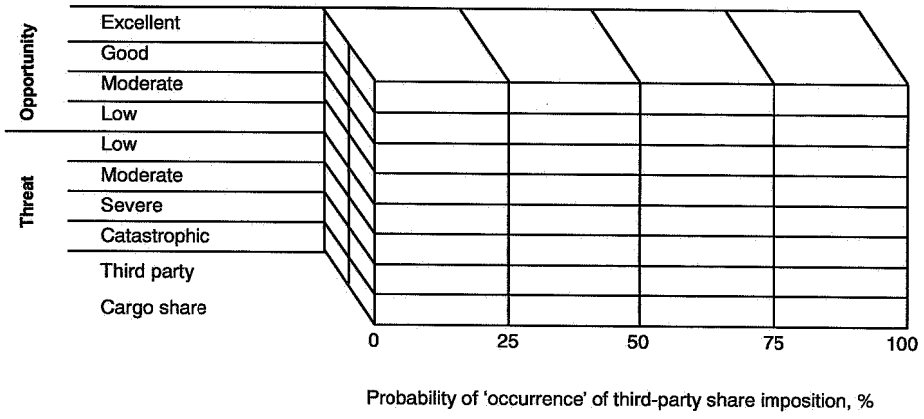


Figure 3.2 Frankel's shipping-based matrix
Source: Frankel, E (October 1982)

Frankel has identified a number of variables that must be considered when applying his matrix. These variables are listed in Table 3.3.

Table 3.3 List of variables for third party operators

Function and market variables	Company Structure variables	Environmental variables	
		External	Internal
Shipper's concentration Operator's concentration Agreements Contracts Laws and treaties	Departments Routes Services Agents	National and foreign government regulations Other regulatory agency rules etc	Staff Union Contracts
	Competitor variables	Broader environmental variables	Organisational characteristics and resource variables
	Competing functions Capacity Rates	Economic conditions Social trends Political trends Legal factors	Staff organisation Employee relations Budgets Computer/Data processing Quality of decisions

Source: Frankel, E. (October 1982)

An aside: Key trends impacting on ports

A number of factors impact on ports. These include the trend towards ever larger ships, increased ship specialisation and urban revitalisation pressures.

As world maritime trade continues to grow thanks to economic globalisation and the steady removal of trade and tariff barriers through the effort of the World Trade Organisation (WTO), there is increasing pressure to handle larger commodity movements more efficiently. Efficiency implies lower unit costs for goods movement. In the marine transportation industry this drive for efficiency has been reflected in reduced freight rates and a drive to cut shipping costs. Ship owners have strived to meet these cost-cutting challenges in several ways.

Through the use of flag-of-convenience ships rather than national flag carriers, ship owners have been able to significantly reduce their crew costs by using non-nationals to operate their vessels. This means that lower cost, developing country crew and officers have steadily replaced more expensive staff from developed nations. Another step to reduce ship costs involves cutting the crew size aboard ships by installing various mechanised and computer driven systems to displace labour intensive activities.

The key step to reducing unit cargo costs to generate profits from falling freight rates has been the steady growth in the size of ships serving various trades. Larger ships typically can carry more cargo at less cost on a per unit basis than smaller vessels. Given the increasingly competitive cargo freight market place, it is not surprising that the trend towards larger ships continues almost unabated.

Larger vessels create demands on ports to expand their cargo storage capacity or to move cargo through the port quicker (efficiently) to reduce demands for more cargo storage.

In parallel with larger ships comes the continued trend towards ship specialisation. Given trade growth in almost all commodity movements (with the notable exception of crude oil tankers due to other geo-political factors), the amount of cargo available means specialisation is cost effective. Although specialisation has occurred in all trades, it is most notable in container ships where specialised cellular container vessels without ship's cargo-handling gear has become predominant. Specialised ships can be seen in various other trades in the form of automobile carriers, LNG tankers, chemical tankers, bulk wine carriers and so forth.

Larger and more specialised ships have continued to challenge modern ports. As discussed in the following reading, these trends in the container trade have led to an increasing demand for deeper draught harbours, larger turning basins and manoeuvring areas, wider channels, larger out-reach container gantry cranes (now post-Panamax sized), and more efficient cargo-handling to reduce ship time in port.

Extract from: Ircha, Michael, (2000). 'Changes in Marine Technology: Impact on Canadian Ports', Proceedings of the Canadian Transportation Research Forum, Charlottetown, Prince Edward Island, Canada.

3.6 Global issues for the 21st century

- Increasing environmental uncertainty means that environmental scanning will become an important part of everyone's job. For companies to remain

competitive, they will need to develop better methods of gathering, evaluating, and disseminating intelligence to those who need it.

- As more industries become increasingly global and *hypercompetitive*, fewer companies will survive unless they are able to adapt to changing conditions.

Conclusion

Because of the growing complexity and dynamism of the business environment, the maritime industry, like all others, must closely monitor what is happening in its external environment.

The total maritime environment is made up of a number of forces. It is the competitive environment that strategic managers should focus their attention on.

The process of environmental assessment involves three stages: scanning for information; analysing such information for relevancy; and lastly, interpreting such information in terms of its impact on the organisation and its future.

When scanning for information, be selective: there are many sources to choose from and each has its own particular advantages and disadvantages. In many cases a cost-benefit analysis is recommended to find out which information sources will give best value to an organisation. Treat the problem of the lack of comparability in data with great care. Always attempt to crosscheck such data for reliability.

For those that just cannot get enough check out the following reading in the library. The key external variables are succinctly pulled together in Figure 3.2 of the reading. In particular, note Porter's approach to industry analysis, which is a popular tool.

Reading (Refer to end of Module)

Wheelen T L & Hunger J D (2000). Chapter 3 'Environmental scanning and industry analysis'. In *Strategic Management Business Policy*. 7th edition. USA: Prentice Hall, extract from pp. 54 - 76.

Capstone activities

If you want to test yourself give the following a go (set aside about 30 minutes)

1 **Identify those environmental facets of possible relevance to a shipping or port enterprise of your choice.**

2 **Using your own personal experience, judgement or vision, determine what you think would be the future environment for that particular enterprise.**

3 **Add these 'judgment calls' to the data you have collected and from the information, identify those environmental facets that you think will have the most significant impact on the organisation that you have chosen. If you can, try to rank them from most important to least important.**

References

Bartol, K M; Martin, D C; Tein, M H and Matthews, G W (1998). *Management: A Pacific Rim Focus.* Sydney: McGraw-Hill Book Company.

Campbell, A and Verbeke, A (1997). 'The globalisation of service multinationals'. In Vernon-Wortzel, H and Vernon-Wortzel, L. *Strategic Management in a Global Economy.* NewYork: Wiley.

Clarke, T and Clegg, S (1998, October). 'Changing paradigms, the transformation of management knowledge for the 21st century'. *Vision Book Summaries,* pp. 2-8.

David, F R (2001). Chapter 3 'The business mission'. In *Strategic Management Concepts.* 8th edition. New Jersey: Prentice Hall.

David, F R (2003). Chapter 3 'The business mission'. In *Strategic Management Concepts.* 9th edition. New Jersey: Prentice Hall.

Frankel, E (October 1982). As cited in Hawkins, J (1993). *Strategic Management Study Guide.* Tasmania: Australian Maritime College.

HRC Group (1991). As cited in Hawkins, J (1993). *Strategic Management Study Guide.* .

Hawkins, J (1993). *Strategic Management Study Guide.* Tasmania: Australian Maritime College.

Hunger, J D and Wheelen, T L (1998). *Strategic Management.* 6th edition. USA: Addison Wesley.

Ircha, Michael, (2000). 'Changes in Marine Technology: Impact on Canadian Ports'. Proceedings of the Canadian Transportation Research Forum. Charlottetown, Prince Edward Island, Canada.

Kanter, R M (1989). *When Giants Learn to Dance.* London: Unwin Hyman.

Marchand, D (1997, June). 'Looking ahead with strategic intelligence'. *Business Review Weekly,* pp. 80-82.

Mariscene (1998). International Chamber of Shipping, issue 19, summer.

Miller, A (1998). Chapter 2 'The process of strategic management'. In *Strategic Management.* 3rd edition. USA: McGraw-Hill, pp. 41-44.

Montanari, J R; Morgan, C P and Bracker, J (1990). 'The choice perspective of strategic management'. In *Strategic Management: A Choice Approach.* Chicago: The Dryden Press, pp. 88-96.

Thompson, A and Strickland, A (1998). *Strategic Management.* 10th edition. USA: McGraw-Hill, pp. 105-113.

Ocean Shipping Consultants Ltd (1998). 'The Asian crisis: Implications for regional containerisation', UK.

Wheelen T L & Hunger J D (2000). Chapter 3 'Environmental scanning and industry analysis'. In *Strategic Management Business Policy.* 7th edition. USA: Prentice Hall.

