



国际工商管理  
百科全书

.....(第2版).....

International Encyclopedia  
of Business & Management

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[美] Malcolm Warner 主编

Singapore, management in  
至

Zimbabwe, management in  
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第 7 卷

清华大学出版社

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# Using the encyclopedia

The *International Encyclopedia of Business and Management* is designed for ease of use. The following notes outline its organization and editorial approach and explain the ways of locating material. This will help users to make the most of the encyclopedia.

## Sequence of entries

The encyclopedia contains 750 entries arranged in a single, alphabetical sequence through seven volumes. Entries are listed in alphabetical order. Note that the sequence follows the order of words rather than that of letter, and that the words *and*, *in*, *of* and *the* in entry titles are disregarded. A complete alphabetical list of entries is given in Volume 8 (the Index Volume).

## The Index Volume

Volume 8 is devoted to a comprehensive index of the key terms, concepts, countries and names covered in Volumes 1 to 7, allowing users to reap maximum benefit from the encyclopedia. A guide to the index can be found at the beginning of the index. The Index Volume also includes permission acknowledgements, listed in alphabetical entry order.

## Cross-references

The encyclopedia has been extensively cross-referenced in order to signpost other entries that are likely to be of interest. There are three types of cross-reference in the encyclopedia:

### 'See' cross-references

Throughout the alphabetical sequence of entry titles, there are cross-references which direct the user to the entry where a particular topic is discussed either under a different entry title or as part of a larger entry. For example:

Corporate taxation: see TAXATION, CORPORATE

Ethics: see BUSINESS ETHICS; MARKETING ETHICS

### 'See' cross-references within an entry

Cross-references within an entry direct the user to other entries closely related to the theme under discussion. These other entries will normally give a fuller explanation of the specific theme. These cross-references appear in small capital letters.

### 'See also' cross-references

At the very end of each entry, 'See also' cross-references guide the user to other entries of related interest, such as more specialized entries, biographical entries and geographical entries, as well as related entries in other disciplines. These cross-references appear in small capital letters in alphabetical order.

## Structure of entries

A numbered contents list at the beginning of each entry in the encyclopedia gives the headings of its main sections. The scope and structure of the entry can thus be reviewed and sections of particular interest easily located.

Thematic entries begin with an 'Overview' section that serves as a brief introduction to the topic and a useful summary of the entry's contents. Biographical entries begin with a summary of the significant dates and events in the life of the subject and a list of his or her major works. Every entry is followed by a 'Further reading' section (see below).

## Authors

The name of the author or authors is given at the end of each entry. A full list of contributors, showing their affiliation at the time of

writing and the titles of the entries they have written, can be found in Volume 8.

### Further reading

Each entry has a 'Further reading' section which gives details of all the references cited in the text. Additional suggestions for reading are also provided for those who wish to delve deeper into a particular subject. References cited in the text are preceded with an asterisk (\*).

The Further reading list is arranged alphabetically by author/editor and chronologically under the authors'/editors' names. Publications with joint authors are listed under the name of the first author and are listed after any individual publications of that author. Where publications have been issued by an institution, the name of the institution is given as the author. English translations of publications in other languages have been given wherever possible.

Items in the Further reading list have been annotated with a brief description of the level,

importance and usefulness of the publication listed.

References and suggestions for further reading are given in the Harvard style. The authors and editors have attempted to provide bibliographic data in the fullest possible detail.

### Editorial style

Spelling and punctuation in the encyclopedia have been standardized to follow British English usage. The use of italics has been kept to a minimum and is normally restricted to foreign words and book or journal titles. Abbreviations and acronyms are spelled out in full on their first appearance in an entry. Chinese names have been westernized (i.e. Chen Derong becomes Derong Chen or Chen, D.). In alphabetical lists of names, *Mc* and *Mac* are treated as *Mac* and the next letter in the name determines the position of the entry.

# Singapore, management in

- 1 **Multicultural society and management**
- 2 **Western and Japanese management practices**
- 3 **The influence of Confucian values**
- 4 **The role of government and related agencies**
- 5 **Cross-border/transnational management**
- 6 **Future directions**

## Overview

Management practices and styles of business organizations often reflect the culture of the society in which these organizations exist. In Singapore, there is a variety of management practices and styles which can be attributed to two major factors. The first factor is Singapore's multicultural immigrant origins. The second factor is Singapore's open, pragmatic and pro-business policies of attracting foreign investors and multinational companies. These two factors contribute to the array and richness of management practices and styles in Singapore.

As Singapore experiences change and modernization, existing management practices and styles are also transformed and modernized. Changes in management are inevitable in order that business organizations in Singapore, whether they are small and medium enterprises or multinational companies, may continue to be competitive in the increasingly competitive global business environment.

In this entry, four areas of management in Singapore are examined: multicultural management, multinational management, the influence of Confucian values, and the role of the government and related agencies.

## 1 Multicultural society and management

Since its founding in 1819, Singapore has been open to a wide variety of cultural influences.

As an immigrant society involving various ethnic groups and as a trading society involving traders from both East and West, different peoples lived and traded with one another in the city state. As the meeting point between East and West, Singapore has always been a society continually undergoing rapid socioeconomic changes. It is therefore not surprising that Singapore has remained a culturally fluid society until today (Chong 1987). The cultural fluidity helps to explain the pragmatic adoption and assimilation of new and foreign values and practices into the existing management of business organizations in Singapore.

