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Abstract

Over the past decade the economies of East Asia, and APEC more generally, have been opening up their markets and in the process have achieved significant gains in exports and economic growth. In conjunction with this increased economic integration there has been increased recognition by regional governments of the potential for a substantial increase in the participation by small businesses in the generation of regional income, employment, exports, investment and expanded economic growth. Advances in information and communications technology add credence to this potential. In addition, developing economies are especially seeing small businesses as potential instruments for the alleviation of poverty.

This viewpoint has been given further stimulus since the financial and economic crisis of 1997-98, arising from which there has been a growing recognition of the need for the East Asian economies to engage in comprehensive restructuring of their corporate sectors, with the objective of achieving transparency, improving corporate governance and developing globally competitive enterprises. The small and medium enterprise (SME) sector can play a key role in the attainment of such objectives.

This paper reviews the contribution of the SME sector to the growth and development of the regional (East Asian) economies, and their increasing importance in the attainment of a sustained recovery of the region in terms of economic growth, employment, trade and investment and the development of globally competitive economies. It also identifies: barriers to their development; key factors essential for their capacity building; strategies to enhance their competitiveness in the global marketplace; and key components relating to their export success.

1. Introduction

The Asian financial and economic crisis had widespread effects, many of which are still in the process of being resolved. While the region consists of many diverse, although closely integrated, economies, a common characteristic is the significance of a sizeable and rapidly expanding small and medium enterprise (SME) sector. However, given such diversity, it can be reasonably expected that the SMEs in these economies are at different stages of development, their contributions to the respective economies are different, and policies adopted in these economies as a means of encouraging their development will also diverge. While they may face similar general difficulties, such as access to finance, access to technology, development of human resources, and access to market information, it is unlikely that these difficulties are inherently identical and appropriate policies to stimulate their recovery are also unlikely to be identical across these varying economies. However, what is clear is that these SMEs, in the wake of the financial and economic crisis of 1997-98 and the immense restructuring across the region that is taking place with the objective of producing transparent, efficient and globally competitive corporate sectors, are in a strong position to lead the economic recovery of the region arising from increased business opportunities.

In the wake of the crisis a re-appraisal of the Asian Growth and Development Model (AGDM) has taken place. The model traditionally placed considerable importance upon the: development of an export oriented industrial sector; maintenance of macroeconomic stability; maintenance of relatively stable exchange rates; high saving and investment; close government-business-banking relationships; directed credit; and high human capital. First, the model's emphasis on export orientation has been questioned by a number of regional leaders, including, in April 2001, Thailand's Prime Minister Thaksin Shinawatra. Increasing emphasis is now being placed upon balanced growth in which the domestic and external sectors are developed concurrently, and the need to encourage greater linkages between these sectors. Second, while exports will remain an important source of economic growth, more emphasis needs to be placed upon intra regional trade. This has triggered activity that is likely to lead to further economic integration and trade liberalisation amongst the regional economies[1]. Third, there is also an important recognition of the need for corporate sector restructuring, greater transparency, competition, and competitiveness, to ensure that corruption and cronyism is kept in check. There has been much debate about those economies that came through the crisis relatively unscathed, and those that were severely affected. Korea, a country dominated by large industrial conglomerates, was severely affected, while Taiwan, dominated by SMEs, came through the crisis relatively well. Evidence from other regional economies suggests that SMEs came through the crisis better than large enterprises. The avoidance of a future crisis could, therefore, depend upon developing a competitive SME sector that is able to compete in both domestic and external markets. This paper argues that the SME sector has a crucial role to play in the sustained recovery of the region arising from the business opportunities created by the restructuring process itself, the movement towards closer regional economic integration, advances in information and

[1] The recent development of ASEAN+3 is indicative of such a development.

communications technology (ICT) and more specifically the business opportunities arising from the Internet[2].

The paper proceeds as follows. Section 2 briefly provides background information on the role and significance of the SME sector in the economies of East Asia and APEC more generally. Section 3 discusses the major barriers to the further development of the SME sector and key areas for capacity building that will enable this sector to make the maximum gains from regional trade and investment developments. Section 4 discusses the key drivers for SME export success, and competitiveness strategies. Finally, Section 5 provides a summary of the major conclusions from this paper and implications for policy makers.

2. Background – the role and significance of the SME sector in East Asian economic development[3]

SMEs have been recognised as a priority area for the East Asian economies, and more generally within the context of the Asia Pacific Economic Cooperation Forum (APEC), since the 1993 APEC Leaders' meeting in Seattle. Despite being seen as a priority, and the centre of considerable discussion, a clearly enunciated APEC agenda and program of action for SMEs in the region, before the onset of the financial and economic crisis of 1997-98, remained elusive. However, the crisis resulted in many of the countries of East Asia: re-evaluating their industrial policies; placing greater emphasis on improving corporate governance; improving the efficiency and competitiveness of their enterprises; and developing business sectors more able to overcome the vicissitudes of domestic, but more importantly global, market developments. The latter is of particular importance in the context of increased economic interdependence and open regionalism. The need to develop more adaptable and flexible economies, and business sectors, has resulted in increased emphasis on the development of the SME sector, particularly given the relative resilience of the Taiwanese economy, dominated by SMEs, and the potential platform they provided for a sustained recovery, as well as employment potential and poverty alleviation, of regional economies.

2.1 What is an SME?

There is no regional, or indeed global, consensus on the definition of an SME. SMEs' definitions differ widely among the East Asian economies, and APEC more generally, depending on the phase of economic development as well as prevailing social conditions. A number of indexes are traditionally utilised to define SMEs: number of employees; invested capital; total amount of assets; sales volume; and production capability. The most commonly used index, however, is the number of employees. A summary of the alternative definitions of SMEs used in selected APEC member

[2] While an extensive survey of regional SMEs has already been conducted by APEC (1994 and 1998) for individual member countries, a rigorous comparative analysis of regional SME developments both before and after the financial crisis of 1997-98 has been lacking. In Harvie and Lee (2002), however, a national case study approach is presented that analyses the impact of the crisis upon regional economies.

[3] This section draws extensively upon Hall (1995).

countries is contained in Table 1[4]. As can be observed from this table, in practice, the actual definition used in a number of countries is often quite complex. This is particularly so for Japan, Malaysia, Taiwan and Thailand. In Taiwan, for example, an enterprise may be regarded as an SME for the purpose of receiving government assistance, even though it may not presently meet the general criteria, provided it did meet the criteria in the immediately preceding years. Statistics on SMEs often exclude cottage and micro enterprises. In addition, some economies distinguish between different types of SMEs. For example, China distinguishes between township and village enterprises (TVEs) and SMEs, and Singapore distinguishes between local and overseas SMEs. Although some economies use the same measure to define SMEs, it may result in a different classification in different economies. A medium sized manufacturing enterprise in Australia may be viewed as a large enterprise in another country. Ideally, from an international comparative analysis perspective, it would be desirable to have one common definition for SMEs. Although the definitions differ they have one thing in common; the vast majority of SMEs are relatively small and over 95 percent of SMEs in the region employ less than 100 people. This still enables, therefore, broad comparisons of the role of SMEs across countries despite the differing definitions. In addition, while different definitions are adopted they do not fundamentally affect the key issues pertinent to SMEs.

