Part III

Marketing Promotion

Chapter 8. Business Counseling

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This workshop will discuss business counseling concepts compared with consulting, the effect of supporting SMEs providing business counseling and a coupon consulting system in Korea for the small and medium enterprises along with many actual case studies.
This workshop will discuss US business counseling programs of SBA (Small Business Administration) that provides small business counseling and training through a variety of programs and resource partners, located strategically around the country. The office of Small Business Development Centers (SBDC) provides management assistance to current and prospective small business owners (http://www.sba.gov/aboutsba/sbaprograms/sbdc/index.html). SBDCs offer one-stop assistance to individuals and small businesses by providing a wide variety of information and guidance in central and easily accessible branch locations. The program is a cooperative effort of the private sector, the educational community and federal, state and local governments and is an integral component of entrepreneurial development network of training and counseling services.

1. Introduction

1.1 What is Business Counseling?

Different consulting characteristics among Micro Businesses, Small and Medium Business and Large Businesses need to be considered while consultants or business counselors provide the consulting service to their clients. Studies have shown that micro and small businesses have not kept pace with the human resource capability and the development of new technologies such as Knowledge Systems and Information Communication Technologies (ICT) in implementing their businesses. They need business counseling rather than simple consulting. That's why this workshop focuses on business counseling.

The growth of Micro and Small Enterprises (MSEs) becomes new trend in APEC region. Many economies, both developed and emerging economies, are experiencing unprecedented growth in micro and small businesses. They recognize the importance of MSEs for emerging economy. Micro and small businesses provide more jobs and the unique infrastructure to maintain lifestyles and rural cultures. They need business counseling that is the concept of consulting with training and management education. The concept is more closely related to mentoring. The growth of Micro and Small Enterprises is another reason why this workshop focuses on business counseling. The following figure shows the concept graphically.

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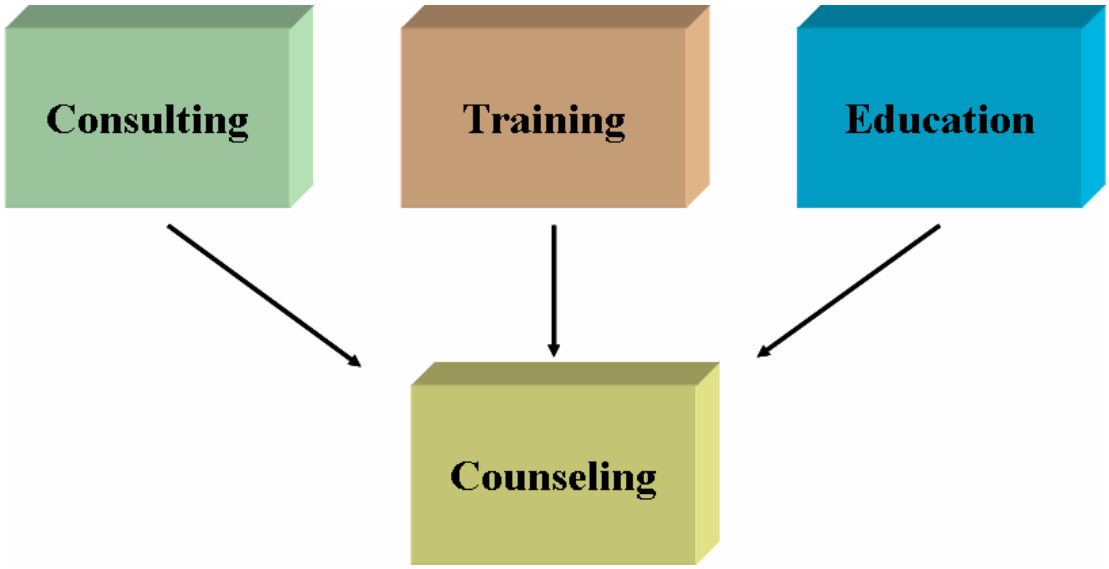

Fig 1 The Concept of the Business Counseling

1.2. Related Theories, Business Counseling Programs, and Policies at a Glance

One of the most important related theories of business counseling is that business counseling could provide confidential one-on-one management counseling services to new and existing small businesses. Areas of counseling include business plan development, pre-venture feasibility, marketing, financial planning, cash flow management, loan packaging, record keeping, personnel and training issues, production, and general management for the small business entrepreneur (http://www.williams.edu/admin/deanfac/exped/pdf/business_counsel.pdf). Training workshops could be also available at a reasonable cost. There are many business counseling programs in the world. The SBA (Small Business Administration) of USA government provides small business counseling and training through a variety of programs and resource partners, located strategically around the country (http://www.sba.gov/services/counseling/index.html).

The SCORE Association (Service Corps of Retired Executives) is a resource partner of the SBA dedicated to entrepreneur education and the formation, growth and success of small businesses nationwide. There are more than 10,500 SCORE volunteers in 374 chapters operating in over 800 locations who assist small businesses with business counseling and training. SCORE also operates an active online counseling initiative. The Office of Small Business Development Centers (SBDC) provides management assistance to current and prospective small business owners. SBDCs offer one-stop assistance to individuals and small businesses by providing a wide variety of information and guidance in central and easily accessible branch locations. The program is a cooperative effort of the private sector, the

educational community and federal, state and local governments and is an integral component of Entrepreneurial Development's network of training and counseling services. In order to get more detailed information about SBDCs we can introduce the organization as follows (http://www.sba.gov/aboutsba/sbaprograms/sbdc/aboutus/index.html):

The U.S Small Business Administration (SBA) administers the Small Business Development Center Program to provide management assistance to current and prospective small business owners. SBDCs offer one-stop assistance to individuals and small businesses by providing a wide variety of information and guidance in central and easily accessible branch locations. The program is a cooperative effort of the private sector, the educational community and federal, state and local governments. It enhances economic development by providing small businesses with management and technical assistance. There are now 63 Lead Small Business Development Centers (SBDCs) -- one in every state (Texas has four, California has six), the District of Columbia, Guam, Puerto Rico, Samoa and the U.S. Virgin Islands -- with a network of more than 1100 service locations. In each state there is a lead organization which sponsors the SBDC and manages the program. The lead organization coordinates program services offered to small businesses through a network of sub centers and satellite locations in each state. Sub centers are located at colleges, universities, community colleges, vocational schools, chambers of commerce and economic development corporations.

SBDC assistance is tailored to the local community and the needs of individual clients. Each center develops services in cooperation with local SBA district offices to ensure statewide coordination with other available resources. Each center has a director, staff members, volunteers and part-time personnel. Qualified individuals recruited from professional and trade associations, the legal and banking community, academia, chambers of commerce and SCORE (the Service Corps of Retired Executives) are among those who donate their services. SBDCs also use paid consultants, consulting engineers and testing laboratories from the private sector to help clients who need specialized expertise. The SBA provides 50 percent or less of the operating funds for each state SBDC; one or more sponsors provide the rest. These matching fund contributions are provided by state legislatures, private sector foundations and grants, state and local chambers of commerce, state- chartered economic development corporations, public and private universities, vocational and technical schools, community colleges, etc. Increasingly, sponsors contributions exceed the minimum 50 percent matching share.

The SBDC Program is designed to deliver up-to-date counseling, training and technical assistance in all aspects of small business management. SBDC services include, but are not limited to, assisting small businesses with financial, marketing, production, organization, engineering and technical problems and feasibility studies. Special SBDC programs and

economic development activities include international trade assistance, technical assistance, procurement assistance, venture capital formation and rural development. The SBDCs also make special efforts to reach minority members of socially and economically disadvantaged groups, veterans, women and the disabled. Assistance is provided to both current or potential small business owners. They also provide assistance to small businesses applying for Small Business Innovation and Research (SBIR) grants from federal agencies. Assistance from an SBDC is available to anyone interested in beginning a small business for the first time or improving or expanding an existing small business, who cannot afford the services of a private consultant. In addition to the SBDC Program, the SBA has a variety of other programs and services available. They include training and educational programs, advisory services, publications, financial programs and contract assistance. The agency also offers specialized programs for women business owners, minorities, veterans, international trade and rural development. The policy of US SBA (Small Business Administration) is to help small businesses start, grow, and compete in global markets by providing quality counseling (http://www.sba.gov/aboutsba/sbaprograms/ed/index.html). Korean government policy is also to promote quality business counseling for small and medium businesses based on the coupon consulting system and APEC Certified Business Counselors programs.

2. Introducing existing Business Counseling Programs

2.1. A Coupon Consulting System of the Small and Medium Businesses in Korea

The coupon consulting system is a business counseling program to support SMEs in Korea. The amount of fund supported is about US$17Million. Small businesses must meet certain eligibility criteria to participate in the coupon consulting system. Company size of the small businesses that want to apply for the program is limited to 300 employees. A start-up company with less than 3 years is eligible if it applies for the start-up only company program. It will be extended up to 7 years if it has a special permission

Processes of the coupon consulting system are as follows:

Announcement → Application by SMEs → Selecting target SMEs → Buying Coupons → Selecting Consulting companies → Contracts → **Business Counseling** → Mid-term report → Final report → **Approval**

In the area of ‘Innovation Support,’ the consulting service supported will be provided to inno-biz companies, venture companies and innovative companies equipped with high-tech. In the

area of ‘Productivity Improvement,’ the consulting service will be given the companies for the productivity improvement. In the area of ‘Small Business’ the business counseling service is specialized to small businesses. In the area of ‘Supporting Start-up Businesses,’ the business counseling service is provided to support start-up businesses for national economic growth and creating jobs for the youth.

The main goal of the coupon consulting system is to improve SMEs’ productivity and to develop knowledge-based industry with active consulting businesses (by establishing an active consulting business environment). The vision of the coupon consulting system is as follows.

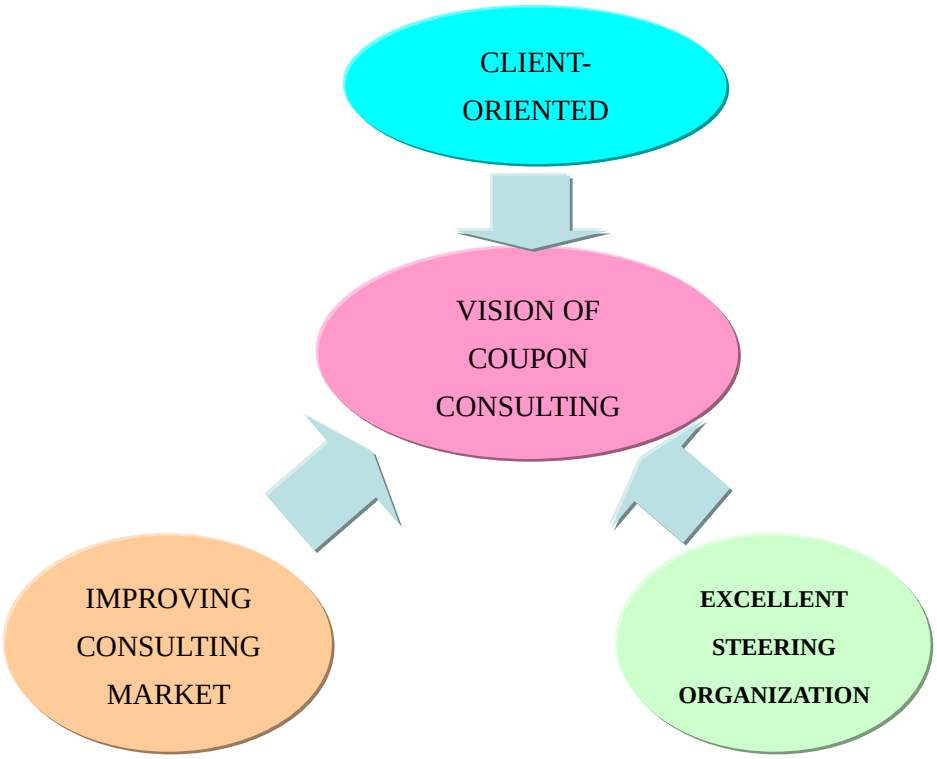

Fig 2 The Vision of Coupon Consulting System

2.2. The APEC CBC (Certified Business Counselors) Program

In this section we will describe APEC CBC program. In terms of historical context we will explain what APEC-IBIZ is about, program objectives, updated participating economies, updated heads of the Economy Institute and the benefits of APEC-IBIZ. We will also introduce the current status of the project.

2.2.1. Historical Context

APEC-IBIZ stands for APEC International Network of Institutes for Small Business Counselors and also refers to as APEC Network of Institutes for Small Business Counselors or APEC International Network of Counselors. APEC-IBIZ was made possible through the SME Working Group of APEC by implementing a program entitled “Training and Certification Program for Small Business Counselors.” It is the program that was endorsed by the SME WG, approved by SME Ministers Meeting in Shanghai in August 2001 and as such, the program for SME WG to implement and monitor. The objectives of the APEC-IBIZ program are as the following: to recognize and sustain small business counseling profession across the APEC Region; to grant certification to APEC-qualified counselors; to make use of information and communication technologies to achieve optimum access and cost effectiveness; and to enhance the competitiveness of SMEs in the global market.

