

# Management in an Era of Fierce Worldwide Competition

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# Management in an Era of Fierce Worldwide Competition

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## 1. The advent of an era of fierce worldwide competition

Since the early 1990s the market economy has developed into a global economy and ushered in an era of fierce worldwide competition. The dissolution of or major changes in socialism coupled with the economic development of Asia and Latin America have enabled manufacturers to obtain the best merchandise from virtually anywhere in the world. The economy is globalizing, accelerated by the advance of highly-developed information-based societies. It is believed this trend will continue in the short- and mid-term although the long-term is still unknown. Thus, advanced nations are experiencing a gradual hollowing out of their manufacturing capacities as production moves to overseas locations. Also, many existing industries are maturing. Within this context, developing nations were able to achieve economic growth through reliance on domestic direct investment.

However, despite the short-term efficacy of domestic direct investment for stimulating economic growth, this method harbors major problems. Spontaneous development is important; the economic development of Taiwan is a prime case study of a successful development of this sort. The positive aspects of Taiwan's economic development will be discussed below.

It bears noting that the currency crisis that started in Thailand in July 1997 and spread to other Asian countries pointed up the weakness of economies whose development was driven by domestic direct investment.

The ASEAN countries opened their economic systems during the early stages of industrialization, raised capital, obtained technology, and found management expertise from foreign sources simultaneously. They then rapidly developed their export industries, attaining high growth in the process. This development process can be termed "exogenous development" because capital was raised from abroad and foreign markets were served. Initial success attracted more foreign capital and a growth spiral ensued.

As a condition for the acceptance of foreign currencies the ASEAN countries set their own currency values at artificially high levels. But as the real value of their own currencies fell a sell-off occurred, touching off the currency crisis. These countries were victimized by the violent

swings in the international capital markets.

The problems have been particularly acute in the economies of small countries because they are defenseless against fluctuations in the international capital markets. Small countries are like dinghies afloat on an immense sea of capital-liable to capsize at any second. Moreover, the recent crisis has revealed structural weaknesses such as excess production and excess investment in real estate. Even worse, undue mammonism, dramatic increases in income differentials, environmental destruction and a breakdown of traditional culture have accompanied the rapid economic growth, ever more clearly exacting a price. It is now apparent that there are limits to economic growth driven primarily by exogenous methods.

## **2. Towards strong spontaneous development**

The importance of spontaneous economic development of Asian countries should again be recognized.

A stable process of economic development in any society can be established only through autonomous efforts within that society. Spontaneous development is characterized by spontaneous internal creation, adaptations to the surrounding natural environment, evolution from local cultural traditions, consistency with historical conditions, and selective evaluation of foreign knowledge, technology, and systems.

The economic development of Japan was basically a spontaneous one where foreign knowledge, technology and systems were introduced and transformed. Japan protected its infant industries, then advanced to import substitution, and when industries increased their competitiveness further advanced toward the removal of trade barriers and the deregulation of capital markets.

Korea and Taiwan supported the development of their export industries while undergoing a more centrally managed growth process than that of Japan. While they introduced foreign currency using procedures similar to Japan's, they also fostered the development of domestic industries and boosted economic growth rates.

Of course domestic direct investment is important, but the main consideration is the balance between spontaneous development and domestic direct investment. In countries such as Taiwan where spontaneous development is vigorous, the promotion of domestic direct investment will not have a fallout of large problems.

In any event, the Asian countries must revise their development strategies. They should avoid reliance on foreign capital, the easy way out, even if the result is a diminution of economic

growth. They should instead create a foundation for more sustainable economic development by recognizing the importance of spontaneous development and environmental protection.

Entrepreneurship is vital to spontaneous economic development. It is of critical importance that entrepreneurs launch many startups and form new industries through groups of startups. Foreign technology should be creatively applied to meet local market needs and develop new products. Acquired technology should be used as a starting point for independent technical transformation rather than mere imitation. Today, as technologies advance rapidly, it is important to confirm the future direction of technical advances to enable the selection of strategic technologies.

