



University of Wollongong
Department of Economics
Working Paper Series 2002

**Korean SMEs in the Wake of the Financial Crisis:
Strategies, Constraints, and Performance
in a Global Economy**

Gary Gregory,

Charles Harvie,

and

Hyun-Hoon Lee

WP 02-12

**Korean SMEs in the Wake of the Financial Crisis: Strategies, Constraints, and
Performance in a Global Economy**

by

Gary Gregory

School of Marketing
University of New South Wales
Sydney
NSW 2052
Tel: +61 2 93 853389
Fax: +61 2 96 631985
Email: g.gregory@unsw.edu.au

Charles Harvie

University of Wollongong
Department of Economics
Wollongong
NSW 2522
Australia
Tel: +61 2 42 213702
Fax: +61 2 42 213725
Email: charvie@uow.edu.au

and

Hyun-Hoon Lee

Department of International Trade
Kangwon National University
Chunchon
Korea
Tel: +82 33 250 6186
Email: hhlee@kangwon.ac.kr

Abstract

South Korea was one of the most adversely affected economies from the Asian financial and economic crisis of 1997. This paper focuses upon the contribution that the SME sector in this country is making towards the recovery of the economy, and, in particular, focuses upon their contribution in a knowledge-based society. In this paper we present an overview of the contribution and significance of SMEs to the economy. We follow this with a discussion of the impact of the Asian financial crisis on the SME sector. Next, we look at the involvement of SMEs in the global economy, focusing on the globalisation readiness of Korea's SMEs. Based on a recent study of nearly 1,800 SMEs in Korea, we look at the existing impediments in globalising operations, along with areas government should support in assisting SMEs to become globalisation ready. Finally, we present the prospects for Korea's SMEs in the 21st century and the emphasis on venture enterprises as a way to promote the technological competitiveness of SMEs.

INTRODUCTION

Since the early 1960s the Korean government has chosen an export led growth and development strategy. From 1962 this consisted of encouraging family controlled conglomerates, known as chaebols, that were focused upon developing export markets, a strategy that was to prove to be the catalyst for the remarkable transformation of the economy. These large enterprises were the focal point for production, employment and export growth for the Korean economy. During the period of the 1970s emphasis turned to the setting up of a heavy and chemical oriented industries. By the 1980s this policy of focusing upon large enterprises (LEs) became increasingly questioned as a result of serious imbalances in the economy between firm size, economic sectors and regions. Consequently, the government began to pay increasing attention to the development of SMEs, although it was not until the 1990s that positive measures were implemented to encourage their promotion. To assist in this process the Small and Medium Business Administration (SMBA) was inaugurated in 1995.

This increasing focus on the promotion of SMEs has been predicated on the basis that they offer greater economic benefits in comparison to that of LEs in the context of: job creation; efficiency; growth; exports; development of technology; the attainment of desirable social outcomes in terms of a more equal distribution of income or wealth; facilitating regional development; and their contribution to the marketisation of transition economies. This viewpoint about the contribution of SMEs to the economy has been questioned (see for example Hallberg (1999)), but in the context of Korea available evidence suggests that SMEs have been playing a vital role in job creation, increasing income as well as contributing to economic growth through continual technological innovation and improved product quality. In 1999, for example, the total number of SMEs, that is enterprises employing 1-299 workers, amounted to 2,769,012 equivalent to 99.7 percent of all establishments, and they employed 81.9 percent of all industrial workers. In the manufacturing sector, the backbone of the economy, SMEs contributed 99.7 percent of all enterprises and 74.3 percent of total manufacturing employment.

With the onset of the financial and economic crisis of 1997-98, however, a number of bankruptcies of large companies resulted in a severe impact upon Korean SMEs. Many of these were forced into bankruptcy themselves as a consequence of a credit crunch arising from a high interest rate policy to stabilise the exchange rate and a tight monetary policy, as well as from the dramatic collapse in domestic and regional demand and sales particularly in 1998. As an indication of the nature of the problem, the number of SME bankruptcies in 1996 amounted to 11,600, increased to 17,200 in 1997 and to 22,800 in 1998 at the height of the recession¹. Despite these difficulties the economy showed a remarkable recovery from 1999 though to mid 2000, since which time the economic growth of the economy has slowed again and compounded by the events in New York in September 2001.

The inauguration of the Kim Dae Jung government at the beginning of 1998 attributed one of the principal factors for the Korean crisis as being due to the weakness of the foundation of SMEs. The weakness was assumed to be primarily due to the fact that large Korean companies had

¹ In January and February 1998 when Korea was implementing a very restrictive monetary and interest rate policy the monthly number of SME bankruptcies rose to 3,300 and 3,400.

monopolised essential production factors arising from the large firm led economy, a legacy from earlier years of the countries economic development policy. As a consequence, policy in Korea is being focused upon corporate and financial sector restructuring with more emphasis upon the further development of SMEs. This presents Korean SMEs with considerable opportunities, as the government implements policies with the objective of enhancing the business environment for SMEs. In particular, the government has placed emphasis in promoting the business start-up of knowledge and technology intensive companies. Consequently, Korean SMEs, focusing upon knowledge and technology intensive companies, are anticipated to grow rapidly.

