

# **The Role of Banks in Supporting the Growth of SMEs in APEC; Public Private Partnerships to Create a more Conducive Entrepreneurial Environment in Asia**

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## **Synopsis**

There is a significant shortage of SMEs in Asia. Estimates suggest that China alone needs to create something like 50 million more SMEs in the next decade if it is to have an “entrepreneur density” comparable to that of most developed economies. This SME shortage has been formally recognised in some Asian countries; for example, Thailand now seeks to create 50,000 more SMEs each year, and almost all APEC economies now have policies which seek to build an internationally competitive SME sector. There is no lack of entrepreneurs in Asia, but many entrepreneurs find the business and regulatory environment they operate in is not conducive to start up and growth. Building a better and more conducive entrepreneurial environment is not simply the role of government, but finding incentives and means for the private sector to engage is a real challenge. One area where there is potential to make better use of the private public partnerships is via the banking system and on-line learning. It is widely recognised that SMEs need better access to finance, training, and information.

This paper:

1. briefly outlines the background evidence and issues related to entrepreneurship and its role in development and competitiveness in a globalising world;
2. examines the underlying evidence of some basic research questions, in particular whether improved training and information for SME managers, and of loan officers, reduces the risk associated with lending to SMEs, and whether on-line learning is a cost effective way of delivering such content.
3. outlines a specific initiative, the APEC Entrepreneur Consortium, which seeks to build a collaborative framework between a range of players (banks, banking associations, industry associations, content providers, on-line learning providers, government agencies, universities etc). This PPP seeks to explore models to reduce the average cost and improve the effectiveness of content and delivery, and so provide SMEs with better access to finance, training and information.

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## I. Introduction - the challenge of entrepreneurship in Asia

The *Profile of SMEs and SME Issues in APEC 1990 - 2000* (Hall, APEC, 2002) has shown that there is a shortage of about 50 to 70 million SMEs in the developing Asian economies of APEC. It has also shown that entrepreneurs and SMEs are a major engine of growth and jobs. SMEs contribute around 60% of private sector jobs in APEC, about 50% of output, and about 30% of exports. Most developed economies have an entrepreneur density of around 5%; that is about one person in twenty is managing a formal SME. For many Asian economies the density is much lower (Hall (2002b)). This is illustrated in table 1 below.

**Table 1 - Entrepreneur ratios for APEC economies  
(number of people in the general population per SME)**

	1990	1997 or 1998
<i>Australia</i>	22.3	16.7
Brunei	66.6	61.6
<i>Canada</i>	32.5	32.4
<i>Chile</i>	31.1	29.2
China	131.9	153.4
<i>Hong Kong, China</i>	20.7	22.3
Indonesia	14.8	12.5
<i>Japan</i>	19.1	19.7
Korea	20.5	17.0
<i>New Zealand</i>	21.1	19.6
Philippines	781.2	245.1
Russian Federation		173.3
<i>Singapore</i>	86.0	57.5
<i>Chinese Taipei</i>	25.3	20.6
Thailand	873.4	75.8
<i>United States</i>	18.0	16.8
Ratio all APEC economies	48.7	44.7
<b>Ratio - 2010 economies</b>	<b>19.6</b>	<b>18.6</b>
Ratio - 2020 economies	78.8	68.7
Unweighted average	144.3	60.8
<i>Unweighted Average 2010</i>	<i>30.7</i>	<i>26.1</i>
Unweighted Average 2020	221.4	82.3
standard deviation - all	279.7	69.2

Notes:

- The entrepreneur ratio is the total number of SMEs (including non employing and self employed enterprises where these data are available) divided by the total human population for each economy. The ratio for "all APEC economies", "2010 economies", or "2020 economies" is the sum of the SMEs divided by the sum of the population for the relevant set of economies. The above figures give the numerators of the ratio.
- Unweighted average is the average of the non zero statistics for relevant APEC economies (all, 2010, and 2020). Unweighted averages are the averages of the actual figures in the relevant column, not weighted by the size of the economy (which thus gives relatively less weight to large economies like China and USA and more relatively more weight to small economies like Hong Kong China and Chinese Taipei).
- 2010 economies are those economies which are committed to APEC goals of trade liberalisation by the year 2010. These are indicated in *italics*, and are usually developed economies.
- 2020 economies are those APEC economies which are committed to APEC goals of trade liberalisation by 2020. These are usually developing economies. The following 2020 economies are not included in the table because there were insufficient data: Malaysia, Mexico, PNG, Peru, and Vietnam. Data for Thailand and Indonesia are probably not reliable.

Source - Hall C (2002b),

What this means is that in many Asian economies there are relatively few people who have the experience of starting up and managing a formal SME. For example, on the basis of an entrepreneur ratio of 1/20 and a population of about 1.2 billion, then China should have about

50 to 60 million SMEs, and a corresponding number of active entrepreneur managers. Contrast this with its present situation of about 8 million SMEs, many of which are state owned, and only about 1 to 2 million private sector SMEs. That means that China would need to create about 50 to 60 million more SMEs, and the same number or more of entrepreneurs, over the next 10 to 20 years or so. A similar problem exists in Viet Nam, Thailand, Philippines, and Indonesia, though the origins are different in different economies.

There are probably about 240 million people in the APEC region who think about starting a business each year. If these nascent entrepreneurs can get better access to products and services aimed at meeting their information, advisory and functional management needs then they will be more likely to succeed. Increasing chances of the success of entrepreneurs will have huge implications for the growth and wellbeing in the APEC region. The creation of another 70 million SMEs, could in the longer term potentially add about \$USD 8 trillion per year to GDP in the region, and create about 400 million net new jobs. Conversely, unless economies such as China, Viet Nam, Indonesia, Philippines, Thailand can build a successful base of formal SMEs, they will remain disadvantaged and less able to compete in the global economy.

Governments alone cannot address all of these issues, and they do not have resources to provide the access to finance, training and information required by 50 to 70 million new SMEs. The concept of the Entrepreneur Consortium is to bring together private sector organisations to work in cooperation with government, and with each other. The Entrepreneur Consortium plans to provide a means and a focus to bring together business and government representatives of organisations which have a common interest in developing and marketing products, services and infrastructure geared to entrepreneurs. The potential market for such products and services is large. The up front value of the market, *assuming* average sales of \$100 USD per potential entrepreneur is about \$ USD 5 to 7 billion pa in East Asia alone, and more if India is included. The real value of the market lies with the wealth and demand that growing businesses can create, and that would be much larger. Many of these entrepreneurs will become a main vanguard of wealth creation in the next few decades, but they can only do this if they have ready access to finance, information, training, advice and business services.

No single organisation has the resources, or the incentive to do much about the problem, or to develop the market. Working as part of a loose public private consortium, this paper shows that a win-win situation may be possible.

## II. A Summary of Empirical Evidence

Entrepreneurs need access to finance, advice, and information to succeed. Usually, when an entrepreneur seeks a bank loan, the bank either accepts or rejects their application. What if there was a third option? What if the bank loan assessor could offer the applicant a range of training programs and information feeds to fill gaps in the entrepreneur's knowledge. If this learning and information reduced the risk of default, then the bank could reduce the rate charged on the loan. If the learning and information feeds were easily accessible and on-line, then the bank could actively manage the risk of the loan, and the borrower could actively gain from updated knowledge and information as required.

To see if this simple vision is feasible, this section seeks to summarise empirical evidence from a range of sources related to the following questions:

1. What are the risk margins for SME loans?
2. Does management training and access to information improve the performance or success rate of SMEs?
3. What are the common training and information needs of SMEs?
4. What suitable training material is already available off the shelf?

5. What are the main trends in bank SME lending?
6. How do banks manage/measure/assess the risk associated with SME lending?
7. Are banks willing to take intangible factors into account in assessing loan risk margins?
8. How effective and cost effective is on-line learning?
9. How accessible is on-line learning in developing economies?
10. What training do banks provide to SME loan officers?
11. How does BIS Basle II impact on costs and risk of lending to SMEs?
12. What does the cost benefit ratio look like?