 Reading 3.1

Wheelen T L & Hunger J D (2000). Chapter 3 'Environmental scanning and industry analysis'. In *Strategic Management Business Policy.* 7th edition. USA: Prentice Hall, extract from pp. 54 - 76.

and disseminating of information from the external and internal environments to key people within the corporation. A corporation uses this tool to avoid strategic surprise and to ensure its long-term health. Research has found a positive relationship between environmental scanning and profits.[4]

Identifying External Environmental Variables

In undertaking environmental scanning, strategic managers must first be aware of the many variables within a corporation's societal and task environments. The **societal environment** includes general forces that do not directly touch on the short-run activities of the organization but that can, and often do, influence its long-run decisions. These, shown in Figure 1.3 on page 10, are as follows:

- **Economic** forces that regulate the exchange of materials, money, energy, and information.
- **Technological** forces that generate problem-solving inventions.
- **Political-legal** forces that allocate power and provide constraining and protecting laws and regulations.
- **Sociocultural** forces that regulate the values, mores, and customs of society.

The **task environment** includes those elements or groups that directly affect the corporation and, in turn, are affected by it. These are governments, local communities, suppliers, competitors, customers, creditors, employees/labor unions, special-interest groups, and trade associations. A corporation's task environment is typically the industry within which that firm operates. **Industry analysis** refers to an in-depth examination of key factors within a corporation's task environment. Both the societal and task environments must be monitored to detect the strategic factors that are likely to have a strong impact on corporate success or failure.

Scanning the Societal Environment

The number of possible strategic factors in the societal environment is very high. The number becomes enormous when we realize that, generally speaking, each country in the world can be represented by its own unique set of societal forces—some of which are very similar to neighboring countries and some of which are very different.

For example, even though Korea and China share Asia's Pacific Rim area with Thailand, Taiwan, and Hong Kong (sharing many similar cultural values), they have very different views about the role of business in society. It is generally believed in Korea and China (and to a lesser extent in Japan) that the role of business is primarily to contribute to national development; whereas in Hong Kong, Taiwan, and Thailand (and to a lesser extent in the Philippines, Indonesia, Singapore, and Malaysia), the role of business is primarily to make profits for the shareholders.[5] Such differences may translate into different trade regulations and varying difficulty in the **repatriation of profits** (transferring profits from a foreign subsidiary to a corporation's headquarters) from one group of Pacific Rim countries to another.

Monitoring Societal Trends As noted in Table 3.1, large corporations categorize the societal environment in any one geographic region into four areas and focus their scanning in each area on trends with corporatewide relevance. Obviously trends in any one area may be very important to the firms in one industry but of lesser importance to firms in other industries.

Table 3.1 Some Important Variables in the Societal Environment

Economic	Technological	Political-Legal	Sociocultural
GDP trends	Total government spending for R&D	Antitrust regulations	Lifestyle changes
Interest rates	Total industry spending for R&D	Environmental protection laws	Career expectations
Money supply	Focus of technological efforts	Tax laws	Consumer activism
Inflation rates	Patent protection	Special incentives	Rate of family formation
Unemployment levels	New products	Foreign trade regulations	Growth rate of population
Wage/price controls	New developments in technology transfer from lab to marketplace	Attitudes toward foreign companies	Age distribution of population
Devaluation/revaluation	Productivity improvements through automation	Laws on hiring and promotion	Regional shifts in population
Energy availability and cost		Stability of government	Life expectancies
Disposable and discretionary income			Birth rates

Trends in the *economic* part of the societal environment can have an obvious impact on business activity. For example, an increase in interest rates means fewer sales of major home appliances. *Why?* Because a rising interest rate tends to be reflected in higher mortgage rates. Because higher mortgage rates increase the cost of buying a house, the demand for new and used houses tends to fall. Because most major home appliances are sold when people change houses, a reduction in house sales soon translates into a decline in sales of refrigerators, stoves, and dishwashers and reduced profits for everyone in that industry.

Changes in the *technological* part of the societal environment can also have a great impact on multiple industries. For example, improvements in computer microprocessors have not only led to the widespread use of home computers, but also to better automobile engine performance in terms of power and fuel economy through the use of microprocessors to monitor fuel injection.

Trends in the *political-legal* part of the societal environment have a significant impact on business firms. For example, periods of strict enforcement of U.S. antitrust laws directly affect corporate growth strategy. As large companies find it more difficult to acquire another firm in the same or in a related industry, they are typically driven to diversify into unrelated industries.[6] In Europe, the formation of the European Union has led to an increase in merger activity across national boundaries.

Demographic trends are part of the *sociocultural* aspect of the societal environment. The demographic bulge in the U.S. population caused by the "baby boom" in the 1950s strongly affects market demand in many industries. For example, between 1995 and 2005, an average of 4,400 Americans will turn 50 every day. This over-50 age group has become the fastest growing age group in all developed countries. Companies with an eye on the future can find many opportunities offering products and services to the growing number of "woofies" (well-off old folks)—defined as people over 50 with money to spend. These people are very likely to purchase recreational vehicles, take ocean cruises, and enjoy leisure sports such as boating, fishing, and bowling, in addition to needing financial services and health care.

This trend can mean increasing sales for firms like Winnebago (RVs), Carnival Cruise Lines, and Brunswick (sports equipment), among others.[7] To attract older customers, retailers will need to place seats in their larger stores so aging shoppers can rest. Washrooms need to be more accessible. Signs need to be larger. Restaurants need to

raise the level of lighting so people can read their menus. Home appliances need simpler and larger controls. Already, the market for road bikes is declining as sales for tread mills and massagers for aching muscles increase.

Seven sociocultural trends in the United States that are helping to define what North America and the world will look like at the beginning of the next century are:

1. **Increasing environmental awareness.** Recycling and conservation are becoming more than slogans. Busch Gardens, for example, eliminated the use of disposable styrofoam trays in favor of washing and reusing plastic trays.

2. **Growth of the seniors market.** As their numbers increase, people over age 55 will become an even more important market. Already some companies are segmenting the senior population into Young Matures, Older Matures, and the Elderly—each having a different set of attitudes and interests.

3. **Generation Y boomlet.** Born after 1980 to the boomer and X generations, this cohort may end up being as large as the boomer generation. In 1957, the peak year of the postwar boom, 4.3 million babies were born. In 1990, there were 4.2 million births. By the mid 1990s, elementary schools were becoming overcrowded.[8] The U.S. census bureau projects generation Y to crest at 30.8 million births by 2005.

4. **Decline of the mass market.** Niche markets are beginning to define the marketers' environment. People want products and services that are adapted more to their personal needs. For example, Estee Lauder's "All Skin" and Maybelline's "Shades of You" line of cosmetic products are specifically made for African-American women. "Mass customization"—the making and marketing of products tailored to a person's requirements (Dell Computers)—is replacing the mass production and marketing of the same product in some markets.

5. **Pace and location of life.** Instant communication via facsimile machines, car telephones, and overnight mail enhances efficiency, but it also puts more pressure on people. Merging the personal computer with the communication and entertainment industry through telephone lines, satellite dishes, and cable television increases consumers' choices and allows workers to leave overcrowded urban areas for small towns and "telecommute" via personal computers and modems.

6. **Changing household.** Single-person households could become the most common household type in the United States after the year 2005. By 2005, only households composed of married couples with no children will be larger.[9] Although the Y generation baby boomlet may alter this estimate, a household clearly will no longer be the same as it was once portrayed in "The Brady Bunch" in the 1970s or even "The Cosby Show" in the 1980s.

7. **Diversity of workforce and markets.** Minority groups are increasing as a percentage of the total U.S. population. From 1996 to 2050, group percentages are expected by the U.S. Census Bureau to change as follows: *Whites*—from 83% to 75%; *Blacks*—from 13% to 15%; *Asian*—from 4% to 9%; *American Indian*—slight increase. *Hispanics*, which can be of any race, are projected to grow from 10% to 25% during this time period.[10] Traditional minority groups are increasing their numbers in the workforce and are being identified as desirable target markets. For example, the South Dekalb Mall in Atlanta, Georgia, recently restyled itself as an "Afrocentric retail center" in response to the rapid growth of the African-American 18-to-34 age group.[11]

Table 3.2 Some Important Variables in International Societal Environments

Economic	Technological	Political-Legal	Sociocultural
Economic development	Regulations on technology transfer	Form of government	Customs, norms, values
Per capita income	Energy availability/cost	Political ideology	Language
Climate	Natural resource availability	Tax laws	Demographics
GDP trends	Transportation network	Stability of government	Life expectancies
Monetary and fiscal policies	Skill level of work force	Government attitude toward foreign companies	Social institutions
Unemployment level	Patent-trademark protection	Regulations on foreign ownership of assets	Status symbols
Currency convertibility	Information-flow infrastructure	Strength of opposition groups	Life-style
Wage levels		Trade regulations	Religious beliefs
Nature of competition		Protectionist sentiment	Attitudes toward foreigners
Membership in regional economic associations		Foreign policies	Literacy level
		Terrorist activity	Human rights
		Legal system	Environmentalism

International Societal Considerations Each country or group of countries in which a company operates presents a whole new societal environment with a different set of economic, technological, political-legal, and sociocultural variables for the company to face. International societal environments vary so widely that a corporation's internal environment and strategic management process must be very flexible. Cultural trends in Germany, for example, have resulted in the inclusion of worker representatives in corporate strategic planning. Differences in societal environments strongly affect the ways in which a **multinational corporation (MNC),** a company operating in multiple countries, conducts its marketing, financial, manufacturing, and other functional activities. For example, the existence of regional associations like the European Union, the North American Free Trade Zone, and Mercosur in South America has a significant impact on the competitive "rules of the game" both for those MNCs operating within and for those MNCs wanting to enter these areas.