To date progress on a number of fronts can be identified in the wake of the crisis. First, government actions are resulting in many financial institutions increasing their loans to SMEs while decreasing loans to large companies so as to reduce their overall financial risk. This is providing gradual relief to the financial difficulties of SMEs. In addition large companies are also changing their attitude towards SMEs, emphasising their cooperation with SMEs rather than their dominance over them. SMEs are also attempting to change by improving their competitiveness despite their financial stringencies. In particular, they are attempting to lessen their debts under the restructuring program, and thereby to improve their financial status and cash flow. In addition, they are also starting to increase their investment in R&D for the purpose of reinforcing their technological competitiveness. SMEs are aggressively attempting to transform their business to knowledge based ones in line with changing markets. They are also strengthening and improving their cooperation with overseas enterprises or making entry to foreign markets to prepare for increased market globalisation. Further advancement by SMEs in the new millennium will depend upon their ability to sustain improvements in their competitiveness.

The remainder of this paper proceeds as follows. First, we present an overview of the contribution and significance of SMEs to the economy. We follow this with a discussion of the impact of the Asian financial crisis on the SME sector. Next, we look at the involvement of SMEs in the global economy, focusing on the globalisation readiness of Korea's SMEs based on a recent study of nearly 1,800 SMEs in Korea. Finally, we present the prospects for Korea's SMEs in the 21st century and the emphasis on venture enterprises.

SME CONTRIBUTION TO THE KOREAN ECONOMY – AN OVERVIEW

The growth rate of manufacturing SMEs during the 1960s was only about half that recorded for large manufacturing enterprises in a number of areas including: number of establishments; number of employees; gross output; value of shipments and value added (see Table 1). Even in the 1970s manufacturing SMEs continued to grow less than the large manufacturing enterprises due to the Korean government's heavy and chemical industry promotion policies that were advantageous to large enterprises. However, from the end of the 1970s, the manufacturing SMEs started exceeding the large manufacturing enterprises a little in terms of their growth rate following the increasing participation of SMEs in parts and basic materials industries, which induced manufacturing SMEs to obtain rapid growth in gross output, value of shipments and value added.

From the 1980s manufacturing SMEs exceeded large manufacturing enterprises in all growth indicators as a result of the government's active SME promotion policy to remedy structural imbalance stemming from the government's previous LE preference policy. During the 1990s manufacturing SMEs continuously showed higher growth rates than the large manufacturing enterprises while the large manufacturing enterprises showed negative growth rates in the number of establishments and employees.

In the 1990s, as in the 1980s, the contribution ratios of the manufacturing SMEs to the growth of gross output, value of shipments and value added continued to grow. But, due to the concentration of economic power in large enterprises, the contribution ratio during this period remained at under 50 percent. The period of the 1990s saw declining growth in employment in the manufacturing sector. Significantly, large manufacturing enterprises recorded negative 96.6 percent to this decline in employment growth. Regarding the average annual growth rate of both SMEs and LEs during the 1990 to 1997 period, the former recorded positive 5.1 percent growth while the latter showed negative 6 percent. As a result, the number of large firms decreased during this period.

Table 1. Growth rates by firm size 1963-1997 (%) *

| Items | | 1960s (1963-1969) | 1970s (1970-1979) | 1980s (1980-1989) | 1990s (1990-97) |
|-----------------------|-------------|----------------------|----------------------|----------------------|--------------------|
| No. of establishments | SMEs** | 3.4 | 3.1 | 9.0 | 4.4 |
| | Large firms | 11.8 | 5.1 | 1.9 | -5.3 |
| No. of employees | SMEs | 5.4 | 10.2 | 7.3 | 0.0 |
| | Large firms | 12.8 | 10.8 | 2.0 | -4.7 |
| Gross output | SMEs | 14.5 | 40.4 | 20.7 | 15.0 |
| | Large firms | 29.7 | 39.1 | 14.8 | 12.6 |
| Value of shipments | SMEs | 14.7 | 40.1 | 20.8 | 15.1 |
| | Large firms | 29.7 | 38.9 | 15.0 | 12.6 |
| Value added | SMEs | 16.3 | 40.0 | 21.9 | 15.1 |
| | Large firms | 29.6 | 35.3 | 16.4 | 13.7 |

Notes : * Annual average rate.

** 5-299 employees.

Source : Korea Federation of Small Business(KFSB), *Economic Development and Contribution of SMEs*, 1998.

In terms of the contribution by size of manufacturing SMEs, Table 2 shows a breakdown of this in terms of number of establishments, number of employees, production and value added. What this table shows is that most Korean enterprises are small scale, defined here as those employing less than 100 workers. In 1999 some 96.3 percent of all manufacturing establishments were small scale. Indeed almost half of all manufacturing establishments employed between 5 ~ 9 employees. Medium size enterprises (defined here as 100-299 workers employed) contributed only 2.8 percent of the total number of manufacturing enterprises and LEs only 0.8 percent of

manufacturing enterprises. Small-scale enterprises contributed 56.5 percent of total manufacturing employment, medium enterprises 16.4 percent and LEs 27 percent. In terms of production small-scale enterprises contributed only 30.5 percent of total manufacturing production, medium sized enterprises 17.1 percent, while LEs contributed 52.5 percent. A similar story can be gleaned from the data for value added in the manufacturing sector.