## 1. What are the risk margins for SME loans?

The risk margin represents the extra charge necessary to cover the risk of default, or the potential loss of capital, to an investor. This obviously differs widely depending on the type of SME, the industry, the economy and so on. Systematic studies and figures are hard to obtain, and it is often difficult to compare default rates because methodologies differ, but as a guide:

- Standard and Poor's, based on its European Credit Rating system for small business in Europe, puts default rates for companies with turnovers of less than € 3 million at 1.2% as against 0.1% for companies with turnovers larger than € 250 million (ASWJ 12 March 2004). It should be noted that these figures are for larger SMEs that are already established, and so are lower than for SMEs as a whole.
- Anecdotal evidence suggest default rates for SME lending to be around 2% in Australia, but can be as high as 8% for some banks. Rates for default on SME loans in the USA are usually less than 3%.
- In Asia default rates for SMEs tend to be higher. In South Korea SME default rates rose sharply in early 2004 to around 3.8% (Korea Times 3 April 2004). Default rates for Japan SME lending, where banks actually do lend to SMEs are around 5% (Financial Times 14 April 2004). Non performing SME loans in Thailand were around 15% in 2003, though this has been steadily declining since the late 1990s Asian financial crisis.
- An interesting contra example is SMELoan, which cites a default rate of only 1.3% for its SME borrowers. Set up in Hong Kong in August 1999 by Ming SIU, SMELoan has sourced funds from private equity firm Whitney & Co., and the World Bank IFC. The interesting feature of SMELoan is that it makes extensive use of the internet for managing and assessing loans, thus reducing transaction costs. According to Mr Siu, "The system works like this. Customers apply for a loan online and input various information into the system which then goes through a scoring system. The overall score will determine how much money customers can borrow and SMELoan can usually dispense the loan in two or three days. Then every borrower will have a home page where they will supply us with information on their business. All this will go to our back-end system for screening and monitoring. Without the Internet this would not be feasible. It allows all our customers to get online and look at the Web to interact with us. The system has built up a valuable database of knowledge about the needs and problems SMEs of various sizes and in different sectors face. Because customers are feeding the system information on their businesses, problems can be identified before it gets too late. SMEs realize SMELoan needs to ensure its loans are safe, and therefore are quite willing to disclose information about their businesses. This trust also allows SMELoan to provide them with regular line increases" (the Bulletin February 2002).

- Credit Guarantee Schemes for SME lending generally work on default rates of less than 5% (Bannock 1997). However, rates for government lending schemes are often much higher, so that one scheme in Hong Kong runs at around 12% default, and one SBA scheme in the USA at around 11%. Riding (2001) reports the DTI Loan Guarantee scheme in the UK has default rates as high as 40%, which clearly is unsustainable and indicates a problem in selection.
- Default rates for micro-enterprise lending seem to be around 5%, with figures as low as zero often quoted. Accurate figures are difficult to get, and are distorted sometimes by the practice of rolling small loans over, and by relatively short loan histories being quoted, so the cumulative loan default is not obvious.
- In China even official estimates of non performing loans (NPL) in the banking sector are around 30% of assets, but SME loan default rates are not known. However, SMEs usually cannot get finance from banks because the banks are so indebted with NPLs that they will only lend if there is zero risk, and SMEs are usually a risk. Only recently (2004) have there been moves to de-restrict lending rate regulation, so that banks can adjust the rate for risk and charge more than the officially designated rate.

These default rates need to be seen in a broader context. Start up rates, and failure rates vary widely by economy and position on the business cycle (Reynolds 2002). As a general guide, of any cohort of start ups, only about 20% to 40% will still be in business in five years time. However, of those ceasing business, only about 10% (ie about 6% to 8% of those commencing) actually fail in the sense of going bankrupt. It is to be expected that banks and institutional lenders try to cherry pick, so as to reduce the risk and default rate. This may suggest that bank default rates are lower than the overall default rate, and that other sources of funds (usually friends fools and family, and the entrepreneur) bear a significant brunt of default as well as institutional lenders.

Lending to SMEs is thus generally regarded as more risky than to larger firms, and is often carried out as, and on par with, personal loans. The average risk margin for SME loans by banks appears to be below 2% in well managed banks in developed economies, but rises steeply to as much as 15% in developing economies. Overall in the economy, the default or loss rates are probably double that experienced by banks. The risk margin is also affected by the skill and experience of the management team. The issue we then turn to is whether there is some potential for reducing the risk and the default rate through effective training.

## **2. Does management training and access to information improve the performance or success rate of SMEs?**

A priori, access to training and access to information may be expected to have some effect on reducing the risk of failure, and improving performance in the form of growth and profitability. However, Storey (2004) observes “ econometric methods linking training participation to small firm performance produce weak findings” despite surveys showing that “ when the views of trainees are sought, public programs are well received”.

Training and information is unlikely to have an effect if it is not relevant to the SME manager’s needs, nor will it have an effect on performance if other factors (such as access to finance, or regulatory burdens) remain an overriding problem or constraint. Measuring a relationship between training and performance thus requires careful specification (ie what type of training is used? how is performance measured and specified?) and controls (ie what other factors affect the dependent variable, in this case, performance?). Few empirical studies in the literature actually specify or control adequately. However even with limited

evidence, which can be briefly summarised as follows, there does seem to be a positive relation between better trained and informed managers, and SME performance:

- Jones (2004) using data from a longitudinal survey of 871 Australian SMEs shows “...training is a relatively consistent concomitant with small and medium-sized enterprise growth.”
- Betcherman et al (1997, quoted in Storey (2004)), using multivariate analysis controlling for other establishment characteristics, showed that Canadian firms with the strongest commitment to training were significantly more likely to report positive revenue and productivity trends over the previous two years.
- Mc Rae (1991, quoted in Martin and Steanes (1994)) found the major distinguishing feature of high growth and low growth small firms was the education, training and experience of the senior managers.
- Lin (1998) in a sample of Taiwanese case studies of SMEs, found that people skills and management skills were more important in determining success than technology.

Similarly, it is clear that managers need up to date and accurate information and intelligence on which to base their decisions. In most cases, banks use experience (or number of years in the industry) as a proxy for this. Some limited evidence suggests that SME managers use this access to information in lieu of training, for example:

- Robson and Bennett (2001) show that SMEs seek a wide range of sources of advice, and that larger firms are more likely to use external professional sources of advice (solicitors, accountants, consultants) than smaller firms which rely more on trusted friends and network contacts.
- McGee and Sawyer (2003) in a study of small owner managed high technology manufacturers showed that as uncertainty increases, managers seek more information. New firms are more likely to seek that information from external sources than older firms.

However the changes in ICT in the past decade has brought a massive amount of information and content to the managers desktop. The number of pages on the visible web has grown from less than a million in the early 1990s, to over 4.5 billion, and there is at least fifty times that amount on the invisible web (ie accessible over the internet, but which requires a password and payment to access specific databases).

On balance then it appears that better training and access to information can have a positive effect on performance, but only if it is relevant and managers are willing and know how to make use of it.

### **3. What are the common training and information needs of SMEs?**

The training and information needs of SMEs and their managers differ in terms of:

- stage of development (start up, expansion, crisis etc);
- age of firm, and experience of key staff;
- industry or market;
- technology and processes;
- commitment to innovation and rate of change;
- and so on.

These skills, training, and information needs range from quite general to very specific. Some competencies and skills are more amenable to training than others. Sources of training and advice can range from formal structured courses provided to mass markets, through to individual mentoring and coaching.