Multicultural management is a unique characteristic of Singapore's business organizations (see BUSINESS CULTURES, ASIAN PACIFIC). Many foreign business organizations operate in Singapore and they transfer some aspects of their own management cultures here. Not only do these organizations bring to Singapore their own management values and practices, they also adopt and adapt some values and practices of other business organizations in Singapore. It is common for foreign business organizations to adopt local practices, especially in the areas of human resource management and labour-management relations. The local business organizations also adopt and adapt some of the managerial values and practices of foreign businesses. The foreign and the local are therefore intertwined in the management culture of many business organizations. The existence of a multicultural mix of management values and practices is an indisputable facet of Singaporean management.

## 2 Western and Japanese management practices

Successful foreign management styles and practices are viewed as an integral component of Singapore's industrialization drive and economic modernization strategy. By encouraging multinational businesses from both East and West to operate and invest in Singapore,

the government has succeeded in linking up with multinational businesses and gaining much sought after foreign managerial expertise, in addition to capital investments, technology and foreign markets.

The use of US management concepts and the adoption of US management practices are common, especially among the larger local companies in Singapore. The government also helps to encourage certain types of foreign management, such as the open appraisal system used by Shell.

With the ascent of Japan as an economic power, Singapore, like other countries in the West and in the region (see, for instance, Malaysia's 'Look East' policy), has adopted Japanese management practices such as 'open offices', 'house unions' and 'quality control circles'. Japanese management practices have been accepted and become part of the management systems of both the local and foreign companies operating in Singapore (see JAPAN, MANAGEMENT IN; MALAYSIA, MANAGEMENT IN).

The adoption of foreign management practices and policies in Singapore is an outcome not only of the large number of foreign businesses in Singapore, but also of Singapore's desire to learn from the successful management practices of developed countries, such as the USA and Japan, in order to maintain its competitive edge in international business. Indeed, this policy of adopting the best management practices of both East and West has helped Singapore to remain competitive over the years, as Singapore continues to be ranked among the most competitive economies in the World Competitiveness Yearbook (2000).

Another contributing factor is modern Western-type education, particularly business and management education at both the undergraduate and MBA levels (see MANAGEMENT EDUCATION IN ASIA PACIFIC). Singaporeans who have studied and have been trained in the USA, for instance, find themselves fitting in very easily into the management culture of US multinational companies in Singapore. Singaporeans who set up their own businesses will also implement some aspects of the management practices they have studied overseas.

### **The survival motive**

There is a compelling reason why management in Singapore is so pragmatic and open to new and foreign influences. This is inherent in the people's need for economic survival. With a total area of 639 square kilometres (247 square miles), it is a speck on the world map. With no natural resources to depend on, Singapore has to rely on its people for its continued survival and economic prosperity. This human capital has to be continually expanded and improved with the best management practices from other countries because international trade is the lifeblood of the city state.

The openness of Singapore's economy makes it necessary to compete with businesses from all over the world as well as with local businesses. Therefore business firms in Singapore need to be highly efficient and competitive. Acquiring the strengths of others, especially in the management of business, is considered a necessity.

Workers in Singapore are called on periodically by the government and related agencies to continually upgrade and improve their skills by training and retraining in order to maintain their competitiveness. According to the 1994 OECD (Organization for Economic Cooperation and Development) report, Singapore will be classified as a developed economy in 1996. As Singapore's economy matures, Singapore is moving towards higher value-added industries.

### **3 The influence of Confucian values**

Singapore's small and medium business environment is dominated by people of Chinese descent, who comprise almost 80 per cent of the population. Singaporean Chinese retain many of their cultural characteristics. The mind-set of the Singaporean Chinese is still shaped largely by the teachings of Confucius. The basic tenets of Confucianism are obedience to and respect for superiors and parents, duty to family, loyalty to friends, humility, sincerity and courtesy (see CHINA, MANAGEMENT IN).

It is interesting to note that these values are also shared by the other ethnic groups in Singapore such as the Malays and the Indians. In many ways, Singaporeans place greater emphasis on the family than on the individual. They view themselves more as parts of the family unit than as free individuals, in sharp contrast to the Western emphasis on individualism. The strong impact of the family institution on the management of small and medium enterprises (SMEs) is not surprising, as a high proportion of SMEs are family businesses or family-orientated businesses. Thong (1987) highlights this point in his study of the management of Chinese small businesses in Malaysia.

The Chinese in Singapore favour increased modernization and a continuous improvement in living standards. They look to the West for new ideas concerning technology and business management. Western influences may have caused some traditional values to erode but the basic tenets of Confucian behaviour can still be observed.

The importance of close personal connections, or *guanxi*, is a vital element of business in Singapore, as in China, Taiwan and Hong Kong. Little or no distinction is made between business and personal relationships. Any successful businessperson in Singapore will belong to a network of personal friends, relatives and associates with common interests. The importance of personal connections has its roots in the traditional concept of family. For the Chinese, individuals are parts of the collective family whole. In Singapore, executives and entrepreneurs work constantly to maintain and expand their networks of connections. For Chinese entrepreneurs, networking is inherent in their tradition and culture.

Most owners (or managers) are paternalistic toward their employees and feel responsible for their well-being, which is very much like the responsibility felt by most heads of families toward members of their own households. The paternalistic attitudes of management and the family atmosphere are clearly demonstrated in the management of many SMEs in Singapore. Chong (1987) sums up the management style of the typical Chinese small business in Singapore as 'paternalistic'

and 'authoritarian', with the manager behaving as the 'patriarch' of a family.