### **3. Strategies for international competition and cooperation**

In the present era of global economic activity technology transfers rapidly across national boundaries. As international competition intensifies, international cooperation is becoming indispensable. Enterprises must have the agility and readiness to handle change.

In an age where agility is a survival requirement, all management functions need not be present within the enterprise. A bloated organization functionally divided, cannot turn on a dime. Each business issue should be handled by an expert, and enterprise investments limited to core competencies only. Enterprises must exchange information and cooperate even while competing. This type of relationship is known as "copetition".

Each enterprise must cooperate with its more advanced peers either domestically or internationally, invest aggressively in development efforts, and establish its own specialties. These efforts would be facilitated through the establishment of regional industry clusters. Silicon Valley is a typical example of such an industrial cluster.

Entrepreneurship is extremely active in Silicon Valley; startups appear almost daily. Individuals employed at the region's firms are highly networked with one another and the region as a whole is working at innovation. Figure 1 illustrates the relationships between the various industries located in Silicon Valley. Through various enterprise linkages, the specialist enterprises there are gradually forming a flexible specialization. Various R & D-related functions such as engineering, investment goods production, high-performance device and spare part production are being built up. Parts are procured from the most optimal sources around the world. Because of its entrepreneurial climate the region incubates many startups, some of which have grown rapidly enough to go public on NASDAQ within a few years of their founding.

Taiwan also has a region in which similar companies are concentrating 80km-long corridor

between the cities of Taipei and Hsinchu that now hosts around 4000 information and communication related enterprises. Mainly small enterprises, many are run by entrepreneurs or are mid-sized corporations. Many are growing rapidly. There is a science park in Hsinchu itself where over 200 of these enterprises are located.

Recently Taiwan has been nicknamed a "personal computer island". Many specialty firms owned by semiconductor or computer manufacturers are in the midst of networking among themselves to take full advantage of their specialization. A stream of engineering talent is returning from Silicon Valley, closely linking this area with the U.S. Corporate relationships between publicly held corporations are illustrated in Figure 2 in a manner that resembles Silicon Valley.

The advance of information-oriented societies has greatly reduced the barriers to commerce formerly posed by remote geography. However, when carrying out intelligent creative activities, one cannot ignore the "benefits of contact". When people meet, the resulting cross-fertilization of diverse and varied concepts leads to creative thinking and new knowledge. This is why geographic proximity is valued among enterprises even in an information-intensive era, so there is a foundation for new development efforts.

However, some enterprise functions may be located remotely if a close link to the development foundation is maintained.

In late 1997 many Asian countries experienced economic difficulties, but Taiwan was an exception. Taiwan boasts geographically concentrated clusters of many small and medium-sized enterprises that lead its export industries in a competitive position within world markets. The country is competitive because of its competitive industries composed of groups of small and medium-sized enterprises that are characterized by advanced technology and enterprise flexibility. Even when incorporating foreign-sourced technologies, a country should strive to develop its industries autonomously.

#### **4. Management of advanced enterprises**

As the world economy becomes ever more global in nature Asian countries must advance yet another step. They should break away from labor-intensive low-cost-oriented manufacturing industries and from mass-production industries and move into sophisticated R & D-intensive fields. Their competitiveness should be based on quality, not price.

Success in R & D-intensive business sector may require a level of entrepreneurial aggressiveness that rarely exists within corporations with a long history or corporate groups. Of

critical importance is the formation of groups of innovative small and medium-sized enterprises full of entrepreneurial spirit.