To account for the many differences among societal environments from one country to another, consider Table 3.2. It includes a list of economic, technological, political-legal, and sociocultural variables for any particular country or region. For example, an important economic variable for any firm investing in a foreign country is currency convertibility. Without convertibility, a company operating in Russia cannot convert its profits from rubles to dollars. In terms of sociocultural variables, many Asian cultures (especially China) are less concerned with the values of human rights than are European and North American cultures. Some Asians actually contend that American companies are trying to impose Western human rights requirements on them in an attempt to make Asian products less competitive by raising their costs.[12]

Before planning its strategy for a particular international location, a company must scan the particular country environment(s) in question for opportunities and threats, and compare these with its own organizational strengths and weaknesses. For example, to operate successfully in a global industry such as automobiles, tires, electronics, or watches, a company must be prepared to establish a significant presence in the three

developed areas of the world known collectively as the **Triad**. This term was coined by the Japanese management expert, Kenichi Ohmae, and it refers to the three developed markets of Japan, North America, and Western Europe, which now form a single market with common needs.[13] Focusing on the Triad is essential for an MNC pursuing success in a global industry, according to Ohmae, because close to 90% of all high-value-added, high-technology manufactured goods are produced and consumed in North America, Western Europe, and Japan. Ideally a company should have a significant presence in each of these regions so that it can produce and market its products simultaneously in all three areas. Otherwise, it will lose competitive advantage to Triad-oriented MNCs. No longer can an MNC develop and market a new product in one part of the world before it exports it to other developed countries.

Focusing only on the developed nations, however, causes a corporation to miss important market opportunities in the developing nations of the world. Although these nations may not have developed to the point that they have significant demand for a broad spectrum of products, they may very likely be on the threshold of rapid growth in the demand for specific products. This would be the ideal time for a company to enter this market—before competition is established. The key is to be able to identify the "trigger point" when demand for a particular product or service is ready to boom. See the **Key Theory** feature for an in-depth explanation of a technique to identify the optimum time to enter a particular market in a developing nation.

Scanning the Task Environment

As shown in Figure 3.1, a corporation's scanning of the environment will include analyses of all the relevant elements in the task environment. These analyses take the form of individual reports written by various people in different parts of the firm. At Procter & Gamble (P&G), for example, people from each of the brand management teams work with key people from the sales and market research departments to research and write a "competitive activity report" each quarter on each of the product categories in which P&G competes. People in purchasing also write similar reports concerning new developments in the industries that supply P&G. These and other reports are then summarized and transmitted up the corporate hierarchy for top management to use in strategic decision making. If a new development is reported regarding a particular product category, top management may then send memos asking people throughout the organization to watch for and report on developments in related product areas. The many reports resulting from these scanning efforts, when boiled down to their essentials, act as a detailed list of external strategic factors.

Identifying External Strategic Factors

Why do companies often respond differently to the same environmental changes? One reason is because of differences in the ability of managers to recognize and understand external strategic issues and factors. Few firms can successfully monitor all important external factors. Even though managers agree that strategic importance determines what variables are consistently tracked, they sometimes miss or choose to ignore crucial new developments.[14] Personal values of a corporation's managers as well as the success of current strategies are likely to bias both their perception of what is important to monitor in the external environment and their interpretations of what they perceive.[15]

In Tupperware's case, even though a number of top managers were generally aware that women were leaving the house in favor of careers, they chose to discount its importance in the marketing of the company's products. This willingness to reject unfamiliar

KEY THEORY

USING PPP TO IDENTIFY POTENTIAL MARKETS IN DEVELOPING NATIONS

Research by the Deloitte & Touche Consulting Group reveals that the demand for a specific product increases exponentially at certain points in a country's development. Identifying this trigger point of demand is thus critical to entering emerging markets at the best time—the time when enough people have enough money to buy what a company has to sell, but before competition is established. This can be done by using the concept of **purchasing power parity (PPP)**, which measures the cost in dollars of the U.S.-produced equivalent volume of goods that an economy produces.

PPP offers an estimate of the material wealth a nation can purchase, rather than the financial wealth it creates as typically measured by Gross Domestic Product (GDP). As a result, restating a nation's GDP in PPP terms reveals much greater spending power than market exchange rates would suggest. For example, a shoe shine costing $5 to $10 in New York City can be purchased for 50¢ in Mexico City. Consequently the people of Mexico City can enjoy the same standard of living (with respect to shoe shines) as people in New York City with only 5% to 10% of the money. Correcting for PPP restates all Mexican shoe shines at their U.S. purchase value of $5. If one million shoe shines were purchased in Mexico last year, using the PPP model would effectively increase Mexican GDP by $5 million–$10 million. Using PPP, China becomes the world's second largest economy after the United States, with Brazil, Mexico, and India moving ahead of Canada into the top ten world markets.

Trigger points identify when demand for a particular product is about to rapidly increase in a country. This can be a very useful technique to identify when to enter a new market in a developing nation. Trigger points vary for different products. For example, an apparent trigger point for long-distance telephone services is at $7,500 in GDP per capita—a point when demand for telecommunications services increases rapidly. Once national wealth surpasses $15,000 per capita, demand increases at a much slower rate with further increases in wealth. The trigger point for life insurance is around $8,000 in GDP per capita. At this point, the demand for life insurance increases between 200% and 300% above those countries with GDP per capita below the trigger point.

Source: Summarized from D. Fraser and M. Raynor, "The Power of Parity," *Forecast* (May/June, 1996), pp. 8–12.

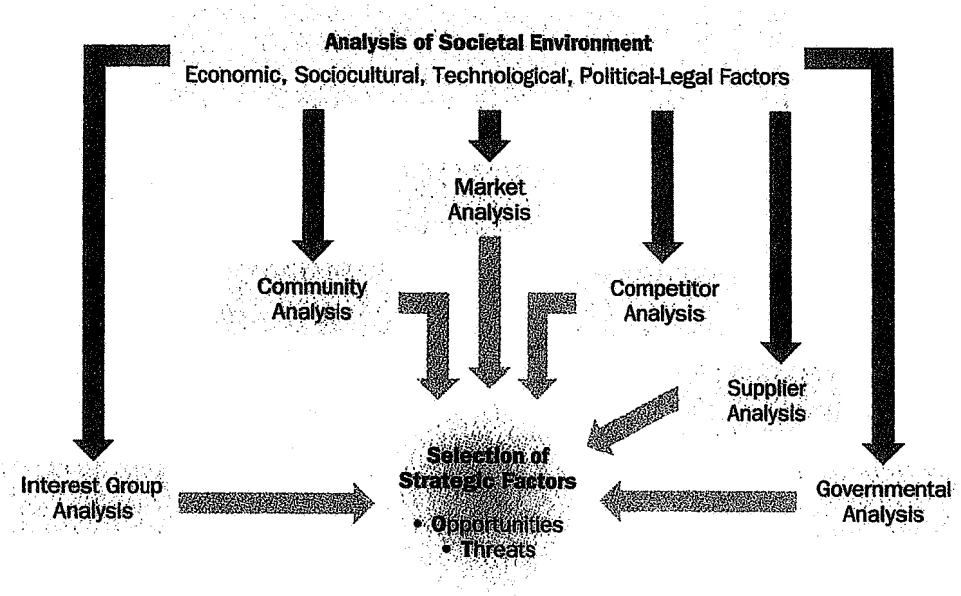
as well as negative information is called **strategic myopia.**[16] If a firm needs to change its strategy, it might not be gathering the appropriate external information to change strategies successfully.

One way to identify and analyze developments in the external environment is to use the **issues priority matrix** (Figure 3.2) in this way:

1. Identify a number of likely trends emerging in the societal and task environments. These are strategic environmental issues—those important trends that, if they occur, determine what the industry or the world will look like.
2. Assess the probability of these trends actually occurring from low to high.
3. Attempt to ascertain the likely impact (from low to high) of each of these trends on the corporation being examined.

A corporation's **external strategic factors** are those key environmental trends that are judged to have both a *medium to high probability of occurrence* and a *medium to*

Figure 3.1
Scanning the External Environment



high probability of impact on the corporation. The issues priority matrix can then be used to help managers decide which environmental trends should be merely scanned (low priority) and which should be monitored as strategic factors (high priority). Those environmental trends judged to be a corporation's strategic factors are then categorized as *opportunities* and *threats* and are included in strategy formulation.

3.2 *Industry Analysis: Analyzing the Task Environment*

An **industry** is a group of firms producing a similar product or service, such as soft drinks or financial services. An examination of the important stakeholder groups, such as suppliers and customers, in a particular corporation's task environment is a part of industry analysis.