With the rapid development of Singapore's economy and the modernization of Singapore's society, the family system is also being transformed. Traditional small businesses in Singapore have been affected by the changes in society, particularly in the family system. A generation gap has developed between the older owners (or managers) and the younger family members or relatives (employees) in terms of perceptions, values and management practices. Change seems to be the only solution for continued survival in a fast-changing business environment. Chong *et al.* (1983) provide an illuminating analysis of the traditional coffee shops in Singapore and show how this traditional Chinese small business has to change and modernize to keep in step with the changes taking place in Singapore.

#### 4 The role of government and related agencies

The government in Singapore has always adopted a pro-business stance and played a leading role by setting examples through its civil service departments, statutory boards and government-owned companies. The Economic Development Board (EDB) and Trade Development Board (TDB) have played key roles in promoting business and trade in Singapore and helped Singaporean companies and entrepreneurs expand into overseas markets. Certain types of management practice are encouraged, such as the open appraisal system, quality control circles and harmonious labour-management relations. Management courses are conducted by various government agencies such as the Productivity and Standards Board (PSB). There is also provision of financial support for training through the Skills Development Fund (SDF).

All these demonstrate the pragmatism of Singapore's government. Pragmatism is seen in the modernization of traditional small businesses, as well as in the adoption of foreign management practices by local firms and the adoption of local practices by foreign firms. Pragmatism and openness to change and adaptation are therefore common characteristics of Singaporean management. Indeed,

Singaporean companies are continually exhorting to adapt and to anticipate changes in order to survive and remain competitive in the global business environment.

Supplementing the government's efforts, private educational institutions and professional bodies such as the Singapore Institute of Management (SIM) also conduct regular management and management-related courses.

## **5 Cross-border/transnational management**

In 1993, a group of Singaporean companies signed a joint-venture agreement with provincial leaders in Suzhou, China. The plan is to develop a self-contained industrial, commercial and residential estate modelled on Singapore itself. Dubbed the 'Second Singapore' development project, it will see the transfer of Singapore's managerial expertise and success to Chinese partners.

As part of its regionalization drive, Singapore's government is actively promoting investments in the rapidly growing markets of the region, such as China, India, Vietnam, the Philippines and Malaysia. Singapore has a pivotal role to play by promoting cross-border, transnational regional economic development with its neighbours and other countries in Asia. This is clearly evident in the transfer of managerial expertise to the other economies in the region (see ASIA PACIFIC, MANAGEMENT IN).

An illustration of this transfer of managerial expertise by Singaporean companies can be seen in the economic collaboration between Singapore and its neighbours, Malaysia and Indonesia, in what is termed the 'Growth Triangle'. The promotion of the Growth Triangle is part of Singapore's regionalization drive. In this agreement, Singapore has a venture with Malaysia and Indonesia to move some of its low-end production offshore to the adjacent areas of Johore (a southern state in Malaysia) and Batam (an Indonesian island located close to Singapore). Under the agreement, Singapore will provide the management expertise while Malaysia and Indonesia will provide cheap labour and land for labour-

intensive industries such as electronics assembly.

## **6 Future directions**

With the maturing of Singapore's economy, a larger entrepreneurial base is necessary as the private sector is expected to become the engine of growth in the economy in the 1990s and beyond. The move to encourage greater entrepreneurial participation is also part of a counter-strategy to ensure Singapore's survival and competitiveness.

The push for entrepreneurship will have an impact on the evolution of Singapore's management culture and style. Even as the best management practices of the East and West are adapted and assimilated, local entrepreneurs and managers will increasingly have to understand the diverse cultures and business environments in the region. This new breed of managers, with a new mind-set orientated towards the region, will have to develop the necessary skills and competences to manage a different cultural workforce in a different cultural workplace. Managing employees in Vietnam, Burma, the Philippines or China will be different from managing employees in Singapore. In view of the fact that more Singaporean companies are investing and setting up joint-venture operations in the region (as they 'fly the nest'), cross-cultural management will become an increasingly important aspect of Singapore's transnational management development.

The promotion of entrepreneurship will contribute to the development of business management in Singapore. As the management culture evolves, the best management practices and policies of both West and East will continue to be adapted and assimilated into the management of Singapore's businesses. The success of Singapore's business management style and expertise in moving across borders, for instance in the Singapore-Suzhou project, will depend on how well Singapore management assimilates the local business culture and environment in China, or for that matter, other countries in the region in which Singaporean companies have invested and will invest in the future.

The multicultural and multinational mix of management practices and styles will continue to be a characteristic of management in Singapore due to Singapore's pro-business policies, pragmatism and open economy.

The financial crisis that was precipitated by the devaluation of the Thai baht in July 1997 was a wake-up call to Singapore. Singapore is one of the few countries in the Asia Pacific region to escape the titanic financial meltdown that engulfed the region. Singapore has strong and sound financial institutions, and a prudent economic management which has resulted in yearly budget surpluses. However, Singapore has not been unscathed by the financial maelstrom. The drive towards greater regionalization and the increase in intra-ASEAN (Association of South East Asian Nations) trade between Singapore and her major trading partners in the region, notably Indonesia and Malaysia, have made Singapore vulnerable to the vagaries and violent changes in the financial systems of the neighbouring countries. The economic slowdown experienced by the region as a whole also affected Singapore's economic growth. However, Singapore remains the most competitive economy, maintaining her open market economic systems and taking decisive action to reduce business costs. In spite of the slower pace of economic growth, Singapore's economy continues to be robust and resilient.