Such enterprises are thought to be characterized by the following:

- (1) Strategically selects fields of activity from those leading edge fields to those that would benefit from more sophistication.
- (2) Aims for independence and where possible halts dependency on other companies.
- (3) Produces high quality products and services based on highly added value.
- (4) Invests in core competencies and develops originality.
- (5) Relies on human resources.
- (6) Is organized horizontally with few vertical organizational layers, reducing fixed costs and facilitating rapid decision-making.
- (7) Networks with domestic and foreign enterprises, especially on a human level.
- (8) Takes full advantage of information systems.
- (9) Establishes an enterprise atmosphere comfortable to outsiders / foreigners.

In any case, enterprises should establish their core technologies and independence, then form networks based on that independence. If such enterprises grow in symbiosis with one another is concentrated in groups, they are likely to spawn yet additional enterprises, generating a healthy cycle of business foundation. Clusters of enterprises will form natural incubators for new ones.

Creative activity is of immeasurable importance to new industrial cluster groups, and the role of universities is critical. R & D cooperation between industries and universities is especially vital. Development of the human elements of the industrial infrastructure is most effectively supported in research parks and business incubators associated with universities. Mechanisms for the raising and distribution of capital to high-risk ventures must be established. In concrete terms, new government policies should encourage appropriate investments of venture capital and appropriate over-the-counter valuation of enterprises according to risk level. Japan and Taiwan are both developing such mechanisms.

## **5. Conclusion**

Countries and regions must be competitive to survive in an era of globalization. Mere reliance on the market economy is insufficient as a method of establishing competitiveness. Of course independent entrepreneurship are essential to the market, but the roles of economic and industrial policy in the facilitation of spontaneous economic development must not be overlooked.