Table 1.: Summary of Main Definitions of SMEs in selected APEC Economies

Country	Definition of SME	Measure
Australia	*Small enterprises*: Manufacturing - less than 100 employees Services - less than 20 employees *Medium enterprises*: Manufacturing - 100-499 employees Services - 20-499 employees	Employment
Canada	*Manufacturing*: small enterprises, less than 100 and less than CDN$5 million in sales. Medium enterprises 100-500 employees and between CDN$5-20 million in sales. *Services*: small enterprises, less than 50 employees and less than CDN$5 million in sales. Medium enterprises 50-500 employees and Between CDN$5-20 million in sales.	Employment Sales
PR China	In general: small enterprises 50-100 employees; medium enterprises 101-500 employees.	Employment
Indonesia	Less than 100 employees	Employment
Japan*	*A. SMEs*: Mining, manufacturing, transportation, construction industries: less than 300 employees, or less than ¥100 million invested capital	Employment Assets

[4] See APEC (1998).

	Wholesalers: less than 100 employees, or less than ¥30 million invested capital. million assets Retailers, services: less than 50 employees, or less than ¥10 million invested capital. *B. Small scale enterpris*es: Manufacturing and other industries: less than 20 employees. Commerce and services: less than 5 employees	
Korea	*Manufacturing* - less than 300 employees, Won 20-80 billion of capital (assets) *Mining, transportation* – less than 300 employees. *Construction* – less than 200 employees *Commerce and other service business* - less than 20 employees	Employment Assets
Malaysia	Varies. Manufacturing: up to 150 full time employees, annual sales turnover not exceeding RM25 million. Definitions are for SMIs**. Different for Bumiputera enterprises.	Employment Sales Shareholders' Funds
New Zealand	Up to 50 employees	Employment
Philippines	*Small enterprises*: 10-99 employees, and between P1.5-15 million in assets. *Medium enterprises*: 100-199 employees, and P15-60 million in assets.	Employment Assets
Singapore	*Manufacturing* - less than S$15 million in fixed assets. *Services* - less than 200 employees, and fixed assets less than S$15 million.	Employment Fixed assets
Taiwan	*Mining, quarrying, manufacturing and construction industries* - less than 200 employees, less than NT$60 million of invested capital. *Service industries and others* – less than 50 employees, less than NT$80 million of sales volume.	Employment Capital Sales
Thailand***	Manufacturing: *small enterprises*, less than 50 employees, less than 20 million baht of investment capital (not including fixed assets). *Medium enterprises* 50-200 employees, 20-100 million baht of fixed assets, 20-100 million of invested capital (not including fixed assets).	Employment Capital Fixed assets
USA	*Manufacturing*: less than 500 employees *Non manufacturing*: less than US$5 million In sales	Employment Sales
Vietnam	Manufacturing and non manufacturing: *small enterprises*: less than 30 employees and less than 1 billion dong in capital. *Medium enterprises*: 30-200 employees and between 1-4 billion dong in capital.	Employment Capital

* In accordance to the Small and Medium Enterprise Basic Law
** Small and medium industries
*** Manufacturing enterprises only

Source: APEC website http://www.actetsme.org, Hall (1995).

2.2 Role and importance of SMEs to the region

Although SMEs are important across the region there are considerable differences in the role of SMEs in the various economies. For example, SMEs play a larger structural role in Taiwan, China, Japan, Thailand and Vietnam where they contribute over 70 percent of employment, than they do in Indonesia or Malaysia where they contribute only around 40 percent. In addition, the contribution of the SME sector to exports, and hence the extent of their global integration, also varies widely. They are relatively more export oriented in China, Korea and Taiwan than they are in Japan, Indonesia, Thailand, Malaysia and Singapore. Similarly, the dynamic role that SMEs play varies widely. For example in Singapore, even though SMEs are not as significant in terms of numbers and employment, they are important in providing a flexible skilled production base that attracts larger multi national corporations (MNCs). The dynamic role that SMEs have played has varied between the various countries. More recently in the case of China, and somewhat reluctantly in the case of Vietnam, entrepreneurial private SMEs and rural enterprises[5], during the early part of the reform process, have been pivotal in the transition process from a planned to market oriented economy.

They have contributed to more efficient resource allocation, the marketisation of these economies, and are increasingly important in creating new jobs and in expanding exports. In the case of Taiwan, SMEs have played a pivotal role in the country's economic development from the beginning. More recently, however, they have been facing increased competition from SMEs in China and Vietnam, because their traditional low cost base is rapidly being eroded. As a consequence they have had to move up the high technology ladder in order to remain globally competitive. Recognising this requirement, the government has been actively assisting in this process.

Numbers and contribution to employment

SMEs have played, and are increasingly playing, an important economic role in the individual economies of East Asia, in the broader regional economy including that of APEC and, more generally still, the global economy. This is especially so from the point of view of creating employment, as a source of innovation, generating exporting opportunities, as the source of future successful medium and large enterprises, and as a major source of both domestic and global competition. Developments in information technology and movement towards greater global trade and financial integration, implies even greater opportunities for the further expansion and increased competitiveness of regional SMEs. By the late 1990s they contributed well over 90 percent of regional enterprises and were variously estimated to contribute between 50

[5] The so-called township and village enterprises (TVEs).

to 88 percent of the total employment in individual regional economies (see Table 2, APEC (1995), Hall (1995, 2000, 2002))[6]. Consequently, SMEs have the potential to make a major impact on workforce training (Hall (2000), p.2). The contribution of SMEs to employment growth is even higher, if somewhat contentious. Figures for Asia are not available, but in more mature economies, and where reasonably reliable studies are available, as much as 70 percent or more of net employment creation was attributable to SMEs in the 1990s.

Tables 3 and 4 indicate the distribution of enterprise numbers, and employment, by firm size across a number of regional economies. Table 3 indicates that in many of the regional economies most of their SMEs are micro enterprises. That is enterprises employing less than 5 employees. Table 4 suggests that SMEs generally contribute more than 50 percent of employment but that the contribution tends to be proportionally more from medium sized businesses, defined as those employing between 20 and 99 people. Medium sized enterprises typically make up only about 4 percent of all enterprises (or about 20 percent of manufacturing enterprises) but they employ about 20 percent of the workforce (or about 30 percent of the manufacturing workforce). Across the region, while there are a considerable number of SMEs, and about 80 percent of these are micro businesses, micro business does not contribute much to overall employment. Typically only about 10 to 20 percent.