Organizational structure is as the following figure:

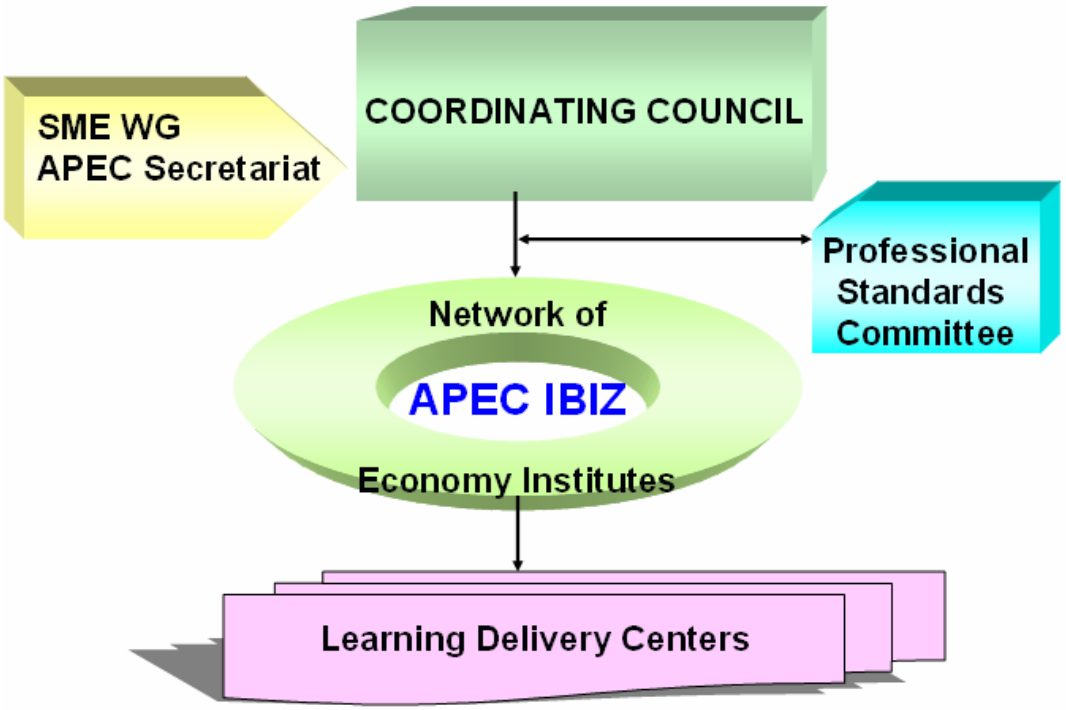

Fig 3 The Organizational Structure

The participating economies include Australia (1997), Brunei Darussalam (2001), Canada(1997), People’s Republic of China-Hong Kong(1997), Indonesia (1997), Republic of Korea (2001), Malaysia (2000), Mexico (2001), Papua New Guinea (1999), Philippines (1997), Russia (2005), Singapore (1997), Chinese Taipei (1997), Thailand (2001) and United States of America (1997).

The procedures that the program was developed and being implemented are as the following:

Development of Program design for training small business counselors (Development of self-directed training materials for ten modules (Development of the Training/Learning Packages (Development of Assessment Scheme, Operations Manual, Mutual Recognition Agreement and Website (Start of the Program in 1997 with Canada and Philippines (overseer) spearheading the project (Approval of the project to become an APEC program in August 2001 (Workshops of the heads of economy institutes, tutor/LDC managers/assessors and Coordinating Council (About 128 APEC Certified Business Counselors (About 710 Learner-Counselors in 16 Economies

The program flow appears as the following figure:

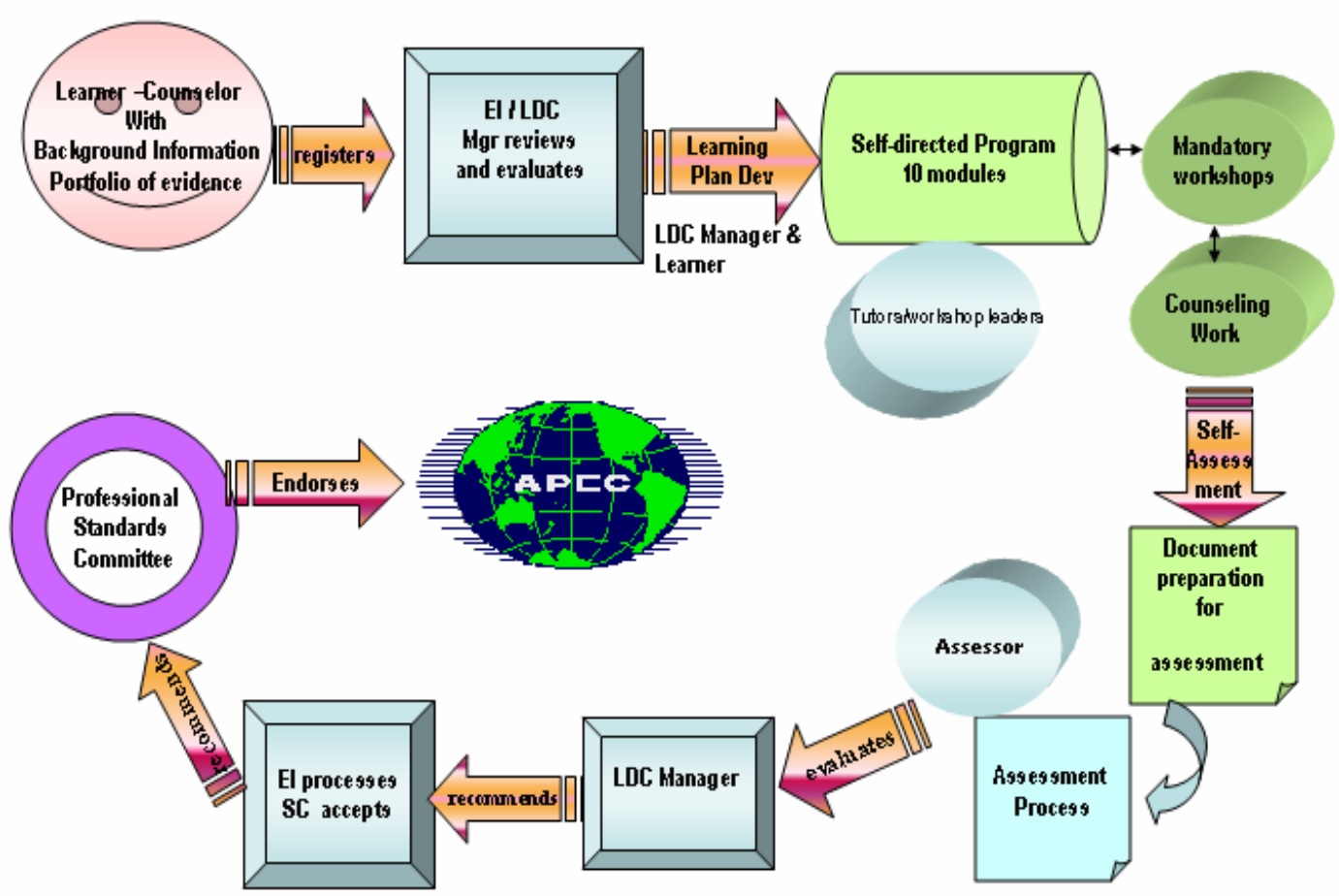

Fig 4 The Program Flow

2.2.2. Current Status

The current status of APEC-IBIZ project is that the project becomes more successful based on

win-win strategy among APEC economies. The project shows the successful implementation and the program enhancement for small and medium enterprises in APEC region through expanded network of certified business counselors and national institutes based on improving the efficiency of SME management.

The progress report of SME is to keep increasing the number of APEC CBCs (Certified Business Counselors) – about 180 APEC CBCs. The project also promotes and establishes the program among APEC Economies not yet participating in the program. It keeps making use of information and communication technology (ICT) to achieve maximum assess and cost effectiveness of the program throughout the region. The members of APEC-IBIZ keep modernizing existing modules and creating appropriate new modules so as to maintain relevancy and currency. The website enhancement for the project has provided increased capacity for information sharing, promotion, documentation, and networking. Moreover, e-Learning capacity is now being developed in several economies.

3. Case Studies on Best & Failure Business Counseling Programs

Participants need to read many cases of best and failure business counseling programs to discuss for the workshop. This approach will help participants guide their SMEs clients more effectively and efficiently.

3.1. A Case of Assuring Consultant Quality for SMEs – the Role of Business Links

In Journal of Small Business and Enterprise Development, British Government instituted a new direction for small business support in 1992 with the establishment of business links (Journal of Small Business and Enterprise Development, 1998, Vol.5, Iss.1, page 7-18). These are intended to coordinate assistance through locally integrated business support services. Business Links have been the subject of several evaluates studies, one of which was particularly critical, besides being the focus of comment in the business press. In particular, Personal Business Advisers (PBAs, who are usually employees of Business Links) have been subjected to scrutiny; concerns being expressed about the extent to which PBAs' recommendations are acted upon. Much of the specialist consultancy is provided by self-employed consultant persons under contract for particular projects.

This study focuses on the self-employed consultants who undertake specialist Business Link supported work within SMEs. While most Business Links have roll and job descriptions for PBAs, this is rarely case of consultants. Self-employed consultants are generally accredited by Business Links themselves or by third parties. Accreditation procedures could be

improved; clear criteria are required for monitoring consultancy processes and outcomes, and consultants need to receive feedback. There are opportunities for closer contact between self-employed consultants and Business Links which would improve the quality of the service to SMEs, the learning of individuals and the organizational learning and public accountability of Business Links.

It has been noted that a performance indicator for many PBAs is the number of business reviews undertaken and attention has been drawn to the fact that less than 50 percent of SMEs accept the recommendation given. A more meaningful Business Links performance indicator would be the extent to which interventions made by consultants as a result of business reviews enhance the competitiveness of client SMEs. Indicators for such an approach might include return on capital employed, turnover, new business, new products, rate of technological innovation, or an increase in the number of employees over time. There is at present no effective infrastructure for the Business Links self employed consultants and consultancies more with Business Links culture, support, knowledge base, and experience of core Business Links staff. This would, potentially, have a two way advantage since insight, skills, knowledge, and learning vested in self employed consultant could be employed for Business Links organizational learning.

Self employed consultants, while being responsible for the delivery of much of the detailed work identified in Business Links initial business reviews remain in a black box. Few Business Links have either job descriptions or person specification for consultants. And Business Links have not distinguished between the generic skills and attributes desirable for accredited self employed consultants who are contracted for work in SMEs, and the specialist knowledge and skills required for a particular project. Specialist skills are more appropriately designated at the level of individual project specifications and contracts. The selection process, often conducted by a third party, focuses on the verification of qualifications and references, together with an interview, despite the relatively low validity of interviews as a predictor for the quality of performances in role. Much depends on the skills of those conducting the interviews and there is evidence that interviews are sometimes undertaken by persons with little experience or training in the selection process. There is little evidence that the selection procedures relate to job descriptions and person specifications for the role. While, on the whole, training and development are provided for PBAs, it is neither general policy nor practice for Business Links accredited consultants to undergo continuing professional development, although it is a requirement of the accreditation process, and SELECT assure monitors development through the annual re-registration process. There is no evidence, however, that consultants who do not undergo training and development are removed from the accredited list.

An intervention undertaken by an independent consultant in negotiation with client involves a managed marketing process during which a project specification is designed and a contract negotiated. One outcome is rapport between the parties concerned, as well as learning by both client and consultant during the process of initial data gathering and problem definition. This is less likely to occur in a Business Links supported consultancy where the PBA is involved in the initial diagnosis and rapport building. The consultants arrive more or less ‘cold’. For the SME this amounts to a cost arising out of the requirement for further rapport building and consultant briefing. The consultant has little personal autonomy to work on problem definition with the client who will, by this stage, be impatient for solutions. Such a consultancy is more likely to result in a series of recommendations destined to lie on the shelf rather than a process of working with the client to achieve change. Moreover, self employed consultants are paid by the day rather than an overall fee for a project. This will tend to promote a solution driven attitude on the part of the consultant which may inhibit longer term client learning and organizational transformation (Journal of Small Business and Enterprise Development, 1998, Vol.5, Iss.1, page 7-18).

A further drawback is noted in those Business Links where SME problems are perceived and solutions found in functional terms such as IT, marketing and/or finance. Management is smaller companies is generally multi functional. Business problems diagnosed by the client may, on the other hand, be perceived, rightly or wrongly, as specifically functional. That is a danger that one specialist consultant will be followed by another, thus compounding the problems of rapport building and failing to facilitate integration within the business. In these case studies on SMEs, many respondents told their desire for ‘hand-holding’ by consultants. There is not a great deal of evidence of this approach to consultancy being currently taken by Business Links. As Business Links increasingly become income generating businesses they are likely to be concerned with short term targets and innovative methods may be needed to achieve relationship building in consultancy. Yet the longer term, and possibly intermittent, consultancy intervention of working alongside the client may be of as great or greater benefit to SMEs than the short functional specialist one.

Almost two-thirds of responding Business Links have a procedure for monitoring the process and outcomes supported consultancy. The criteria, however, are far from clear, some Business Links identifying input criteria for the measurement of outcomes. Nor do the criteria, where they exist, derive from a clear understanding or model of consultancy. It is important that appropriate performance measures be identified and clarified, and that monitoring procedures be designed to ensure that the data collection is appropriate. Business Links should consider whether incentives could be designed to motivate consultants. There is no reason in principle why, despite their self employed status, consultants should not be subject to checks and incentives in a similar way to PBAz and ITCs, Business Links becoming more like managed

networks. Checks would not readily be accepted by consultants without appropriate incentives. While Business Links could make the acceptance of monitoring by agreed performance indicators a contractual requirement, a higher rate of remuneration would be likely to attract higher caliber consultants and greater commitment to the ethos of the one stop shop. In an effectively managed Business Links infrastructure for consultancy there would be enhanced SME benefit and greater Business Links learning and public accountability, as well as the opportunity for individual consultant development (Journal of Small Business and Enterprise Development, 1998, Vol.5, Iss.1, page 7-18).