Table 2. Manufacturing SMEs by size (1999)

| | No of firms | | No of employees | | Production | | Value added | |
|------------------------------|-------------|-------|-----------------|-------|-------------|-------|-------------|-------|
| | | % | | % | Million won | % | Million won | % |
| Whole manufacturing industry | 91,156 | 100.0 | 2,507,726 | 100.0 | 479,732,889 | 100.0 | 200,935,037 | 100.0 |
| SMEs | 90,449 | 99.2 | 1,829,593 | 73.0 | 227,891,235 | 47.5 | 97,108,395 | 48.3 |
| 5 ~ 9 | 42,796 | 46.9 | 274,528 | 10.9 | 19,705,314 | 4.1 | 8,655,759 | 4.3 |
| 10 ~ 19 | 23,970 | 26.3 | 321,936 | 12.8 | 28,602,798 | 6.0 | 12,267,076 | 6.1 |
| 20 ~ 49 | 16,335 | 17.9 | 495,216 | 19.7 | 52,075,398 | 10.9 | 21,664,692 | 10.8 |
| 50 ~ 99 | 4,774 | 5.2 | 327,540 | 13.1 | 45,534,237 | 9.5 | 19,196,049 | 9.6 |
| 100 ~ 199 | 2,011 | 2.2 | 275,008 | 11.0 | 50,456,088 | 10.5 | 20,995,159 | 10.4 |
| 200 ~ 299 | 563 | 0.6 | 135,365 | 5.4 | 31,517,400 | 6.6 | 14,329,660 | 7.1 |
| Large firms | 707 | 0.8 | 678,133 | 27.0 | 251,841,654 | 52.5 | 103,826,642 | 51.7 |
| 300 ~ 499 | 356 | 0.4 | 134,911 | 5.4 | 34,632,421 | 7.2 | 14,779,782 | 7.4 |
| Over 500 | 351 | 0.4 | 543,222 | 21.7 | 217,209,233 | 45.3 | 89,046,860 | 44.3 |

Source: National Statistical Office, *Report on mining and manufacturing survey*.

This would suggest, perhaps not surprisingly, that SMEs, small-scale enterprises in particular, are more labour intensive and their labour productivity performance, and hence wages, is poorer than that of large enterprises. In comparing the value added per employee by size, that of SMEs in 1997 was 45 million won, only 38.4 percent of the figure recorded by large enterprises. This suggests a wide gap between LEs and SMEs. In comparing the average annual wages per employee by size, that of SMEs was 13 million won during the same period, 63.6 percent of 21 million won in large companies. The disparity between LEs and SMEs continued to grow after 1980, except in early 1990 when the gap temporarily got smaller. However, it again started growing wider from 1993.

During the period of the 1990s Korean exports showed a continual growth, see Table 3, but in 1998 Korea recorded a minus 2.8 percent growth in exports. This shrinkage was more significant in LEs which showed a minus 4.2 percent decline in exports while SMEs recorded a minus 1 percent decline during the same period.

Table 3. SME exports (US\$ billion)

| | 1994 | 1995 | 1996 | 1997 | 1998 |
|--------------------------------|------------------|-------------------|------------------|------------------|-------------------|
| Total exports | 96.013 (16.8) | 125.058 (30.3) | 129.715 (3.7) | 136.164 (5.0) | 132.313 (-2.8) |
| Total SME exports | 40.701 (15.7) | 49.474 (21.6) | 54.205 (9.6) | 56.910 (5.0) | 56.349 (-1.0) |
| SME share of total exports (%) | 42.4 | 39.6 | 41.8 | 41.8 | 31.0 |

Notes (1) Figures in brackets show the percentage change.

(2) Share is the percentage of exports by SMEs in manufactures in terms of total exports.

Source: Small and Medium Business Association and Korea International Trade Association.

With the onset of the economic crisis in 1998 total overseas investment by Korean enterprises numbered only 550 cases, far smaller than the 1,282 cases in 1997 (see Table 4). However, as a result of the aggressive overseas investment by LEs the overall amount of overseas investment in 1998 was higher than in 1997. Overseas investment by SMEs in 1998 consisted of 294 cases worth US\$256 million, which was 53.5 percent of the total cases but only 6.9 percent of the total amount and was much lower than for the previous year. On the other hand LEs reduced overseas investment to 256 cases, far less than the previous year, but their total amount of overseas investment in 1998 increased to US\$3.428 billion from US\$2.703 billion in 1997. SME overseas investment has focused more on Asian countries due to their adjacency to Korea and because of their cheap labour (see Table 5).

Table 4. SME overseas investment 1996-98 (US\$ million, %)

| | | 1996 | 1997 | 1998 |
|------------------------|--------------|-------|-------|-------|
| Total (A) | No. of cases | 1,436 | 1,282 | 550 |
| | Amount | 4,233 | 3,216 | 3,722 |
| SMEs (B) | No. of cases | 831 | 769 | 294 |
| | Amount | 734 | 513 | 256 |
| Ratio of SMEs (B/A) | No. of cases | 57.9 | 60.0 | 53.5 |
| | Amount | 17.3 | 16.0 | 6.9 |

Source : Korea Federation of Banks.

Table 5. Manufacturing SME overseas investment by region (US\$million dollar, %)

| | | 1996 | | 1997 | | 1998 | |
|---------------|--------------|------|-------|------|-------|------|-------|
| | | | ratio | | ratio | | ratio |
| Total | No. of cases | 831 | 100.0 | 769 | 100.0 | 294 | 100.0 |
| | Amount | 734 | 100.0 | 513 | 100.0 | 256 | 100.0 |
| Asia | No. of cases | 662 | 79.7 | 585 | 76.1 | 200 | 68.0 |
| | Amount | 464 | 63.2 | 245 | 47.8 | 159 | 62.3 |
| Middle East | No. of cases | 1 | 0.1 | 1 | 0.1 | 1 | 0.3 |
| | Amount | 170 | 0.0 | 133 | 0.0 | 0.7 | 0.3 |
| North America | No. of cases | 102 | 12.3 | 111 | 14.4 | 54 | 18.4 |
| | Amount | 152 | 20.8 | 137 | 26.7 | 48 | 18.7 |
| Latin America | No. of cases | 16 | 1.9 | 14 | 1.8 | 10 | 3.4 |
| | Amount | 43 | 5.9 | 70 | 13.6 | 20 | 8.0 |
| Europe | No. of cases | 35 | 4.2 | 38 | 4.9 | 18 | 6.1 |
| | Amount | 64 | 8.7 | 41 | 8.0 | 19 | 7.4 |
| Africa | No. of cases | 4 | 0.5 | 5 | 0.7 | 4 | 1.4 |
| | Amount | 2 | 0.2 | 3 | 0.5 | 4 | 1.6 |
| Oceania | No. of cases | 11 | 1.3 | 15 | 2.0 | 7 | 2.4 |
| | Amount | 9 | 1.2 | 17 | 3.3 | 5 | 1.8 |

Source : Korea Federation of Banks.