Porter's Approach to Industry Analysis

Michael Porter, an authority on competitive strategy, contends that a corporation is most concerned with the intensity of competition within its industry. The level of this intensity is determined by basic competitive forces, which are depicted in Figure 3.3. "The collective strength of these forces," he contends, "determines the ultimate profit potential in the industry, where profit potential is measured in terms of long-run return on invested capital."[17] In carefully scanning its industry, the corporation must assess the importance to its success of each of the six forces: *threat of new entrants, rivalry among existing firms, threat of substitute products or services, bargaining power of buyers, bargaining power of suppliers, and relative power of other stakeholders.*[18] The stronger each of these forces, the more limited companies are in their ability to raise prices and earn greater profits. Although Porter mentions only five forces, a sixth—other stakeholders—is added here to reflect

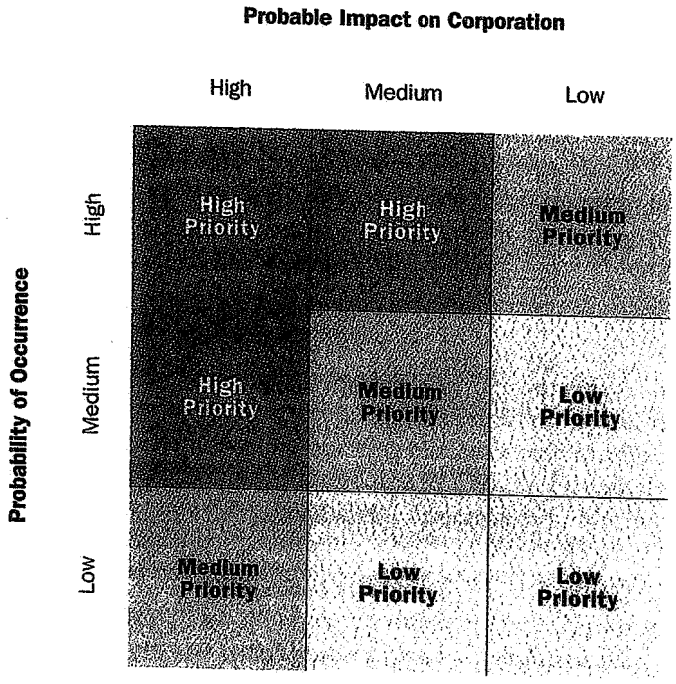


Figure 3.2
Issues Priority Matrix

Source: Adapted from L. L. Lederman, "Foresight Activities in the U.S.A.: Time for a Re-Assessment?" *Long-Range Planning* (June 1984), p. 46. Copyright © 1984 by Pergamon Press, Ltd. Reprinted by permission.

the power that governments, local communities, and other groups from the task environment wield over industry activities.

Using the model in Figure 3.3, a high force can be regarded as a threat because it is likely to reduce profits. A low force, in contrast, can be viewed as an opportunity because it may allow the company to earn greater profits. In the short run, these forces act as constraints on a company's activities. In the long run, however, it may be possible for a company, through its choice of strategy, to change the strength of one or more of the forces to the company's advantage.

A strategist can analyze any industry by rating each competitive force as *high, medium,* or *low* in strength. For example, the athletic shoe industry could be currently rated as follows: rivalry is high (Nike, Reebok, Adidas, and Converse are strong competitors), threat of potential entrants is low (industry is reaching maturity), threat of substitutes is low (other shoes don't provide support for sports activities), bargaining power of suppliers is medium but rising (suppliers in Asian countries are increasing in size and ability), bargaining power of buyers is medium to low (advertising is more important than distribution channels), threat of other stakeholders is medium to high (government regulations and human rights concerns are growing). Based on current trends in each of these competitive forces, the industry appears to be increasing in its level of competitive intensity—meaning profit margins will likely fall for the industry as a whole.

Threat of New Entrants

New entrants to an industry typically bring to it new capacity, a desire to gain market share, and substantial resources. They are, therefore, threats to an established corporation. The threat of entry depends on the presence of entry barriers and the reaction that can be expected from existing competitors. An **entry barrier** is an obstruction that

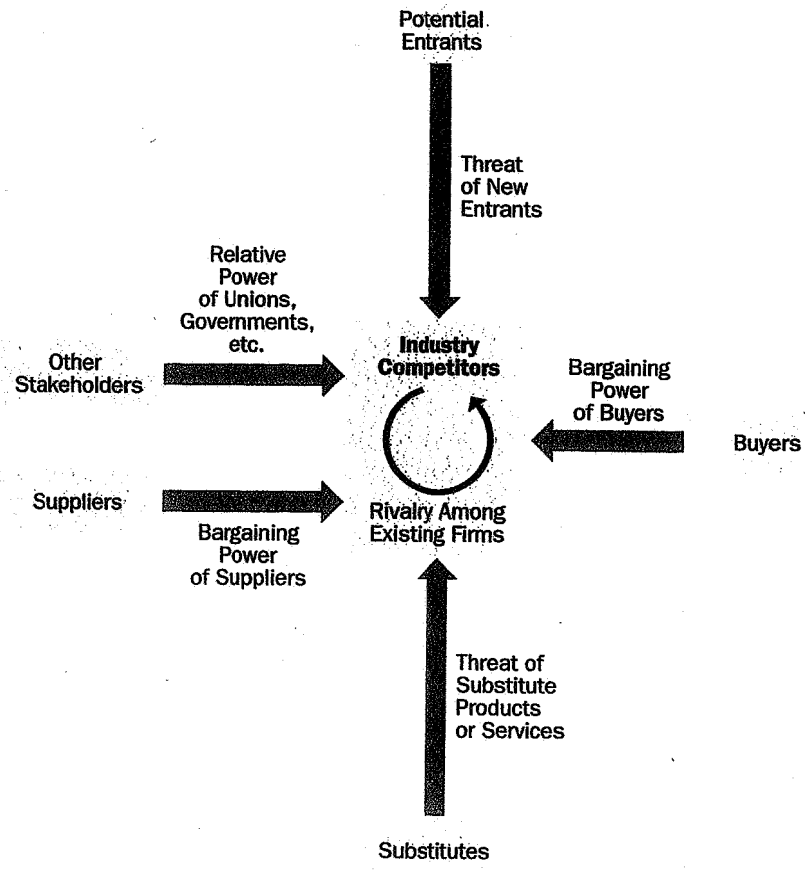


Figure 3.3
Forces Driving Industry Competition

Source: Adapted/reprinted with permission of The Free Press, an imprint of Simon & Schuster, from *Competitive Strategy: Techniques for Analyzing Industries and Competitors* by Michael E. Porter. Copyright © 1980 by The Free Press.

makes it difficult for a company to enter an industry. For example, no new domestic automobile companies have been successfully established in the United States since the 1930s because of the high capital requirements to build production facilities and to develop a dealer distribution network. Some of the possible barriers to entry are:

- **Economies of Scale.** Scale economies in the production and sale of mainframe computers, for example, gave IBM a significant cost advantage over any new rival.
- **Product Differentiation.** Corporations like Procter & Gamble and General Mills, which manufacture products like Tide and Cheerios, create high entry barriers through their high levels of advertising and promotion.
- **Capital Requirements.** The need to invest huge financial resources in manufacturing facilities in order to produce computer microprocessors creates a significant barrier to entry to any competitor for Intel.
- **Switching Costs.** Once a software program like Excel or Word becomes established in an office, office managers are very reluctant to switch to a new program because of the high training costs.
- **Access to Distribution Channels.** Small entrepreneurs often have difficulty obtaining supermarket shelf space for their goods because large retailers charge for

space on their shelves and give priority to the established firms who can pay for the advertising needed to generate high customer demand.

- **Cost Disadvantages Independent of Size.** Microsoft's development of the first widely adopted operating system (MS-DOS) for the IBM-type personal computer gave it a significant advantage over potential competitors. Its introduction of Windows helped to cement that advantage.
- **Government Policy.** Governments can limit entry into an industry through licensing requirements by restricting access to raw materials, such as off-shore oil drilling sites.

Rivalry Among Existing Firms

In most industries, corporations are mutually dependent. A competitive move by one firm can be expected to have a noticeable effect on its competitors and thus may cause retaliation or counterefforts. For example, the entry by mail order companies such as Dell and Gateway into a PC industry previously dominated by IBM, Apple, and Compaq increased the level of competitive activity to such an extent that any price reduction or new product introduction is now quickly followed by similar moves from other PC makers. According to Porter, intense rivalry is related to the presence of several factors, including:

- **Number of Competitors.** When competitors are few and roughly equal in size, such as in the U.S. auto and major home appliance industries, they watch each other carefully to make sure that any move by another firm is matched by an equal countermove.
- **Rate of Industry Growth.** Any slowing in passenger traffic tends to set off price wars in the airline industry because the only path to growth is to take sales away from a competitor.
- **Product or Service Characteristics.** Many people choose a videotape rental store based on location, variety of selection, and pricing because they view videotapes as a *commodity*—a product whose characteristics are the same regardless of who sells it.
- **Amount of Fixed Costs.** Because airlines must fly their planes on a schedule regardless of the number of paying passengers for any one flight, they offer cheap standby fares whenever a plane has empty seats.
- **Capacity.** If the only way a manufacturer can increase capacity is in a large increment by building a new plant (as in the paper industry), it will run that new plant at full capacity to keep its unit costs as low as possible—thus producing so much that the selling price falls throughout the industry.
- **Height of Exit Barriers.** Exit barriers keep a company from leaving an industry. The brewing industry, for example, has a low percentage of companies that leave the industry because breweries are specialized assets with few uses except for making beer.
- **Diversity of Rivals.** Rivals that have very different ideas of how to compete are likely to cross paths often and unknowingly challenge each other's position.