Table 2 SME Profile by Economy

	population millions (1)	approximate number of SMEs millions (2)	% of all businesses (3)	% employed (3)	people per SME
Australia	18.3	1.00	97%	50%	18
China	1244.2	8.00	99%	78%	155
Hong Kong	6.5	0.29	98%	61%	22
Indonesia	203.4	[16.00] 2.00	98%	88%	[13] 92 (4)
Japan	126.0	5.08	99%	78%	25
Korea	45.7	2.67	99%	73%	17
Malaysia	21.0	na	84%	12%	na
New Zealand	3.8	0.30	98%	52%	13
Philippines	71.4	0.50	99%	66%	142 (5)
Singapore	3.4	.96	91%	52%	35
Chinese Taipei	21.7	1.02	98%	78%	21
Thailand	59.7	0.67	96%	18%	89
Vietnam	76.5	na	na	85%	na
Total	1,901.6	22.2			

(1) source: APEC and Economist. Figures are for 1998 - 1999
(2) estimates only except for Australia, Japan, New Zealand
(3) APEC, Profile of SMEs in Asia, 1998. Figures depend on definitions for SMEs which distorts Malaysian and Thai figures. Malaysia defines SMIs - or small medium industries, so it emphasises mostly SMEs in manufacturing industries.

[6] The figures for SME employment in Malaysia and Thailand are distorted. See footnote 3 in Table 2.

(4) figures based on establishments and from the BPS Industrial Census of 1996 in [ ]. Note that estimates by Department of Commerce and Industry suggest that there were only about 2.2 million SMEs in Indonesia in 1996, which translates into 92 people per SME.
(5) figures based on establishments.

Tables 3 and 4 suggest that for many of the developing economies in the region they have many very small SMEs and a dominant large enterprise sector, but they do not have many enterprises in between. Hence there is a “missing middle”. This contrasts with the more developed economies where medium sized enterprises contribute significantly to employment, and are a major source of high growth firms that contribute significantly to employment growth.

Contribution to Sales, Output, Value Added

Estimates of SME contribution to economic value added, sales, or output are difficult to obtain for the East Asian region, and more difficult to interpret in comparable terms. The contribution to GDP is particularly difficult to obtain, but SMEs have been typically estimated to contribute somewhere between 30 percent and 60 percent of GDP (Hall (1995)). Table 5, taken from Hall (2002), shows that SMEs contribute about 50 percent of value added or sales on average, but that this ranges from about 30 percent to about 70 percent. Small and micro firms make a significant contribution in developing economies (about 50 percent of output in China and Philippines for example), but less in the more developed economies.

Table 3 Percent of enterprises by size class

	micro	small	medium	large	
Australia	80.0	15.8	3.3	.5	1996
China		96.1	2.8	1.1	1996 census
Hong Kong				na	
Indonesia	95.6	3.8	0.5	0.06	
Japan		73.5	22.2	4.3	Manufacturing
Korea	 85.0	73.2 8.4	22.9 6.2	3.9 0.3	Manufacturing Services
Malaysia	na	na	na	na	
New Zealand	84.0	12.0	2.0	2.0	1999
Philippines	88.4	9.8	0.8	1	1996
Singapore		40.7	42.2	17.1	Manufacturing
Chinese Taipei		70.00	28.07	2.4	1996
Thailand	79.4	18.5	2.0	.01	
Vietnam	na	na	na	na	

Sources:
Australia - ABS Small Business in Australia
China - Statistical Yearbook
Indonesia - BPS
Japan - JSBRI/MITI, White Paper on SMEs
Korea - Hong et al
New Zealand - Ministry of Commerce
Philippines - statistics provided by NSCB and BSMBD
Singapore - Census of Industrial Production
Chinese Taipei - White Paper on SMEs, SMEA
Thailand - Statistics Thailand - Industrial Census

SME wage payments typically make up over half of GDP in regional economies, and hence are important for domestic demand expansion, and for the generation of savings funds (Hall (2000), p.2).

Contribution to exports

There is very little information on those SMEs that export and import goods and services. Hence reliable estimates of the proportion of exports generated by SMEs are traditionally difficult to obtain. The proportion of exports produced by SMEs in Asia is, however, large by OECD and world standards. Table 6 draws upon figures presented in Hall (1995, 2000) which shows that, weighted by GDP for the East Asian

Table 4 Employment by size class

	micro	small	medium	all SMEs	
Australia	14.3	22.3	22.5	68.15	1996/7 (1)
China	na	na	na	78.0	na
Hong Kong	na	na	na	61.0	
Indonesia	na	na	na	88.0	
Japan	11.2	10.1	31.2	71.9 78.0	manufacturing 1997 1996 all
Korea	10.5	11.7	30.5	69.3	Manufacturing Services
Malaysia	na	na	na	12.0	
New Zealand	23	18	19	60.0	1999
Philippines	25.5 53.2	17.7 27.4	8.2 5.5	51.6 86.3	Manufacturing Services 1995
Singapore		5.2	20.6	25.8	Manufacturing
Chinese Taipei	na	na	na	na	
Thailand	na	na	na	na	
Vietnam	na	na	na	na	

Sources - as for Table 3 unless otherwise noted
(1) ABS 1321.0 1999 p 31 Table 2.5 private sector only.

countries identified, SMEs generally contribute as much as 35 percent of direct exports[7]. However, this does vary widely between countries. Export growth rates are generally higher than GDP growth rates, and, where figures are available, the rate of growth of SME exports is higher than the growth of overall exports. This points to SMEs in Asia already being significantly internationalised, and becoming more so. It is difficult to gauge the importance of SMEs by size of firm because few countries keep such export statistics. In addition, many SME exports are made indirectly via a larger firm or an agent, and are difficult to attribute to SMEs even when statistics are kept. The indirect contribution to exports is likely to be larger, however, and is probably close to 50 percent for APEC Asian economies.

[7] The equivalent figure for selected OECD countries, where estimates and statistics were available, was 26 percent.

The weighted[8] contribution of international SME exports to the GDP of those economies for which export figures are available is about 4 percent for the OECD countries (6 percent if indirect exports are included), and about 12 percent for the Asian economies. These figures are indicative only. They assume, for example, that where only manufacturing SME export figures are available that these are representative of exports generally in that economy. Similarly the estimates use the indirect export figure for SMEs where this is available, but for most economies it is not. Hence the overall contribution of SMEs to exports is likely to have been understated. In addition, SME foreign direct investment (FDI) is usually export oriented, thereby adding further to the potential for regional exports and technology transfer (Hall (2000), p.2).