THE IMPACT OF THE FINANCIAL CRISIS ON THE SME SECTOR

The Korean economy suffered immensely from the Asian Financial Crisis, with total industrial production going from a growth rate of 8.7 percent in 1996 to a 7.3 percent decrease in 1998. Second, the SME manufacturing sector appears to have been hurt most, going from an industrial production growth rate of 3.3 percent in 1996 to a record low 29 percent decrease in production by 1998, then recovering rapidly in 1999-2000 (see Table 6). Third, SME light industries, traditionally one of the stronger and dominant SME sectors, seem to have been more adversely affected than heavy industries. In 1996 light industries experienced an increase in production by 2.8 percent, yet by 1998 they had realised a 29.2 percent decrease in production. The SME heavy industries were also significantly affected, going from a 3.7 percent increase in production growth in 1996 to a 28.7 percent decrease in overall production in 1998.

Table 6. Production index of SMEs in Manufacturing (1995 = 100)

| | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
|------------------|------|-------|-------|-------|-------|------|------|
| Production index | 91.2 | 100.0 | 103.3 | 101.9 | 72.4 | 75.5 | 93.7 |
| Change (%) | 12.2 | 9.6 | 3.3 | -1.3 | -29.0 | 4.3 | 24.2 |

Source : Industrial Bank of Korea

In addition to a poor production performance the SME sector has also been plagued by increased bankruptcy as a direct result of the financial crisis. Table 7 illustrates the significant increase in number of bankruptcies of SMEs during the 1996-1999 period. From a bankruptcy rate of 14 percent in 1996, SME failure (bankruptcy) increased to approximately 40 percent in 1997 and 1998. In terms of SME failures this translates into an almost 100 percent increase in bankruptcies over a three year period (1996-1998), from 11,589 in 1996 to 22,828 SME bankruptcies in 1998. In comparison to SMEs big firms (including chaebols) also had a significant increase in bankruptcies during the same period. From a low of only 7 bankruptcies in 1996 the number of big firm bankruptcies increased to 58 and 39, in 1997 and 1998, respectively.

Since 1990 the rate of bankruptcies has increased rapidly. Although there was a temporary decrease in bankruptcies in 1996 SMEs were driven into a series of bankruptcies after 1997, hit by the credit crunch and by declining sales as well as the ongoing bankruptcies of LEs. In 1990, the number of bankrupt companies was 4,107. In 1995, it soared to 13,992, three times the figure recorded in 1990. In 1997 it increased to 17,168 and in 1998 as many as 22,828 companies went bankrupt.

Table 7. Production, performance and bankruptcy of Korean SMEs (1996-1999)

| | 1996 | 1997 | 1998 | 1999 |
|-------------------------|--------|--------|--------|-------|
| Bankruptcy rate (%) | 14 | 39.9 | 38 | 10 |
| Number of bankrupt SMEs | 11,589 | 17,168 | 22,828 | 6,718 |
| Monthly average | 966 | 1,431 | 1,902 | 560 |
| Number of bankrupt LEs | 7 | 58 | 39 | na |

Source: Small and Medium Business Administration, *Monthly Bulletin of Small and Medium Business*, Government of the Republic of Korea.

By industry, the number of bankrupt companies in the manufacturing industry was recorded at 8,353 cases (38 percent of the total) in 1998, followed by wholesale and retail and hotels and restaurants at 6,686 cases (30.4 percent of the total), services and others at 3,644 cases (16.6 percent of the total) and construction at 3,283 cases (14.9 percent of the total). The successive bankruptcies of manufacturing LEs after the implementation of the IMF program accelerated the surge in bankruptcies of manufacturing SMEs. Thus, the number of bankrupt SMEs in manufacturing industry rapidly rose to 39.9 percent in 1997 and 38 percent in 1998. However, the number of bankrupt SMEs involved in services and other non-manufacturing sectors shrank. The number of start ups was 5 times the number of bankruptcies in 1996, 3.4 times in 1997, and the lowest 2.6 times in 1998. A turnaround occurred in early 1999 with a record high of 11.7 times.

By the beginning of 1998 the Korean Government realised that SME policies were needed to eliminate the threats to the stabilised management of SMEs, including major funding shortages and lack of credit opportunities necessary to operate within the Korean economy. Additionally, the financial crisis forced policy makers to focus on the creation of new jobs and the easing of unemployment (8.6 percent of the labour force in February, 1999), together considered one of the most urgent challenges for the nation's economy during the crisis. Along with the stabilisation of the economy the Government prioritised the need to build up infrastructure such as technology, human resources development and operation of start-up assistance centres to help SMEs grow steadily. At the same time policies were being considered to assist SMEs locally and to enhance their international competitiveness.