For example, Man et al (2002) identify a broad range of competencies linked to firm performance in the literature, such as the competency to identify and manage opportunities, to compete, to organise people, manage relationships, conceptualise, innovate and so on. These are not easily taught. They are highly specific to circumstances, and rather difficult to imbue through formal training programs. For example:

- Canadian evidence (Wright et al (1999)) suggests that firms seeking to export and operate in Asia recognise a need for specific cross cultural training and information, but do not see much benefit in formal training.
- Breen et al (2002) found, in a study of Australian firms, access to specific staff skills is seen as a major impediment to expansion in about 26% of respondents, and about 19% saw a lack of managerial skills as an impediment. High growth (defined as revenue growth in excess of 10% pa) firm managers were less likely than slow growth firms to see either as an impediment.
- Rue and Ibrahim (1998) find only a weak relation between sophistication of business planning, and return on investment, but a stronger relation between sales growth and business planning. This slightly perverse finding is also reflected in the OECD high growth firm study, which suggested that many high growth firms follow unpredictable growth trajectories, and do not plan in a conventional formal sense, because they operate in unpredictable environments.

Some training and information needs are quite general. For example, all managers starting up an SME need some basic skills in cash flow management, accounting, reporting, business planning, marketing, legal and regulatory compliance etc. All will need general information on how to register a business name or trade mark, what regulatory and compliance issues to check, etc. Obviously not *all* managers need training in *all* such matters. Many of these general needs are already being met by a range of providers and sources, both public and private. Industry associations have increasingly played a role in identifying basic skill and information sets required by industry participants. A survey of the courses readily available on-line is set out in the next section below, and gives a reasonable indication of what might be considered “common training needs” for SME managers.

However, part of the problem is that managers do not always accurately assess their own needs. Anecdotal evidence suggests that much of the benefit from training or coaching actually comes from accurate diagnosis of needs *before* the training is commenced. This ensures that the training is relevant and effective.

#### **4. What suitable training material is already available off the shelf?**

There is already a large body of material which has been developed with SME training needs in mind. Much of this is available on-line, or in conventional forms (CD, Classroom notes, videos etc), or blended forms. It has been developed by:

- formal education providers, such as Universities and Polytechnics (usually this has some process of accreditation);
- publishers;
- industry and professional associations;
- government agencies;

- consultants, advisor services (Ernie, SCORE <http://www.score.org/>, in Katz (1998)).

Examples of typical courses or materials already available on-line are set out in Table 2. These cover a very wide range of topics, and are usually at a basic level. Most of these are on-line in English, but could be translated into different languages, and adapted to different local conditions at reasonably low cost.

**Table 2 examples of on-line courses for training SME managers**

Starting a business - checklist IP management - protecting patents, ideas, trademarks etc Carrying out basic market testing and research Marketing your product or service Selling your product or service Basic business planning Planning for risks and contingencies Importing and exporting Cash flow planning and management for small business Negotiating with suppliers, distributors Employing the right people Keeping staff happy and getting the most out of them Knowing your legal obligations Working with lawyers Working with government regulators Occupational health and safety Interviewing and Recruitment Skills Leadership and Motivation General Management Skills Meetings Negotiating/ Influencing Skills People Management Performance Management Personal Development Presentation Skills Project Management	Redundancy Selling Skills Sexual Harassment Stress Management Supervisory Management Team Building/ Team Work Thinking Skills Work Skills Writing Skills Business Process Reengineering Appraisals Assertiveness Body Language Bullying Change Management Coaching Communication Competitiveness Conflict Resolution Counselling Creativity and Innovation Customer Care Delegation Empowerment Equal Opportunities Feedback Information Technology
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### 5. What are the main trends in bank SME lending?

Based on figures for APEC, (Hall, APEC (2002)) bank finance seems to typically make up about 50% or so of the funds raised by SMEs, though this seems to be declining. It is difficult to get comparable indicators of the amount of finance supplied to SMEs, and so it is difficult to see if there has been any improvement in SME access to finance. However, some central banks require reporting by banks of business loans by size of loan or by type of borrower. This gives a rough guide as to the amount of lending to SMEs.

The figures in tables 3 and 4 suggest that over the last half of the 1990s, SMEs may have been getting a smaller share of the total supply of bank funds lent to business. For almost all the economies for which comparable data are available, the *proportion* of total loans going to small business appears to have been declining. For example, the proportion of small business loans in Australia fell to half its 1994 level by 2000, from 39% of total loans down to

19%. The decline in Chinese Taipei was from 40% of loans in 1992 to 26% in 2000. Canada, Japan, Korea and Indonesia have all seen declines in the proportion of loans going to SMEs, though of smaller magnitude, and in Indonesia's case there was a sharp increase again in 1999.

At the same time as the *proportion* of small business loans declined, the *rate of growth* of small business loans tended to slow, or moved to negative growth in the latter part of the decade. The only exception was the USA. This suggests that not only may SMEs have tended to be relatively disadvantaged in comparison to larger firms toward the latter part of the 1990s, but they might have also seen a decline in the absolute amount of bank finance made available to them.

**Table 3 Percentage of loans to SMEs**

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<i>Australia</i>					39	37	31	30	26	21	19
<i>Canada</i>							23.6	23.6	23.25	22.7	22
<i>Indonesia</i>						22.3	21.1	23.7	17.7	20.2	32.2
<i>Japan</i>							64	65	64	62	60
<i>Korea</i>						53.5	53.1	49.7	49.8		
<i>Chinese Taipei</i>			39.92	38.77	37.2	35.53	33.79	31.16	29.24	27.28	26.16

**Table 4 Annual percentage growth in amount of finance to SMEs**

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	mean
<i>Australia</i>						6	12	1	-4	-12	8	1.73
<i>Canada</i>								-3.3	6.97	-1.7	-3.5	
<i>Indonesia</i>					10.4	34.9	18.6	37.1	-15.9	-25.2	15.4	10.76
<i>Japan</i>	5	3	2	1	1	1	0	-0.05	-2	-5		0.60
<i>Korea</i>							14.5	4.5	-1.40			5.88
<i>Chinese Taipei</i>				26	12	13	5	3	8	-0.02	-0.26	8.34
<i>USA</i>					-1	7.3	5.4	6				4.43

**Notes to Tables 3 and 4**

<i>Australia</i>	RBA Table D 08 - percentage of loans to business which are less than \$AUD 500,000.
<i>Canada</i>	<a href="http://strategis.ic.gc.ca/SSG/rd00392e.html">http://strategis.ic.gc.ca/SSG/rd00392e.html</a> loans of less than CA\$ 500,000
<i>Indonesia</i>	Central Bank of Indonesia - loans by commercial banks to small scale business as a % of total business loans
<i>Japan</i>	JSBRI SME White paper 2000 p 122. Figures are approximate.
<i>Korea</i>	Loan exposure of Deposit banks to SMEs as a % of all loans
<i>Chinese Taipei</i>	SME White paper 2000 p 99
<i>USA</i>	US Federal Reserve, Report to Congress on the Availability of Credit to Small Business, 1996, p 17. Note that banks in the US are required to report the proportion of commercial loans of less than \$1 million US (small business loans), but these data are not published

These trends suggest that banks have found SME lending less profitable or more risky than alternative lending options available to them.

## 6. How do banks manage/measure/assess the risk associated with SME lending?

Banks do not publicly reveal their loan assessment criteria and check lists, because these are a source of competitive advantage for them. In very broad terms, banks use two main guidelines in assessing a loan:

**First**, collateral or security provided by the borrower, usually in the form of a mortgage or lien over property is used to assess the loan. This raises three problems for SMEs. One, is that many start ups are by young people who do not have a lot of assets to use as collateral. In much of developing Asia, the absence of clear land surveys, and absence of clear right to property compounds this problem. Two is that many SMEs rely on intangibles, such as quality of service, or IP, as their main assets. Three, even for established firms seeking to grow, there is sometimes a financing gap (eg Edwards and Turnbull (1994)) between the value of the principal asset (usually a house or apartment) which limits the size of the loan a bank is prepared to make, and the level at which alternative sources of funding (such as Venture Capital) kick in. The difficulties associated with collateral are sometimes addressed by means of credit guarantee, where the government underwrites some or all of the loan. As noted in the first section, these schemes often suffer from a moral hazard problem and have high default rates.