3.2. A Case of the Advisor-SME Client Relationship: Impact, Satisfaction, and Commitment

In Small Business Economics, there is a study which investigates the relationship between the type of business advisors used by SMEs and the level of impact and satisfaction a SME receives (Small Business Economics, 2005, Vol.25, page 255-271). The role of other influences, such as the intensity and cost of the service, and the level of commitment to an advisor by the client are also investigated. A structural equation path model is estimated from survey information for SMEs in Britain. The analysis shows that customer impact, satisfaction and re-use intentions are related to the character of the firm (particularly its size), the intensity and cost of services, but is only marginally influenced by the geographical distance between advisor and client. Affective commitment, measured by the level of the 'trust' of the advisor by the client, is shown not to be significant, except for public sector and business association suppliers. The importance of trust to these suppliers, despite the low satisfaction levels they achieve, is argued to be incompatible with attempts to charge fees, as has been sought for the government network of Business Link. Both business association and public sector support bodies therefore have severe limitations in combining their broader roles with a commercially-based fee-based income strategy.

The study thus confirms the importance of comparing different types of suppliers of advice and the institutional governance regimes within which they operate. Our analysis finds that different supplier types operate through different processes and produces different levels of impact and satisfaction for their customers. However, comparing between broad sector categories (social, public, private and association advisors) we find that affective commitment (trust) is generally only weakly associated with increased satisfaction and impact. These findings are generally in line with Clark (1995) and Bennett and Robson (1999), that trust, cost and interaction intensity vary between different types of supplier and depend on both client-supplier formality of relations, and on contrasts between the governance regime and other external mechanisms for controlling quality, and developing reputation and brand. These structures also influence the outputs that are evaluated by clients who generally receive higher impacts and satisfaction the higher the interaction intensity during service delivery.

Our results also confirm that trust, service cost and service intensity tend to be positively associated with each other. Direct causality in these relationships cannot be deduced from our results, but out structural equation path model indicates that as service intensity increases, which is strongly related to higher service costs, trust is also involved to a greater extent. This is expected. As advice becomes more intense, and hence more potentially significant to a firm, greater effort is made to use both personal relationships and trusted suppliers either in supplier selection, or in the management of advisor relationships. An important public policy implication of our findings is that there is generally low satisfaction and impact from public sector supply of advice. This is similar to Priest (1998) for the case of Business Link. Hence, the attempt to raise fees from public service advice may be ill-advised, since attempts to increase intensity leads to higher levels of dissatisfaction and lower assessments of impact for the public sector. This may result either from bottlenecks in the capacity of public sector advisors to intensify (there is only limited skill and capacity available within the sector), and/or that clients perceive the attempt to charge for the public advice they seek as contrary to the ethic of trust expected from the public sector. This suggests that the stated ambition for Business Link to raise at least 25% of its incomes from fees, which existed from 1993 to 2002, was fundamentally flawed.

The study also suggests that localization is not an effective strategy for marketing of advice services. Distance between advisor and client is usually an insignificant influence. Where it is significant, greater distances produce higher intensity and greater impact and satisfaction. In common with the findings of Bennett and Smith (2002), this appears to be chiefly a supply side effect; i.e. the most technically intensive, and consequently high cost, advisors are found at greater distances from the main regional commercial centers. The localization effect, which should reduce transaction costs, does not appear to be present. This also has important public policy implications as well as private sector marketing consequences. It suggests that a large network of 45 local outlets for Business Link advice services is unnecessary. The same service could be provided from a small number of regional centers.

Clearly further research is needed using larger scale and broader survey bases to replicate these results, particularly to examine the different service submarkets of different types of advisors that will allow more detailed assessment for different markets, credence structures, and trust/ regulatory/self-regulatory relationships. Further research is also required on the role of firm age and sector in how the advice process operates. However, the present research is significant in pointing towards these lines of further inquiry, and in showing how standard marketing concepts can be applied to the predominantly relational exchange that governs SME business advice, including that from the public sector. Whilst further research is clearly required, the results do tend to confirm that the structure of the conceptual model used by Shemwell et al. (1998) applies: that there is a chain of relationships between outcomes,

satisfaction and continuance commitment. But for the case of business services the results suggest that there is a predominance of objective outcome measures (such as impact on reduced costs or enhanced profitability), a relatively lower degree of emphasis on subjective outcomes (such as ability to manage), and a low role for affective commitment (trust) in most cases.

3.3. A Case of Gambling for Growth or Settling for Survival: The Dilemma of the Small Business Adviser

In Journal of Small Business and Enterprise Development, there is one study questions aspects of the UK government's policy to target small firm support on fast growing firms – to maximize its employment impact (Journal of Small Business and Enterprise Development, 2000, Vol.7, Iss.4, page 305-314). The study explores the tension between advice likely to increase growth and risk-taking and advice likely to ensure firm survival in the turbulent small and medium-sized enterprise sector. The research data derive from 24 semi-structured interviews and a group interview of ten business advisers in the West Midlands region collected between autumn 1996 and spring 1997, and a national survey of 175 Business Link personal business advisers (PBAs) conducted in April 1998. Interviewees responded to a prompt asking for advice to a fast growing firm. The study compares qualitative interview responses from a wide variety of West Midlands business advisers with questionnaires responses from PBAs.

The study suggests that the advice given by accountants and bank managers differs little from that given by Business Link's PBAs. The study will argue that advisers including PBAs, offer risk-averse advice and support to small firms. Present business advice might reduce insolvency rather than increase the number of fast-growth firms. The risk-averse nature of advice, reflecting the adviser's clientele, undermines policies designed to increase the number of fast-growth companies. It concludes that advice will often be inconsistent with the growth-oriented aim of government policy.

There may be several reasons why advisers accent problems associated with fast growth, despite research evidence that suggests growing companies have a higher rate of survival. First, although it seems unlikely to promote growth among small firms, the emphasis on constraints might be a perfectly feasible method to assess the potential for the growth of an SME. Those firms that control their cash may be able to invest in new markets and new products. Secondly, the relationship between advisers and firm owners is akin to a sales relationship. The PBA establishes rapport and credibility with the business owner - as the PBA group noted earlier in this study - which requires the PBA to tread very carefully. Moreover, the quantitative targets given to Business Links by central government are another burden on the PBAs' relationship with the business owner because the PBA needs clients to

fulfill their targets, whether these clients are fast-growing companies or not. Thirdly, many PBAs are ex-small business owners and their typical experience might be struggling to survive. Indeed, experience of fast growth in a small firm over the long term is exceptional. Fourthly, the experiences of PBAs in the small firm sector might lead them to believe that the key to small firm support is survival rather than growth. Finally, although they may mostly work in growing firms, PBAs find it difficult to target a priori fast growth firms. PBAs' advice may be risk averse as, in their account manager role; they tailor their advice to the client's requirements. Thus, the PBA may face a risk-averse client and find it at least difficult to suggest more risky growth strategies, although both UK and US evidence suggests that growing firms have greater survival chances.

Government agencies advice tends to be survivalist because (a) most SMEs fail, (b) most clients seek advice when they have a difficulty, (c) survivalist advice is appropriate to most clients, (d) psychologically, risk-increasing advice is more stressful, and (e) internal management control is what most SMEs lack. Business advisers (whether bank managers, accountants or Business Link advisers) seek assurance that properly financed firms have capable management. During the processes PBAs respond to the high attrition within the SME sector and the evidence that internal management failures contribute to firm bankruptcies. Accordingly, although internal management control can be strength of all firms, including those that sustain growth, their effect on firms may be seen in reduced SME death rates rather than increased growth rates. The evidence presented here suggests that the advice from most business advisers promotes survival; not growth. Are PBAs providing the wrong advice, to the right clients - promoting survival to fast-growing firms? Rather than promote growth to growing companies; PBAs promote internal management control to companies that ask for assistance. PBAs have altered the policy, but improved their performance figures, to a policy that suits their skills and the clients that approach Business Link. Thus advisers wish to `control growth', and stress the inherent risks involved in fast-growing firms. Rather than gambling for growth, business advisers settle for survival (Journal of Small Business and Enterprise Development, 2000, Vol.7, Iss.4, page 305-314).

3.4. A Case of University Counsels Small 'Split Firms' in Post Communist Country

In Journal of Small Business and Enterprise Development, the transition from centralized to market economy created a number of difficulties for polish enterprise and many of them went bankrupt, especially after the soviet market had been lost (Journal of Small Business and Enterprise Development, 1999, Vol.6, Iss.4, page 386-400). While large companies, such as steelworks, coal mines, railways, etc, have been protected by the government for social reasons, the small and medium enterprises (SMEs) could survive only when they, by themselves or with some external assistance, were able to introduce internal changes and

adjust to the market environment. Polish SMEs may be divided into to groups: emerging private firms and split firms which were created by a partition of large state-owned enterprises. The various reasons for failure are discussed for both groups and compared with those described in the literature. A general model of consultancy intervention is presented and the attitudes of Polish enterprises towards change are described. In general, the state-owned and split firms are reluctant to change unless their situation is critical, and if restructuring is done it is rather superficial. Thus, a successful consultant has to be not only convincing and flexible but also must assess how deep a change is wanted by a given enterprise.

This study presents the approach used in helping the split firms by the University of Mining and Metallurgy (UMM), Faculty of Management Consulting Group. In order to find solutions for a given firm, a working team consisting of representatives of an enterprise and university was set up. The team devises a strategy of enterprise survival and prepares a detailed plan of the steps to be taken. This approach, which in many cases has proved to be successful, consists of trying to infuse the employees with the philosophy of enterprise survival and organizing a series of relevant training activities. When the employees fully understand the essence of all the actions necessary for enterprise survival (privatization, improvement of marketing, creation of system of motivation, quality control, management information and other), the consulting group’s role as ‘company doctor’ is limited to the supervision of the change planning process and the assessment of the solution chosen. This system of triggering employee initiative has been found to be not only effective but also cheap, an aspect which in the case of small enterprises should not be underestimated.

Polish SMEs often fail due to a lack of cheap credit, poor knowledge of market or deficiencies of the national fiscal system. This relates also to the so-called split firms which emerged from large state-owned enterprises though the main things these split SMEs need is restructurization and a new strategy. In general, the split firms are reluctant to the change unless their situation is critical and if restructurization is made it is rather superficial. In general, the consultancy is not treated in Poland as a way towards higher competitivity and special measures have to be taken for SME customers (Journal of Small Business and Enterprise Development, 1999, Vol.6, Iss.4, page 386-400).

The counseling approach used by the UMM Consulting Group to assist such split SMEs has the following advantages: the change is created by joint efforts of employees and consultant; employees' initiative is triggered within task groups during change creation and implementation; employees identify themselves with the change and fully accept it; employees understand the change and do not fear for their safety; new leaders emerge from lower and middle-level managers;

Companies receive not only the final product (strategy, business plan and detailed tasks set) but also know-how useful in future restructurizations; the cost of service is much lower than expenditures on the report prepared by a commercial consulting firm. The feedback effect between the firms and UMM Faculty staff was also observed. University staff provided courses, training, workshops, etc and received information on real cases, situations and solutions. Company staff provided real questions to be solved and received theoretical knowledge as well as knowledge of the method used by other firms. In conclusion, the authors would like to underline the approach presented in this study is in some part the fruit of cooperation with UK experts and institutions within such projects as PHARE (a program of the European Union for the economic and social restructuring of the countries of Central and Eastern Europe).

3.5. A Case of the Impact of Consulting Service on Spanish Firms

In Journal of Small Business Management, specialized services that help in efficient decision making in company management-that is consulting service-undoubtedly make up one of the most dynamic sectors of the economy in most European countries and in Spain (Journal of Small Business Management, 2003, Vol.41, Iss.4, page 409-416). There is a huge amount of literature available on the subject of consulting, and it often is stated that the consultant contributes a large dose of common sense to a management situation that is not always rational. However, the consultant is not a magician who discovers what the client did not know, although the consultant is able to look at the problem from a more appropriate angle and his or her services should be more wisely used. Technically speaking, this study asserts that consulting is the planned intervention in a company with the aim of identifying the problems that may exist in its organization and implementation those measures considered suitable and fitting in order to resolve them.

The evaluation of the effects of the consulting process generally is performed by looking at the behavior of the company. It is accepted that the benefits of the management process are not limited to just putting the recommendations into practice; they also should include the changes and development brought about by the process. In this study, from the recommendations made by the consultant, only the short term financial benefits of the project can be evaluated given the difficulty involve in evaluating the quality of the service. This is increasingly so, taken into account that Spanish firms find themselves in a difficult moment, as they currently are adapting themselves to the implementation of the “culture of quality” regarding both their products and suppliers. Quality management system, such as the European Foundation for Quality Management (EFQM) in the case of many European companies, are still a long way from being part of the cultural and strategic reality of the commercial sector in Spain.