Table 5 Contribution to output, sales, or value added

	micro	small	medium	all SMEs	
Australia	na	na	na	30%	1997/8 Sales all sectors
China		49.4	16.7	66%	Industrial only 1996 gross output
Hong Kong				~63%	all sectors
Indonesia				na	
Japan	4.1	5.1	22.0	50.8 42.5 56.6	Manufacturing 1997 all SMEs - sales all SMEs value added
Korea	 16.5	9.6 8.4	20.2 38.4	46.3 63.2	Manufacturing Services
Malaysia				na	
New Zealand	19.0	16.0	20.0	55.0	Sales 1998
Philippines	35.8 24.0	12.0 30.1	10.8 8.4	26.5 62.7	Manufacturing Services value added 1995
Singapore		2.7	11.8	14.5	Manufacturing
Chinese Taipei		na	na	32.0	Sales 1997
Thailand				na	
Vietnam				na	

Sources as for table 3 unless otherwise noted.

This international role for SMEs in the East Asian region remains volatile, however, for three reasons. First, export markets are inherently subject to volatility via currency and exchange rate movements. This was amply demonstrated by the 1997-98 crisis. Second, export markets are affected by general economic conditions in both the exporting and the destination economies. Third, structural competitive shifts occur that render SMEs in one economy uncompetitive with those in another in supplying

[8] By country.

global markets. These variations can lead to shifts in demand of ± 50 percent at least over two to three years, and more in the longer term as structural changes flow through. This volatility has important implications for the stability of the SME sectors and for the continued growth of the regional economies. Hence the financial crisis of 1997-98 could be expected to have had important implications for the growth of this sector.

Table 6 Structural contribution of SMEs to exports 1991-2

	GDP $US millions	Exports as per cent of GDP	Share of SMEs in total Exports %
Japan	3 337 191	12	13.5
PRC	435 000	21	40 - 60
Korea	285 000	27	40
Indonesia	128 000	23	10.6
Chinese Taipei	210 000	44	56
Thailand	108 000	29	10
Malaysia	60 000	72	15
Singapore	46 000	138	16
Vietnam	14 000	7	20
weighted contribution	11.7		30 -35%

Source: adapted OECD 1997

Note: ~ indicate estimate only. M = manufacturing only. Exports are direct exports by SMEs. This understates the true contribution of SMEs to exports.

Weighted contribution. For exports is the sum of GDP multiplied by the percentage of exports multiplied by the percentage of direct SME exports expressed as a percentage of total exports.

Contribution of SMEs to growth

SMEs make a major contribution to economic and, particularly, employment growth. Most of the available evidence suggests that SMEs contribute about 60 to 70 percent of net employment growth, so they are an important “Entrepreneurial Engine”. This contribution has two main aspects. First, the net addition of new firms, net start-ups, generate economic growth. About 80 to 90 percent of SMEs are micro enterprises, and they “churn”; that is, a significant proportion (between about 5 to 20 percent) “die” each year, while a similar proportion are “born” each year. If there is a net gain of births over deaths then this tends to add to overall economic growth, even though the average micro firm itself does not grow much in size. Second, it is the sustained growth of a relatively small group of successful (or high growth) firms that contributes significantly to economic growth. These firms typically survive for more than eight years, and often experience growth rates exceeding 30 percent per annum. It is only a relatively small percentage of SMEs (perhaps 5 percent or less) that contribute significantly to overall growth in this way, but their contribution can be quite large (see Hall (2002)).

A number of observations can be made about the contribution of SMEs as the Entrepreneurial Engine of East Asia (see Hall (2002)). *First* it is clear that SMEs do provide the lion's share of growth. Typically, in the economies for which there are reliable data, about 70 percent of employment growth comes from SMEs. Anecdotally, even in economies for which there are no data, SMEs play a major role; for example almost all net employment creation in China, Vietnam and Indonesia in the last five to ten years has been in SMEs. In China and Indonesia, for example, large firms have been net job destroyers as they downsize - a phenomenon also common in Europe and the USA.

Second, the Entrepreneurial Engine is underpowered in much of East Asia, especially in the less developed economies of China, Indonesia, Philippines, Thailand and Vietnam. In these economies there are simply fewer SMEs than might be expected. Table 2 shows that the number of people per SME in these economies is much higher than in the more developed economies. This means that there are fewer start-ups, and the pool of SMEs from which high growth SMEs can emerge is much smaller. Consequently there is less growth than there would otherwise be. In a *very* rough order of magnitude calculation, for these economies to achieve a benchmark level of 20 people per SME, there would have to be about 70 million new SMEs created (See Table 7). This needs to be compared with the 20 million or so SMEs in *all* of East Asia at present. This means 70 million or more people will need managerial skills and training. Most of these are in China. Table 7 suggests that there is considerable room for advancement in the development of SMEs in countries such as Indonesia and Thailand, two of the three most adversely afflicted economies during the period of the financial and economic crisis. Not surprisingly, these countries have given increased emphasis to SME sector development, with the objective of providing a firm base for sustainable economic recovery, an expansion in employment opportunities, and as a means of alleviating poverty particularly in some of the more adversely affected regions in these countries. This situation is also similar to that in China and Vietnam, where, for historical, political, and cultural reasons, the development of the SME sector has also been retarded. Hence the sheer potential for SME start-ups in countries such as China, Indonesia and Vietnam could be a major source of job creation and growth for these economies in the future. In economies like Vietnam and Philippines, there need to be about 3 million or more additional managers. In the past this would be seen as a government responsibility, but the task is just to enormous to even contemplate for most governments. Changing technology (notably the www, and especially WAP access to the www) are changing this, and making it more feasible for the private sector to train large numbers of managers in a relatively short period of time, but it will still need public-private cooperation to achieve the sort of growth that is needed (see Hall (2002)).

Third, in developing East Asia the bulk of the SME contribution to growth will probably come from net start ups, while in developed East Asia, the growth contribution will tend to come more from high growth firms. Start-up rates tend to be relatively low, especially in Japan, which is the largest economy in the region. Japan's net start up rate (domestically at least) has been negative for some time. Part of this is the economic downturn, and part of it is cultural and institutional inhibitions to taking risk and starting a business. These cultural and institutional factors need to be actively addressed if East Asia is to really make use of the potential of its Entrepreneurial Engine.

Table 7 Estimated benchmark SME numbers in developing East Asia (millions)

	population	estimated number of SMEs now	benchmark SMEs if ratio is 20 people per SME	Additional SMEs needed to meet benchmark
China	1244.2	8.0	62.2	54.2
Indonesia	203.4	2.0	10.2	8.2
Philippines	71.4	0.5	3.6	3.1
Thailand	59.7	0.67	3.0	2.3
Vietnam	76.5	0.5	3.8	3.3
Totals	1655.2	11.7	82.8	71.1

Fourth, the Entrepreneurial Engine is being internationalised. For example, a small but significant proportion of SMEs in Japan, Korea and Chinese Taipei have already expanded operations abroad; about 13 percent of Japan's manufacturing output is now sourced abroad. It is becoming easier for SMEs to operate across borders. This is partly as a result of efforts to reduce trade and non-trade impediments by WTO, APEC and ASEAN. It is also part of the general globalisation of business occurring as a result of improved communications (particularly E commerce and the web) and other technological and social changes. This SME internationalisation is not limited to specific regions, such as East Asia, but is more global.