Burke and Hanley (2002) in a study of new commercial borrowers seeking loans from major British banks find that “Firstly, we find that there is a trade-off between the interest margin and the amount of collateral per unit borrowed. Most significantly, borrowers posting no collateral at all, are associated with higher interest margins. Secondly, it appears to be the *presence* rather than the *magnitude* of collateral that increases the probability that a borrower receives a lower interest margin.” and “We also find that higher interest margins induce borrower default.”

**Second**, banks use a system of Credit rating. Most SMEs are too small to be worth rating by rating agencies. Although there are some, such as S&P, which do provide ratings on established SMEs, start ups are not covered. Banks usually thus rate a loan on the basis of their own rating systems and checklists. This imposes transaction costs on the bank. The bank will also take account of its own portfolio, so even if a potential loan would normally be rated as an acceptable risk, a bank may not accept the proposal if it would expose the bank to too many loans in a particular industry segment (such as tourism) or regional area. The factors banks take into account in assessing the credit risk vary, but usually include such things as:

- age of firm;
- track record of firm, competitive position;
- experience of managers;
- preparation and planning, eg for succession, contingencies;
- balance sheet position;
- leverage or gearing;
- cashflow projections;
- industry trends;
- bank book or portfolio profile;
- etc.

Table 5 indicates the factors considered by a sample of some thirty UK loan officers in assessing a hypothetical but realistic loan proposal for an IT based business. The percentages give the percentage of loan officers specifically considering that aspect. An assessor could consider more than one aspect, so the percentages do not total to 100%. (Deakins and Hussain (1994, p 26))

**Table 5 Factors used by loan assessors in hypothetical SME lending situation**

Item	%
Gearing	83
Entrepreneurs' personal financial position	73
Forecasted balance sheet and P&L account	66
Entrepreneurs' drawings	63
Entrepreneurs' contacts in industry	60
Timing of income payments	60
Contingency plans	57
Entrepreneurs' personal collateral	50
Market research	50
Entrepreneurs' qualifications and careers	43
Cash flow assumptions	40
Entrepreneurs' starting separately	37
Role of IT consultant	33
IT development costs	27
Business/managerial strategy	13
Enterprise and small business experience	10

Asetbro (2003 p 315) notes that "A probit regression model of start-up company survival based on owner human capital, loan sources, and wealth as well as industry and company characteristics showed indeed that having a bank loan is, *ceteris paribus*, a significant positive predictor of the survival of start-up companies. However, the unconditional correlation between having a bank loan and survival was negative. In contrast, an unconditional positive correlation between having other loans and survival was established."

This suggests that banks probably do quite a reasonable job of assessing loan risks, but the issue is really whether they could do a better job and still further reduce the risks of SME lending.

## **7. Are banks willing to take intangible factors into account in assessing loan risk margins?**

The issue here is whether banks are willing to adjust risk margins in response to intangible factors such management skill and ability (which are susceptible to training and learning), in contrast with stratification factors, such as past financials, years in business, size of firm, or security (which are not). Most equity providers (such as VCs and Angels) give a very high priority to the quality of the management team. They tend to finance on promise, not history. Debt providers, such as banks, tend to place less emphasis on this promise aspect, mostly because the transaction costs of assessing the management skills are high, and because they use physical collateral as security.

Because bank credit scoring is usually confidential and a source of competitive advantage for banks, there is not much empirical published evidence on this aspect. Anecdotally, banks will take account of management quality and experience as part of a broader scoring sheet for risk and credit worthiness.

Few banks appear to have factored in the *promise* that a management team *could* achieve if it were given access to specific skills or resources to help it meet gaps in its knowledge or competency. If there was some way that transaction costs could be kept low, and there was low cost way of improving management quality of borrowers, then, and again anecdotally, there does seem to be interest amongst banks, especially smaller banks which focus on SME lending. For example:

- SMELoan, cited in the first section appears to be achieving this by requiring borrowers to maintain financial information on a secure website accessible to the borrower and to the finance provider.
- Another interesting experiment is being carried out by the SME Bank in Thailand. This offers unsecured small loans (less than 500,000 Baht, about \$USD 12,000 ) to business, and reduces the margin by around 200 basis points if the borrower completes a 10 day training course successfully. This was only commenced in 2003, so there is little by way of results yet.
- Similarly, in January 2004 seven local banks Sarasota and Manatee counties (in Florida) agreed to fund a loan pool that will provide financing to small businesses owned by minorities and low-income individuals. The Manasota Micro Enterprise Fund will make small loans to startup or expanding businesses in Sarasota and Manatee counties. Before qualifying for a loan, borrowers must complete a 12-step training program run by the nonprofit Reliable Business Solutions. Topics covered will include accounting, marketing, computers and writing a business plan. (23 January 2004, Sarasota Herald-Tribune).

This suggests that banks are willing to accommodate, but banks are also inherently conservative. For banks to move in the direction of *active* risk management of SME loans, it will require fairly substantial changes in assessment and management methods. However these changes could lead to quite significant potential net benefits, as shown in section 12 below.

## **8. How effective and cost effective is on-line learning?**

There is surprisingly little empirically researched and published information on this question, despite widespread acceptance that on-line learning is effective and cost effective, provided certain conditions are met. For example, Crompton and Munro (2002), in a limited case study, conclude that "The investigation has shown that when designing courses for learning it is important that they have relevancy in helping people to do their jobs more effectively. It was also seen from the study that the working environment is an important factor in influencing the motivation and interests of the employees. Even though it is laudable to encourage learning, the issue of relevance cannot be ignored. However, on the positive side Web-based learning was seen to be a good way of accessing learning opportunities related to how well they could perform in their jobs."

On-line learning covers a wide range of sophistication, so it is difficult to generalise about costs. Some estimates suggest an hour of programmed learning costs around \$USD 10,000 to \$100,000 depending on the sophistication level. Similarly estimates of an hour of "air time" might take anywhere between 20 and 100 hours of preparation time. These estimates relate to starting from scratch. It takes less to take existing material and modify it or translate it.

The economics of on-line learning is then fairly straightforward fixed cost recovery. If a \$50,000 investment in a program can only be recovered from 5 users, then the costs are quite high relative to conventional learning delivery methods. If there are 50,000 users, then the costs per user are a miniscule \$1 each. As shown at the outset, the APEC region, and especially Asia, needs about 50 million more SMEs, or about 5 million per annum for the next 10 years. At this level, the cost drops to 1 cent per user.

On-line learning is most cost effective where:

- it covers material with wide applicability, so that the costs can be spread over a wide audience;
- existing material can be adapted to local conditions at low relatively cost;
- compliance requires records be kept of who successfully complete specific programs;
- users have an incentive to use and pay for the modules (eg where the learning leads to accreditation, or reduces the cost of a loan);
- convenience and flexibility are a priority for users;
- infrastructure (computers, internet, broadband etc) already is in place.

On-line learning effectiveness can be increased (although this tends to reduce cost effectiveness) by:

- linking it with other forms of learning (such as group activity, face to face etc) so that it is “blended”;
- keeping it up to date with examples and links to news and information feeds.

### **9. How accessible is on-line learning in developing economies?**

On-line learning is only a viable delivery method if potential users have access to the internet and support infrastructure. The digital divide is still quite extensive in much of Asia. Penetration rates for internet use, based on ITU (International Telecommunications Union) figures, vary very widely, from around 60% in most developed economies to less than one tenth of that in the developing. The following table shows that on a per SME basis, the developing economies (classified here as 2020 economies) were well behind the developed (2010 economies) in terms of a digital divide ratio. This was particularly so with servers. However, it is perhaps surprising that even in 1999, the internet usage per SME and PCs per SME was not that far behind that of the developed economies. This anomaly is partly because some of the developing economies have less SMEs than they perhaps should.