The present study analyzes external consulting in Spanish commercial and distribution firms by looking at management decisions concerning activities related to organization, quality, marketing, and strategy. This analysis can be extrapolated to other European areas, especially those around the Mediterranean Sea. This study examines the effect of management consulting on the company when there is the intervention of an external adviser-in other words, when there is an increase in the company's knowledge and capabilities in these activities, enabling a later investigation and evaluation of its impact on the firm's situation in the future. Assessment performed by experts from outside the company is an activity that is growing in firms as they try to decrease structural loads, that is, the fixed cost of staff. More than 50 percent of the Spanish commercial or distribution companies in this study have used external consulting services. The consulting work can be performed in any area, department, or activity within the company. This analysis was limited to the study of the areas or departments dealing with organization, quality, marketing, and strategy, and it can be seen that external advice on marketing is used most frequently. On the other hand, organization, quality, and strategy consulting are sought less often because companies prefer to carry them out internally or because the offer is of insufficient quality or quantity (Journal of Small Business Management, 2003, Vol.41, Iss.4, page 409-416).

From the results of this study, the idea that advice on organization, marketing, and strategy is sought more often if the management activities in each of those areas are held to be of little value is rejected. And only consulting about quality is engaged more frequently if the functioning of the quality department is valued lower. The lack of professional staff in the management of the department forces the choice between in-house staff training or engaging the services of an external professional to help the company. Only those companies that sought consulting services on marketing showed a significant relationship. In other words, the less prepared the specialist or marketing director was in the company, the more it resorted to outside consulting services. For the other areas, the relationship is not significant. Lastly, there was no kind of relationship found between staff qualifications within each department and the use or engagement of consultants in the areas of organization, quality, marketing, and strategy.

3.6. A Case of the Training Train out of control: A Case of Evaluation Failure from New Zealand

In Journal of Small Business and Enterprise Development, there is a noticeable absence of robust debate over the decision to deliver free or subsidized training programs to those running small to medium-sized enterprises (SMEs) [Journal of Small Business and Enterprise Development, 2004, Vol.11, Iss.4, page 458-466]. Many government offer these schemes, despite the lack of empirical evidence that programs aimed at individuals contribute positively to firm performance and therefore to economic growth. A similar situation probably exist in the firms that participate in training; a lack of robustness in the way they ensure a relationship

between the training selected and the needs of employees in the context of their jobs. This study explores the issues facing both firms and government agencies in New Zealand as they make decisions about investing in training as an enterprise development strategy. It is suggested that the way in which firms and government agencies behave in relation to training investment decisions is flawed: those involved follow received wisdom, act upon hunches and appear indifferent to ensuring that their respective investments are maximized. This situation will continue until it is realized that training is a key developmental strategy and gaining value from training events means that more rigor needs to be applied to planning and evaluation.

For government seeking ways of developing the capability of their SME sectors, the decision to deliver free or subsidized training could be described as a “no-brainer”. While the introduction of differential tax rates and targeted assistance (e.g. support offered to certain industries) are both strategies that are hotly debated, training as means of encouraging “enterprise development” is about as controversial as a mother’s home-baked apple pie. The lack of debate based on a rationale that has become received wisdom in policy making circles: Developing the skills of individuals who work in SMEs or who own them will lead to enhanced performance for the firm. However, there is widespread dissatisfaction with the lack of empirical evidence that exists to demonstrate the value of training as a developmental strategy for governments. This situation has been exacerbated by the fact that historically much of the debate over enterprise development has been focused on how much a government favors “intervention” as opposed to “market forces” – rather than on which intervention is best suited to a particular situation. The discussion on best practice enterprise development has been concerned with how to make the most efficient use of resources within the prevailing ideological climate, rather than addressing the most perplexing question of all: what intervention works best, in which circumstances?

This study explores the this question from perspective of both firms and government agencies in New Zealand as they make decisions about investing in training as an enterprise development strategy. Using data from two different sources, the author suggests that the way in which firms and government agencies behave in relation to investment decisions is flawed : those involved follow received wisdom, act upon hunches and all in all appear indifferent to ensuring their perspective investment are maximized. In many countries there is a noticeable absence of robust debate over the decision to deliver free or subsidized training programs to those running SMEs. Many governments now offer these schemes as a matter of course, on the assumption that developing the skills of individuals who own or who work in SMEs will lead to enhanced performance for the firm. This position has now been repeated so frequently that it is widely regarded as axiomatic, and has led to a view that achieving high performance for an economy means that governments need to provide training opportunities and firms need to invest resources in employee training (Journal of Small Business and Enterprise

Development, 2004, Vol.11, Iss.4, page 458-466).

However, there is a noticeable absence of empirical evidence that programs aimed at individuals do in fact contribute positively to firm performance and therefore to economic growth. Many of these same governments that focus on training as an intervention for ED also fail to evaluate the effectiveness of the training in any robust way, and there is no doubt that this means that the value of their investments is not being maximized. A similar situation exists at the level of the firm, with many firms failing to apply robust and clear thinking to their training investment decisions. This situation is not new, and will continue while firms and government agencies continue to be driven by short-term thinking. At the government level this type of thinking is characterized by decisions to implement particular developmental interventions (in this case training) without making evaluation an integral part of the design, or by using their own staff to carry out client satisfaction surveys and describing them as program evaluations. The result is poor quality evaluation which doesn't deliver the answers that are needed. This merely strengthens the naysayers' arguments that the value of training as an intervention cannot be assessed.

At the firm level, this type of thinking is characterized by the use of training as a way of responding to functional needs rather than as a long-term developmental strategy, and is demonstrated when managers view training needs from the perspective of the employee only rather than carefully analyzing the fit between an employee, their job and the needs of the firm, i.e. allowing employees to chose training that they wish to attend. It could be claimed that the key issue causing this situation to occur is the resource-constrained nature of SMEs. However, the degree to which SMEs are resource-constrained is precisely the factor that provides the only hint of optimism in what might otherwise appear to be a fairly gloomy situation. While at present neither governments or firms exhibit particularly good practice in terms of evaluating training investments, at least there is some reason to believe that small firms could be persuaded that there would be a benefit from doing so. While it may be impossible for those working in government agencies to take the advice inherent in the saying "live like there's no tomorrow, and work like you own the firm", it should be a piece of cake for small firm owners – they do own their firms. If anyone can break the vicious cycle of failure to evaluate training investment followed by poor training investment decisions, it will be those who are the most conscious of the value of each dollar: the SME owner (Journal of Small Business and Enterprise Development, 2004, Vol.11, Iss.4, page 458-466).

3.7. A Case of Employer Characteristics and Employee Training Outcomes in UK SMEs: a multivariate analysis

In Journal of Small Business and Enterprise Development, workforce development is becoming a higher priority for government, both as a means of addressing social exclusion

and raising competitiveness. However there is limited evidence of the contribution of training to the success of individual firms and even less evidence of the impact of such training activity on small to medium-sized enterprise (SME) employees (Journal of Small Business and Enterprise Development, 2004, Vol.11, Iss.4, page 449-457). This study draws on a survey of 1,000 employees to investigate the impact of a training intervention on employees in SME workplaces. It explores issues associated with the equity of provision of training in the workplace and the impact of training on the employability of SME employees in the labor market. The results suggest that training interventions lead to positive outcomes for the majority of SME employees, particularly those working in organizations with relatively formalized training practices. It concludes by suggesting that there should be a greater focus on the employee dimension in research and policy regarding training in SMEs.

This study has presented some results emerging from evaluation research exploring the impact of undertaking training on 1,000 employees, the majority of whom were employed in SMEs at the time they received training. It is important to note that the training in question was supported by the ESF Objective 4 program, which was aimed primarily at providing skills for workers considered to be under threat from structural change in the economy. As such there is a fundamental tension between the policy instrument (O4) which sought to provide training to improve the skill-set of employees and their labor market mobility and the employers' need to retain their employees. Whilst not the focus of the evaluation research, this is of interest given the influence of the poaching externality in the policy discussion surrounding training and skills development in SMEs. The analysis suggests that employees "quitting" the workplace are significantly more likely to have gained a qualification and have followed a course of career progression (promotion) through moving to a different employer. This may be of concern to the employer, as the loss of an employee following investment in training is perceived to be a major barrier to the provision of training opportunities, particularly by smaller employers. However employers themselves do not report this as a major problem either in terms of their involvement with O4 or with training interventions more generally.

The results suggest that the majority of SME employees that undertake training do indeed report some form of benefit from the training. The findings suggest that the majority of SME employees participating in O4-funded training have derived benefits from externally-supported training activity in terms of informal measures (such as increased confidence) and accredited learning (gaining a qualification). The majority of them remain with the same employer. However there are mixed messages in terms of the extent to which the intervention has reinforced or helped to overcome existing inequalities in the labor market. The benefits are spread across most sections of the workforce, although there are statistically significant differences associated with the propensity of female workers to obtain a qualification (more likely). This coupled with the finding that older workers are less likely to undertake further

training and education activities may concern policy makers as they seek to meet the challenges of structural change and the implications for older, male members of the workforce.

The profit analysis provides further illuminating findings associated with the outcomes of the intervention. It reinforces the finding associated with older workers who are significantly less likely to undertake further training and education. However it uncovers some positive (though not statistically significant) impacts in terms of those who did not have any qualification prior to the intervention and those who are members of ethnic minorities. The analysis suggests that employer human resource practices can influence the probability of a positive outcome for an employee. The data suggests that people employed in organizations with relatively formalized training practices (as indicated by the existence of IiP in the workplace) were more likely to report positive outcomes across three of the four variables under study. Employees were significantly more likely to cite an increase in confidence, to obtain a qualification and to go on to undertake further education and training than their counterparts in non committed/ recognized organizations. However the application of IiP may be limited in smaller enterprises and more appropriate and arguably innovative forms of human resource development practice needs to be encouraged to spread the benefits of learning more widely amongst the SME workforce.

Finally, the finding suggests that employees in the smallest organizations are more likely than those employed in the largest organizations to have gained a qualification. This is interesting in the light of other research which suggests that in general, support for accredited learning in the workplace increases with business size but remains at a relatively low level overall and is worthy of further investigation. Our analysis suggests that the policy intervention has had a positive impact on the pursuit of accredited learning in the smallest businesses but that those employed by medium-sized enterprises (50-250 employees) are more likely to obtain a qualification. These findings generally demonstrate the benefits of including the employee dimension within studies of training within SMEs and taken with the positive views of impact expressed by employers demonstrate the “win-win” nature of effective training interventions. The key policy challenge is to learn what works and to go on to mainstream cost-effective intervention designs and embed them in the economy (Journal of Small Business and Enterprise Development, 2004, Vol.11, Iss.4, page 449-457).

3.8. A Case of Gender-Based Performance Analysis of Micro and Small Enterprises in Java, Indonesia

In Journal of Small Business Management, Republic of Indonesia, a geographically diverse country with a population of 207 million, has been able to achieve high rates of economic growth (Journal of Small Business Management, 2001, Vol.39, Iss.2, page 174-182). However, despite three decades of rapid growth, the economic structure is still based on informal or

traditional activities in which most people are employed. Indonesia's labor force is growing at a substantially faster annual rate (2.7 percent) than the population as a whole (1.6 percent) (World Bank 2000). The government of Indonesia is faced with a challenge of providing long-term sustainable employment and income opportunities for the growing rural labor force. The promotion of Micro and Small Enterprises (MSEs) as a strategy to promote employment in rural areas has received considerable recent attention in Indonesia, as well as in other developing countries. Recent economic turbulence and concerns with growing economic and social inequalities in Indonesia has stimulated discussions of means and objectives of government policies regarding small businesses. The potential contribution of MSEs to generating employment and income in densely populated rural areas of Asia has been documented. Their development is seen as a way of providing aid to the poor and creating job opportunities for the under-employed.

The majority of female workers in developing countries have entered the labor force through the MSE sector, primarily because of ease of entry and limited access to other enterprises and employment opportunities. Research in Africa and Asia show that females and males exhibit significantly different priorities in production and consumption. Females contribute larger proportions of their personal income toward household expenditures than males and thus are able to retain less profit for reinvestment. Tinker (1987) and Downing (1990) suggest that females have different business strategies and objectives than men. Women's motivation is often household survival, whereas men are more often business-motivated. Therefore, male business owners are more likely to reinvest profits into the business.

Effective policies and programs to support the development of MSEs depend critically on adequate knowledge of characteristics and constraints of MSEs. Also, given the growth of entrepreneurship among women, it is important to understand the social and economic factors influencing the success of female-owned small business. This article is an attempt to examine the micro- and small-scale enterprise at two levels: the individual and the enterprise. The specific objectives of this study are: (1) to present a descriptive profile of enterprises in Java by gender; (2) to examine the rate of growth of employment in Indonesia by gender and type; and (3) to determine the factors influencing the performance of female enterprises in Java. Such an understanding is crucial to the evolving policy debate involving the MSE sector. The survey revealed that businesses operated by female entrepreneurs appear to be concentrated in more traditional and less dynamic markets than businesses operated by men. Female businesses were concentrated in low-income informal sectors, where prospects of growth were limited. Employment growth rates of female enterprises were, for the most part, significantly lower than those of male enterprises.

From a policy viewpoint, the findings shed doubt on the feasibility of drafting a single policy

or program to assist all Micro and Small Enterprises (MSEs). Given that the majority of MSEs are female-owned and these enterprises seem to be less oriented toward growth, one common program may not work. To the extent that women do have different objectives than men, programs and policies need to be gender-differentiated. At the program level, it is important to recognize that enterprises are heterogeneous, with different opportunities, needs and constraints. Program assistance must be tailored to reflect such differences. Most of the research on women enterprises has been conducted in developed countries. This study suggests that theories and results derived from research in developed countries be examined and tested before they are applied to developing countries due to differences in social and organizational structure, financial institutions, needs and constraints, family, human capital development, and other demographic features. A better understanding of enterprises and entrepreneurs can make a major contribution to the development of improved approaches for promotion of efficient and equitable growth of female-owned MSEs in developing countries (Journal of Small Business Management, 2001, Vol.39, Iss.2, page 174-182).