JOO-SENG TAN

NANYANG TECHNOLOGICAL UNIVERSITY

## Further reading

(References cited in the text marked \*)

Chew, S.B. (1988) *Small Firms in Singapore*, Singapore: Oxford University Press. (Examines the nature and economic contribution of small firms in Singapore.)

Chiu, S.W.K., Ho, K. and Liu, T.K. (1998) *City-States in the Global Economy: Industrial Restructuring in Hong Kong and Singapore*, Boulder, CO: Westview Press. (Comparative study of two dynamic Asian city-states that are emerging as key regional – indeed global – cities. Providing both historical comparisons and analyses of contemporary issues, the authors consider the patterns, strategies, and consequences of industrial restructuring.)

\* Chong, L.C. (1987) 'History and managerial culture in Singapore: "pragmatism", "openness" and "paternalism"', *Asia Pacific Journal of Management* 4 (3): 133–43. (Examines the historical evolution of culture and management in Singapore.)

Chong, A. (ed.) (1997) *Business Guide to Singapore*, Oxford: Butterworth Heinemann. (Part of the *Business Guide to Asia* series, provides detailed information on setting up and running business ventures in Singapore.)

\* Chong, L.C., Kau, A.K. and Tan, T.S. (1983) 'Management adaptation to environmental change: the coffee shop industry in Singapore', *Proceedings of the 10th International Small Business Congress*, Singapore: Applied Research Corp, 277–82. (Analyses the modernization of the traditional coffee shop business in Singapore.)

ENDEC (Entrepreneurial Development Centre) 'Contribution to Entrepreneurship and Small Business Development Research' 1994, special issue of *Journal of Small Business and Entrepreneurship* 10 (3). (Focuses on various aspects of the development of small business entrepreneurship and management.)

Hansen, H.L. (1989) 'Harvard Business School theory in foreign cultures with special reference to east and south east Asia', in *Management Development of Small and Medium-Sized Enterprises in Asia*, proceedings of the 2nd Tokyo conference of the Foundation for Asian Management Development, Tokyo: Foundation for Asian Management Development. (Elaborates on the importance of cultural sensitivity in Western-style management training on Asian economies.)

Koh, J.K., Tan, T.S. and Goh, Y.T. (1989) 'Singapore', in *Management Development of Small and Medium-Sized Enterprises in Asia*, proceedings of the 2nd Tokyo conference of the Foundation for Asian Management Development, Tokyo: Foundation for Asian Management Development, 161–77. (Elaborates on the upgrading of management skills of SMEs in Singapore.)

Lee, K.Y. (2000) *From Third World to First: The Singapore Story 1965–2000*, New York: HarperCollins. (Singapore's founding father and senior minister's memoirs documents key moments in Singapore's history including its separation from Malaysia as a separate nation to the Asian financial crisis of the late 1990s.)

Low, P.S. (1984) 'Singapore-based subsidiaries of US multinationals and Singaporean firms: a comparative management study', *Asia Pacific Journal of Management* 1: 29–39. (A compara-

- tive study of various aspects of US and Singaporean management.)
- McKendrick, D., Doner, R.F. and Haggard, S. (2000) *From Silicon Valley to Singapore: Location and Competitive Advantage in the Hard Drive Industry*, Stanford, CA: Stanford University Press. (Examines how decisions to locate manufacturing in Southeast Asia (predominantly Singapore) have contributed to the global dominance of US firms in the hard disk drive industry.)
- Putti, J.M., Chong, F.H. and Thomas, J. (1985) 'American and Japanese management practices in their Singapore subsidiaries', *Asia Pacific Journal of Management* 2 (2): 106-14. (Analyses the extent of the transfer and implementation of US and Japanese management practices in their subsidiaries operating in Singapore.)
- Stening, B.W., Everett, J.E. and Longton, P.A. (1983) 'Managerial stereotypes in Singaporean subsidiaries of multinational corporations', *Asia Pacific Journal of Management* 1 (3): 56-64. (Examines various managerial stereotypes held by local and expatriate managers.)
- \* Thong, T.S.G. (1987) 'The management of Chinese small-business enterprises in Malaysia', *Asia Pacific Journal of Management* 4 (3): 178-86. (Traces the development of Chinese business enterprises in Malaysia.)
- \* *World Competitiveness Yearbook* (2000) Lausanne, Switzerland: International Institute for Management Development. (Useful annual report ranking the various economies in terms of competitiveness.)

**See also:** ASIA PACIFIC, MANAGEMENT IN; BUSINESS CULTURES, ASIAN PACIFIC; CHINA, MANAGEMENT IN; CULTURE, CROSS-NATIONAL; HOFSTEDE, G.; HONG KONG, MANAGEMENT IN; HUMAN RESOURCE MANAGEMENT IN ASIA PACIFIC; JAPAN, MANAGEMENT IN; MALAYSIA, MANAGEMENT IN; ORGANIZATION CULTURE; TAIWAN, MANAGEMENT IN

# Skill formation systems

- 1 Overview
- 2 The governance of skill formation systems
- 3 Conclusion: systems and cases

## 1 Overview

The formation of vocationally relevant skills is problematic: although skills are used within the market, there are frequently difficulties in producing them through pure market means. A diversity of mechanisms for resolving this problem have been devised, producing a diversity of skill formation systems.