The main problem of internet access for SMEs is in regional areas in developing economies. Even there, most banks which have presence will have phone lines and often some computer access. If security concerns about firewall penetration can be overcome, then it may be possible to give SME managers access to computers in banks. Similarly, many schools have computers, and schools are not necessarily used all day. The potential is there to have SME managers use computers in schools after school hours for on-line learning.

There are also some interesting wireless technology platforms emerging, mostly in India. For example the Simputer (<http://www.simputer.org/>) is a tablet hand held wireless computer which sells for around \$USD 250 to \$USD 400. It has speech and handwriting recognition software, and different users can share it via smart cards, so they do not need to own it to access it on a relatively private basis. In principle it should make it easier for people in remote areas, and people who are only semi literate to gain access to the web and to services. However, it has not yet been a commercial success.

**Table 6 Penetration rates and the number of internet hosts, internet users, PCs and fixed lines in APEC economies, per SME basis**

	penetration rate 2004 %	internet user/SME 1999	servers/SME 1999	PCs/SME 2000	fixed line/SME 1997
<i>Australia</i>		5.9	0.7	7.7	8.4
Brunei Darussalam	9.4	6.0	0.2	4.3	15.4
<i>Canada</i>		13.7	1.2	12.7	20.2
<i>Chile</i>		5.1	0.1	2.4	0.0
China	6.0	2.8	0.0	2.4	8.6
<i>Hong Kong, China</i>	63.0	8.9	0.3	7.8	12.5
Indonesia	3.6	0.1	0.0	0.1	0.3
<i>Japan</i>	49.9	7.7	0.3	6.5	10.3
Korea	62.0	7.1	0.1	4.1	7.6
Malaysia	31.8	3.1	0.0	1.3	3.5
Mexico		1.0	0.0	1.7	3.2
<i>New Zealand</i>		4.3	0.7	7.1	9.5
PNG		0.0	0.0	0.0	0.0
Peru		5.4	0.0	2.2	3.6
Philippines	4.2	2.4	0.0	1.7	2.6
Russian Federation		3.6	0.2	7.4	33.3
<i>Singapore</i>	60.0	22.2	1.2	27.8	31.2
<i>Chinese Taipei</i>	50.3	0.0	0.3	0.0	10.3
Thailand	7.5	6.6	0.1	4.2	13.9
USA		16.7	5.3	27.5	30.2
Viet Nam	1.8	1.0	0.0	3.3	7.8
<b>unweighted average</b>		<b>6.1</b>	<b>0.5</b>	<b>6.6</b>	<b>11.7</b>
<b>uwa 2010</b>		<b>9.2</b>	<b>1.05</b>	<b>11.0</b>	<b>15.0</b>
<b>uwa 2020</b>		<b>3.6</b>	<b>0.06</b>	<b>3.0</b>	<b>9.1</b>
<b>digital divide ratio</b>		<b>2.5</b>	<b>16.7</b>	<b>3.6</b>	<b>1.6</b>

**Notes and sources:** Hall, APEC (2002) Data on internet hosts, internet users PCs and fixed lines are derived from World Bank figures for 1997 1998, 1999 or 2000 (latest available). Some figures are not available for Chinese Taipei.

Penetration rates for Asian Economies <http://www.internetworldstats.com/asia.htm>

SME numbers are based on best guess for 2000 or other relevant years

Note that figures for ratios of servers (internet hosts), PCs and fixed lines per SME are simple statistics based on total SMEs relative to approximate totals of each of the other variables. They do NOT purport to show that SMEs actually do have this number of fixed lines or Internet hosts or computers on average, and they almost certainly overstate the number that SMEs actually do have.

Unweighted average (uwa) = average of the non zero statistics for all APEC economies. Unweighted averages are the averages of the actual percentages in the relevant column, and are not weighted by the total size (which thus gives relatively less weight to large economies like China and USA and relatively more weight to small economies like Hong Kong China and Chinese Taipei).

2010 - economies seeking to meet 2010 targets (*identified in italics*)

2020 - economies seeking to meet 2020 targets

Entry of 0.00 or blank in a cell indicates data unavailable

The digital divide ratio = the value for 2010 economies divided by the value for 2020 economies.

## 10. What training do banks provide to SME loan officers?

Banks already have to provide bank loan assessors and other staff with training programs. In most cases this is done to reduce operational risks, and improve compliance. There are no recent surveys of the methods used for this, but more banks appear to be moving to on-line learning as a cost effective way of ensuring staff are trained, and ensuring that they can report to prudential overseers that staff have actually been trained for compliance purposes.

In most cases there is a platform for delivery of on-line learning within a bank, which is complemented by other forms of learning (eg training sessions, simulations, team projects, examinations etc). It is also supported by information intelligence feeds, so for example a corporate lending officer will have access to news reports and statistics on industry segments and economic or political trends which are of relevance.

Training of loan officers can be highly effective. One interesting example cited by Angosta (2000) is that after adopting a strategy of pursuing small business loans, the Bank of New Hampshire undertook extensive training of loan officers. It succeeded in writing 324% more, by dollar volume, of \$250,000-and-under business loans in the last three quarters of 1999 than in the preceding 10 months. Federal Reserve data also show a jump, at least for the number of business loans of less than \$100,000. The bank led the state last year, with 874, versus 500 for rival FleetBoston Financial Corp. and 421 for Citizens Financial Group of Providence, R.I.

## **11. How does BIS Basle II impact on costs and risk of lending to SMEs?**

BIS and Basle II are major drivers for changes to bank regulation and management. Basle II has not yet been finalised in respect of SME lending. In general the BIS has argued that Basle II will not disadvantage SMEs, and may improve lending to them. Under Basle II banks can lend either under a standard risk model, or an internal risk base model (IRB). The standardised model requires external credit assessments. The alternative methodology, IRB, is subject to the explicit approval of the bank's supervisor, and allows banks to use their internal rating systems. Under the IRB approach, banks must categorise banking-book exposures into broad classes of assets with different underlying risk characteristics. The classes of assets are (a) corporate, (b) sovereign, (c) bank, (d) retail, and (e) equity. Within the corporate asset class, five sub-classes of specialised lending are separately identified. Within the retail asset class, three sub-classes are separately identified. To be eligible for the IRB approach a bank must demonstrate to its supervisor that it meets certain minimum requirements at the outset and on an ongoing basis. Many of these requirements are in the form of objectives that a qualifying bank's risk rating systems must fulfil. (BIS (2003) paras 25, 183, 240 and 242).

SME lending is classified as part of corporate lending, but can also be included under retail lending, where aggregate exposures to a single business borrower of up to €1 million can be treated as retail exposures. Retail exposures enjoy a preferential treatment under both the standardised (reduction of risk weights by 25 percentage points, from 100% to 75%) and IRB where a different risk-weight curve applies. Similarly for corporate lending, under the IRB approach for corporate credits, banks will be permitted to separately distinguish exposures to SME borrowers (defined as corporate exposures where the reported sales for the consolidated group of which the firm is a part is less than €50 million) from those to large firms. A firm-size adjustment (i.e.  $0.04 \times 1 - ((S-5)/45)$ ) is made to the corporate risk weight formula for exposures to SME borrowers. S is expressed as total annual sales in millions of euros with values of S falling in the range of equal to or less than €50 million or greater than or equal to €5 million. Reported sales of less than €5 million will be treated as if they were equivalent to €5 million for the purposes of the firm-size adjustment for SME borrowers. (BIS (2003) para 242)

## **12. What does the cost benefit ratio look like?**

Banks are the main potential direct beneficiaries from the proposed APEC Entrepreneur Consortium, although other stakeholders (governments, industry associations, content providers, telcos, researchers and SMEs themselves) also stand to gain. There are five main ways that banks can potentially benefit from an *active* system of SME risk management based on on-line learning for assessors/managers and for SME client borrowers:

1) It has the potential to reduce the banks' direct losses, by reducing the default rate. For every €100 million of loans, for every 100 basis point reduction in the default rate, the bank gains € 1 million. Generally, loans to SMEs make up about 30% or more of banking system loans. This SME lending is typically higher-risk lending, with loss/default rates of around 5% to 10% or more of loans in Asia. If this default rate can be reduced by better active risk management, then there can be significant potential gains. For example, total loans from Banks in Thailand were about Baht 2,217 billion (about \$USD 55 billion) in 2003. If 30% of this is to SMEs, then loans to SMEs are about \$USD 16.5 billion. Thai bank NPLs (non performing loans) are between 7% and 21% of all loans. A reduction in the default rate in SME lending by just 1% (ie 100 basis points from say 10% to 9%) amounts to \$USD 165 million saving per annum.