3.9. A Case of the Performance of Small Enterprise during Economics Crisis: Evidence from Indonesia

In Journal of Small Business Management, Indonesian economy seemed to be performing very well in the first half of 1997 (Journal of Small Business Management, 2000, Vol.38, Iss.4, page 93-101). Inflation, having averaged a moderate 9 percent per annum since the early 1980s, had been reduced to about 5 percent in mid-1997. In the first half of that year, output grew by 7.4 percent, and capital investment grew by almost 17 percent. Exports grew in constant rupiah terms by 3 percent, by comparison with 14 percent on average over the 1990s. Imports grew by 10 percent, compared with an average of 15 percent previously. The government budget had been managed well for years, and the government was able to prepay a small but significant amount of its outstanding debt in 1996 (McLeod 1998).

Indonesia's economic crisis began to emerge in July 1997, following the floating of the Thai bath and the Malaysian ringgit. Although purely a financial phenomenon initially, the crisis began to have a severe impact on the economy by the end of 1997, mainly because of a range of counterproductive policy decisions made by the government and because of growing political instability associated with presidential succession. Both the non-financial and the financial sectors suffered terribly in the crisis. It is estimated that in 1998 some 5.4 million workers in the non-financial sector were displaced by the crisis, mainly from service (37 percent), manufacturing (25 percent), and construction (19 percent), and the rate of new unemployed people increased further in 1999 (ILO 1998). However, because many workers cannot afford to remain unemployed for long, around half of them will be re-absorbed in small-scale economic activities, mostly in the informal sector. Further, due to stagnant wages and incomes and the increase of displaced workers, on one hand, and high inflation on the

other, about 75 million people (or 37 percent of the country's population) were expected to fall below the poverty line by mid-1998. The corresponding figures by the end of 1998 were about 100 million people (48 percent of the population). This number is a three- to fourfold increase from the officially estimated 11 percent poverty incidence in 1996 (ILO 1998). The main purpose of this study is to discuss the impact of the crisis on the development of small enterprises (SEs) in Indonesia, especially in the manufacturing sector.

In Indonesia, small enterprises (SEs) are very important in creating employment opportunities and hence generating income, especially in rural areas. In the manufacturing sector, a majority of employment is in SEs (also called small scale industries or SSIs). In all sectors of the economy, the number of SEs was large and growing before the crisis. SEs are found all over the country, in urban as well as rural areas. In 1992, for instance, there were about 33.4 million SEs with average sales volumes of less than 1 billion rupiah per year. Considered by sector, 64.7 percent of the total SEs was found in agriculture, with only 7.0 percent in manufacturing. In 1996, the number of SEs increased to almost 39 million, an increase of 16 percent during those four years.

Data published by the Indonesian Central Bureau of Statistics on the manufacturing sector indicate that SSIs are indeed very important in that sector, both in terms of employment and number of units. In the period of 1974-1997, most of the employment in the manufacturing sector was concentrated in SSIs. The employment in all size categories of manufacturing establishments expanded throughout that period.

Although it varies among industries, the limited evidence presented here indicates that SEs that are export-oriented and/or less import- and less credit-dependent are better able to cope with the crisis than those that are domestic market-oriented and/or more import-oriented and more credit-dependent. This suggests that the key factor determining the impact of the crisis on Indonesian SEs is whether the enterprises earn foreign exchange, procure their raw materials locally, rely on a strong domestic market for their products, import their raw materials, and find formal credit for financing their production activities. It is relevant to note that an important fact emerging from the crisis is that many SEs in Indonesia are very dependent on imports for their raw materials and other inputs, even in traditional manufacturing sub-sectors such as textiles, garments, and footwear. This is in contrast with a general proposition in the literature on SEs that, different from MLEs, SEs are very intensive in the use of local raw materials and other inputs.

One thing learned from this crisis is that despite years of economic and industrial development in Indonesia since 1969 (when the New Order government came into power led by the former President Suharto), the "midstream" industries producing capital, intermediate goods, other

inputs, and processing raw materials are still underdeveloped. During that period, too much attention was given to the development of the upstream and downstream industries, while the midstream industries were neglected. As a consequence, not only large and medium-scale, but also many small-scale downstream industries must rely heavily on imports of capital and intermediate goods, processed raw materials, and other inputs (Journal of Small Business Management, 2000, Vol.38, Iss.4, page 93-101).

3.10. A Case of failure Rates for Female-controlled Business: Are They Any Different?

In Journal of Small Business Management, a research has found that female-owned businesses generally under-perform male-owned businesses on a variety of measures such as revenue, profit, growth, and discontinuance (failure) rates (Journal of Small Business Management, 2003, Vol.41, Iss.3, page 262-277). It has been suggested that this finding might be the result of systematic differences between male- and female-owned businesses, particularly industry differences. This study analyzes data from a representative sample of 8,375 small and medium-sized Australian enterprises that originally were surveyed in 1994-95, with follow-up surveys in each of the subsequent three years for a sub-sample of businesses. The aim was to determine whether female-owned businesses exhibit higher failure rates than male-owned businesses and, if so, whether this finding persists after controlling for industry differences. The results suggest that while female-owned businesses do have higher failure rates compared to male owned businesses, the difference is not significant after controlling for the effects of industry.

Much of the prior research on the comparative failure rates for male- and female-owned businesses has been based on limited samples and, possibly as a result of this, some of the findings have been in conflict. The major advantage of this study is its use of a large data set collected by the ABS on behalf of the Australian federal government specifically for gaining a better understanding of a variety of issues concerning SMEs. Because the ABS legally can enforce compliance with its data requests, response rates were very high, and, therefore, non response bias is not an issue in this study. Similarly, because of the sampling techniques used by the ABS, it is reasonable to conclude that the results are representative of all Australian employing SMEs. In summary, the results from this study support previous findings that female-owned businesses, in aggregate, have higher failure (discontinuance) rates than male-owned businesses. However, female owners relatively are overrepresented in industries (such as retail and service) that have above average failure rates and relatively are underrepresented in industries (such as manufacturing) that have lower-than average failure rates. After controlling for the effects of industry, there appears to be no significant difference in the failure rates for male- and female-owned (controlled) businesses.

There are three major implications that can be derived from the results of this study. First, for financial institutions the implications should be quite clear. If financial institutions are going to discriminate between businesses in terms of the risk they represent, this should be done on the basis of industry and not on the basis of the gender of the person controlling the business. Coleman (2000) found that although lenders did not appear to discriminate against women in terms of access to capital, women-owned firms paid higher interest rates than men for their most recent loans, and women owned service firms were more likely to put up collateral than men-owned service firms. Further, it should be noted that although the risk of discontinuance may be higher in industries in which female controlled businesses relatively are overrepresented (such as service and retail), the risk of bankruptcy actually may be lower.

Second, entrepreneurs should be aware that discontinuance (failure) rates differ across industry sectors; this may be a factor worthy of consideration when deciding whether or not to establish a new venture in a particular industry. However, it has been shown that for both male and female entrepreneurs establishing a new venture, previous experience in the field of their new venture is a key to its survival (Brush and Hisrich 1991). It also should be noted that although the discontinuance rates for retail and service businesses may be higher (than for manufacturing concerns), the expected losses from such businesses should things go wrong may be considerable lower (because of their smaller capital requirements). Finally, for policymakers, the major implication of this study is that specially designed courses targeting potential female entrepreneurs may not be required (if the justification for such courses is an apparently higher failure rate for female business owners). Instead, if government-funded courses are to be provided, it might be more appropriate for such courses to be directed toward all potential entrepreneurs (male and female).

3.11. A Case of Vocational Training: Trust, Talk, and Knowledge Transfer in Small Business

In Journal of Small Business and Enterprise Development, vocational training by those involved in small land-based businesses can lead to innovation as transferred knowledge may be applied to make marginal changes to enterprises or, in some cases, a major reorganization of resources within a business (Journal of Small Business and Enterprise Development, 2007, Vol.14, Iss.2, page 280-293). The purpose of this study is to explore how knowledge is disseminated in personal business networks and how this is used in a very traditional industry. Analyzing the networks of individuals who have participated in vocational training demonstrates how knowledge travels and how best this can be transformed into action. Furthermore, the networks provide examples of how each element of the tripartite model of knowledge transfer needs to be aligned for the training to meet its goals.

In most cases, knowledge gained through attending VTS (Vocational Training Scheme)

funded events, does not lead directly to significant changes in businesses but once discussed it may be acted upon to make marginal adjustments to make business enterprises more competitive. The effectiveness of this process may depend on the receptiveness of those closest to the business, particularly kin. If more than one member of the business network attends the training then change is perhaps more likely. However, in a minority of cases, knowledge, determination and support can induce significant changes. For example, one VTS participant used the knowledge gained through attending a specific training courses funded by the VTS to transform himself from employee to sole-trader status. Capturing his personal business network community reflected a business in its embryonic stage – less than two weeks into its inception. Key to his network is his Wife who is formally responsible for the paperwork of the business. Her role is much greater as she knows all the others in the participant's network. Structurally, she is the central actor in his personal business network and as such she is the primary discussant. Therefore, his wife not only provides important business skills but also acts as a strong supportive tie. Two other key players in the participant's decision to enter into business are his former manager, through whom contacts for work are gleaned, and his course administrator. Both of these he considers friends as well as respecting their professional positions. While these three have different structural and relational roles, they singularly provide conduits for discussing his training as part of trusted relationships and have assisted him transfer his knowledge into practice. It is likely, that if the newly formed business develops, the distinction between who is close to the business, and who is less important will clarify.

Social network methodology is often used in corporations as a tool in order to improve efficiency and/or innovation. Applying it to small and family businesses is in itself innovative, particular as the research draws on a peer-group of businesses that enabling some comparison. Broadly, three conclusions are apparent: the first about the methodology itself; the second about rural businesses and innovation: and the final one about the policies that regard changing the disposition of land-based businesses. The term network is frequently used a metaphor in the description of business and social activity but it is rarely measured or mapped. In doing so, many of the common sense assumptions have been re-affirmed about these particular networks while at the same time others have been challenged. For example, although it is assumed that rural business networks are tightly knit (network density) it has been demonstrated that they are in fact highly variable. If advice and policy to small land-based business is to be more effective, rooting conceptions about how the businesses operate in empirical observation should be helpful. Whilst the method is only a snapshot, it does provide valuable insights into the flows of information within a small business and how training is deployed.

The emphasis on innovation through loose ties or the role of the outsider may not be an

appropriate model for small land-based business. The chance of a weak link appearing towards the core of these businesses is low and as such the flow of information inward through these routes is low. With the pre-dominance of strong ties and low flows of information these businesses are likely not to be able to change either quickly or easily. This is not the same as saying that such businesses cannot or do not adapt or that they participants are not entrepreneurial. Rather that they are not the fleet of foot business organizations that might be typical of other industrial sectors. Equally, given these characteristics they would appear to be highly robust forms of business, able to weather severe economic downturns and to perpetuate themselves. The premise of UK rural business policy created around land-based businesses beginning to behave like other firms looks unrealistic in the light of these findings. Providing funds for training has been a pillar of rural development funding and is likely to be so in the coming Rural Development Regulation (2007-2013). It is clear from this study that knowledge can stimulate business change but a simple correlation between “knowledge in” and adaptation does not exist. This study provides pointers that to improve the injections of knowledge into small land-based businesses requires more focused intervention than is currently emphasized on program based support for rural businesses (Journal of Small Business and Enterprise Development, 2007, Vol.14, Iss.2, page 280-293).

3.12. A Case of Small Business Owners: too busy to train?

In Journal of Small Business and Enterprise Development, the reason often cited for the poor relationship between small businesses and their uptake of vocational education and training is that small business owner-managers claim that they are too busy to engage in training or any type of learning activity and that most training is of little value to them (Journal of Small Business and Enterprise Development, 2007, Vol.14, Iss.2, page 294-306). The aim of the research is to examine the relationship between these factors. Poor managerial competencies have often been linked to small business failure (Gaskill et al., 1993; Jennings and Beaver, 1997; Perry, 2001). However small business is vital to all economies and within the Australian context, small business represents a significant employer of labor as well as providing employment for the owners of the business. Of the 1,179,300 small businesses in Australia, an estimated 1,591,500 people were business operators (ABS, 2004). Consequently, small enterprises represent a significant component of the private sector workforce in Australia.

It is also acknowledged that small business owner-managers, compared to owner-managers of larger businesses, have lower formal education levels and participate less in skills development and training activities (Bartram, 2005; Billett, 2001) and that there is a lack of emphasis on the relationship between successful business operation and management training (Billett, 2001; Westhead and Storey, 1996; Wooden and Baker, 1995). An educated and skilled labor force is considered to be essential to the success and growth of small business

and for businesses to gain some competitive advantage in the global economy (Cosh et al., 1998; Huang, 2001). The influence of the human resource capabilities of the small business owner-manager is therefore critical in this process. To facilitate greater participation by owner-managers in training activities Ehrich and Billett (2004) have recommended the development of pedagogic principles that are suited to the changing skills development needs of small businesses. Of particular interest to the business owner-manager will be the impact that training will have on the business, not just in terms of the bottom-line, but also for its relevance and application to day-to-day operations. Storey (2004) and Westhead and Storey (1996) have also highlighted that there is not enough emphasis placed on the link between management training of small business owner-managers and business performance. This is despite owner-managers recognizing the importance of developing and maintaining management skills (Loan-Clarke et al., 1999; Smith and Whittaker, 1996).