Individuals must make many decisions about acquiring skills when very young, and often neither the individuals nor their parents have the knowledge about the future required to make decisions in an economically rational manner. There are major time lags and risks. Education is expensive and can take many years to complete before there is any return; it is an investment decision. Then, chances of entry into the chosen occupation can be difficult to predict. The skill requirements of occupations also change, further increasing risk. The situation is also problematic for employers. Skills have something of the character of public goods. A firm which trains its employees may find that other firms which do not do so simply recruit the workers it has trained – in the worst case attracting them with higher salaries made possible by the fact that the ‘poaching’ firms have not borne training costs. Interest therefore focuses on mechanisms which might resolve these information, investment and public goods problems. Research has here been able to draw on a more general literature concerning different forms of governance of economies (Crouch *et al.* 1999).

## 2 The governance of skill formation systems

According to governance theory, economic transactions are nested in a wider institutional

context which provides sanctions to encourage certain kinds of behaviour rather than others. The main types of governance have been identified as a) market, b) hierarchy, c) state, d) association, and e) community. We shall here examine each of these governance institutions, but only in so far as they relate to the question of skill formation.

### Market

Within a pure market, decisions over and expenditure on the acquisition of all education would be left entirely in the hands of young people and their parents. In practice this is rarely done; in all but the poorest countries we find state education systems which are both free of charge and compulsory up to a certain age level. Parents might lack the incentive to pay for the education of their children, and might prefer to send them to work to supplement the family income. They could also experience difficulties in assessing the quality of the education their children were receiving. However, in some countries (e.g. the United Kingdom) the market governs general education for the children of wealthy families. The parents of these children are not only rich enough to pay the high costs and to discount the long time horizons of financing their children’s education, but also themselves usually come from educated backgrounds and understand in some detail the uses of education.

An alternative mode of relying on the market for the provision of education would be for potential employers to provide and/or fund education for children from a very early age, in the expectation that the children would later work for them. However, firms would have no guarantee that the children, once educated, would in fact supply their future labour to them. As investors in education, employers would also have to accept the risk of supporting a child’s education long before they had knowledge of his or her capabilities. There are again some exceptions that show that the

model of pure market provision is not absurd. Some large Swedish firms have recently taken an interest in the development of company schools, which would provide normal secondary education as well as specific skill formation (Crouch *et al.* 1999: 123). These are usually firms in a labour monopoly position and therefore at less risk from poaching than others; and under the Swedish scheme the state subsidizes the project (see SWEDEN, MANAGEMENT IN).

The market becomes really important at later stages, when vocational skill formation takes over from general education. The role of parents becomes smaller, time horizons become shorter, and it becomes easier to determine the aptitudes of the young people concerned. The factors that handicapped the market as a provider of general education diminish, and it becomes easier to envisage it as a major influence on the provision of education.

In a classic contribution, Becker (1962, 1975) argued that in fact the market was all that was necessary for skill formation, because skills consisted of two components: a general one and a firm-specific one. If public provision deals with the former, firms have adequate incentive to provide the latter. The poaching argument does not apply, since by definition a firm-specific skill cannot be transferred to another employer. Therefore, provided firms can pay trainees low enough wages to make the cost of the training worth while, there is no problem of vocational skill formation that the market, building on a public general system, cannot solve (see TRAINING).

According to Stevens (1995), Becker's argument ignored the existence of an intermediate kind of skill: those that were too specific to particular work contexts to be provided through general education, but which, even if provided within the framework of an individual firm's working procedures, could be transferred from one firm to another. She called these skills 'transferable', and identified them as a case of market failure. Further, Becker oversimplified the question by focussing on it as the poaching issue alone. There are also problems in inducing young people to bear or share the costs of their skill formation, whether by directly paying fees or by accept-

ing low wages during the training period. The issue is not absolute: many examples can be found of training markets operating in this way, but these are usually explicable in terms of some factor which reduces either the transferable cost problem or the problems of ignorance and uncertainty facing the individuals.

For example, in many countries young people (mainly young women) pay fees to commercial institutions that equip them with office skills. The skills concerned are highly transferable, reducing the willingness of employers to provide them, but the job opportunities that they make available are sufficiently widespread and predictable to give young women the incentive to pay for the courses.

A very different example is provided by certain new high-technology sectors, primarily computing software. Here individuals are regularly responsible for providing their own training, which, in contrast to the acquisition of office skills, can be very expensive. These are well-informed investors, with strong expectations that their investment will pay off after a short time lag. They are already knowledgeable in the field and therefore accurately understand their training needs. The firms for which they work are usually grouped geographically close to each other – as in the Silicon Valley case which has become paradigmatic for this kind of activity – so there is high interaction among both firms and individuals (Saxenian 1994). Knowledge of the labour market, firms' requirements and individuals' capacities are therefore high on all sides. Knowledge of this kind reduces risk, especially in a sector which to date has known only constant expansion. It has even been argued that in this field the usual theories about poaching are reversed, and that the movement of personnel from one firm to another helps advance technical creativity.

Whether the market can operate in this way in sectors lacking these distinctive characteristics is more doubtful. As we shall also see in the later discussion of community governance, it may in fact be argued that the Silicon Valley phenomenon is so underwritten by specific institutional characteristics that it does not constitute a pure market.