Threat of Substitute Products or Services

Substitute products are those products that appear to be different but can satisfy the same need as another product. For example, the fax is a substitute for Fed Ex,

Nutrasweet is a substitute for sugar, and bottled water is a substitute for a cola. According to Porter, "Substitutes limit the potential returns of an industry by placing a ceiling on the prices firms in the industry can profitably charge."[19] To the extent that switching costs are low, substitutes may have a strong effect on an industry. Tea can be considered a substitute for coffee. If the price of coffee goes up high enough, coffee drinkers will slowly begin switching to tea. The price of tea thus puts a price ceiling on the price of coffee. Sometimes a difficult task, the identification of possible substitute products or services means searching for products or services that can perform the same function, even though they may not appear to be easily substitutable.

Bargaining Power of Buyers

Buyers affect an industry through their ability to force down prices, bargain for higher quality or more services, and play competitors against each other. A buyer or a group of buyers is powerful if some of the following factors hold true:

- A buyer purchases a large proportion of the seller's product or service (for example, oil filters purchased by a major automaker).
- A buyer has the potential to integrate backward by producing the product itself (for example, a newspaper chain could make its own paper).
- Alternative suppliers are plentiful because the product is standard or undifferentiated (for example, motorists can choose among many gas stations).
- Changing suppliers costs very little (for example, office supplies are easy to find).
- The purchased product represents a high percentage of a buyer's costs, thus providing an incentive to shop around for a lower price (for example, gasoline purchased for resale by convenience stores makes up half their costs).
- A buyer earns low profits and is thus very sensitive to costs and service differences (for example, grocery stores have very small margins).
- The purchased product is unimportant to the final quality or price of a buyer's products or services and thus can be easily substituted without affecting the final product adversely (for example, electric wire bought for use in lamps).

Bargaining Power of Suppliers

Suppliers can affect an industry through their ability to raise prices or reduce the quality of purchased goods and services. A supplier or supplier group is powerful if some of the following factors apply:

- The supplier industry is dominated by a few companies, but it sells to many (for example, the petroleum industry).
- Its product or service is unique and/or it has built up switching costs (for example, word processing software).
- Substitutes are not readily available (for example, electricity).
- Suppliers are able to integrate forward and compete directly with their present customers (for example, a microprocessor producer like Intel can make PCs).
- A purchasing industry buys only a small portion of the supplier group's goods and services and is thus unimportant to the supplier (for example, sales of lawn mower tires are less important to the tire industry than are sales of auto tires).

Relative Power of Other Stakeholders

A sixth force should be added to Porter's list to include a variety of stakeholder groups from the task environment. Some of these groups are governments (if not explicitly included elsewhere), local communities, creditors (if not included with suppliers), trade associations, special-interest groups, and shareholders. The importance of these stakeholders varies by industry. For example, environmental groups in Maine, Michigan, Oregon, and Iowa successfully fought to pass bills outlawing disposable bottles and cans, and thus deposits for most drink containers are now required. This effectively raised costs across the board, with the most impact on the marginal producers who could not internally absorb all of these costs.

Industry Evolution

Over time most industries evolve through a series of stages from growth through maturity to eventual decline. The strength of each of the six forces mentioned earlier varies according to the stage of industry evolution. The industry life cycle is useful for explaining and predicting trends among the six forces driving industry competition. For example, when an industry is new, people often buy the product regardless of price because it fulfills a unique need. This is probably a **fragmented industry**—no firm has large market share and each firm serves only a small piece of the total market in competition with others (for example, Chinese restaurants). As new competitors enter the industry, prices drop as a result of competition. Companies use the experience curve (to be discussed in Chapter 4) and economies of scale to reduce costs faster than the competition. Companies integrate to reduce costs even further by acquiring their suppliers and distributors. Competitors try to differentiate their products from one another's in order to avoid the fierce price competition common to a maturing industry.

By the time an industry enters maturity, products tend to become more like commodities. This is now a **consolidated industry**—dominated by a few large firms, each of which struggles to differentiate its products from the competition. As buyers become more sophisticated over time, purchasing decisions are based on better information. Price becomes a dominant concern, given a minimum level of quality and features. One example of this trend is the videocassette recorder industry. By the 1990s, VCRs had reached the point where there were few major differences among them. Consumers realized that because slight improvements cost significantly more money, it made little sense to pay more than the minimum for a VCR. The same is true of gasoline.

As an industry moves through maturity toward possible decline, its products' growth rate of sales slows and may even begin to decrease. To the extent that exit barriers are low, firms will begin converting their facilities to alternate uses or will sell them to another firm. The industry tends to consolidate around fewer but larger competitors. As in the case of the U.S. major home appliance industry described in the **Company Spotlight on Maytag Corporation** feature, the industry changed from being a fragmented industry (pure competition) composed of hundreds of appliance manufacturers in the industry's early years to a consolidated industry (mature oligopoly) composed of five companies (including Maytag) controlling over 98% of U.S. appliance sales. A similar consolidation was occurring in European major home appliances during the 1990s.

Categorizing International Industries

World industries vary on a continuum from multidomestic to global (see Figure 3.4).[20] **Multidomestic industries** are specific to each country or group of countries. This type of international industry is a collection of essentially domestic industries, like retailing

COMPANY SPOTLIGHT

Evolution of the U.S. Major Home Appliance Industry

In 1945, there were approximately 300 major home appliance manufacturers in the United States. By 1996, however, the "big five"—Whirlpool, General Electric, A.B. Electrolux (*no* relation to Electrolux Corporation, a U.S. company selling Electrolux brand vacuum cleaners), Maytag, and Raytheon—controlled over 98% of the U.S. market. The consolidation of the industry over the period was a result of fierce domestic competition. Emphasis on quality and durability coupled with strong price competition drove the surviving firms to increased efficiencies and a strong concern for customer satisfaction.

Prior to World War II, most appliance manufacturers produced a limited line of appliances deriving from one successful product. General Electric made refrigerators. Maytag focused on washing machines. Hotpoint produced electric ranges. Each offered variations of its basic product, but not until 1945 did firms begin to offer full lines of various appliances. By 1955, the major appliance industry began experiencing overcapacity, leading to mergers and acquisitions and a proliferation of national and private brands. Product reliability improved even though real prices (adjusted for inflation) declined about 10%.

Acknowledging that the U.S. major home appliance industry had reached maturity—future U.S. unit sales were expected to grow only 1%–2% annually on average for the foreseeable future—U.S. appliance makers decided to expand into Europe (where unit sales were expected to grow 5% annually). With Whirlpool's acquisition of the appliance business of Philips (The Netherlands), GE's joint venture with GEC (United Kingdom), AB Electrolux's (Sweden) purchase of White in the United States, and Maytag's acquisition of Hoover (vacuum cleaners worldwide plus major home appliances in the UK), the level of competition increased dramatically in both Europe and North America during the 1990s. In addition, rapid economic growth in Asia as well as in Mexico and South America had tremendous implications for the emerging global appliance industry. Environmental scanning and industry analysis had to be international in scope if a firm was to succeed in the 21st century.

MAYTAG CORPORATION

and insurance. The activities in a subsidiary of a multinational corporation (MNC) in this type of industry are essentially independent of the activities of the MNC's subsidiaries in other countries. In each country, the MNC tailors its products or services to the very specific needs of consumers in that particular country.

Global industries, in contrast, operate worldwide, with MNCs making only small adjustments for country-specific circumstances. A global industry is one in which an MNC's activities in one country are significantly affected by its activities in other countries. MNCs produce products or services in various locations throughout the world and sell them, making only minor adjustments for specific country requirements. Examples of global industries are commercial aircraft, television sets, semiconductors, copiers, automobiles, watches, and tires. The largest industrial corporations in the world in terms of dollar sales are, for the most part, multinational corporations operating in global industries.

The factors that tend to determine whether an industry will be primarily multidomestic or primarily global are:

1. *Pressure for coordination* within the multinational corporations operating in that industry.
2. *Pressure for local responsiveness* on the part of individual country markets.