The pre program interviews gained background information on the participants and assessed their current human resource competencies and their current HR situation in their business and ascertained why they wanted to participate in the workshops. Their current HR competencies were important to know in order to be able to structure the workshops to cater for their requirements. The interviews revealed that the majority of participants had little or no prior experience or skills in formal human resource management. Only one participant, who was studying human resource management at the time of the study, had any formal qualifications in human resource management or a related discipline. For the majority of small business owner-managers, the main reason for participating in the workshops was to gain general skills in dealing with staff, due to having experienced “staffing” issues in the past. As had already been revealed in the literature, most small business do not operate in a strategic way and therefore the assumption was made that the information the participants would be seeking would be operational. It should also be noted here that many of the small business owner-managers regarded employees as “staff” and the term “human resources” was a phrase used by big business not small businesses. Most staffing concerns were the result of a reactive rather than a proactive issue.

Another example of the informal methods used in small business was that, aside from a general “welcome” package in some instances being provided to new employees, no formal staff policies relating to the HR issues were provided to employees. Participants saw the following advantages in participation: gaining a better understanding of human resource management, training, and related issues; gaining skills so that they could recruit, interview, manage, and retain staff confidently, and, when needed, dismiss employees using correct procedures; and networking and talking to other people about their small business and human resource management related experiences. All participants acknowledged that they had gained an overall understanding of the human resource issues that affect and influence their day to

day operations. Participants also acknowledged that discussing the issues in peer groups and recognizing that everyone has similar problems was a key learning point. The legal aspects of business, in particular employee termination were keys issues that many participants stated they were keen to participate in further training in. Other participants said that they would like to attend refresher courses on similar material, thus supporting the argument that small business is not too busy to train.

The results have demonstrated that small business owner-managers who recognize and act on their need for further training, and in this instance the topic was human resource management, are able to make significant gains in both their knowledge and confidence to deal with operational issues in their business. In achieving these outcomes the research has highlighted the need for small business owners to recognize and act upon their needs for management training in general and to have a broader understanding of their importance. The key finding of the research was that given certain conditions and business requirements, small business owner-managers are not too busy to train. Two factors appear to influence the small business owner-managers' attitudes toward training and development, which are the relevance of the training and the delivery process. Small business owner-managers will participate in training opportunities if they are directly applicable to current situations in their business, and if the delivery process is carefully structured in terms of location, time of day, and length of session. This confirms the work by Loan-Clarke et al.(1999, p. 306) who after surveying 551 UK small businesses and found that "small businesses not only recognize the potential benefits of MTD [management training and development] but are prepared to support their belief with cash".

To enhance participation in training by small business it is suggested that the location of the training venue needs to be in close proximity to the businesses operating base, as traveling long distances inevitably takes precious time away from the business. In addition, the time of day is also important. Business owner-managers are unwilling to participate in training if it removes them from their business during the busy periods in their day. This recognition was a factor in structuring the sessions over a fortnightly period. This structure was designed to limit the amount of time the owner-managers were required to commit to participate in the training, and also provided important opportunities for participants to put the knowledge gained during each session into practice. They were then able to come to the following session with any questions or feedback. This structure was integral to the quality of the learning process, especially for adult learners and when providing for the many small businesses who are resource poor. It is acknowledged that this particular delivery method is neither new nor revolutionary and is in fact what advocates of just-in-time training for small business have been arguing for. However, the Vocational Educational and Training sector in Australia has been slow to pick up on this and therefore it is hoped that this piece of research adds more evidence to the just-in-time delivery argument. The fact that 80 small businesses completed

this program, demonstrates that there is willingness on the part of small business owner-managers to learn and to implement new ways of managing business, so long as certain conditions exist.

In relation to the actual content of this particular program, the initial findings were that these small business owner-managers had recognized that they had little knowledge of human resource issues prior to the training. They initially expressed a strong need to learn more about recruiting, retaining and dismissing staff using correct procedures. However, following the workshops, all participants acknowledged that they felt more competent and informed about human resource issues, particularly in recruitment and selection, retaining good staff, legal requirements and procedures, job advertisements, motivating employees and developing vision statements for their small business. These results highlight the need for small business owners and their staff to recognize their human resource training needs, and to have a broader understanding of the importance of their training and development needs. This study provides much needed evidence of the capacity of appropriate training to provide positive outcomes for small business, in this instance in relation to human resource management. The next stage, currently being undertaken, is a longitudinal study on this particular cohort, to determine whether any longer term behavioral changes on the part of owner-managers who participate in human resource training occur and whether or not this type of training is able to assist small businesses in regard to operational performance (Journal of Small Business and Enterprise Development, 2007, Vol.14, Iss.2, page 294-306).

3.13. A Case of Training Commitment and Performance in Manufacturing SMEs: Incidence, Intensity and Approaches

In Journal of Small Business and Enterprise Development, the contribution of small- and medium-size enterprises (SMEs) to a healthy economy has long been recognized and capability development of small firms remains critical to economic prosperity (Journal of Small Business and Enterprise Development, 2007, Vol.14, Iss.2, page 321-338). This concern for SME development is not new. Since the early 1970s in the UK, both academics and policy makers alike have started to pay attention to the role played by SMEs in economic growth, employment, and technological change (see for example, Bolton Report, 1971; Gibb and Scott, 1985; Storey, 1994; DTI, 2000). Despite this concern, and many initiatives to encourage small firms to grow, it is suggested that “one of the key reasons for low-levels of UK productivity is the “long-tail” of badly-managed and under-performing small firms” (Jones, 2003, p. 16). Management skill shortages still exist in the SME sector and management development and training in the sector remains a policy priority. Research has also shown that, because of the habit of promoting informal training over formal training, SMEs operating in the manufacturing sector are in a relatively disadvantaged position (Matlay, 1999).

Both demand and supply factors provide explanations as to why SMEs are reluctant to invest in training (Centre for Enterprise, 1999). From the demand side, it is believed that one of the difficulties is the lack of quantifiable evidence that shows a link between training and performance (Marshall et al., 1993, 1995; Patton et al., 2000). It is suggested that by making such a link more explicit and informing managers of the benefits, demand and interest for training and management development within SMEs could be improved. It is also considered that the demand for training may be determined by the context of a business. Characteristics such as age, size, ownership and main industrial activities may ultimately determine the nature and extent of training demand (Hendry et al., 1991). Alternatively, from the supply side, training policy and delivery systems fail to understand and address the specific needs of SMEs (Perren et al., 1999). SME managers are thus making an informed choice and deciding not to invest in the training offered (Storey and Westhead, 1997).

What is a particularly important contribution of this study is the finding that SMEs that conduct management training show a statistically significant advantage in terms of both employee and turnover growth, compared with those that either do not conduct training, or prefer to invest in informal training. It appears that the intensity of training (number of training interventions) is only relevant as the firm grows. This latter finding seems intuitive, since the number of training interventions required is likely to increase as staff numbers increase. It has been suggested in the literature (for example, Hill and Stewart, 2000; Kitching and Blackburn, 2002) that managers prefer informal to formal training interventions. However, while SME managers prefer an informal learning approach, this does not necessarily mean it is more effective. SFEDI (2004) note that it is important to distinguish between what is practiced (due to resource scarcity) and what is appropriate. In this research there is a clear and significant finding that formal training is associated with performance over and above that provided by informal training in small manufacturing firms. As with other studies, our findings are subject to criticisms of causal ambiguity (Storey, 2004). Also we must acknowledge that the measures of success used do not reflect the wide range of objective and subjective aspirations of SME owners (Curran and Blackburn, 2001). Nevertheless, the findings do add weight to the body of evidence on the training-performance relationship highlighted in earlier studies (for example, Cosh et al., 1998; Marshall et al., 1995; Betcherman et al., 1997; Huang, 2001; Smith and Whittaker, 1999).

There are a number of potential reasons that formal training may provide additional benefits over informal training. Firstly, there may be a lack of suitable skills – such as coaching or communication – within the firm to make the most of informal development activity (Hendry et al., 1991; Mabey and Thompson, 1994). Secondly, the owner-manager may be too busy to devote time to informal training. In this case when they recognize a staff development need they will utilize a formal approach that is cost effective in terms of their own time. In this case

targeted formal interventions may be a chosen solution. This would accord with findings from Baldwin et al. (1995) who suggest that training targeted at a few key individuals is beneficial to SMEs' performance. Thirdly, previous research has highlighted training and development being utilized as a response to a problem (Blackburn and Kitching, 1997, Patton and Marlow, 2002), where "selecting training was particularly tailored to an identified training need" (Cassell et al., 2002, p. 687).

When we look further into the statistics, these latter two points seem particularly relevant. The most positively significant approaches within formal training were the use of outside providers for in-house courses, and the use of in-house designed and delivered courses. Taken together with the finding that it is the incidence and not the intensity of training that will be important, this suggests that both of these types of intervention are likely to be used to target a specific and identified need: the former when specific skills or knowledge are absent, but the failure to address the skill need is perceived to jeopardize the business; and the latter when there is an ongoing skills need in the business that warrants training investment. The identification of this particular approach to invest in organizational knowledge adds weight to the findings of Cassell et al. (2002) and Hendry et al. (1991) that training is undertaken as tactical solutions to problems; the demand for training is explicitly related to improving the way the business is operated (Patton and Marlow, 2002). The intensity of training is less relevant, since generic interventions provide benefits to the individual and not the firm (Westhead and Storey, 1999). Indeed, the most effective informal development initiative was shown in the findings to be attendance at training seminars. Given the difficulty of engaging SME managers who are under significant time pressures, attendance at seminars is likely to occur only when the information is considered relevant to a specific business issue. Thus, the most successful formal and informal interventions appear to be tactical solutions to crises, but, as such, they are likely to have a more direct effect on business performance. The idea that particular problems stimulate learning is highlighted in organizational learning theory (see, for example, Weick, 1995; Fiol and Lyles, 1985) and has been identified by Cope (2003) as a particularly important mechanism to achieve higher-level learning in smaller firms. Our findings are also consistent with studies that conclude more flexible, targeted and relevant business support mechanisms are required in order to engage SME managers in development activity (Perren et al., 1999, Macpherson, 2005). It seems that SME support programs need to understand and address the particular crises that individual businesses are facing, and be flexible enough to provide idiosyncratic solutions.

It is also interesting to note that the approach to training is moderated by contingent variables. In particular, this study highlights the influence of size (number of employees), structure, and uses of technology on the approach to training chosen. Similar to findings by Reid and Harris (2002), we also noted that business ownership was influential, with non-owner managed

companies significantly more likely to engage in formal training. Thus, this study also extends our theoretical knowledge of the contingency influence on the training-performance relationship. Perhaps more importantly, it has managerial implications in terms of designing and choosing the most suitable training approach for a particular context. However, in this regard the findings are only preliminary and further research is necessary.

What is particularly important in this study is the finding that formal training is shown to be more significantly associated with performance than informal training by a number of contingent variables, including market, structure and leadership. Further analysis is required to provide a deeper understanding of these effects. More over, while managers may perceive that informal training is more relevant, this study highlights the importance of targeted formal interventions to specific problems. We suggest that these findings are consistent with tactical approaches to training that address specific and identified training needs. By addressing particular crises or difficulties, SMEs managers are investing (either time or money) to provide access to specific knowledge resources that can contribute directly to business performance. This finding along with others, such as Perren et al. (1999), Cassell et al. (2002) and Patton and Marlow (2002), suggests that training support for SMEs needs to address specific challenges that SME managers face. Support mechanisms for SMEs, if they are to add value, need to be flexible enough to support idiosyncratic development needs, and not just provide generic solutions that do not accrue value to the firm (Jayawarna et al. 2006).

3.14. A Case of the Nature of the Client-Personal Business Advisor Relationship within Business Link

In Journal of Small Business and Enterprise Development, a study reports upon the findings of a national survey of Personal Business Advisors (PBAs). It examines the nature of the client- PBA relationship in terms of how relationships are established with growth firms and how they are maintained over the long term (Journal of Small Business and Enterprise Development, 1999, Vol.6, Iss.1, page 80-88). Results show that a range of different approaches are currently used to identify growth businesses. Other findings indicate that the current role of the PBA is a broad one, extending beyond the client focus originally envisaged by the DTI. It is argued that financial targets are an important influence upon the nature of the client-PBA relationship.

Business Link was launched in 1992 when the DTI published a prospectus inviting competitive bids to develop `one-stop shops' for enterprise support. There are now over 220 Business Link outlets in England, Scotland and Wales (termed Business Shops in Scotland and Business Connect in Wales). These have been developed as partnerships between TECs/LECs, local government, Chambers of Commerce and other local business service providers, the objective being to provide greater coherence between the main suppliers of

business services in local areas and to draw on private as well as public sector resources (DTI, 1992).