By mid 1998 the Korean Government began to appreciate the role of SMEs as a major driving force for sustaining economic growth. A number of key issues affecting SME success were identified, such as: technology transfer; human resource development; access to finance; access to markets; access to information; identification of suitable network partners and joint venturers; barriers to entry into foreign markets; and an overall ability to remain internationally competitive. To help SMEs overcome some of these barriers it was necessary for the Korean Government to first focus SME policies on the elimination of the threats to their stabilised management, and access to financial resources. As a start, a general management stabilisation fund of US\$567.3 million was provided for attaining policy goals such as export promotion, commercialisation of new technologies, quality and management innovation, etc., with an additional US\$50 million being used as emergency funds to respond to rapid changes in management conditions. Next, the Korean Government needed to continue to promote long-term international competitiveness by supporting structural reforms and technology development. Programs that foster technology-based development, such as venture enterprises, are aimed specifically at SME development and are intended to promote the restructuring of the nation's industry as a whole. To complement this program an additional US\$26.6 million was used to establish the Technology Innovation and Development Fund in 1998 to facilitate SME research and development efforts. Together these policies, along with numerous others, represented a proactive approach to dealing with the financial crisis that occurred in 1997.

In sum, since the financial crisis in 1997, Korea's big enterprises and financial institutions have undergone extensive restructuring. As a result the nation's economy has experienced drastic changes in the industrial and financial sectors, which traditionally were dominated by big

businesses. No longer able to depend on big business groups (e.g., chaebols) to lead the nation's economic growth, the Korean Government is placing greater emphasis on SMEs for future growth. Accordingly, SMEs that embrace technological knowledge and skills are expected to replace big business groups in leading the nation out of the financial crisis. SMEs not only have the flexibility to adopt knowledge and information, but also to adapt themselves to the rapidly changing technological environment while proceeding with continuous innovation. Thus, the Korean Government has placed the highest priority on SMEs, not big conglomerates, as the key driving force for the industrial development during the 21st century.

GLOBALISATION READINESS OF KOREA'S SMES

As a means of gauging the export readiness of Korea's SMEs, this section draws upon a recent survey of some 1,760 selected SMEs covering the period 19-29 November 2001 conducted by the Korea Federation of Small and Medium Business and the Korea Small Business Institute. The data was collected from face to face interviews, through the Web, by fax and by email and used stratified simple random sampling. The major questions focused upon were: business performance in 2001, and prospects for 2002; business plan for 2002; and the prospects for major business indicators for 2002. A summary of the survey results are presented in Table 8.

In terms of business plans for 2002 it can be observed from Table 8 that there is a noticeable degree of optimism amongst entrepreneurs, with almost half the firms surveyed indicating either an increase in the size of their current business, or the maintenance of the current business but expanding into a new business. The remainder of the sample firms overwhelmingly anticipated the maintenance of the current size of their business. There is noticeable disparity between ordinary SMEs and venture business SMEs, with almost two-thirds of the latter anticipating an increase in the size of their business, or the maintenance of the current business but expansion into a new business.

Table 8. Business plan 2002 (unit : %)

| | Switch to a different business | Reduce the size of the current business | Maintain the size of the current business | Increase the size of the current business | Maintain the size of the current business, and start a new business |
|------------------|--------------------------------|---|---|---|---|
| Total SMEs | 0.7 | 5.4 | 44.8 | 21.3 | 27.7 |
| Ordinary SMEs | 0.5 | 7.0 | 56.8 | 16.3 | 19.4 |
| Venture business | 1.2 | 2.5 | 22.2 | 30.6 | 43.5 |

As indicated in Table 9 in terms of the surveyed SME management plans, over half identified priority areas as being the need to strengthen marketing activities and technology innovation. About a quarter of the sample saw the need to improve the structure of the business as well as the recruitment of human resources as being priority areas. The need to strengthen business

collaboration with other enterprises and to improve company liquidity were not seen as being priority areas. The latter point is interesting, suggesting that measures taken to date to improve the financial position of SMEs have proven to be successful.

There also appears to be relatively little discrepancy between ordinary SMEs and venture SMEs in terms of management priorities and the ranking of these.

Table 9. Management plan for 2002 (unit : %)

| | Strengthening of Marketing activities | Strengthening of technology innovation | Improvement of business structure | Recruitment of human resources | Strengthening of business collaboration with other firms | Informatisation | Improvement of cost structure | Improvement of liquidity |
|------------|---------------------------------------|--|-----------------------------------|--------------------------------|--|-----------------|-------------------------------|--------------------------|
| Total SMEs | 24.9 | 27.6 | 13.5 | 10.5 | 4.4 | 5.7 | 8.3 | 5.2 |
| Venture | 22.3 | 25.5 | 14.7 | 9.9 | 5.0 | 7.1 | 10.3 | 5.4 |
| Ordinary | 29.9 | 31.7 | 11.2 | 11.5 | 3.3 | 3.1 | 4.5 | 4.9 |

Major areas that the government should support

Table 10 captures the views of the surveyed SMEs over the support of government, in terms of SME development, and where more focus needs to be placed. The three areas given most emphasis are those focusing upon: strengthening of technology competitiveness; improving business stability and survival; and improving the efficiency of government support. Over 60 percent of sampled SMEs emphasised these three factors.

Major Export Regions (Prospects for 2002)

Table 11 identifies perceived prospects in overseas markets for the surveyed SMEs. Overall, SMEs see the Japanese and US markets as being crucial, followed by China and the ASEAN economies. By type of SME, ordinary SMEs see Japan and the US as the key markets while venture firms see the US and China as being equally important overseas markets.