Table 8 summarises key common features, differences and policy issues, in the profile of SMEs in East Asia that have been discussed in this section.

Table 8 A Summary Profile of SMEs in East Asia/APEC

	Key features	Regional differences and policy issues
Numbers of Enterprises	1. There are about 20 to 30 million SMEs in East Asia. 2. They account for 98% of all enterprises. 3. Micro-enterprises account for about 73% of all private sector enterprises. 4. On average there are about 85 people for every SME.	1. Most of the SMEs are in China (8 million) and Japan (5 million) and Korea (2.6 million) which together have 70% of the SMEs in East Asia. 2. In developed economies there are only about 20 people per SME, but the ratio is above 100 in the developing economies, especially in China, Vietnam, Philippines and Indonesia.
Employment	5. SMEs employ about 60% of the private sector workforce, and 30% of the total workforce. 6. Micro-enterprises employ about 21% of total APEC wide employment. 7. Over 95% of enterprises employ less than 100 people, and over 80% employ less than 5 people. 8. SMEs contribute about 70% of net employment growth. 9. SMEs provide about 80% of employment in the services sector, and about 15% in the manufacturing sector. 10. Women make up about 30% of employers/self employed in APEC – mainly in micro-enterprises	3. In developing economies (below about $15,000 USD per head income) SMEs employ about 75% of people, above $15,000 the level is closer to 50%. Japan is a major exception - Japan's SMEs employ around 80% of the workforce. 4. More developed economies seem to have more medium sized SMEs and they play a greater role. Developing economies seem more likely to have a "missing middle". 5. In developed economies most of this growth probably comes from fast growth firms, in developing economies a higher proportion probably comes from net start ups.
Output measures (sales, value added etc)	11. SMEs contribute about 50% of sales, value added or output.	6. The contribution varies from lows of 15% (Singapore) and 30% (Australia) to about 60% for most other economies.
Exports	12. SMEs generate about 30% of direct exports (US$930 billion in 2000), much less than the SME contribution to employment (about 60% to 70%) or output (about 50%). 13. SMEs contribute indirectly to trade through supply chain relationships with other firms. SME contribution to total trade could rise to 50%.	7. SME exports figures are difficult to verify, but they range from about 5% or less (Indonesia) to around 40% (Korea) of total exports. 8. Tariff cuts have increased total APEC member trade, but the SME contribution to direct exports has remained static or declined. Reductions in tariffs have not benefited SMEs, more emphasis needs to be put on tackling non tariff barriers if SMEs are to benefit from trade expansion.
FDI	14. SMEs generate about 50% of cases of FDI, but only less than 10% of value of FDI.	9. Korean, Japanese and Chinese Taipei SMEs contribute most FDI originating in the East Asian region.
Entrepreneurial Engine, international potential, and the	15. SMEs already contribute the bulk of growth, and SMEs could make a much bigger contribution to the Asian	10. The developing economies need to create about 50 to 70 million more SMEs if they are to achieve "benchmark" levels of SME activity.

new economy.	regional economy if efforts were made to address impediments to SME internationalisation. This could add as much as $1.18 trillion in trade over a 5 year period. 16. SMEs moving towards services and away from agriculture and manufacturing.	11. To achieve maximum gain from trade it is essential to improve governance, building capacity, reducing transaction costs, promoting further liberalization, addressing non tariff barriers, increasing internet access and facilitating trade and investment to improve the capacity of SMEs to export. 12. Capacity building includes: access to finance; improved professional skills (IT, management, accounting and entrepreneurship); improved business infrastructure; removal of trade barriers that particularly adversely affect SMEs. 13. E-commerce use of SMEs lags larger enterprises. Important for cost saving and growth potential. Usage of technology a problem due to: set up and usage costs; lack of adequate infrastructure and IT skills.

Source: Hall (2002) supplemented by information from APEC (2002)

3. SME capacity building

In order for SMEs to fully participate in the process of globalisation they must develop capacities that will enable them to be internationally competitive in global markets. This will involve building upon the advantages possessed by them – entrepreneurial spirit, flexibility, resourcefulness, and an ability to identify business opportunities and market niches based upon their unique products and services. Despite this they face a number of barriers in their development – their small size means that they have limited resources and access to finance, they lack economies of scale, they have high relative costs in accessing and utilising information technology, they have skill deficiencies in the utilisation of IT, they have entrepreneurial, managerial, accounting and marketing skill deficiencies, they lack information on market opportunities, they have high transaction costs arising from accessing transport infrastructure and in the cost of transportation, achieving quality accreditation, they lack skills in dealing with customers both in the domestic market and in the export market, they have limited knowledge about language and culture as well as the legal and bureaucratic issues involved in exporting, they may experience a lack of business infrastructure support and in some countries may be discriminated against relative to large firms.

Building capacity, improving governance, reducing transaction costs, promoting further market liberalisation, addressing non-tariff barriers, increasing internet access, and facilitating trade and investment are all directly relevant to improving the capacity of small businesses to exploit export market opportunities and for their regional growth.

At the Ottawa meeting of APEC in September 1997, for example, five key areas of importance to the capacity building of SMEs were emphasised. These are access to: markets; technology; human resources; financing; and information.

- ***Access to markets***. SMEs are recognised as facing special problems relating to their size and that, in the context of rapid trade liberalisation, they need to develop capacities to take advantage of opportunities arising from a more open regional trading system. The Internet is regarded as being of particular importance in this regard, as is the need to identify appropriate partners for joint ventures or strategic alliances, to harmonise standards and professional qualifications, including investment laws and taxation procedures, and the protection of intellectual property rights. As indicated in Table 8, despite cuts in average tariffs in APEC from 12 percent in 1995 to 8 percent in 2000 that resulted in an estimated growth rate in merchandise exports of 4.7 percent per annum during 1995-200, there is a perception that small businesses have been unable to fully exploit opportunities to export. The SME contribution to direct exports has remained static or declined. Reductions in tariffs have not benefited SMEs, and more emphasis by regional governments needs to be put on tackling non-tariff barriers (customs procedures, mobility of business people, standards of labeling requirements, access to finance, recognition of professional qualifications, consumer protection particularly regarding on line transactions, and intellectual property rights) if SMEs are to benefit from trade expansion and to enhance their exporting capacity. Greater participation by SMEs in trade is likely to generate a number of benefits. With access to a larger market, individual firms will be able to benefit from economies of scale and generate additional revenue (APEC, 2002). In terms of efficiency, firms which expose themselves to more intense competition in global markets can acquire new skills, new technology and new marketing techniques. Exporters tend to apply knowledge and technologies at a faster rate and more innovatively than non-exporters. This can result in greater efficiency and productivity. A larger number of SME exporters assists skill and technology applications by spreading these over many small buyers and speeding up a multiplier effect, which extends the gains over the entire economy and not just firms that export. Ultimately, the economy will benefit from more flexible and environmentally responsive firms, higher growth rates and long-term improvements in productivity and employment levels. Exporting has a positive effect on living standards, as competition drives firms to invest in staff development, which in turn improves productivity, wages and working conditions. Exporting also encourages cultural diversity and the building of relationships and reputations with other countries.