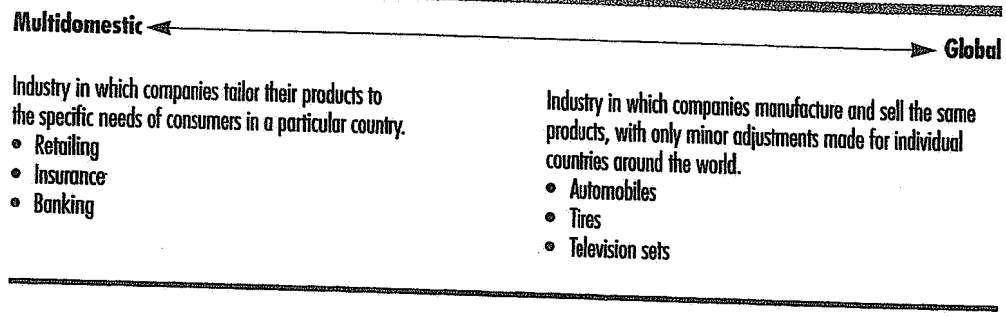


Figure 3.4 **Continuum of International Industries**

To the extent that the pressure for coordination is strong and the pressure for local responsiveness is weak for multinational corporations within a particular industry, that industry will tend to become global. In contrast, when the pressure for local responsiveness is strong and the pressure for coordination is weak for multinational corporations in an industry, that industry will tend to be multidomestic. Between these two extremes lie a number of industries with varying characteristics of both multidomestic and global industries. The dynamic tension between these two factors is contained in the phrase: *Think globally, but act locally.*

International Risk Assessment

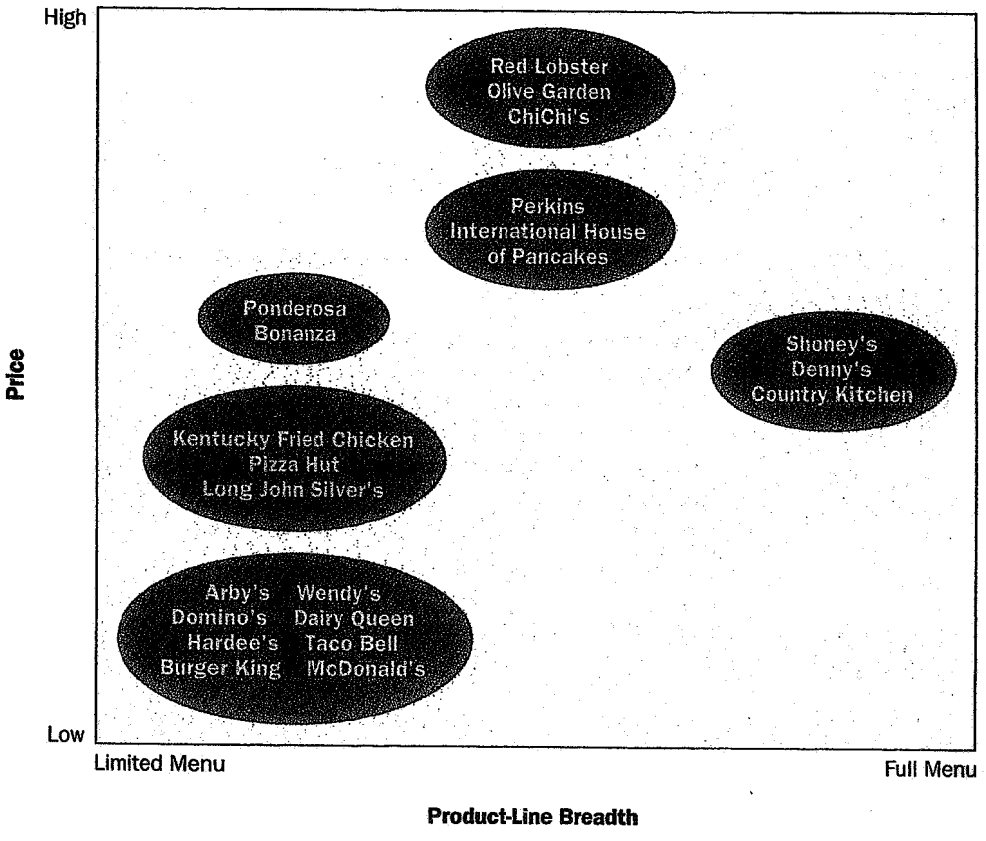
Some firms, such as American Can Company and Mitsubishi Trading Company, develop elaborate information networks and computerized systems to evaluate and rank investment risks. Small companies can hire outside consultants such as Chicago's Associated Consultants International or Boston's Arthur D. Little, Inc., to provide political-risk assessments. Among the many systems that exist to assess political and economic risks are the Political System Stability Index, the Business Environment Risk Index, Business International's Country Assessment Service, and Frost and Sullivan's World Political Risk Forecasts.[21] Business International provides subscribers with continuously updated information on conditions in 63 countries. A Boston company called International Strategies offers an Export Hotline (800 USA-XPORT) that faxes information to callers for only the cost of the call.[22] Regardless of the source of data, a firm must develop its own method of assessing risk. It must decide on its most important risk factors and then assign weights to each.

Strategic Groups

A **strategic group** is a set of business units or firms that "pursue similar strategies with similar resources."[23] Categorizing firms in any one industry into a set of strategic groups is very useful as a way of better understanding the competitive environment.[24] Because a corporation's structure and culture tend to reflect the kinds of strategies it follows, companies or business units belonging to a particular strategic group within the same industry tend to be strong rivals and tend to be more similar to each other than to competitors in other strategic groups within the same industry.

For example, although McDonald's and Olive Garden are a part of the same restaurant industry, they have different missions, objectives, and strategies, and thus belong to different strategic groups. They generally have very little in common and pay little attention to each other when planning competitive actions. Burger King and Hardee's, however, have a great deal in common with McDonald's in terms of their similar strategy of producing a high volume of low-priced meals targeted for sale to the average family. Consequently they are strong rivals and are organized to operate similarly.

Figure 3.5
Mapping Strategic Groups in the U.S. Restaurant Chain Industry



Strategic groups in a particular industry can be *mapped* by plotting the market positions of industry competitors on a two-dimensional graph using two strategic variables as the vertical and horizontal axes. (See Figure 3.5.)

1. Select two broad characteristics, such as price and menu, that differentiate the companies in an industry from one another.
2. Plot the firms using these two characteristics as the dimensions.
3. Draw a circle around those companies that are closest to one another as one strategic group, varying the size of the circle in proportion to the group's share of total industry sales. (You could also name each strategic group in the restaurant industry with an identifying title, such as quick fast food or buffet style service.)

Other dimensions, such as quality and degree of vertical integration, can also be used in additional graphs of the restaurant industry to gain a better understanding of how the various firms in the industry compete. Keep in mind, however, that when choosing the two dimensions, they should not be highly correlated; otherwise, the circles on the map will simply lie along the diagonal, providing very little new information other than the obvious.

Strategic Types

In analyzing the level of competitive intensity within a particular industry or strategic group, it is useful to characterize the various competitors for predictive purposes. A **strategic type** is a category of firms based on a common strategic orientation and a

combination of structure, culture, and processes consistent with that strategy. According to Miles and Snow, competing firms within a single industry can be categorized on the basis of their general strategic orientation into one of four basic types.[25] This distinction helps explain why companies facing similar situations behave differently and why they continue to do so over a long period of time. These general types have the following characteristics:

- **Defenders** are companies with a limited product line that *focus on improving the efficiency of their existing operations*. This cost orientation makes them unlikely to innovate in new areas. An example is the Adolph Coors Company, which for many years emphasized production efficiency in its one Colorado brewery and virtually ignored marketing.
- **Prospectors** are companies with fairly broad product lines that *focus on product innovation and market opportunities*. This sales orientation makes them somewhat inefficient. They tend to emphasize creativity over efficiency. An example is the Miller Brewing Company, which successfully promoted "light" beer and generated aggressive, innovative advertising campaigns, but had to close a brand-new brewery when management overestimated market demand.
- **Analyzers** are corporations that *operate in at least two different product-market areas*, one stable and one variable. In the stable areas, efficiency is emphasized. In the variable areas, innovation is emphasized. An example is Anheuser-Busch, which can take a defender orientation to protect its massive market share in U.S. beer and a prospector orientation to generate sales in its amusement parks.
- **Reactors** are corporations that *lack a consistent strategy-structure-culture relationship*. Their (often ineffective) responses to environmental pressures tend to be piecemeal strategic changes. An example is the Pabst Brewing Company, which, because of numerous takeover attempts, has been unable to generate a consistent strategy to keep its sales from dropping.

Dividing the competition into these four categories enables the strategic manager not only to monitor the effectiveness of certain strategic orientations, but also to develop scenarios of future industry developments (discussed later in this chapter).

Hypercompetition

Most industries today are facing an ever-increasing level of environmental uncertainty. They are becoming more complex and more dynamic. Industries that used to be multidomestic are becoming global. New flexible, aggressive, innovative competitors are moving into established markets to rapidly erode the advantages of large previously dominant firms. Distribution channels vary from country to country and are being altered daily through the use of sophisticated information systems. Closer relationships with suppliers are being forged to reduce costs, increase quality, and gain access to new technology. Companies learn to quickly imitate the successful strategies of market leaders, and it becomes harder to sustain any competitive advantage for very long. Consequently, the level of competitive intensity is increasing in most industries.