Table 10. Major areas that the government should support (unit : %)

| | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. |
|------------|------|-----|-----|------|-----|------|-----|-----|------|
| Total SMEs | 25.3 | 6.1 | 4.4 | 20.4 | 8.2 | 10.0 | 0.8 | 6.7 | 18.3 |

1. Strengthening of technology competitiveness, 2. Facilitation of New business, 3. Maximization of IT and e-Biz utilization, 4. Improvement of business stability and self-survival, 5. Establishment of fair trading environment, 6. Support of small-sized business, 7. Support of SMEs with women executives, 8. Strengthening of global competitiveness, 9. Improvement of efficiency of government support

Table 11. Major Export Regions (Prospects for 2002) (unit : %)

| | Japan | US | EU | ASEAN | China | Hong Kong | Other |
|---------------|-------|------|-----|-------|-------|-----------|-------|
| Total SMEs | 23.6 | 25.7 | 7.8 | 12.5 | 17.0 | 2.7 | 10.7 |
| Ordinary SMEs | 28.0 | 28.6 | 6.4 | 11.9 | 12.3 | 3.1 | 9.7 |
| Venture firms | 18.5 | 22.3 | 9.4 | 13.2 | 22.3 | 2.3 | 11.9 |

Difficulties in export sales

In another survey conducted by the Korean Federation of Small and Medium Business over the period 4-23 October 2001, some 1,308 SMEs, focusing upon difficulties relating to export sales, further interesting results can be identified. The results of this are contained in Table 12, which shows that the single most important concern to SMEs relating to their export sales was that of stagnation in major export markets. Over a quarter of respondents identified this as the most important factor. Following in ascending order by increased costs of production (16.7 percent), demand by buyers for reduced prices (16.2 percent); and then difficulties in developing new foreign markets.

Table 12. Difficulties in export sales (unit : %)

| | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. |
|------------|------|------|------|-----|-----|------|------|------|
| Total SMEs | 16.7 | 10.3 | 11.2 | 3.4 | 2.4 | 16.2 | 26.2 | 13.7 |

1. increase in production costs; 2. increase of export related costs; 3. excessive competition with domestic firms; 4. weakening of technology and product quality competitiveness; 5. too many import restrictions in importing countries; 6. buyers' demand for price reductions; 7. stagnating business cycle of the major export markets; 8. difficulties in developing new foreign markets.

Source: Korean Federation of Small and medium Business, November, 2001.

PROSPECTS FOR KOREA'S SMES IN THE 21ST CENTURY

As a result of the financial crisis in 1997, the Korean Government focused restructuring efforts on the two areas of the economy most in need: financial institutions and big enterprises (i.e., chaebols). During this time the nation's economy experienced drastic changes in the industrial structure, which in the past was centred around big businesses. It was at this time that the government began to realise that they could no longer depend on large multinational firms to fuel the economy, leading them to shift emphasis from big business to small and medium enterprises.

It was anticipated that SMEs, especially those equipped with technological capabilities, will replace big business conglomerates as the main thrust in economic growth.

Expansion of SME business activities

The emergence of new industries, customisation and specialisation of commodities and services are expected to expand the scope of activities of SMEs. Thus the business environment will become advantageous to SMEs which can flexibly adjust to changes arising from: technological innovation; the transformation to the aged society; changes of life style; the emergence of new industry relevant to housing, medical welfare, environment and life culture; and the diversification of consumers' wants.

The expansion of business activities and the economic importance of SMEs implies that they will play a more important role in creating jobs. The development of information technology is expected to induce a constant creation of new businesses more appropriate to SMEs than to large companies, which in turn will cause SMEs to expand their employment.

In most industrial sectors, SMEs are expected to make great progress. In particular, many technology and knowledge intensive SMEs are expected to be established and to grow rapidly in areas accelerating technological innovation and amalgamation such as information communications, new materials and life science.

It is expected that the importance of SMEs in the service industry will become more emphasised due to the changes in industry structure such as through de-industrialisation and the expansion of the service industries. In general, service businesses are likely to be set up with small capital. In particular, as the advancement of information technology and informationalisation causes the average size of companies to get smaller, the proportion and importance of SMEs in the service industry is expected to grow very rapidly.

It is predicted that the roles and significance of provincial SMEs will become greater as the central government pursues policies that promote provincial SMEs to remedy the imbalance between regions that occurred amid the rapid economic growth of previous years. Regional governments will also aggressively push ahead promotion policies for special SME industries that fit regional characteristics along with the advent of the era of localisation.

The relaxation of trading obstacles resulting from the WTO and the extension of international trade brought about by the development of electronic trading has made it easier for SMEs to advance into the world market. Hence the status of export oriented SMEs is anticipated to become much higher, resulting in the proportion of total exports produced by SMEs to rise constantly.

Hence SMEs are regarded as a major source of job creation as well as having a crucial role to play in the reshaping of Korean industry, enabling the Korean economy to recover its competitiveness. Moreover, SMEs that can easily adapt themselves to the rapidly changing technological environment, while proceeding with continuous innovation, are those expected to experience continued growth well into the 21st century. It is these particular SMEs, or "venture

enterprises,” that the Korean Government is putting a top policy priority on to help them regain their competitive advantage.