- ***Access to technology***. In a knowledge-based economy, applications of information and communications technology can be a great leveler for SMEs. However, when SMEs have limited access or understanding of these technologies, their prospects of acquiring and utilising these for their benefit is reduced. In terms of the Internet, e-commerce use amongst small businesses is currently lagging behind their larger counterparts. However, many small businesses view e-commerce as providing cost savings and growth potential, and the gap relative to larger enterprises is closing but further action by regional governments will be required (in terms of improved infrastructure, cost, and IT training, as well as information relating to the business opportunities that e-commerce can generate). Enhancing the role and participation of small businesses in the global marketplace through e-commerce will be of critical importance. E-commerce presents small businesses with the opportunity to compensate for their traditional weakness in areas such as access to new export markets and competing with larger firms. It can provide global opportunities by enabling the flow of ideas across national boundaries, improving the flow of information and linking increased numbers of buyers and sellers. This provides opportunities for greater numbers of trading partners dealing in goods and increasingly in services. Studies suggest that small businesses with higher levels of e-commerce capabilities are more likely to identify using e-commerce to reach international markets as an important benefit. Hence the desire to export for many SMEs may have a fundamental influence on promoting the rapid development of more advanced e-commerce capabilities. For many small businesses in the Asia-Pacific region, integrating the development of e-commerce into their future strategies for accessing international markets is seen as being crucial. E-commerce also has the potential to lead to cost savings and efficiency gains. Raising the awareness as well as the understanding of the benefits to be obtained from e-commerce will be important in increasing its uptake by small business. To incorporate the technology into their operations small business needs to find ways to deal with high set-up costs, as well as lack of adequate infrastructure and IT skills. If these can be overcome small business will play an important part in the region's 'new economy' at least as much as it will for more traditional forms of commerce. In this regard the role of the government is likely to be crucial. This includes: development of the telecommunications infrastructure; addressing legal and liability concerns; ensuring that fair taxation practices are applied to e-commerce; addressing security issues; and raising the awareness of the business benefits of e-commerce, including the potential for export growth.

- ***Access to human resources***. Human resource development for SMEs requires a comprehensive approach including: social structures and systems such as broad educational reforms; encouragement of entrepreneurship, business skills acquisition and innovation in society; mechanisms for self learning and ongoing training and enhancement of human resources; and appropriate governmental support programs. Among small and micro enterprises a shortage, and cost, of skills in information technology are a major hindrance to business growth. Consequently staff training in IT as well as in skills required to successfully enter export markets are required. Improved IT skills would enable more efficient management of the business, enable workload sharing, and the development of more market opportunities including that of exports. Other desired exporting skills include language and cultural expertise, as well as legal and logistical knowledge.

- ***Access to financing***. The opportunity to access small amounts of finance can be an important catalyst for small businesses to get access to the resources they need to gain a foothold in the market. This is particularly critical for micro-enterprises. Many SMEs lack awareness of financing resources and programs available from commercial banks and other private sector and government sources, and that they have difficulty defining and articulating their financing needs. Financial institutions need to be responsive to their needs and for continuing simplification of trade documentation.

- ***Access to information***. Accurate and timely information on, for example, market opportunities, financial assistance, access to technology is crucial for SMEs to compete and grow in a global market environment. This is an important role that both the government and relevant business organisations can play

In addition to these key areas for capacity building, another relates to the development of business networks, including the development of strategic alliances and joint ventures.

- ***Inter-firm networking.*** Entrepreneurs who develop and maintain ties with other entrepreneurs tend to outperform those who do not. A network is a group of firms using combined resources to cooperate on joint projects. Business networks take different forms and serve different objectives. Some are structured and formal, even having their own legal personality. Others are informal, where, for instance, groups of firms share ideas or develop broad forms of cooperation. Some aim at general information sharing while others address more specific objectives (such as joint export ventures). Soft networks generally encompass a larger number of firms than hard networks, with membership often open to all that meet a minimum requirement (such as payment of an annual fee). Networks have come to encompass agreements with research bodies, education and training institutions and public authorities. Hard networks are more commercially focused, involving a limited number of pre-selected firms, sometimes formally and tightly linked through a joint venture/strategic alliance. Networks can allow accelerated learning. Moreover, peer based learning – which networks permit – is the learning medium of choice for many small firms. Furthermore, to innovate, entrepreneurs often need to re-configurate relations with suppliers, which networks can facilitate. Networks can allow the sharing of overhead costs and the exploitation of specific scale economies present in collective action. Networks need not be geographically concentrated. Once trust among participants is established, and the strategic direction agreed, operation dialogue could be facilitated through electronic means.

- ***Innovation.*** Recent studies have shown that despite the fact that a very small fraction of total business R&D in the developed economies is accounted for by SMEs, they contribute greatly to the innovation system by introducing new products and adapting existing products to the needs of their customers (OECD 2000a). Small firms account for a disproportionate share of new product innovation despite their low R&D expenditures (Acs and Audretsch (1990)). In addition, they have also been innovative in terms of improved designs and product processes and in the adoption of new technologies. Investment in innovative activities is on the rise in SMEs and is increasing at a faster rate that that for large firms. Scherer (1988) has suggested that SMEs possess a number of advantages relative to large firms when it comes to innovative activity. First, they are less bureaucratic than highly structured organisations, Second, many advances in technology accumulate on a myriad of detailed inventions involving individual components, materials and fabrications techniques. The sales possibilities for making such narrow, detailed advances are often too small to interest large firms. Third, it is easier to sustain high interest in innovation in small organizations where the links between challenges, staff and potential rewards are tight. Firms in the developed high cost economies can no longer compete in labour intensive areas of production where they have lost their comparative advantage, but rather must shift into knowledge based economic activities where comparative advantage is compatible with both high wages and high levels of employment. This emerging comparative advantage is based on innovative activity. For the developed economies of East Asia, their future international competitiveness will also depend upon their ability to develop, and have a capacity in, knowledge intensive firms, many of which will be SMEs based upon the experience of the developed OECD economies.