Richard D'Aveni contends that as this type of environmental turbulence reaches more industries, competition becomes **hypercompetition**. According to D'Aveni:

> In hypercompetition the frequency, boldness, and aggressiveness of dynamic movement by the players accelerates to create a condition of constant disequilibrium and change. Market stability is threatened by short product life cycles, short product design cycles, new

STRATEGY IN A CHANGING WORLD

MICROSOFT OPERATES IN A HYPERCOMPETITIVE INDUSTRY

Microsoft is a hypercompetitive firm operating in a hypercompetitive industry. It has used its dominance in operating systems (DOS and Windows) to move into a very strong position in application programs like word processing and spreadsheets (Word and Excel). Even though Microsoft held 90% of the market for personal computer operating systems in 1992, it still invested millions in developing the next generation—Windows 95 and Windows NT. Instead of trying to protect its advantage in the profitable DOS operating system, Microsoft actively sought to replace DOS with various versions of Windows. Before hypercompetition, most experts argued against cannibalization of a company's own product line because it destroys a very profitable product instead of harvesting it like a "cash cow." According to this line of thought, a company would be better off defending its older products. New products would only be introduced if it could be proven that they would not take sales away from current products. Microsoft was one of the first companies to disprove this argument against cannibalization.

Bill Gates, Microsoft's co-founder, Chairman, and CEO, realized that if his company didn't replace its own DOS product line with a better product, someone else would (such as IBM with OS/2 Warp). He knew that success in the software industry depends not so much on company size but on moving aggressively to the next competitive advantage before a competitor does. "This is a hypercompetitive market," explained Gates. "Scale is not all positive in this business. Cleverness is the position in this business." By 1997, Microsoft still controlled over 90% of operating systems software and had achieved a dominant position in applications software as well.

Source: R. A. D'Aveni, *HyperCompetition* (New York: Free Press, 1994), p. 2.

technologies, frequent entry by unexpected outsiders, repositioning by incumbents, and tactical redefinitions of market boundaries as diverse industries merge. In other words, environments escalate toward higher and higher levels of uncertainty, dynamism, heterogeneity of the players and hostility.[26]

In hypercompetitive industries such as computers, competitive advantage comes from an up-to-date knowledge of environmental trends and competitive activity coupled with a willingness to risk a current advantage for a possible new advantage. Companies must be willing to *cannibalize* their own products (replacing popular products before competitors do so) in order to sustain their competitive advantage. As a result, industry or competitive intelligence has never been more important. See the **Strategy in a Changing World** feature to see how Microsoft is operating in the hypercompetitive industry of computer software. (Hypercompetition is discussed in more detail in Chapter 5.)

Creating an Industry Matrix

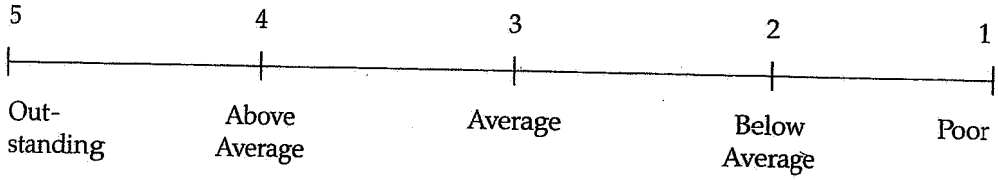
An **industry matrix** summarizes the external strategic factors (opportunities and threats) facing a particular industry. As shown in Table 3.3, the matrix gives a weight for each factor based on how important that factor is to the future of the industry. The matrix also specifies how well various competitors in the industry are responding to each factor. To generate an industry matrix using two industry competitors (called A and B), complete the following steps for the industry being analyzed:

Table 3.3 Industry Matrix

Strategic Factors	Weight	Company A Rating	Company A Weighted Score	Company B Rating	Company B Weighted Score
1	2	3	4	5	6
Total	1.00				

Source: T. L. Wheelen and J. D. Hunger, "Industry Matrix." Copyright © 1997 by Wheelen and Hunger Associates. Reprinted by permission.

- In **Column 1** (*Strategic Factors*) list the eight to ten most important opportunities and threats facing the industry as a whole.
- In **Column 2** (*Weight*) assign a weight to each factor from **1.0** (*Most Important*) to **0.0** (*Not Important*) based on that factor's probable impact on the overall industry's future success. **(All weights must sum to 1.0 regardless of the number of strategic factors.)**
- In **Column 3** (*Company A Rating*) examine a particular company within the industry—for example, Company A. Assign a rating to each factor from **5** (*Outstanding*) to **1** (*Poor*) based on Company A's current response to that particular factor. Each rating is a judgment regarding how well that company is currently dealing with each strategic factor.



- In **Column 4** (*Company A Weighted Score*) multiply the *weight* in **Column 2** for each factor times its rating in **Column 3** to obtain that factor's *weighted score* for Company A. This results in a weighted score for each factor ranging from **5.0** (*Outstanding*) to **1.0** (*Poor*) with 3.0 as the *average.*
- In **Column 5** (*Company B Rating*) examine a second company within the industry—in this case, Company B. Assign a rating to each factor from **5** (*Outstanding*) to **1** (*Poor*) based on Company B's current response to each particular factor.
- In **Column 6** (*Company B Weighted Score*) multiply the *weight* in **Column 2** for each factor times its rating in **Column 5** to obtain that factor's *weighted score* for Company B.

Finally, add the weighted scores for all the factors in **Columns 4** and **6** to determine the total weighted scores for companies A and B. The *total weighted score* indicates how well each company is responding to current and expected factors in the industry's environment. The industry matrix can be expanded to include all the major competitors within an industry simply by adding two additional columns for each additional competitor.

3.3 Industry/Competitive Intelligence

Much external environmental scanning is done on an informal and individual basis. Information is obtained from a variety of sources—customers, suppliers, bankers, consultants, publications, personal observations, subordinates, superiors, and peers. For example, scientists and engineers working in a firm's R&D lab can learn about new products and competitors' ideas at professional meetings; someone from the purchasing department, speaking with supplier-representatives' personnel, may also uncover valuable bits of information about a competitor. A study of product innovation in the scientific instrument and machine tool industries found that 80% of all product innovations were initiated by the customer in the form of inquiries and complaints.[27] In these industries, the sales force and service departments must be especially vigilant.

Industry (or **competitive**) **intelligence** is a formal program of gathering information on a company's competitors. Only 7% of large U.S. corporations have fully developed intelligence programs. In contrast, all Japanese corporations involved in international business and most large European companies have active intelligence programs.[28] This situation is changing, however. At General Mills, for example, all employees have been trained to recognize and tap sources of competitive information. Janitors no longer simply place orders with suppliers of cleaning materials, they also ask about relevant practices at competing firms!

Most corporations rely on outside organizations to provide them with environmental data. Firms such as A. C. Nielsen Co. provide subscribers with bimonthly data on brand share, retail prices, percentages of stores stocking an item, and percentages of stock-out stores. Strategists can use this data to spot regional and national trends as well as to assess market share. Information on market conditions, government regulations, competitors, and new products can be bought from "information brokers" such as FIND/SVP and Finsbury Data Services. Company and industry profiles are generally available from the Reference Press at Hoover's On Line site on the World Wide Web *(http://www.hoovers.com).* Many business corporations have established their own in-house libraries and computerized information systems to deal with the growing mass of available information.

Some companies, however, choose to use industrial espionage or other intelligence-gathering techniques to get their information straight from their competitors. Theft of proprietary R&D has risen 260% from 1985 to 1995. Using current or former competitors' employees and by using private contractors, some firms attempt to steal trade secrets, technology, business plans, and pricing strategies.[29] For example, Avon Products hired private investigators to retrieve from a public dumpster documents (some of them shredded) that Mary Kay Corporation had thrown away. Even Procter & Gamble, which defends itself like a fortress from information leaks, is vulnerable. A competitor was able to learn the precise launch date of a concentrated laundry detergent in Europe when one of its people visited the factory where machinery was being made. Simply asking a few questions about what a certain machine did, whom it was for, and when it would be delivered was all that was necessary.

3.4 Forecasting

Environmental scanning provides reasonably hard data on the present situation and current trends, but intuition and luck are needed to accurately predict if these trends will continue. The resulting forecasts are, however, usually based on a set of assumptions that may or may not be valid.

Danger of Assumptions

Faulty underlying assumptions are the most frequent cause of forecasting errors. Nevertheless many managers who formulate and implement strategic plans rarely consider that their success is based on a series of assumptions. Many long-range plans are simply based on projections of the current situation. One example of what can happen when a corporate strategy rests on the very questionable assumption that the future will simply be an extension of the present is that of Tupperware. Management not only assumed in the 1960s and 1970s that Tupperware parties would continue being an excellent distribution channel, its faith in this assumption also blinded it to information about America's changing lifestyles and their likely impact on sales. Even in the 1990s, when Tupperware executives realized that their extrapolated sales forecasts were no longer justified, they were unable to improve their forecasting techniques until they changed their assumptions.

Useful Forecasting Techniques

Various techniques are used to forecast future situations. Each has its proponents and critics. A study of nearly 500 of the world's largest corporations revealed trend extrapolation to be the most widely practiced form of forecasting—over 70% use this technique either occasionally or frequently.[30] Simply stated, **extrapolation** is the extension of present trends into the future. It rests on the assumption that the world is reasonably consistent and changes slowly in the short run. Time-series methods are approaches of this type; they attempt to carry a series of historical events forward into the future. The basic problem with extrapolation is that a historical trend is based on a series of patterns or relationships among so many different variables that a change in any one can drastically alter the future direction of the trend. As a rule of thumb, the further back into the past you can find relevant data supporting the trend, the more confidence you can have in the prediction.