Lazonick and O'Sullivan (2000) have criticised Becker's model more profoundly, by

questioning the very existence of many 'firm-specific' skills. Their review of the literature on firm-specific human capital found that those characteristics that make skills 'firm specific' have still not been identified, almost four decades after Becker wrote his seminal work. They point out that in Japan skilled manual workers are usually described as 'multiskilled', which is very different from training in distinct 'craft skills' (as has historically been the case for example with British workers) (see JAPAN, MANAGEMENT IN). In recent years, German training schemes too have stressed 'polyvalent' skills and adaptability (see GERMANY, MANAGEMENT IN). More generally, argue Lazonick and O'Sullivan, given extensive in-house training and long-term employment relations, it may well be the social tie between employer and employee rather than skill per se which is 'specific'. The Beckerian model assumes that, whether skill is 'general' or 'specific', the only tie between employer and employee is an economic one. At the same time, the social tie may have positive productivity consequences if workers are engaged in a cumulative and collective learning process. This, they point out, is also excluded from the Becker model: there is no theory of why skills, be they 'general' or 'specific', are productive; the Beckerian theory, like neo-classical theory more generally, is about who pays for investment in skills, and even then is inconclusive, both theoretically and empirically.

### Hierarchy

As has long been recognized by the theory of the firm, corporations, especially large ones, do not operate by market transactions alone, but also through internal relations of authority, or hierarchy. Sometimes a hierarchy can extend beyond the boundary of the firm itself. Inter-firm hierarchy occurs where large firms develop long-running relations with subcontractors that are not liable to be disrupted by market fluctuations. Customer firms, for example, may sustain long-term relations with suppliers, or a manufacturing firm with distributors. It is a pattern particularly associated with the Japanese economy.

The hierarchy model is very important for skills provision (Crouch *et al.* 1999: chapter 7). Large corporations are frequently labour monopsonists. Such firms are however unlikely to pay lower wages than those in competitive labour markets, as conventional monopsony theory would suggest. Indeed, their cumulated competitive advantages enable them to pay wages to workers in local labour markets that are *above* the competitive market wages. These high wages can in turn elicit greater productivity from employees that can sustain the higher wages of these employees over time. In that case they have little fear of poaching and may well provide extensive training services. The skills transmitted may in principle be transferable, but the firm's position makes them equivalent to specific skills. Sometimes there will be small firms in the area, which will depend parasitically on recruiting persons trained by the large firm. However, provided these other firms are small enough and few enough, it is of little concern to the large firm, constituting merely a trickle of waste and not a challenge to its dominance. Sometimes these small firms may be suppliers to the large one, in which case the latter positively gains from the fact that the former are using staff which it had trained. In the case of the large firm with stable relationships with suppliers or distributors, it may even organize such training as part of its means of sustaining quality within its value chain.

This model solves most of the normal problems of vocational training (see TRAINING, ECONOMICS OF). The collective goods aspects which cause problems for market provision either become private goods within the enterprise or club goods within the supplier or distributor chain. As such, it is a model found very widely wherever there are large firms. The Japanese case is exceptional, in that so much industrial production is based on firms of this type. It is notable that the Japanese formal education system has virtually no vocational component at all. Young people leave either high school or higher education with an entirely general formation. Firms recruit them on the basis of their examination achievements (as well as some informal personal criteria), and then train them, and subsequently retrain them over the years, for vocational

tasks. But these Japanese employees are usually deemed to be 'multiskilled' rather than trained for specific vocational or craft functions. However, this does not make these firms vulnerable to the loss of workers to whom they have imparted transferable skills, as identified by Stevens (1995), because there is almost no transfer among the large Japanese firms; skilled individuals at all levels rarely leave the firm with whom they started their careers. Similar examples may be found, though less frequently than in Japan, among large firms in virtually all countries which cultivate long-term identities and corporate cultures linked to long-service employment. Although Becker's model seems to follow the rationale of pure markets, it in fact seems more applicable within the hierarchy model.

Hierarchy is of course of little help in sectors dominated by small firms, unless these work for customer firms which integrate suppliers. It therefore flourishes in situations of imperfect competition. While neo-classical economic theory has difficulty in accounting for dynamism and efficiency in firms having these characteristics, studies of business management in the Schumpeterian tradition have identified many ways in which such firms do in fact pursue growth paths that establish new standards of efficiency – their capacity to invest strongly in skill formation being an important aspect of this (Lazonick 1991; Lazonick and O'Sullivan 2000). (See DYNAMIC CAPABILITIES, PENROSE, E.T., SCHUMPETER, J.)

### State

The most straightforward answer found in advanced societies to the problem of collective goods is provision by the state, which can use its authority either to provide them directly (funding them by taxation or other levies) or to require their provision by other entities. Not surprisingly, the state has played a major role in the provision of skill formation. In the purest cases (found, for example, in France and Sweden), vocationally relevant courses are provided as branches of the state education system (Crouch *et al.* 1999: chapter 4). Most state education systems provide general education

for the majority of children until the end of the compulsory stage (nowadays around 15 or 16), with continuing general (or academic) education for those likely to proceed to higher education or enter occupations requiring advanced literacy and numerical skills. Under a system of state-provided vocational skill formation a far higher proportion of the age range continues within the school system until about age 18, but taking a diversity of vocationally related courses rather than general ones. More generally, state provision also exists for certain occupations in systems that are not generally dominated by the model: for example, the training of medical practitioners.