The role of government

Finally, regional government's have an important role to play in the capacity building of their small businesses. While government strategies to assist SME capacity building depends upon the country's stage of development, there are some basic principles of successful SME development strategies. First, the establishment of a level playing field. The fundamental key to a successful SME development strategy is the establishment of a business environment that helps SMEs compete on a more equal basis. To establish a level playing field, governments need to re-evaluate the costs and benefits of regulations that place a disproportionate burden on SMEs, implement regulations with the flexibility needed by SMEs, and place greater emphasis on competition and procurement policies to open SME access to markets. Second, to carefully target public expenditure in order to use scarce public resources effectively. Governments need to design a clear, coordinated strategy for SME development that carefully separates equity and efficiency objectives. Public expenditure should be confined to those services and target groups that are under-served by the market and for which there is a clear justification based on public goods or equity considerations. Using the methodology of micro-finance, good practice in the delivery of services to SMEs can be judged according to the performance criteria of coverage, cost effectiveness, financial sustainability and impact. Third, encourage the private provision of a wide array of financial and non-financial services. In most developing countries, SMEs do not have access to institutions and instruments appropriate to their needs. To ensure SME access to a diverse range of financial and non-financial services, governments should strive to develop private markets for services suitable for SMEs, stimulating market development on both the demand and supply side.

Government assistance can also play an important role in the business and exporting success of SMEs through access to finance, infrastructure provision, the provision of training programs, reducing bureaucracy and establishing a pro-business environment, and the staging of seminars and trade fairs. Support at the local level through investment in infrastructure that assists directly the business efficiency of small business is important. Examples include transport and information technology infrastructure, both of which are important for export success. Policy makers also need to focus on removing barriers affecting trade. Barriers to trade for small businesses are not just tariff related, however, but also involve issues of product presentation standards, *warehousing* and financial transactions. Because small businesses lack the economies of scale and the internal expertise of larger businesses they need more practical external support.

4. Globalisation and export success

4.1 Stairway to export success

The key drivers of export success for small businesses can be usefully described using the model of export development as set out in Figure 1. This model identifies four key components of export success - ability, attitude, stimuli and learning. Each of the four components of the stairway to export success are not necessarily sequential, hence there is no one set track to export success. Firms can venture into exporting at different stages of their development and by different means. It is possible for some businesses to be ‘born global’ and identify their export market very early in the development of their business, while others may only look for an export opportunity after they have consolidated their domestic market and attempt to increase turnover or see improved margins. Others only contemplate exporting when confronted by a customer from another country seeking to access a particular product.

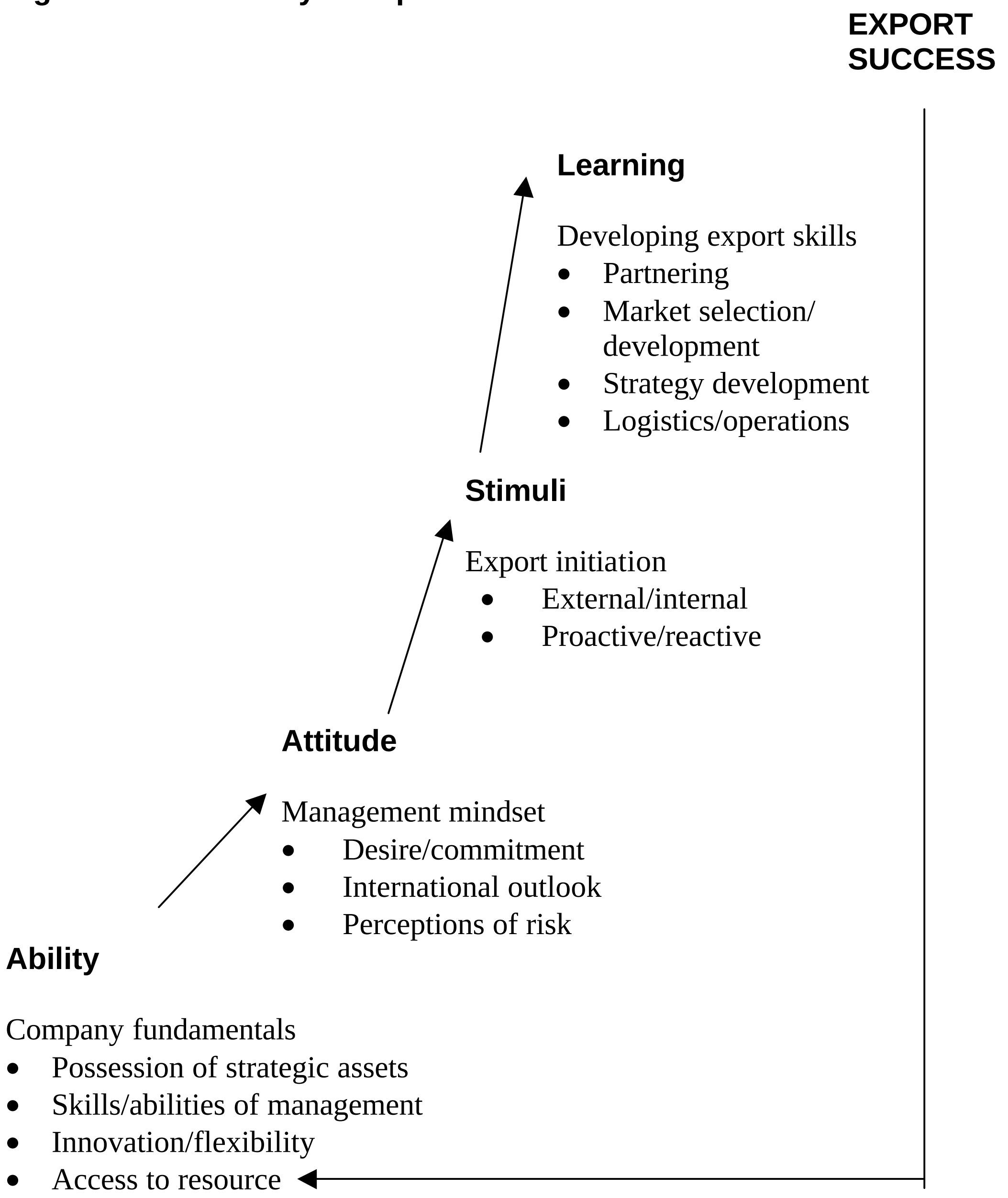
A key step towards export success relates to company fundamentals or core competencies. This would include the possession of strategic assets or competencies that provide the business with a unique product or process, upon which the enterprise can capitalize through the development of domestic and overseas markets. The skills (IT for example) and abilities of the management and workforce is also another key ingredient. The introduction of the Internet, together with good communications and transport infrastructure, now makes it possible to sell the firms product to global customers. The flexibility and innovation association with the enterprise can be another firm asset. Finally, access to finance in order to develop and fully exploit the core competencies of the enterprise itself is important.

A second key ingredient is the attitude of the owner/manager of the business in terms of desire and commitment to the successful development of the business; ability to have an outlook for the future development of the business beyond that of the domestic market; and the perceptions towards risk. That is the attitude towards the development of markets overseas relative to that of merely focusing upon the domestic market, and the willingness to take risks in developing markets overseas.