Brainstorming, expert opinion, and statistical modeling are also very popular forecasting techniques. **Brainstorming** is a nonquantitative approach requiring simply the presence of people with some knowledge of the situation to be predicted. The basic ground rule is to propose ideas without first mentally screening them. No criticism is allowed. Ideas tend to build on previous ideas until a consensus is reached. This is a good technique to use with operating managers who have more faith in "gut feel" than in more quantitative "number-crunching" techniques. **Expert opinion** is a nonquantitative technique in which experts in a particular area attempt to forecast likely developments. This type of forecast is based on the ability of a knowledgeable person(s) to construct probable future developments based on the interaction of key variables. See the **21st Century Global Society** feature for a prediction of the immediate future of Eastern Europe based on expert opinion. **Statistical modeling** is a quantitative technique that attempts to discover causal or at least explanatory factors that link two or more time series together. Examples of statistical modeling are regression analysis and other econometric methods. Although very useful in the grasping of historic trends, statistical modeling, like trend extrapolation, is based on historical data. As the patterns of

21ST CENTURY GLOBAL SOCIETY

EXPERT OPINION ON THE FUTURE OF EASTERN EUROPE

Based on his many years in the region, Edward Lucas, Eastern European correspondent for *The Economist*, predicted the likely future of a number of Eastern European nations. According to Lucas, it will soon become clear that the entrenched political and economic system in these countries would be a form of "crony capitalism," in which the communist elites have made a quiet shift from power to wealth. Although they will overtly support capitalism, political connections will be crucial for anyone wanting to do serious business. Output will rise, but according to Lucas, the amount will be based on some key factors: a nation's competitive advantage and its political and financial institutions. The region's current competitive advantage lay in cheap labor and high skills, but these are already being eroded.

A crucial distinction will thus emerge between those nations that keep their education system intact (as in Estonia, Czech Republic, and Slovenia) and where they are practically collapsing (as in Kazakhstan and Georgia). In addition, the likelihood of high taxes, capricious customs rules, and irresponsible politicians reinforced by public apathy in some countries will lead to a bad investment climate. Lucas made country-by-country predictions based on his score of some key factors ranging from 5=Outstanding to 1=Deplorable with a mid-point of 3=Tolerable.

	Democracy	Economic Performance	Internal Stability	Relations with Neighbors	Human Rights	Overall Outlook
Albania	2	3	3	3	2	Good
Azerbaijan	2	3	2	2	2	Good
Belarus	1	1	2	3	1	Poor
Bosnia-Herzegovina	2	1	1	1	2	Poor
Czech Republic	4	4	5	4	4	Good
Estonia	4	5	3	2	3	Good
Georgia	2	2	2	2	2	Good
Hungary	4	4	4	5	4	Good
Poland	4	5	4	5	4	Good
Serbia-Montenegro	1	1	2	1	1	Poor
Slovenia	4	4	5	4	4	Good
Tajikistan	1	1	1	2	1	Poor

Source: E. Lucas, "The Good Life After Communism," *The World in 1997* (London: The Economist Group, 1996), p. 42.

relationships change, the accuracy of the forecast deteriorates. Other forecasting techniques, such as *cross-impact analysis (CIA)* and *trend-impact analysis (TIA)*, have not established themselves successfully as regularly employed tools.

Scenario writing appears to be the most widely used forecasting technique after trend extrapolation. Originated by Royal Dutch Shell, scenarios are focused descriptions

of different likely futures presented in a narrative fashion. The scenario thus may be merely a written description of some future state, in terms of key variables and issues, or it may be generated in combination with other forecasting techniques.

An **industry scenario** is a forecasted description of a particular industry's likely future. Such a scenario is developed by analyzing the probable impact of future societal forces on key groups in a particular industry. The process may operate as follows:[31]

1. Examine possible shifts in the societal variables globally.
2. Identify uncertainties in each of the six forces of the task environment (for example, potential entrants, competitors, likely substitutes, buyers, suppliers, and other key stakeholders).
3. Make a range of plausible assumptions about future trends.
4. Combine assumptions about individual trends into internally consistent scenarios.
5. Analyze the industry situation that would prevail under each scenario.
6. Determine the sources of competitive advantage under each scenario.
7. Predict competitors' behavior under each scenario.
8. Select the scenarios that are either most likely to occur or most likely to have a strong impact on the future of the company. Use these scenarios in strategy formulation.

3.5 Synthesis of External Factors—EFAS

After strategic managers have scanned the societal and task environments and identified a number of likely external factors for their particular corporation, they may want to refine their analysis of these factors using a form such as that given in Table 3.4. The **EFAS Table** (*External Factors Analysis Summary*) is one way to organize the external factors into the generally accepted categories of opportunities and threats as well as to analyze how well a particular company's management (rating) is responding to these specific factors in light of the perceived importance (weight) of these factors to the company. To generate an EFAS Table for the company being analyzed, complete the following steps:

- In **Column 1** (*External Factors*), list the eight to ten most important opportunities and threats facing the company.
- In **Column 2** (*Weight*), assign a weight to each factor from **1.0** (*Most Important*) to **0.0** (*Not Important*) based on that factor's probable impact on a particular company's current strategic position. The higher the weight, the more important is this factor to the current and future success of the company. **(All weights must sum to 1.0 regardless of the number of strategic factors.)**
- In **Column 3** (*Rating*), assign a rating to each factor from **5** (*Outstanding*) to **1** (*Poor*) based on that particular company's current response to that particular factor. Each rating is a judgment regarding how well the company is currently dealing with each external factor.

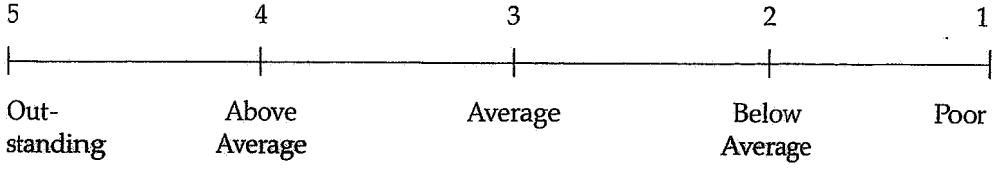


Table 3.4 External Factor Analysis Summary (EFAS): Maytag as Example

External Factors	Weight	Rating	Weighted Score	Comments
	1	2	3	4	5
Opportunities				
• Economic integration of European Community	.20	4	.80	Acquisition of Hoover
• Demographics favor quality appliances	.10	5	.50	Maytag quality
• Economic development of Asia	.05	1	.05	Low Maytag presence
• Opening of Eastern Europe	.05	2	.10	Will take time
• Trend to "Super Stores"	.10	2	.20	Maytag weak in this channel
Threats				
• Increasing government regulations	.10	4	.40	Well positioned
• Strong U.S. competition	.10	4	.40	Well positioned
• Whirlpool and Electrolux strong globally	.15	3	.45	Hoover weak globally
• New product advances	.05	1	.05	Questionable
• Japanese appliance companies	.10	2	.20	Only Asian presence is Australia
Total Scores	1.00		3.15	

Notes:
1. List opportunities and threats (5–10 each) in column 1.
2. Weight each factor from 1.0 (Most Important) to 0.0 (Not Important) in Column 2 based on that factor's probable impact on the company's strategic position. **The total weights must sum to 1.00.**
3. Rate each factor from 5 (Outstanding) to 1 (Poor) in Column 3 based on the company's response to that factor.
4. Multiply each factor's weight times its rating to obtain each factor's weighted score in Column 4.
5. Use Column 5 (comments) for rationale used for each factor.
6. Add the weighted scores to obtain the total weighted score for the company in Column 4. This tells how well the company is responding to the strategic factors in its external environment.

Source: T. L. Wheelen and J. D. Hunger, "External Strategic Factors Analysis Summary (EFAS)." Copyright © 1991 by Wheelen and Hunger Associates. Reprinted by permission.

- In **Column 4** (*Weighted Score*), multiply the *weight* in **Column 2** for each factor times its *rating* in **Column 3** to obtain that factor's *weighted score*. This results in a weighted score for each factor ranging from **5.0** (*Outstanding*) to **1.0** (*Poor*) with **3.0** as *average*.
- In **Column 5** (*Comments*), note why a particular factor was selected and how its weight and rating were estimated.

Finally, add the weighted scores for all the external factors in **Column 4** to determine the total weighted score for that particular company. The **total weighted score** indicates how well a particular company is responding to current and expected factors in its external environment. The score can be used to compare that firm to other firms in its industry. *The total weighted score for an average firm in an industry is always 3.0.*

As an example of this procedure, Table 3.4 includes a number of external factors for Maytag Corporation with corresponding weights, ratings, and weighted scores provided. This table is appropriate for 1995 *before* Maytag sold its European and Australian operations. Note that Maytag's total weight is 3.15, meaning that the corporation is slightly above average in the major home appliance industry.