The primary focus of Business Link is upon developing micro strategies for product-market development (ENSR, 1994). The range of services provided include an extensive information and advice service, consultancy, export services, innovation, design, quality and technology services, training courses and business `health checks'. An important feature of the Business Links is their use of Personal Business Advisors (PBAs) who are assigned to individual firms to identify needs and assemble support packages. Business Link provides services that are available to all firms, but a key focus of its activities is upon the development of firms with growth potential. PBAs play an important role in achieving this by establishing long term relationships with such businesses. PBAs are also encouraged to adopt a more proactive approach, seeking out companies which might benefit from their help (DTI, 1994). This development reflects a perceived need to be more targeted when providing support for growth oriented firms (Curran, 1993) as well as concerns about being too reliant upon the one-stop shop approach, the success of which is dependent upon businesses' awareness of the support services avail- able (Jones et al., 1994; Vickerstaff and Parker, 1995).

The aim of this study is to examine the developing nature of the client-PBA relationship within Business Link. The role of the PBA has been described as `to develop and foster long-term relationships, in order to transfer their rich diversity of experience, knowledge and skills to clients, and to facilitate access to first class business support services' (DUBS/QED, 1995). Thus, the emphasis is upon establishing and then maintaining relationships over the long term in order to benefit the client firm. This study draws upon the results of a survey of PBAs to evaluate how, and to what extent, these objectives are being met. Particular reference is made to the possible impact of government targets (set by the Conservative government and reaffirmed by the current Labor administration) which require Business Links to generate 25 per cent of their income from the businesses they assist by the fifth year of their operation (Business Link Bulletin, 1997; DTI, 1997).

This study has provided evidence to suggest that the client-PBA relationship within Business Link is a complex one, affected by a range of influences. No evidence has been found to suggest that the overall quality of client-PBA relationships is sub- standard. Indeed, a large number of examples of good practice exist. However, an awareness of possible influences upon the services provided is important if standards are to be maintained and enhanced in line with the vision of the current government. The apparent conflict between meeting the growth-relevant needs of a predefined target client base and meeting Business Link's own financial needs is one issue that has been highlighted. Some evidence exists to suggest that this conflict can affect approaches to establishing relationships, and might have an impact upon the nature

of ongoing relationships. A further issue defining the relationship between client and PBA is local economic development needs. Where a particular need group is felt to exist (such as in the case of micro businesses in rural areas), there would appear to be a shift in client focus that reflects local needs more than nationally set DTI guidelines. In other words, there appear to be variations in the extent to which PBAs are being used as instruments of locally determined policy as opposed to nationally determined policy. Certainly their ability to act as independent advisors is constrained.

In terms of policy implications, one positive step would be for the DTI to re-evaluate the job description and role of the PBA with a view to clarifying both their purpose (sales person or independent advisor), their client focus and to whom they are responsible (the board of individual Business Links or the DTI). However, more fundamentally, a review of the nature of targets set for PBAs (and within Business Link more generally) needs to be undertaken. Consideration needs to be given to how fee renewal targets can be used most effectively to maintain and enhance the quality of support provided, de-emphasizing targets that might encourage large increases in the quantity of clients per PBA.

Also, the continued deviation of the PBA client focus from DTI guidelines needs be recognized and the reasons behind it considered and, if necessary, addressed. It may be the case that regional or local variations are considered acceptable. If so, this should be more clearly acknowledged in national DTI guidelines. However, if an emphasis upon targeting only `growth potential' non-micro firms is to be pursued, a more consistent approach to supporting the young start-up firms and micro businesses which fall outside the remit of PBAs must be developed within the Business Link framework. This would replace the current system where the level and quality of such support varies between localities (Gavron et al., 1998). At the same time, and notwithstanding the acknowledged difficulties involved, there is a continued need to develop practical methodologies for helping PBAs to identify firms with growth potential.

3.15. A Case of Contemporary Training Initiatives in Britain: a Small Business Perspective

In Journal of Small Business and Enterprise Development, Britain focuses upon six recent training initiatives, all of which included a small business training remit. It evaluates the training impact of these initiatives on a sample of 6,000 small businesses and measures their effectiveness in terms of awareness, understanding, interest and actual implementation rates (Journal of Small Business and Enterprise Development, 2004, Vol.11, Iss.4, page 504-513). The research highlights a number of common trends pertinent to the training initiatives reviewed in this study, suggesting that there may be a considerable mismatch between specific small business training needs and the services on offer.

The birth of the modern small business sector of the British economy can be traced back to the beginnings of the Industrial Revolution (Boswell, 1973). Until recently, however, its contribution and development has remained largely unnoticed and unrecorded (Matlay, 2002). This socio-economic neglect continued until the mid 1960s when some business observers and commentators began showing an interest in smaller firms and their contribution to the British economy. The growing interest in the British "Cinderella", however, highlighted the need for more accurate data and dedicated small business statistics (Storey, 1994; Matlay, 1994). Parliamentary lobbying led, in 1969, to the appointment of the Committee of Inquiry on Small Firms, which reported its findings two years later (Bolton Report, 1971). According to Goss (1991, p. 2) the Bolton Report was successful in quantifying, for the first time, the important contribution that the small business sector made to the stability and development of the British economy. One of the most important and worrying aspects to emerge from the findings of the report related to the apparent lack of vocational education and training (VET) prevalent among small business owner/managers and their workforce (Matlay, 2002a). In the context of the ongoing training debate, this was widely perceived to confirm and reinforce the argument that endemic skills shortages resulted in loss of competitiveness at firm level and contributed significantly to Britain's long-term, relative as well as absolute economic decline (Matlay, 1997).

The research upon which this study was based focuses upon six recent training initiatives that incorporated small business training and support components. The training initiatives under scrutiny were evaluated in terms of owner/manager awareness, understanding, interest and actual implementation. The results show that only a relatively small proportion of owner/managers in the research sample were aware of the existence of Industry Training Organizations and fewer still admitted to be interested in this type of training and support. Actual usage was recorded at 9.79 percent in micro-businesses, 10.68 percent in small business and 14.27 per cent in medium-sized organizations. In view of their length of operation and the variety of training schemes on offer during their existence, the impact that ITOs had upon the SME sector of the British economy can be surmised as low. The data points towards an inflexible approach as well as a mismatch between the specific training and support needs of smaller firms and the services on offer through ITOs. The uptake of Investors in People amongst the smaller businesses in the research sample was very low. None of the owner/managers in micro-businesses showed any interest in IiP or set out to achieve accreditation. Even though awareness, understanding and interest had increased amongst respondents in small businesses, only 1.02 percent of them claimed to have been successful in gaining the IiP "Badge of Achievement". Higher rates of accreditation were reported by respondents in medium-sized organizations, amongst whom 12.24 percent claimed to have successfully completed the accreditation process. These results indicate that IiP was not perceived to be useful for micro- and small business owner/managers. In contrast, however,

the IiP “Badge of Achievement” seemed to be more valuable for the HRD strategies adopted in medium-sized organizations.

The most disappointing implementation rates were recorded in relation to Scottish/National Vocational Qualifications. Despite improvements and enhancements that occurred over a prolonged period of operation, the competence-based system of vocational qualifications appears to have failed to make a significant impact on the training strategies of smaller firms. Despite comparatively high rates of awareness, only 0.63 percent of respondents in micro-businesses and 2.72 percent of small business owner/managers incorporated S/NVQs into their training strategies. Even in medium-sized businesses actual usage only reached 10.13 percent. Most owner/managers blamed their low rates of implementation upon the complexity, length of time and expense involved in adopting the competence-based framework of vocational qualifications. In contrast, over a considerably shorter period of time, Modern Apprenticeships and Accelerated Modern Apprenticeships had a higher impact upon training in the SME sector. In terms of usage, 5.83 per cent of owner/managers in micro-businesses, 13.76 percent in small firms and 34.18 per cent in medium sized organizations claimed to have used MAs and/or AMAs as part of their training strategies. These results appear to indicate that MAs and AMAs were much better suited to the specific training needs and HRD strategies of smaller businesses.

This research has identified a number of common trends pertinent to the training initiatives reviewed in this study. While owner/manager awareness and understanding of government sponsored initiatives was relatively high, interest and actual usage rates were relatively low. There was a marked size-related increase in usage rates that held across the whole sample, regardless of age, location or type of economic activity. None of these initiatives appears to have made a significant impact upon either the skill levels or the competitiveness of smaller firms. On balance, those initiatives that incorporated specific small business remits (i.e. TECs/LECS and MAs/AMAs) proved to be more successful in the SME sector than the more general training and support schemes made available in recent years. It is recommended, therefore, that policy makers should consider the implementation of discerning training and support initiatives that would focus exclusively upon the specific needs of micro- and small business owner/managers and their workforce. Such initiatives would be more likely to succeed in raising the skill levels of the workforce and improve the competitiveness of businesses operating in this important sector of the British economy (Journal of Small Business and Enterprise Development, 2004, Vol.11, Iss.4, page 504-513).

3.16. A Case of Entrepreneurs’ Attitudes to Training and Support Initiatives: Evidence from Ireland and the Netherlands

In Journal of Small Business and Enterprise Development, there are increasingly, academics,

practitioners and governments recognize the need to examine the role and effectiveness of entrepreneurship training and support (Journal of Small Business and Enterprise Development, 2004, Vol.11, Iss.4, page 440-448). Studies to date have examined the importance of training and other skill development opportunities in promoting entrepreneurship in the context of different sectors, regions and countries. An important theme to emerge from the research is the failure of some programs to take on board the cultural, educational and social background of the “entrepreneurs”, leading to ineffective training and support. This study investigates the effectiveness of training and support initiatives for entrepreneurs in Ireland and The Netherlands, examining the experiences of 57 entrepreneurs from the services, manufacturing and high technology sectors in Ireland and The Netherlands. The results highlight the value of non formal support structures, such as mentoring and networking, and question the value of traditional formal business education and training strategies.

Scrutiny of the role and effectiveness of entrepreneurship training and support initiatives has increased in recent years. Academics, practitioners and governments worldwide increasingly recognize the role of education and training in providing entrepreneurs with the necessary business skills and acumen to plan, setup and grow their business ideas. An important theme to emerge from the research is the need to take on board the cultural, social and educational background of the “entrepreneurs” in developing training and support systems. By way of extending research into this area, the study investigates the effectiveness of training and support initiatives for entrepreneurs in Ireland and The Netherlands. The justification for this study is twofold. First, because of the increasing importance of training and support as an effective way of stimulating entrepreneurial activity and in reducing small business failure, as recognized by academics, practitioners and governments world-wide.. The increased availability of such programs, coupled with the importance attached to training and support in promoting entrepreneurial activity, necessitates a need to continually monitor and evaluate such initiatives.

This study analyses the experiences of 57 entrepreneurs in Ireland and The Netherlands who have accessed a wide variety of training and support provisions, from formal start-up training programs, to mentoring and networking support. The evidence reveals both similarities and differences in the take-up of training and support between these two countries. The results, based on both quantitative and qualitative data for 57 entrepreneurs, from the services manufacturing and high-technology sectors, highlight the role of non-formal support structures, such as mentoring and networking. The overall aim of this study was to examine the experiences of entrepreneurs in both Ireland and The Netherlands with regard to structured entrepreneurship supports, specifically entrepreneurship training. In addition, the authors sought to note any particular differences or similarities in the take up and rating of entrepreneurship training and support initiatives in these two countries. The key findings from

this study are as follows:

(1) Types of organizations and supports accessed the entrepreneurs in this study received support from a wide range of organizations including government, trade associations and the third level educational institutions (i.e. universities, colleges and Institutes of Technology). Networking and mentoring were among the most frequently accessed informal supports. This finding has interesting implications for support organizations, since support mechanisms of this type tend to cost less to deliver than, for example, the more structured training and development programs. The fact that financing was the second most frequently accessed support, according to this study, emphasizes the important role of this element in the start-up process.

(2) Differences in perceptions between the two samples Irish entrepreneurs are more likely to access supports than their Dutch counterparts, possibly reflecting the Irish culture of reliance. The results suggest that the Irish entrepreneurs were more likely to access formal supports, such as training, incubation and funding, while the Dutch entrepreneurs indicated a preference for less formal supports, such as mentoring and networking. In terms of perceptions, the respondents were generally favorable towards the supports which they accessed. However, this study revealed that several of the entrepreneurs were dissatisfied with the expertise provided by third level educational institutions. Although the statistical tests applied by the authors revealed that there were no significant differences between the ratings of the two entrepreneur groups, overall, the Irish respondents were slightly less likely to be positive about the supports they accessed than the Dutch. This aspect clearly needs further investigation.

(3) Content and delivery of programs a key finding of the study, revealed by the questionnaires and further supported by the interviews, was the fact that many of the entrepreneurs felt the services they were offered as part of an entrepreneurship support program either were not very good in practice or did not materialize at all. Consistent with Dana (2001), these findings imply that many entrepreneurship training and support programs are not meeting the needs of the entrepreneurs for whom they were intended. Alternatively, consistent with Dunsby (1996), among others, this finding may indicate simply that academics might not be the best suited to deliver entrepreneurship support.

Finally, while the findings of this small comparative survey have revealed that there are no significant differences in the take up and perception of entrepreneurship supports between entrepreneurs in Ireland and those in The Netherlands, the study makes a number of important contributions. These include providing further evidence of the value entrepreneurs attach to informal support mechanisms, such as mentoring and networking, and highlighting the critical

role of third level educational institutions in supporting the entrepreneurial process. The main recommendation of this study, therefore, is for third-level institutions to revisit their entrepreneurship support provision, taking account of the actual needs of the entrepreneurs they aim to support. In this respect, constant monitoring and evaluation of entrepreneurship supports is critical (Journal of Small Business and Enterprise Development, 2004, Vol.11, Iss.4, page 440-448).