2) It takes advantage of a bias in that SME lending itself is slightly favoured under BIS rules. Lending to SMEs requires a lower regulatory capital base. This is illustrated in tables 7 and 8; lending to SMEs relative to large firms saves about 2% to 3% of the regulatory capital required on an exposure of €100 million in this particular example. This is in addition to the potential gains to the bank from reducing the default rate. Making this comparison is a little more difficult, because large firm lending usually has a lower default rate than SMEs (except in China) but might have a higher loss at default.

3) It allows a further reduction in capital requirements, under the Basle II proposals of 2003 by about € 2 to €3 million on every €100 million of exposure for every 100 basis point reduction in risk of default for SMEs with sales of €35 million, and about € 5 million for SMEs with sales of € 5 million. Above sales of € 50 million there is no difference between SME lending and large firm lending, and below €5 million in SME sales there is no difference either. This is illustrated in the tables 7 and 8 below. These tables are simplifications. In reality a bank's requirements for regulatory capital will be determined by many factors, but *ceteris paribus*, these tables help to show that there are gains to banks which can adopt an IRB management approach and lend to SMEs. This suggests that the potential gain is the value of the opportunity cost of the reduced regulatory capital requirement. For example on a €2 to €3 million reduction in regulatory capital achieved through active SME default reduction, and an opportunity cost based on a medium term (say 5 to 10 year AAA bond) with a rate at 5%, this is a gain of approximately €120,000 to €180,000 per annum on a €100 million exposure depending on the default probability and other conditions. If this is added to the benefits arising in 2) above, then the total gain of active management of risk to SMEs on an exposure of €100 million is in the order of a maximum of about €500,000, or up to about 50 basis points in terms of the risk margin.

4) Improved risk management and use of IRB instead of standard rules. This is harder to measure, but by using an IRB instead of the standard approach, banks can potentially further reduce the regulatory capital requirements. To do this requires investment to improve the quality and monitoring of their credit risk management systems. However it *also* enables banks to gain a competitive advantage over other banks that use the standard risk model, and are thus tied to risk rating agency estimates of exposure in given categories.

5) It allows a growth in demand - ie customer generated growth, which is another source of competitive advantage for banks. Customers which are good risks, and which grow are much cheaper for banks to maintain and thus usually offer better profit margins. Banks, like other service providers, can grow with their customers,

and doing so is usually cheaper than trying to grow by other means, such as competing customers away from competitors, or taking over competitors.

**Table 7 Risk weighted and regulatory capital requirements for different default rates under BIS IRB Corporate SME lending guidelines assuming an exposure of €100 million, and sales of €35 million and the minimum 8% capital cover**

Probability of Default	Required risk weighted capital for SME lending € million	Required Risk Weighted Capital for non SME corporate lending € million	Regulatory Capital at 8% ratio required for SME corporate lending € million	Regulatory Capital at 8% ratio required for non-SME corporate lending € million
0.07	432	465	34.56	37.20
0.06	402	434	32.16	34.72
0.05	371	402	29.68	32.16
0.04	340	369	27.2	29.52
0.03	309	336	24.72	26.88
0.02	276	301	22.08	24.08
0.01	228	250	18.24	20.00

**Table 8 Risk weighted and regulatory capital requirements for different default rates under BIS IRB Corporate SME lending guidelines assuming an exposure of €100 million, and sales of €5 million and the minimum 8% capital cover**

Probability of Default	Required risk weighted capital for SME lending € million	Required Risk Weighted Capital for non SME corporate lending € million	Regulatory Capital at 8% ratio required for SME corporate lending € million	Regulatory Capital at 8% ratio required for non-SME corporate lending € million
0.07	364	465	29.12	37.2
0.06	337	434	26.96	34.72
0.05	309	402	24.72	32.16
0.04	283	369	22.64	29.52
0.03	256	336	20.48	26.88
0.02	229	301	18.32	24.08
0.01	188	250	15.04	20.00

NOTE: The calculations in the above tables are based on the formulae provided by the BIS (2003, par 240). PD (probability of default) and LGD (Loss given default) are measured as decimals, and EAD (exposure at default) is measured as currency (e.g. euros), except where explicitly noted otherwise. The formula for calculating risk weighted assets is:

$$\text{Correlation (R)} = 0.12 \times (1 - \text{EXP}(-50 \times \text{PD})) / (1 - \text{EXP}(-50)) + 0.24 \times [1 - (1 - \text{EXP}(-50 \times \text{PD})) / (1 - \text{EXP}(-50))]$$

$$\text{Maturity adjustment (b)} = (0.08451 - 0.05898 \times \log(\text{PD}))^2$$

$$\text{Capital requirement (K)} = \text{LGD} \times \text{N} [(1 - \text{R})^{-0.5} \times \text{G}(\text{PD}) + (\text{R} / (1 - \text{R}))^{0.5} \times \text{G}(0.999)] \times (1 - 1.5 \times \text{b}(\text{PD}))^{-1} \times (1 + (\text{M} - 2.5) \times \text{b}(\text{PD}))$$

$$\text{Risk-weighted assets (RWA)} = \text{K} \times 12.50 \times \text{EAD}$$

The adjustment for SME lending is:

$$\text{Correlation (R)} = 0.12 \times (1 - \text{EXP}(-50 \times \text{PD})) / (1 - \text{EXP}(-50)) + 0.24 \times [1 - (1 - \text{EXP}(-50 \times \text{PD})) / (1 - \text{EXP}(-50))] \cdot 0.04 \times (1 - (\text{S}-5)/45)$$

$N(z)$  is the cumulative distribution function for a standard random variable, and is given by NORMSDIST in Microsoft Excel.  $G(z)$  is the inverse and given by NORMSINV.

On the costs side, the costs of setting up and running systems of on-line learning are more difficult to estimate because of the range of options available. However, relative to the potential gains, they seem to be small. As outlined in section 8 above, the costs for developing a single hour of material is about \$USD 10,000 to \$USD 100,000, but this can be reduced in a number of ways. If banks collaborate with other banks, government, industry associations and universities, these fixed costs can be spread more widely, and they can be spread more widely still on a per user basis if more clients access the material. The issue then really becomes one of how to finance the initial outlays for development of the material. The other issue is how effective the learning systems might be in actually reducing default rates and risk margins, but as outlined in section 2 and section 8, this looks promising.

### III Summing up

All governments in APEC have now committed to SME policies which seek to provide a business and regulatory environment conducive to the development of globally competitive SMEs. Most governments explicitly recognise the challenge to a) create jobs and b) continually re-invent their industrial structures so that they remain internationally competitive. SMEs are good at helping to achieve both these policy objectives. SMEs are also good at adapting to the turbulence and volatility associated with global competition, something which is especially important in Asia. Entrepreneurial SMEs need to be explicitly recognised as a major engine of job and wealth creation, and a major font of resilient competitiveness, in Asia, for the foreseeable future. Governments in Asia have the resources to provide the requisite finance, access to management training and skills, or information that will be required to create some 50 to 70 million more SMEs. There are significant benefits, to both the public and the private sector associated with having more SMEs in Asia.

From the foregoing mosaic of evidence in section II we can summarise the main points as follows:

Banks are a significant source of funds to SMEs. Bank lending to SMEs seems to have declined during the last decade in most economies for which there are reliable data. Transaction costs of assessing loans to SMEs, and higher risks tend to discourage the banks from SME lending, even though, properly managed, SME lending can be quite profitable.