**Figure 1 Silicon Valley's Industrial Network (1997)**

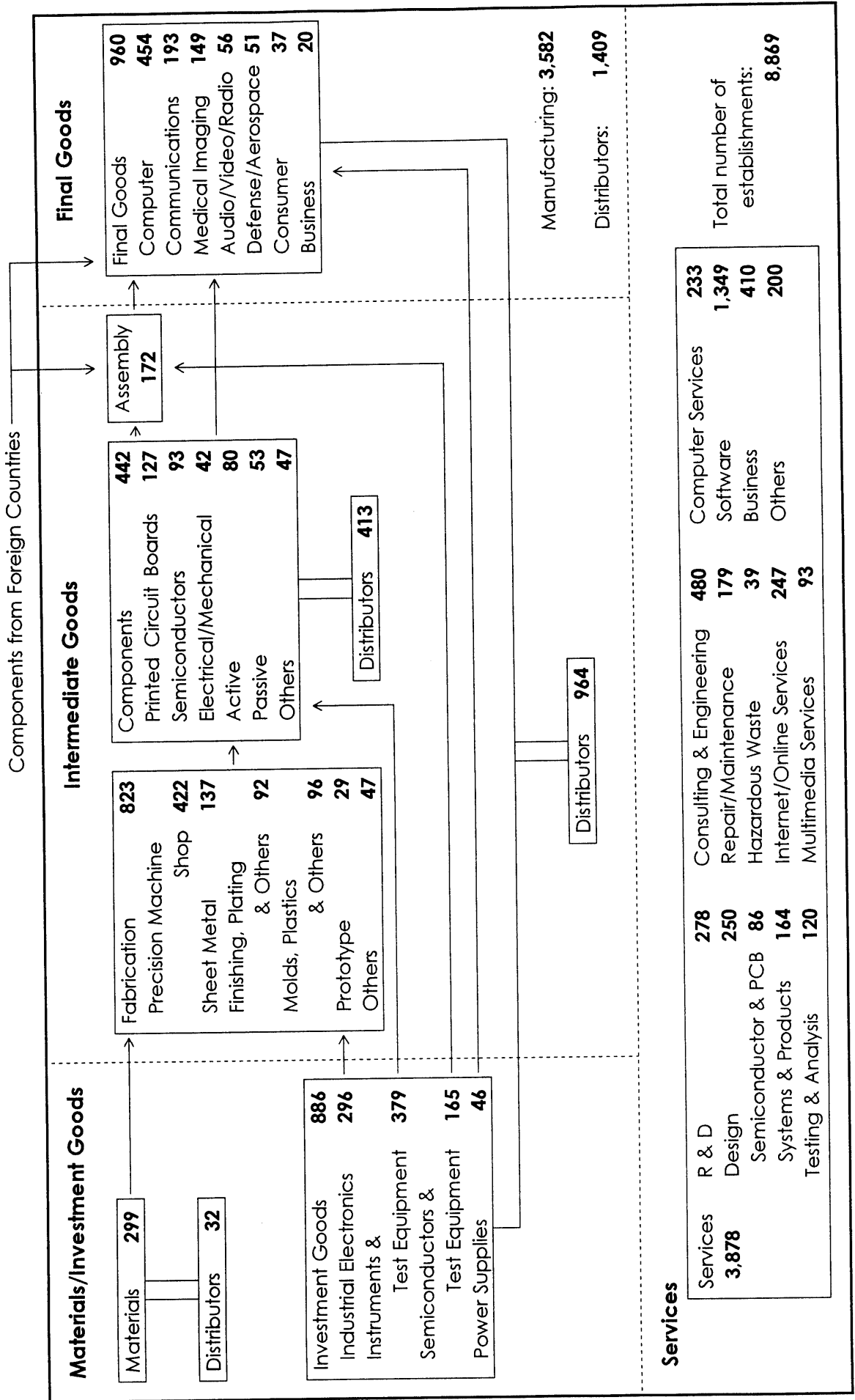
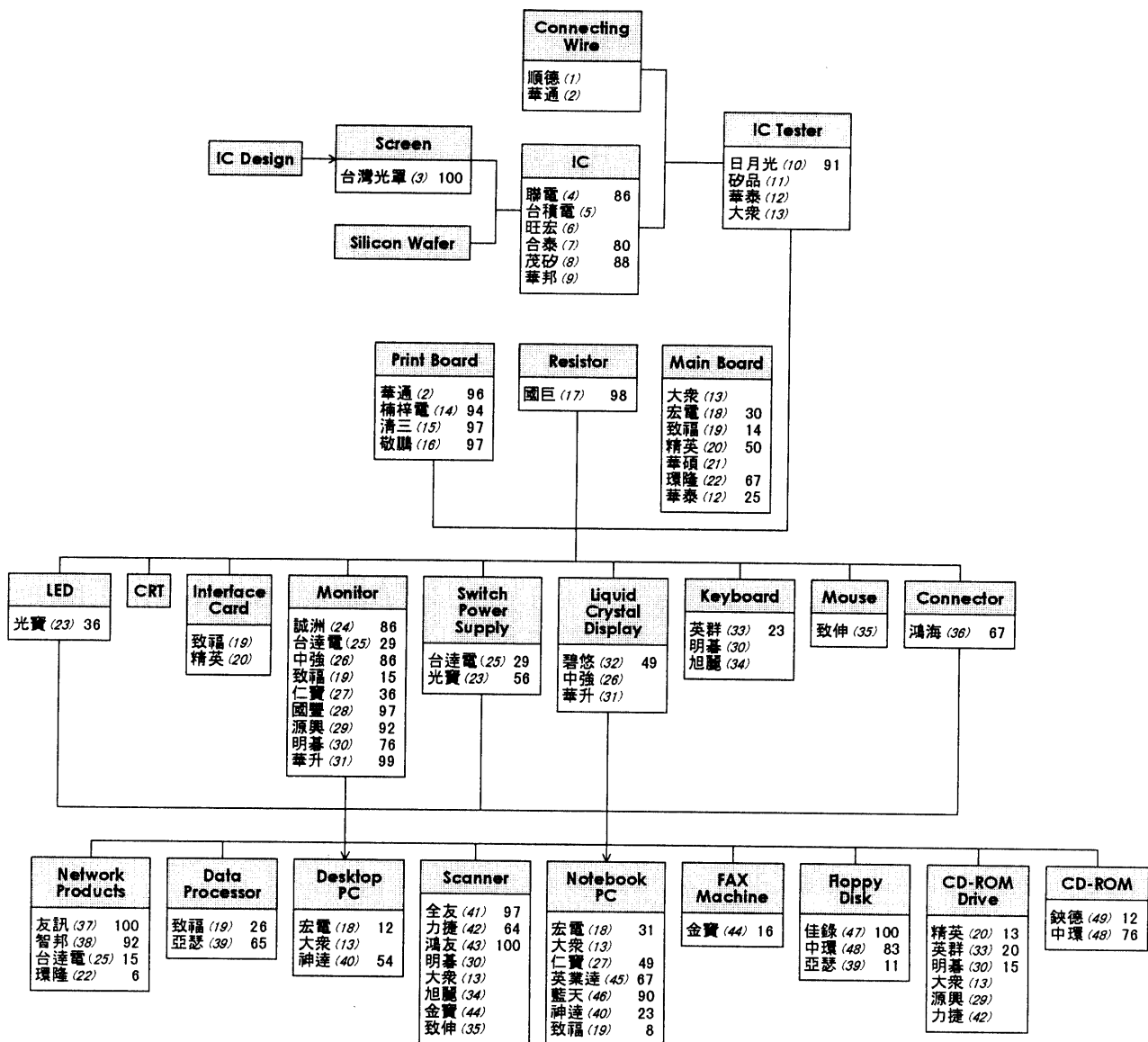