Direct state provision is in some respects the mirror image of market provision: they have opposite advantages and defects. If public provision scores over the market in its unproblematic solution of collective goods problems, it loses in often being remote from firms' needs. There is a constant need to bridge the gap between teachers in the training schools and employers. One solution, found very generally but particularly evident in the case of Sweden, is to have representatives of the industry concerned on the bodies which amend curriculum, set standards and regulate examinations. A second possibility is to have young people spend part of their training time working in firms (a French system known as *alternance*). Such solutions still have defects. One is the problem of deciding with which firms the public system should cooperate, to put representatives on boards or to provide placements; errors in selection based on lack of knowledge of the leading firms could lead to training being based on inadequate models.

A further issue concerns the difference between initial and further training. This distinction was not a problem in the pure hierarchy case, where, once one can assume stable long-term employment and supplier relations, it is in the large firm's interests to sustain levels of competence in the long run. Within the market form it presents the same problems as does initial training. The state can provide some good solutions to initial training, but has particular problems with further training. Further training needs are often firm-specific, but even if

they are not it is difficult for public authorities to provide courses for skills upgrading for people already with careers.

The state has certain means for tackling the problem. Institutions such as distance-learning universities have been extremely useful for people seeking a change of career. Another device, again pioneered in France, is to provide a system of training levies (Aventur and Brochier 1996). Firms pay a compulsory charge which finances a state system of adult courses but can avoid the levy by providing courses themselves. Clearly they have an incentive to do the latter, since in that way they can provide courses devised by themselves. The French government has found this mechanism useful in securing an upgrading of the skills of the existing work force. There are however disadvantages: how does a government agency know which skills it is worth developing? How does it evaluate the quality of internal training provided primarily to avoid paying a levy?

### Association

A mechanism that has one foot in the collective-good capacity of public authority and the other close to firm's needs is a skill formation system based on associations of firms. If an association has authority over its members it acquires something of the stature of the state. If it remains close to its members it solves the problem of remoteness common to public agencies. Associational systems can function alongside state provision: for example, one solution to the problem of recruiting employer representatives to assist public agencies is to delegate the task to associations.

Associational governance is particularly suited to the management of apprenticeships, one of the most prominent forms of skill formation (Crouch *et al.* 1999: chapter 5). Emerging out of medieval systems of craft training, it has adapted to the growth of large-scale industry and a growing diversity of services. It requires detailed co-operation between the public education system and associations which manage the contribution of firms without simply seeking advantages for individual companies, for instance the case where the state seeks direct partnerships with

corporations rather than representative bodies.

Apprenticeship systems exist for various occupations in many countries, especially for highly skilled manual crafts. In Germany, Austria, and a small number of other countries it is more extensive and has become the main system of skill formation. In Germany and Austria these associations are not straightforward private organizations of employers but official chambers. These are representative bodies, democratically accountable to their member firms, but having public status. Membership in these associations is compulsory and they are financed through compulsory levies. They therefore exist in a space between the state and private associations. As such, they can have public tasks delegated to them. Many of the successes in German industry have been attributed to its apprenticeship system, though in recent years it has come under some strain (Backes-Gellner 1996; Büchtemann and Verdier 1998; Wagner 1998). It is a high-cost system, and German employers complain that they are suffering from a burden not carried by their competitors in countries which neglect skills provision and that the officers of some chambers are not close enough linked to industry at a time of rapid change. Finally, although the system has demonstrated its capacity to move into many services sectors, it can be slow to adopt new activities.

To date, these problems have not undermined the apprenticeship system as such, but they have been important at a different point. Like the state skill formation systems with which they are in fact integrated, apprenticeship schemes operate at the initial training stage. In principle they could be extended into partnerships between chambers and the formal education system at further training levels, but in practice this has never been the case (Sauter 1996). Now that further training has become so important, firms have taken the opportunity to stress their determination to place it outside the framework of apprenticeship. Instead it operates through corporate hierarchies, mainly therefore among large firms only. This could have the consequence of leaving the apprenticeship model to deal only with a static initial training, while all innova-

tion is dealt with within firms at a higher training level.

### Community

Claims that formal associations might lose touch with firms have directed attention to a final possible form of governance, the informal local community. Under the community model informal relations of reciprocity and the possibilities for behaviour control afforded by a local community enforces a production of collective goods on small and medium-sized enterprises (SMEs) (Crouch *et al.* 1999: chapter 6).

Within an advanced economy, relations of this kind are found only in specialized areas and sectors. Localities may have pre-existing traditions of cooperation and solidarity. These in turn will have made possible local production systems, where many SMEs sharing similar specializations are concentrated. These thrive in an advanced economy in sectors where there are competitive gains from interaction, mainly because of a capacity to advance knowledge ahead of its codification (so-called tacit knowledge). These include those where innovative design is required to stay abreast of fashion (clothing, footwear, jewellery), those which benefit from close relations between customers and suppliers (both supplier chains and specialized machinery producers), and those dependent on scientific advance (computer software, high-tech science industries), or other forms of knowledge (financial sector, publishing).

The most closely studied cases of this phenomenon are the local production systems of central and north-east Italy (Becattini 2000). A similar outcome can however be generated by other means. For example, in Germany, and parts of the UK and the USA, research oriented universities and research centres, rather than traditional communities, can provide the focus for concentration on specialisms. Inter-firm interaction will develop from this, though it is unlikely that a community as such will emerge; the research centre or university remains the focal point for collective goods provision.