Bank loan assessors' evaluation of SME loan applications do not at present take much account of the management skills of the applicant, nor do they take account of the *potential* to reduce the risk margin by improving the quality of the management's skills. Evaluations tend to be based on traditional credit risk management measures, such as leverage, cashflow, collateral security etc.

Making better use of ICT, including on-line learning is very cost effective, under appropriate conditions, as a means of reducing risk margins and transaction costs for lenders. Banks could gain significantly in terms of reduced risk, reduced default rates and improved growth by making better use of ICT, and on-line learning to their own assessors and to client SME managers. Many banks have already introduced on-line learning platforms for their own staff as a basis for compliance and other training, so the marginal costs of extending these platforms to other users is quite low.

Default rates on loans to SMEs vary widely between economies, from highs of above 30% for some government guarantee schemes, to lows of around 1.5% for SMELoan in Hong Kong, a finance company which is using some innovative on-line techniques

for reducing risk and transaction costs. Typical best practice default rates usually aim at below 2%. This means that anywhere that default rates are above best practice (as they are in much of Asia) there is room for making improvements.

Improved access to information and relevant training seems to have a positive effect on performance of a borrower. This reduces the default rate and increases the potential growth and survival chances of the SME.

There is a considerable amount of content material already developed which is suited to addressing typical SME management skill gaps and deficiencies. This could be adapted to local conditions, converted to on-line platforms, and translated to different languages at relatively low costs.

Although there is still a significant digital divide in Asia, it is narrowing, and access to the internet is achievable for many SMEs and potential entrepreneurs. If the private sector works in cooperation with government for better use of existing infrastructure the situation can improve further. In the longer term there are technology hardware solutions emerging which may give low cost wireless access to a very large potential market.

Basle II will provide some increased incentives for Banks and their SME clients to improve risk management practices and documentation. Basle II also provides significant potential benefits to banks which lend to SMEs, and which take steps to reduce SME default rates. This lends itself to better use of ICT and on-line learning.

These points suggest a confluence of events which provide an opportunity to actually address the shortage of formal SMEs in Asia. The challenge is to develop a business model which will take advantage of the opportunities presented. No single entity, whether it be a bank or a government agency, is likely to have the resources or the incentive to do this.

## **IV The APEC Entrepreneur Consortium PPP Model**

The aim of the **APEC Entrepreneur Consortium** is to help business and governments to better work together in a public private partnership (PPP). This PPP aims to facilitate the development by its members of a suite of products, services and infrastructure aimed at better meeting the financial, information, advisory and functional management needs of the emerging generation of SME managers and entrepreneurs, especially those in developing countries. A project has already been funded, and is led by the USA in collaboration with PECC to examine the feasibility of this.

A vision for the Entrepreneur Consortium is set out in Figure 1. The principal driver of this is likely to be the Banks (especially those lending to SMEs), and government agencies, working in cooperation with Industry Associations and Chambers of Commerce. However, there are a raft of other entities that will also stand to benefit, including researchers, universities, content providers, hardware and software providers and telecommunications companies.

### **How might this work? an example**

An SME manager approaching a bank for a loan would go through the normal check processes, but added to these might be a set of checklists relating to the skills and experience of the management team, and the use and access to information for making decisions on an ongoing basis. There are four key elements to consider:

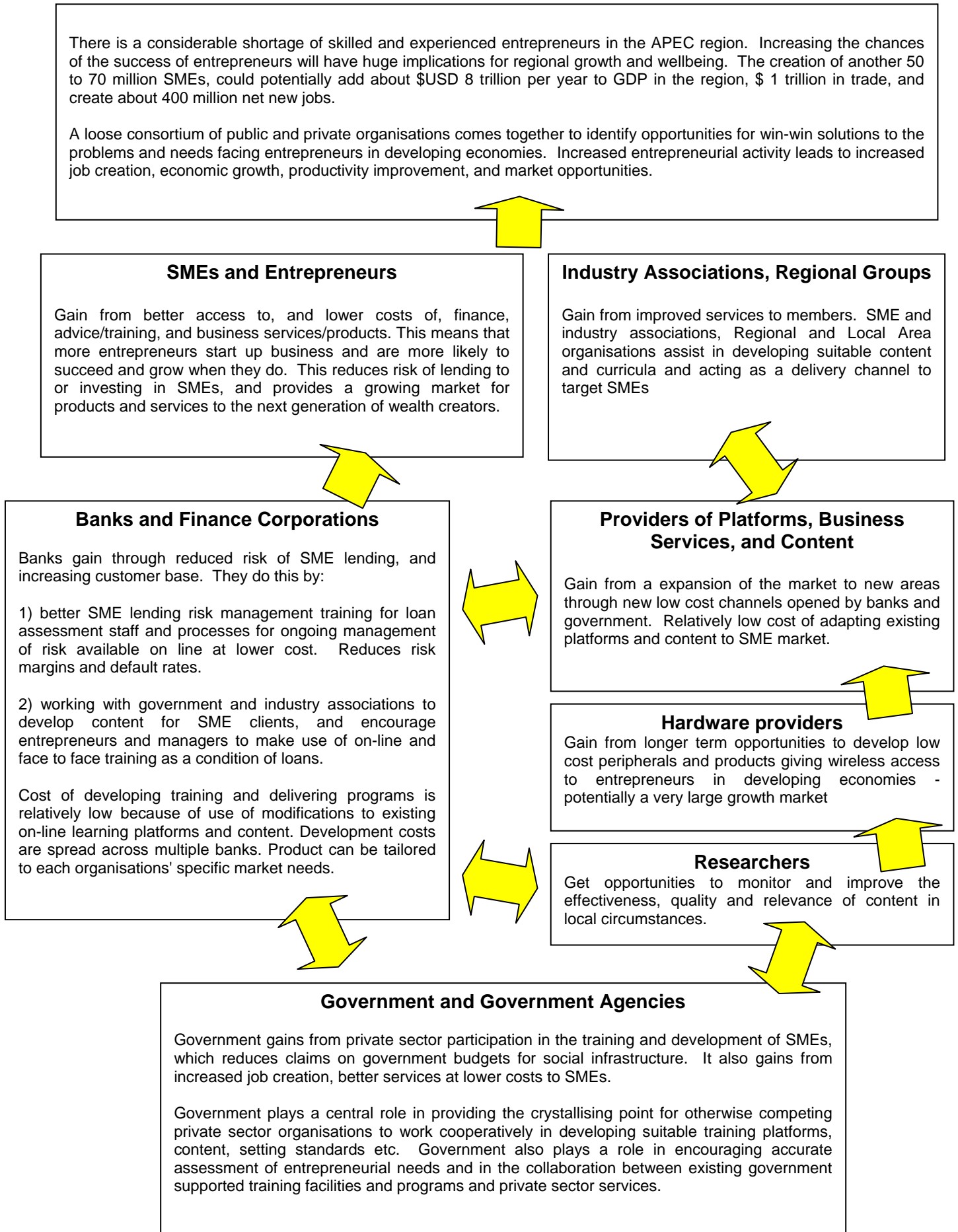
**1) *Diagnosis:*** The SME managers could use this checklist process as a diagnostic themselves, or the checklist could be used as a diagnostic by the bank loan assessor, or the bank might refer some (not necessarily all) applicants to specialist diagnostic advisers, or to

government agencies or industry associations or consultancy services for expert diagnostic assistance. This diagnostic process would help to identify what is needed to fill the gap between the SME's present capability, and what it needs to be successful in its plans.