A third component relates to stimuli to exporting. This could occur externally to the enterprise arising from a marketing opportunity, or the result of internal decision-making within the business to seek out exporting opportunities. The stimuli could be proactive or reactive.

The final component relates to the development of exporting skills, including that of: developing partnerships; market selection and development; strategy development; and the development of logistics and operations.

Figure 1 Stairway to export success



Source: Exporter community, identifying potential exporters, literature review, Dr Chris Styles, 2000.

4.2 Competitiveness strategies

As many of the economies in East Asia develop further, for example Singapore, Hong Kong, Taiwan and Korea and the newly industrializing economies of Malaysia, Thailand and Indonesia, they will increasingly find it difficult to compete in labour intensive, low skilled and low value added activities. The ability of their SMEs to create, access and commercialise knowledge on global markets will become an increasingly important source of their new competitiveness in global markets. Based upon the experiences of developed country members of the OECD, some of the principle competitiveness strategies that have been used by innovative SMEs in these countries have included the following (see OECD 2000a, p.11):

- *Innovation strategy*, in which SMEs try to appropriate returns from their knowledge base (which may or may not involve own investments in R&D).
- *Information technology strategy*, which makes innovative uses of information technology in order to reduce SME costs and increase productivity.
- *Niche strategy*, in which SMEs choose to become sophisticated global players in a narrow product line.
- *Network strategy*, in which SMEs work and co-operate with other firms, be they SMEs or large enterprises, in order to improve their ability to access and absorb innovations.
- *Cluster strategy*, in which SMEs locate in close proximity with competitors in order to take advantage of knowledge spill-overs, especially in the early stages of the industrial lifecycle.
- *Foreign direct investment strategy*, in which SMEs exploit firm specific ownership advantages overseas.

Membership of clusters and inter-firm networks can enhance the productivity, rate of innovation and competitive performance of firms. Clusters and networks can allow small firms to combine the advantages of small scale (flexibility) with the benefits of large scale (economies of scale). A clusters policy provides a framework for dialogue and cooperation between firms, the public sector (local and regional governments) and non-governmental organisations. This dialogue can lead to efficiency enhancing collaboration amongst firms, such as in joint marketing initiatives, the creation of mutual credit guarantee associations, joint design and sponsorship of training, a more efficient division of labour amongst firms etc. In a period of globalisation, inter-firm networks hold the promise of allowing small firms to compete on a par with larger companies. Networks can allow firms to engage in accelerated – and peer based – learning. They can facilitate the reconfiguration of relationships with suppliers, and offer scope for increased efficiency through collective action. As with clusters, networks can pave the way for greater specialisation amongst small firms, opening opportunities for economies of scope and scale. While not all networks need be geographically concentrated, networking of different sorts is central to the competitive advantage derived from membership of a cluster.

5. Conclusions and policy implications

This paper has reviewed the strategic importance of SMEs to the East Asian economy, key issues relating to the building of their capacity to grow and export, and key issues relating to their export success and strategies for global competitiveness. In the process a number of key issues for policy makers were identified.

First, SMEs (generally those enterprises with less than 100 employees) are important to economic growth, and are especially important to jobs and job creation. SMEs already contribute over half the private sector jobs in the East Asian region, and about 70 percent of new job creation seems to be coming from SMEs. In developing economies the contribution of SMEs to employment tends to be higher, around 70 percent of the workforce, but as economies develop to higher income per head levels, the contribution to employment by SMEs tends to decline to around 50 percent. In developing economies the jobs tend to be created more by start-ups, but in the developed economies jobs seem to be created more by high growth SMEs. It is important for policy makers to understand and to foster the way this Entrepreneurial Engine works and evolves.

Second, the Entrepreneurial Engine in developing East Asia from the data provided in this paper appears to be underpowered. That is the job creating potential of SMEs is less than it could be. There are about 2 billion people in East Asia, and about 20 million SMEs. In most of the developed economies there are about 20 people per SME, but in developing East Asia there are about 100 people per SME. This means that the ability to create jobs by start-ups is greater, and the pool of SMEs from which fast growth SMEs emerge is smaller. This is largely due to historical and political reasons; for example, China and Vietnam have only followed policies to stimulate SME growth in the last decade or so, and there is a lot of catching up to do. Policy makers in both the developing and developed economies need to work with the private sector to address this aspect of catch up.

Third, internationally, SMEs have more opportunities than ever before, but they seem to be growing only at about the same rate as the international economy. SMEs contribute about 30 percent or so of direct exports, about what they contributed at the start of the 1990s, but is less than might be expected in an increasingly globalised economy. Part of the problem here is the paucity of statistics on SME international activity. Part of it is that the trade barriers that *have* been addressed so far by APEC and WTO tend to favour larger trading firms, and do not address the more specific non-border non-trade impediments that SMEs tend to be obstructed by when operating across borders. These impediments need to be identified and addressed more aggressively.

Fourth, SMEs have tended to become more important economically and politically. SMEs are given political recognition by most national and provincial governments because they employ so many people. However, politically, SMEs have tended to be taken for granted by many national governments because they are a relatively weak domestic political force. It is only in the last decade that SMEs have had the real choice of being able to internationalise, just as larger enterprises did in the 1950s and 1960s. SMEs, especially those fast growth SMEs that contribute much to economic and employment growth, can increasingly decide where to locate their business activity. This is very much a two edged sword for policy makers. However, they need to see that as much as 70 percent of the longer term growth for their economies comes from SMEs, and that there is a need to work together to build an attractive and conducive entrepreneurial business environment in the region, and, more specifically, in their own economies.

Fifth, key to the future success of SMEs will be capacity building which will enable them to take advantage of the market opportunities that arise from the process of globalisation and from greater economic integration within East Asia and APEC more generally. In particular SMEs and regional governments will need to focus upon attaining greater access to: markets, technology, skilled human resources, finance and information. In addition, their competitiveness and capacity can be further enhanced through the nurturing of networks and becoming more innovative both in terms of new products and services as well as processes. The role of government is crucial. It will be required to find means for enhancing SME access to finance, new technology and encouraging the take-up of e-commerce by SMEs through improved telecommunications infrastructure, provide training programs in the requisite skills for SMEs, opening up domestic markets and reducing non tariff barriers in trade with other countries.

Finally, there is no single track to SME exporting success. This will vary depending upon the circumstances of the SME – its product, industry, internal skills and motivations, as well as access to resources. In the future there will be an increasing need as regional economies develop to ensure that SMEs become more innovative in terms of both product and processes. The creation, access and commercialisation of knowledge will increasingly provide the basis for the future global competitiveness of regional firms both large and small. The increasing economic integration of regional economies and ongoing developments in information and communications technology, will provide market opportunities for SMEs that, if taken advantage of, will enable them to be the economic powerhouse of the region into the future.

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