Skill formation can be among the collective goods provided in such an environment,

since the required control mechanisms exist. However, with the exception of university-based systems, the training provided is often highly informal, uncertified, possibly even unnoticed. There will also be little recognizable distinction between initial and subsequent training. Indeed, in all knowledge- and innovation-based industries, including those based on university research, it becomes impossible to distinguish between further training and simply doing the job. A dress designer or applied scientist is constantly expanding her knowledge base, simply by working.

The creative community therefore represents a skill formation system where most of the distinctions that are normally crucial to the discussion of this topic break down: if the community is strong enough, the distinction between collective and private goods breaks down; distinctions between levels of training disappear; even that between training and the job itself, and therefore that between the school and the market. This has the advantages of extreme flexibility. However, as with the other systems, the strengths of the form are also its weaknesses. The Italian districts mentioned have difficulty in progressing to more advanced kinds of skill and applications of technology. Levels of formal education among Italian entrepreneurs are low. Indeed, measured by formal qualifications the prosperous districts of central Italy are considerably 'behind' the economically backward south of the country. Small enterprises employ young people who leave the education system without completing courses, and train them in vocationally relevant skills. This provides a disincentive to young people in these regions to remain in education, limiting the country's ability to excel in high-tech industries.

But this case raises a fundamental issue. Central and north-eastern Italy continue to do well in those sectors where the flexible, informal knowledge they have brings advantages. Is this a defect? From the point of view of the methodology of skill formation research, the answer is 'yes'. The starting point of this research is always formal educational qualifications. Informally acquired knowledge, however rich, counts for nothing. In terms of the value of knowledge for economic innova-

tion, this is clearly false. This is true, not only for a Tuscan entrepreneur successfully designing shoes, but also for a Silicon Valley software specialist whose PhD tells us little about his most recent achievements in knowledge and skill acquisition. Meanwhile, many young people are today extending their formal education but finding that this does not necessarily help them find work (Bédoué and Espinasse 1995).

### 3 Conclusion: systems and cases

The five forms of skill formation system outlined above should not be regarded as a series of empty boxes to which individual national or other examples can be assigned. 'Does Germany count as statist or associationist?' is not a sensible question. Empirical examples, certainly if these are examined at national levels, will almost always comprise mixes. We can see that this is likely to be true when we consider that each theoretical form has weaknesses that are the obverse of its strengths. It is through the balancing of characteristics from a mix of types that it is possible to avoid the consequences of this. This should not be interpreted in a functionalist way: there is no necessary reason why actors in a particular system will have produced an optimal mix; and in any case the strengths and weaknesses of particular forms and mixes of forms will vary with time and circumstance.

But the fact of empirical mixing remains important. Very few of the cases which have been referred to above are absolute, even though they are cited because they provide clear examples of specific forms. High-tech districts such as Silicon Valley are a combination of market- and community-driven forms. The Swedish state system draws on both large-firm hierarchy and associations. Although the German system makes particularly strong use of associations, they are associations of a statist kind. The Italian industrial districts are increasingly using the hierarchy of the large firm's supplier chain to keep abreast of product innovation and marketing.

The fact that the various types of system appear in varied combinations produces considerable diversity at national and other levels. These differences in turn are likely to be asso-

ciated with different performance capabilities at the level of products, markets, sizes of firm and forms of organization (Lazonick and O'Sullivan 2000; Juergens 2000; Freyssenet *et al.* 1998).

COLIN CROUCH  
EUROPEAN UNIVERSITY INSTITUTE

### Further reading

(References cited in the text marked \*)

- \* Avenir, F. and Brochier, D. (1996), 'Continuing vocational training in France' in J. Brandsma *et al.* (eds), *Continuing Vocational Training: Europe, Japan and the US*, Utrecht: Uitgeverij Lemma. (Discussion of French approaches to the issue of further training.)
- \* Becattini, G. (2000) *Il Distretto Industriale*, Turin: Rosenberg and Sellier. (A state of the art account of the Italian industrial district model by one of its leading analysts.)
- \* Backes-Gellner, U. (1996) *Betriebliche Bildungs- und Wettbewerbsstrategien im deutsch-britischen Vergleich*, Munich: Rainer Ham. (Comparison of British, German and some other skill-formation systems from an institutional economics perspective.)
- \* Becker, G. S. (1962, 1975) *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*, 1st edn 1962, 2nd edn 1975, New York: Columbia University Press. (A locus classicus for a neo-classical account of skills.)
- \* Bédoué, C. and Espinasse, J.-M. (1995), 'France: politique éducative, amélioration des compétences et absorption des diplômés par l'économie', *Sociologie du Travail* 37 (4): 527-54. (Account of problems faced by young French people following a major expansion of education.)
- \* Brandsma, J., Kessler, F. and Münch, J. (eds) (1996) *Continuing Vocational Training: Europe, Japan and the US*, Utrecht: Uitgeverij Lemma. (A country-by-country survey of further training in major industrial economies.)
- \* Büchtemann, C.F. and Verdier, E. (1998) 'Education and training regimes', *Revue de l'économie politique* 108 (3): 291-320. (A major analysis of contrasts between French and German skill formation systems.)
- \* Crouch, C., Finegold, D. and Sako, M. (1999) *Are Skills the Answer? The Political Economy of Skill Creation in Advanced Industrial Countries*, Oxford: Oxford University Press. (An