**2) Services:** A typical service cluster might involve, for example, modules such as the following:

1. Access to some form of platform for accessing content, usually on-line over the internet, but in some cases via intranets or specialist extranets, or even CDs or DVDs. Typically on-line modules only require a 28 bps modem speed, but obviously some material (such as interactive TV) require broadband.
2. Where necessary, access to peripherals, such as computers and phone lines needs to be arranged to allow end users to access the modules. This may be from the users' home or business, or from schools or government centres, or even from the public areas in banks, post offices or cafes.
3. A list of structured on-line course modules, which would show immediate application to typical SME problems in areas such as marketing, accounting, foreign exchange management, risk management etc. This could include all the course topics listed in table 2, above, plus additional modules specific to the industry, market, technology or region. These would be provided in the local language, and where feasible adapted to local conditions and examples.
4. A series of cases and examples for the user to work through, so as to better understand how to apply the material.
5. An on-line library of supporting text material to assist a learner to understand the underlying principles, should they need additional depth, or if they have difficulty understanding some concepts.
6. An examination module, which would test understanding of concepts, and provide accreditation or a record of achievement to be used for administrative and compliance purposes. For example, a bank might reduce the risk margin, rebate fees, or give certification to a client who successfully passes a designated set of learning modules. Similarly, an industry association might, in cooperation with government, require evidence that certain skills or knowledge have been acquired before a firm can start up in a specific industry.
7. Access to mentors, tutorial and to Q&A services. This might be a simple phone number to contact mentors provided by the bank or industry association, or regular meetings of industry participants, or it might involve on-line assistance, or chat rooms, server list posting on notice boards etc.
8. Resource and intelligence updates, which would give a user access to news and data relevant to the industry, such as proposed and gazetted changes in government regulations, trends in demand and supply, etc. This would be provided by content aggregators (such as Factiva, Lexis Nexis, Thomsons), government department and agencies, etc. In many cases banks and industry associations also develop their own special industry intelligence which they can share with corporate SME clients via such services.
9. A unique secure website for the SME client. Parts of this unique website might also be accessible by the bank, government, and industry associations. This parallels the SMELoan example in sections II 1 and 7, so for example, the bank can get continuous updates on the financial position of its client, and can alert the client if some KPIs (key performance indicators) are out of line with other benchmark clients. It also has the potential for SMEs to deal more easily with EGovernment, for example, by using the website for payment of taxes, filing of forms etc.

**Figure 1 APEC Entrepreneur Consortium Vision**



This cluster of services could be provided by the bank, by government agencies, by content providers, by industry associations or combinations of all of these. Systems like this are operating already. They are not very complicated or expensive to set up and run, but there are some issues in making sure their design is in line with incentives to use them, and issues related to financing their set up.

**3) Incentives:** Why would SMEs, Banks etc participate in setting up and running such a service? Why do it? The incentive for:

- **SME managers** to do it might be that they can see that they need training and it provides this in a convenient accessible way. It might also be that they are unlikely to get the loan they are seeking unless they meet certain conditions, (such as undertaking training and putting in place a proper management plan and risk management or quality control system) or that the reduced loan rate is contingent on them undertaking designated courses.
- **Banks** is that it can give them a significant reduction in risk of default, and it helps them meet their BIS IRB requirements by giving them better risk management and better measures of the exposure to risk. It can pay for itself fairly quickly, and it offers ways that a bank can distinguish its services and gain a competitive advantage relatively safely in a growth market.
- **Governments** is that it allows very effective delivery channels to be set up and maintained for providing relevant up to date training material to SME constituents, and it has the potential to reduce or share the costs of content development and delivery. Governments might also (as they do now) provide credit guarantee to banks, but make this contingent upon better management of training and risk. Governments might also provide incentives (as they do now) to Industry associations, but tailor these incentives more to ensure that training and mentoring services are delivered cost effectively and are effective in increasing success rates.
- **Industry associations** is that they can provide better services to their members, and work with governments and banks to ensure that survival and success rates are higher. This ultimately gives them a stronger membership basis.

**4) Business models for financing and payment:** There are a number of different ways that the costs can be recovered and the set up costs financed. For example:

The set-up costs for content development of a module might be *financed* by a bank, or by a content provider, or by a government agency or by an international aid agency or bank (such as ADB or IFC) or by a consortium of some or all of these. These set-up costs might be in the order of say \$50,000 for a typical single one hour module. This poses a barrier, because these costs are fixed, and have to be outlaid. A single entity may not be sure that it can recover these costs from its own user base.

The set up costs could then be *recovered* and spread by a range of different options including:

- direct end user charges, ie SME user pays;
- licensing the module to other intermediate users, such as banks, on an access fee per period;
- licensing the module to others on a per user basis; or

- making the module available on an ASP (application service provider) per use or access model
- etc.

These options have the effect of reducing the barriers to set up and operating, because the costs can be spread over larger numbers of end users. A bank in a developing country may not have the resources to finance significant content development, but may, with the assistance of government and international aid, be able to buy access to material developed elsewhere and modify it to local conditions. Having modified material, it could then recover some of its costs by making it available to other intermediate users for a fee, subject to the usual copyright and IP issues.

### **How might this PPP be started and given momentum?**

Thailand was selected as location for a proof-of-concept trial test in 2004, because Thailand has a commitment to create 50,000 new SMEs each year, and because Thailand has initiated meetings of regional SME Banks, and an MoU between them. The Banks participating in the Memorandum of Understanding (MOU) on cooperation among APEC financial institutions dealing with Small and Medium Enterprises (SMEs) at the 10th APEC Finance Ministers Meeting in Phuket, Thailand are:

1. China Development Bank (CDB)
2. Bank of China (Hong Kong) Limited
3. Hong Kong and Shanghai Banking Corporation Limited (HSBC)
4. Standard Chartered Bank (Hong Kong)
5. Japan Finance Corporation for Small Business (JFS)
6. National Life Finance Corporation (NLFC)
7. Industrial Bank of Korea (IBK)
8. The Association of Banks in Malaysia (ABM)
9. The Association of Banks in Singapore (ABS)
10. Taiwan Cooperative Bank (TCB)
11. Small and Medium Enterprise Development Bank of Thailand (SME Bank)
12. Industrial and Commercial Bank of Vietnam (Incombank)

The aim is to establish a loose consortium of interested banks, starting within those banks which are signatory to the Phuket SME MoU, government agencies, industry associations, researchers, system and content providers, and others. This loose consortium would carry out a trial proof of concept in Thailand in 2004/5, and depending on the success of that trial, moves would be made to apply the concept in other economies, particularly Viet Nam, China, Indonesia, Philippines etc in 2005/6 and onwards.

This would be moved forward along the following steps:

1. Consortium participants would be invited to become signatories to a further MoU, and to work to develop a broad action plan.
2. Consortium participants would establish key liaison people in their organisation to assist in developing the trial proof of concept and the development of the APEC Entrepreneur Consortium. These liaison people would need to be at a senior level, but could delegate to subordinates in most cases
3. For the purposes of a trial, the consortium members would agree on some target markets or industries to develop systems, content and to test cost recovery and financing models. Some sort of informal meeting or consultative

process needs to be set up to identify issues of concern and potential problems. These issues would then need to be addressed by further research and testing prior to a full scale test.

4. It would probably be helpful to establish a small secretariat to carry out this process. Some funding would be necessary for this over and above what is available via APEC, and avenues need to be investigated for that funding.

## V Conclusion

There is a strong and recognised need to provide a more conducive entrepreneurial environment, particularly in Asia. Governments alone do not have the resources to provide access to the finance, information, advice and training needed to create another 50 to 70 million SMEs over the next decade. A confluence of developments in ICT, content development, and bank regulation by BIS are making a PPP much more feasible than ever before. Whilst no single entity has the incentive to take advantage of the opportunities that this will create, a loose consortium may well be able to. This would allow banks to work with government agencies, industry associations, content providers, researchers, etc to develop a range of products and services aimed at meeting the needs of entrepreneurs. This has the potential to create a win-win situation, where

- banks will gain from better risk management and reduced risks of lending, and by access to a growth market of new businesses;
- SMEs gain by better access to finance, information, and relevant training;
- Industry associations gain by more and better serviced members; and
- governments and societies gain by the creation of more jobs and growth, by reduced risks of SME activity, and by the burden of providing support services being shared more broadly and delivered more cost effectively.

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