Venture Enterprises

Venture enterprises are defined as a “technology-intensive enterprise” or an “enterprise based on a highly advanced technology.” To be classified as a venture enterprise, an SME must satisfy any of the following four conditions:

- (1) Have at least 10 percent of the total capital generated from venture capital.
- (2) Invest at least 5 percent or more of total sales into R&D.
- (3) Have at least 50 percent or more of its total sales generated from sales of patent and new technology products.
- (4) Be recognised by the government as having excellent technology

Since 1997 when the government began measures to foster venture enterprises, 4,200 small and medium companies have been designated as venture firms. It is estimated that between 200 and 300 companies are newly designated as venture firms each month. Venture enterprises demonstrate higher technological capabilities and managerial performance, and realise greater growth rates than other SMEs and big conglomerates. They also create more jobs than big companies or traditional small firms, and make greater contributions to development of regional and national economies. Realising the importance and growth potential of venture enterprises, the Korean Government in 1997 passed the Law on Special Measures for Fostering Venture Enterprises. This law focuses on three main areas to foster the development of venture enterprises. These areas include *improving the atmosphere to form venture enterprises*, *improvement of funding opportunities*, and *encouraging globalisation of venture enterprises*.

To *create an atmosphere to form venture enterprises*, the government has been focused its start-up campaign around universities and research institutes. They are hoping to tap into the young and ambitious university student and research personnel market with various supports to make start-up of venture firms easier. By providing students with initial expenses for starting businesses, they are also hoping that they will quickly advance into promising venture firms. The government will exempt university students from obligatory military service, allow professors and research fellows temporary retire, and even provide initial expenses for starting businesses all in hopes of encouraging the formation of venture enterprises. Once a venture enterprise has been formed, measures to *improve funding opportunities* are necessary. To encourage investment in venture enterprises, tax benefits have been expanded to include venture capital invested in venture enterprises. Furthermore, the Korean Government is creating a source of public capital aimed at supporting preliminary business starters and newly inaugurated businesses in which private venture investors are reluctant to make investments. With the formation of the Korea Venture Fund in 1999, an additional US\$83 million has been set aside for direct investments in venture firms. Finally, to ensure long term success of venture enterprises, it is necessary that these firms compete effectively with their counterparts in the world market. In an effort to *encourage globalisation of venture enterprises*, the Korean Government provides assistance in exporting, foreign direct investment in overseas firms, formation of collaborative partnerships with foreign companies, and funding to establish overseas factories and offices.

Although the government has focused on lifting various administrative restrictions and on encouraging the growth of venture enterprises immediately following the financial crisis, more work is needed to improve the infrastructure for fostering such venture businesses. Specifically, many venture businesses are still undergoing financial difficulties owing to the lack of venture capital and angel funds available. Recently, in response to these difficulties more than 40 business incubators across the country have been established to assist the start up of new venture enterprises. By the year 2002, it is expected that more than 100 incubators will be in existence to help nearly 2000 new venture enterprises get started. Additional infrastructure development includes the establishment of six 'techno-parks' in the major cities in Korea, along a 'venture town' in the city of Taejon and a 'high-tech complex' in Seoul. As previously mentioned, the launch of the Venture Net has greatly facilitated the sharing of information on business, technology and investment opportunities with government agencies, private organisations and other venture businesses. Finally, the government has created the KOSDAQ, a Korean version of NASDAQ, as a virtually exclusive stock exchange for small business and venture enterprises. As a vital source of venture capital, currently there are hundreds of venture companies trading on the KOSDAQ. By the end of 1999, over US\$2 billion changed hands per day on KOSDAQ. With a market valuation reaching US\$100 billion, trading on KOSDAQ represented nearly one-third of the Korea Stock Exchange in 1999.

Despite the challenges that lie ahead the new generation of small and medium-sized venture enterprise entrepreneurs are better educated, have developed a business plan based on technological innovation and niche market specialisation, and have anticipated the need to raise capital through venture capital and/or through the stock market. By the beginning of 2000, venture companies numbered over 5,000, many of which are considered competitive and capable of flexibly responding to changing markets and customer needs and demands. By June 2000, Korea had 8,768 certified technology ventures, placing it as the third largest market worldwide for venture business. The government plans on continuing to expand its investment into venture companies, and by the end of 2000 raised venture funds in cooperation with private sectors in excess of US\$1 billion. These funds will be used to nurture approximately 10,000 venture companies, creating an additional 100,000 new jobs. Additionally, the government has provided a special guarantee through the Technology Trust Guarantee Fund of over US\$2 billion to be provided through 23 financial institutions throughout Korea. The Information-oriented Enterprises Promotion Fund has been established to provide nearly US\$100 million for software venture enterprises.

Towards a Knowledge-based society

Over the past few years, Korea has been developing a foundation for its knowledge-based or 'new' economy, focusing on developing an information infrastructure that promotes information and communications-related technologies, e-commerce activities, and the formation of venture enterprises. From 1991 to 1999, Korea's knowledge-based industries realised an average annual real growth rate of 13.7 percent. In 1999, knowledge-based industries accounted for 45.6 percent of the nation's annual GDP growth rate of 10.7 percent. Korean SMEs and venture enterprises are an important part of Korea's new economy. The government needs to continue to support venture enterprises by streamlining laws and expanding the support of both management stabilisation and structural improvement funds, especially for those firms involved in knowledge-

intensive industries. However, to meet the competitive demands of the 21st century, SMEs will also need to make efforts to respond to the changes in economic conditions at home and abroad. This includes securing core technologies and competencies necessary to adapt to changing competitive conditions. Employment in industry, agriculture, and services sectors has remained weak with much of the recent increase in jobs coming from self-employment and the public sector. While considerable restructuring has occurred among smaller chaebol and SME sectors, the question for Korea is whether the slow restructuring of larger chaebols will impede on SME growth.