Figure 2 Taiwan's Electronics Industry Network (1997)



Company name in English

- ( 1) SDI Corp.
- ( 2) Compeq Manufacturing Co., Ltd.
- ( 3) Taiwan Mask Corp.
- ( 4) United Microelectronics Corp.
- ( 5) Taiwan Semiconductor Manufacturing Co., Ltd.
- ( 6) Macronix International Co., Ltd.
- ( 7) Holtek Microelectronics
- ( 8) Mosel Vitelic, Inc.
- ( 9) Winbond Electronic Corp.
- (10) Advanced Semiconductor Engineering, Inc.
- (11) Silicon-Ware Precision Industries Co., Ltd.
- (12) Orient Semiconductor Electronics, Ltd.
- (13) First International Computer, Inc.
- (14) Wus Printed Circuit Co., Ltd.
- (15) Chant World International Co., Ltd.
- (16) Chin-Poon Industrial
- (17) Yageo Corp.
- (18) Acer, Inc.
- (19) GVC Corp.
- (20) Elitegroup Computer Systems Co., Ltd.
- (21) Asutek Computer
- (22) Universal Scientific Industrial Co., Ltd.
- (23) Lite-on Electronics
- (24) Advanced Datum Information
- (25) Delta Electronics, Inc.
- (26) Chuntex Electronic Co., Ltd.
- (27) Compal Electronics, Inc.
- (28) Kuo Feng Corp.
- (29) Lite-on Technology Corp.
- (30) Acer Peripherals, Inc.
- (31) Shamrock Technology Co., Ltd.
- (32) Picvue Electronics, Ltd.
- (33) Behavior Tech Computer Corp.
- (34) Silitek Corp.
- (35) Primax Electronics, Ltd.
- (36) Hon Hai Precision Industry Co., Ltd.
- (37) D-Link Corp.
- (38) Accton Technology
- (39) CIS Technology, Inc.
- (40) Mitac International Corp.
- (41) Microtek International, Inc.
- (42) Umax Data Systems, Inc.
- (43) Mustek Systems, Inc.
- (44) Kinpo Electronics, Inc.
- (45) Inventec Corp.
- (46) Clevo
- (47) Megamedia Corp.
- (48) CMC Magnetics Corp.
- (49) Ritek Incorporation