Globalising operations, developing and sustaining up-to-date information systems, and transforming themselves into highly competitive technology-based firms, equipped to deal with flexibility and mobility are necessary first steps for SMEs in the 21st century. Fortunately, for Korean SMEs and venture enterprises, the Kim Dae-jung government has proclaimed the 21st century to be the 'Age of SMEs'. This is evident through the outstanding support provided to SMEs in a number of key areas, including access to finance, human resources management, scientific and technological achievements, promotion of e-commerce, and promotion of collaborative relationships through networking. Although the Korean Government still has room to improve upon SME policies, since the financial crisis they have provided a solid foundation for economic stabilisation by reforming financial institutions and big businesses, transforming its economic system into a knowledge-based economy, liberalising its markets to foreign investment, strengthening its efforts to cooperate with foreign countries, and focusing on SMEs and venture enterprises as a 'key' driving force in establishing Korea as a global economy, ready to embrace the challenges that the 21st century has to offer.

SUMMARY AND CONCLUSIONS

This paper has conducted an extensive overview of the contribution of SMEs, more specifically manufacturing SMEs, to the contemporary Korea economy. This contribution is not inconsiderable in terms of number of establishments, employment, production, value added, exports, investment and innovation. While the industry sector's share of overall national income has been declining in Korea for a number of years, a traditional phenomenon in the context of a developing economy, it will still remain at the core of the economy for a prolonged period of time. While the financial and economic crisis of 1997-98 undoubtedly impinged upon the further development of SMEs, they have shown remarkable resilience with the recovery of the economy. There are encouraging signs that SMEs, with the assistance of government policies, are gearing themselves up to take advantage of the business opportunities that will arise with further trade liberalisation within the region. The key is to ensure that such SMEs remain globally competitive and sufficiently flexible to take advantage of rapid changes in the market. The overall conclusion is that with the further integration of the region many business opportunities will arise for SMEs particularly with regard to knowledge and technology intensive industries.

BIBLIOGRAPHY

- APEC Project on Business Matching and Facilitation Services and Electronic Databases Available to SMEs to Facilitate Trade and Investment 1996*. Department of Industry, Science and Tourism, Australian Government Publishing, Canberra, Australia.
- Choi, J. and Chung, S.C. (1997). *The Role of Government in S&T Co-operation: The Case of Korea*. OECD Working paper DSTI/STP/TIP(97)14/FINAL.
- Choi, Young B. (1999). On the causes of financial crisis in Korea. *Nultinational Business Review (Fall)*, 45-53.
- Hong, S.Y., Park, J.H. and Park, J.Y. (1999), Status and prospects of small and medium enterprises (SMEs) in Korea, Policy research paper No. 14-99-02, Korea Small Business Institute.
- Investment Environment and Prospects for Venture Business in Korea*, Small and Medium-sized Business Administration, Government of the Republic of Korea. <http://www.smba.go.kr>.
- Korea Economic Update (Jan 24, 2000)*, Special Edition: Economic Policy Directives for 2000, Ministry of Finance and Economy, Government of the Republic of Korea. <http://www.mofe.go.kr>.
- Korea Economic Update (Apr. 20, 2000)*, Ministry of Finance and Economy, Government of the Republic of Korea. <http://www.mofe.go.kr>.
- Korea Economic Update (Sep. 19, 2000)*, Special Issue: First-Half Economic Achievements of “the Kim Dae-jung Administration.” Ministry of Finance and Economy, Government of the Republic of Korea. <http://www.mofe.go.kr>.
- Korea’s SMEs Preparing for the 21st Century*, Small and Medium-sized Business Administration, Government of the Republic of Korea. <http://www.smba.go.kr>.
- Korea’s Venture Enterprises and Policy Directions for Fostering Them*, Small and Medium-sized Business Administration, Government of the Republic of Korea. <http://www.smba.go.kr>.
- Korea Federation of Small and Medium Business (2001), Current status of SMEs 2001, available at <http://stat.kfsb.pr.kr/menu2-1.html> (in Korean).
- Korea Federation of Small and Medium Business (2001), Current status of SMEs 2001, available at <http://stat.kfsb.pr.kr/menu2-1.html> (in Korean), November.
- Korea Federation of Small and Medium Business and Korea Small Business Institute (2001), Business prospects of SMEs for 2002, December (in Korean).

- Kwack, Sung Y. (1999). Korea's financial crisis: Causes and restructuring tasks. *Multinational Business Review (Fall)*, 55-59.
- Lee, M. J. and Chung, S. C. (1997). *Globalisation of Industrial Research and Development: The Korean Experience*. OECD Working paper DSTI/STP/TIP(97)14/FINAL.
- Maximizing the Benefits of Electronic Commerce: Korea's Initiatives*, Government of the Republic of Korea, OECD Working paper DSTI/ICCP(98)15/PAR2/REV1.
- Moody's Report on the Korean Economy*, Korea Investment Service Center, Government of the Republic of Korea. <http://www.kisc.org.kr>.
- Park, Hun J. (2000). Modernization, competitiveness, and the politics of small business in Korea, *Unpublished Manuscript*.
- Park, Sung-Hoon. (1999). The impact of the Korean financial crisis on SMEs: A case study of Korea. Working Paper.
- Policy Direction for Small and Medium Enterprises*, Small and Medium-sized Business Administration, Government of the Republic of Korea. <http://www.smba.go.kr>.
- SMEs and Electronic Commerce*, Government of the Republic of Korea, OECD Working paper DSTI/IND/PME(98)18/REV1.
- Status of Small and Medium Enterprises*, Small and Medium-sized Business Administration, Government of the Republic of Korea. <http://www.smba.go.kr>.
- The New Foreign Direct Investment Regime*, Small and Medium-sized Business Administration, Government of the Republic of Korea. <http://www.smba.go.kr>.
- What Is KOTRA?*, Korea Trade Promotion Corporation, Government of the Republic of Korea. <http://www.kotra.or.kr>.