3.17. A Case of the Effect of Business Advisers on the Performance of SMEs

In Journal of Small Business and Enterprise Development, there has been a considerable rise in firm's use of business advice, whether from government agencies, professional service firms or research and educational organizations (Journal of Small Business and Enterprise Development, 2006, Vol.13, Iss.1, page 33-47). Bennett and Robson (1999) after providing a review and comparison of 13 previous studies reported that sources of advice could be grouped into six areas: professional specialists, professional generalists, market contacts, social contacts, business associates and government agencies. They noted, in line with previous studies, that from their study the private sector suppliers of advice were dominant and that small and medium-sized enterprises (SMEs) used a range of sources but accountants dominated. In addition, they found that the SMEs reported that the impact of advice was important rather than crucial. Bennett and Robson (1999) conjectured that the use of advisers reflected the institutional (from professional assurance) and personal (from relationships) trust that existed between them and their clients. These authors suggested that the lower levels of use of public bodies may have been related to lower levels of (institutional) trust.

Wren and Storey (2002) reported upon the positive effects on growth in sales turnover and employment of marketing advice provided to mid-sized (£0.3 million to £2.0 million turnover) SMEs in the UK government's enterprise initiative. However, these authors noted that the SMEs always had a defined project, for which they sought assistance, suggesting that one valuable role of the advisers was bringing technical expertise to bear in these projects. The growth of business advice suggests that it has passed a market test. However, the reasons for seeking advice varied considerably, from a wish to be in touch with the latest thinking via some forward-looking problem solving to the need to handle a crisis.

The research reported here was based upon a survey of 140 SMEs in the Manchester City region. This was a similar order of magnitude to the 11 studies compared by Bennett and Robson (1999) where sample size was disclosed. But it is very much smaller than that of those authors or the Wren and Storey (2002) study. However the concentration upon the role of external accountants followed along from the almost universal recognition of their significance in the provision of external business advice to SMEs. The Manchester city region, where many of the sample firms were found, is a dense concentration of economic activity

which underlines the argument of Bratton et al. (2003) that such a concentration may be a reason for the higher reported use of accountants and consultants as business advisers.

In this study most of the business advisers had limited use by the owner/managers but the networks contacts were used most, and this included other owner managers who were a more likely source of external advice. Of almost equal use were accountants who had a key role in this process, but mostly on statutory work. McChlery and Meechan (2000) observed that there were concerns about the low added value of (external) accountants, who were principally focused on basic attestation and reporting work for their small firm clients. Our findings were not so limiting, and indicated a significant effort by many of the external accountants, as perceived by owner-managers in our sample, to shift into the value-adding areas we have observed. However, there have been positive requests that auditors should not provide business advice to the same clients. The raising of the audit threshold to £5.3 million means that many smaller firms are not required having an audit. But these firms may well be prepared to pay for an audit for the purposes of providing confidence to banks and other business relationships.

The support agencies were not used by half of the firms and used as much as the business consultants. In both of these cases the user firms were growing faster than the non-user firms. The very low levels of use of academic advice leads to a need for academics and their universities to become “more professional” in the way they present themselves and interact with the SME owner/managers and other advisers. This may not fit well with an academic culture of UK HEIs driven by the demands of the research assessment exercise. Perhaps the universities might consider establishing special units resourced by experienced advisers and academics to enable themselves to make the crucial knowledge contribution that is needed (Luna and Velasco, 2003). However, owner-managers and businesses need to be able to champion and sustain the new ideas for themselves if the changes are to be durable and worthwhile – this is consistent with general innovation theory. The key must be with the owner-managers themselves being prepared to understand the different techniques and then using them to help to guide their decision-making. Merely having knowledge or a “passing acquaintance” with new accounting ideas and procedures may not be enough to engender change. Some external stimulus or shock such as the timing of contingent events, a cash flow crises or a shortfall in finance, may also be necessary (Reid and Smith, 2000).

From the survey it was found that SMEs whose owner managers were high users of a range of business advice were also those that were growing most quickly, hence the contribution of advisers of many kinds did make a positive contribution to SME growth. The external accountants and network contacts provided most of the business advice sought by the SME owner/managers. While most of the advice provided by external accountants was related to

statutory work, the very significant contribution of external accountants (albeit at a lower level of provision) of emergency, financial management and business advice was observed. The growth rate of the businesses was directly related to the degree of usage of these latter categories of advice from external accountants. The external advisers from the universities were given a very low profile by the owner managers. This is a problem that must be addressed if the universities are to play a more significant role in SME development. An alternative approach would be to mediate the relationship between the universities and SMEs by support agencies, accountants or consultants. The use of network contacts, more likely to be informally traveled rather than formally constructed, was a very significant contribution to business performance (Journal of Small Business and Enterprise Development, 2006, Vol.13, Iss.1, page 33-47).

3.18. A Case of the Asia Foundation Experience in Indonesia : Unleashing Small Business Growth

Throughout Asia, small businesses are a critical component of local economies. The Asia Foundation has developed an innovative approach to helping small businesses grow rather than providing direct assistance to firms, the Foundation directs its activities towards improving the business environment, working with grassroots business groups that advocate market reforms, and providing technical assistance to local institutions tasked with implementing reforms (http://www.asiafoundation.org/pdf/indo_SME.pdf). The Foundation has six years of experience implementing such programs in Indonesia and is a leader in the field of building private-sector engagement in policy reform. This approach complements the efforts of other organizations that provide business development services or financial services to the small business sector. Building on the lessons learned in Indonesia and adapting the framework to suit local needs, The Asia Foundation is in the process of developing significant programs directed at the small business community in Bangladesh, Nepal, the Philippines, and Cambodia.

Businesses employing fewer than 20 people employ roughly 90 percent of the population in Indonesia, a statistic similar to that of other developing countries in Asia. Traditionally overlooked by economic development strategies that emphasized the creation of large and often state-owned companies, small businesses have garnered increasing recognition in recent years for two primary reasons. The first is their ability to generate employment — thereby reducing poverty — with limited capital. As large, well-connected firms continue to founder in the wake of the Asian financial crisis, small businesses have absorbed the unemployed and played a fundamental role in ensuring the economic survival of many families. Small businesses are important for growth, as well. The presence of a dynamic private sector made up of all sizes of business is an important indicator of a healthy economy.

In much of Asia, however, small businesses operate in an environment where state-owned enterprises or well-connected large companies continue to be granted privileged access to resources, procurement contracts, and regulatory concessions. Small businesses, in contrast, face a heavy burden of restrictive regulations, levies, and licenses. They bear tremendous financial costs and must allocate considerable amounts of time to obtain the multiple licenses that are required to operate legally. Moreover, these local regulations are frequently amended, and this constant state of flux leads to new opportunities for corruption. Sometimes the problems are unintentional, but still costly, for small businesses. Poor governance in some countries produces regulations and procedures so obtuse that entire industries of middlemen spring up to expedite the processes. Even when institutions do not formally exclude them, small businesses owners may find themselves on the outside looking in. For example, cultural barriers prevent many from approaching lending institutions, even those that exist to serve small borrowers.

The Asia Foundation is a nonprofit, nongovernmental organization dedicated to the development of a peaceful, prosperous, and open Asia-Pacific region. Working out of 17 offices across Asia, the Foundation sponsors a wide array of programs that support the reform process by strengthening local partners who actively advocate greater openness, greater transparency, and greater participation. These programs fall into the broad areas of governance and law, economic reform and development, women's participation, and international relations. In Indonesia, the Foundation has been responding to the real and pressing needs of small businesses since 1996. The Partnership for Enterprise Policy Reform program, funded by USAID, works to improve the business environment by broadening private sector participation in government decisions on small business policy (http://www.asiafoundation.org/pdf/indo_SME.pdf). The program is also enabling greater access to credit at the local level through a better functioning financial system. Lastly, the Foundation works to increase the availability of relevant technology and information to and among small and medium enterprises (SMEs).

The majority of SME programs focus on business training or the provision of credit, approaches designed to overcome perceived weaknesses in the sector. This conventional wisdom is not without some basis in reality. Small businesses often operate in environments where capital is scarce and where knowledge of best-management practice is limited. Nevertheless, this view ignores that the SME sector across Asia includes a rich array of entrepreneurs who survive despite business environments that are often hostile to their business interests. Time and resource-intensive interventions at the firm level cannot be fully effective when the market itself is heavily distorted, as in many Asian countries. When the Foundation began its work with small business in Indonesia, existing business associations involved selected groups of well-connected businesses. These business groups, often

organized along sectoral lines, usually advocated behind closed doors for advantageous treatment of their own businesses or industries. The Foundation initiated the establishment of the first independent small business associations in 1997. Today, there are more than 60 small business associations serving more than 1,500 member businesses across Indonesia – from Sumatra to Papua – and they have engaged successfully with local and national government on issues ranging from corruption to monopolies, credit, and relations with large companies.

The business associations are initiated by local businesspeople, often after they have enjoyed exposure to other Foundation-supported business associations, and are driven by members' interests. Often run by volunteers, they function essentially as local chambers of commerce, representing the interests of independent small businesses in the principal cities and towns. In addition to their advocacy activities, the associations play an important role in circulating market information and providing networking opportunities. The value of these services is evident in the associations' ability to collect dues: associations receive no operational support from the Foundation for rent or salaries, only technical assistance and grants for policy related activities. Every two years, the Foundation supports a national conference that brings together the local business associations from across the country. These conferences give national prominence to the needs of small business by applying their collective political weight to issues of common interest in front of prominent officials from the national, provincial, and local governments. More than 100 SME owners from more than 20 provinces attended the third national conference, held in 2000 in Yogyakarta, as did representatives of central and local government agencies, analysts, the private sector, and the media. The fourth conference, in August 2002, enjoyed even greater numbers. In addition to bringing regional concerns to the capital, the national meeting allows businesspeople from across the country to trade information on markets and technology and to share ideas and experiences on organizing business associations.

The Foundation also created and manages an advocacy fund that receives proposals to fund business association activities related to the local business environment. Business associations apply for funds on a competitive basis, and proposals are judged by a joint group of The Asia Foundation and its partners on the basis of their potential impact and demonstration of cost sharing. Activities supported under the fund include: advocacy on unclear bureaucratic procedures for business licensing, advocacy on anti-competitive behavior by state-owned enterprises which reduces opportunities for SMEs, advocacy on unfair business practices by large retailers, and advocacy on illegal levies that have to be paid by SMEs. Over the past four years, approximately $80,000 has been distributed to more than 40 business associations.

The Foundation has provided technical assistance to improve the performance of OSS centers in seven cities in Java, making the issuance of permits more efficient and predictable. With the

active cooperation of local governments, the Foundation provides a range of capacity building to help existing one-stops increase transparency and reduce processing time. Assistance includes the provision of a private consultant, who performs an organizational assessment, convenes meetings between local SME owners and officials to discuss how to improve services, and drafts recommendations for enhancing the functioning of the one-stop shop. Local officials, local parliaments, SME owners, and the media are also taken on study tours to districts with well regarded systems for issuing business licenses and permits so that they can be exposed to best practices. Finally, the Foundation provides computer hardware and software to one-stop shops to increase efficiency in business-licensing procedures.

The program has succeeded in a variety of ways. SME owners are increasingly aware of the importance of having the necessary business licenses if they want their business to grow. At the same time, the Foundation has received enthusiastic requests from several local governments for help in replicating the success of OSS centers. In Gianyar, Bali, for example, where Indonesia’s first one-stop service center was established, the number of registered businesses grew from less than 16,000 to more than 21,000 in the first five years after its services were improved. During that same period, Gianyar increased local tax revenues by more than 330 percent. The Foundation has been asked to work with the Department of Home Affairs and local governments to spread the lessons learned in Bali to other provinces in Indonesia.

3.19. Success Stories : Barbara Manzi - Metal Distributor

Barbara Manzi's ambition was almost crushed when a high school teacher told her, "Learn to cook and sew - you're a poor black child and that's the only job you'll ever have." "I vowed," says Barbara, "to prove her wrong." And she did. Born and raised in a rural area in Massachusetts, Barbara was the third of 12 children. Her family worked "extremely hard" as fishermen and housekeepers just to eke out living. They were poor, but supportive; Barbara felt appreciated at home and it instilled in her a desire to achieve. Despite the well-intentioned advice of her teacher-who drove her to and from school every day - Barbara did achieve. She mastered cooking and sewing, but she also earned an associate degree in business marketing and business management. (http://www.sba.gov/aboutsba/sbaprograms/onlinewbc /WBC_BARBARA_METAL_DISTRIBUTOR.html)

She headed for the New York area and built a successful career in retail, eventually becoming a department store manager. Along the way, she also married and had children. In 1982, Barbara left retail. She used her sales experience and her mathematical ability to get a job with an aerospace supplier, Northern Alloys of Amityville, New York. There she learned all she could about the metal distribution industry and, within a few years, was bringing in $3 million worth of business. Her boss recognized what a treasure he had and offered Barbara 51 per cent

ownership of the company. "He gave me a lot of confidence," she says. "He was forever nurturing." "I got in contact with SBA to find out as much information as they would be able to feed me," explains Barbara. She received technical support and training in many areas. "Every time I had a problem - anything from accounting to managing - I turned to the SBA and got assistance immediately."

In 1989, Barbara's husband retired from the police force and the family relocated to Florida. There, having dissolved the old company, Barbara established a new company, merging with another firm in 1993. But, says Barbara, "I preferred to be in full control of a business." She ended the partnership and started Manzi Metals, Inc. in a spare room in 1995. Her goal: to become one of the foremost metals distributors in the United States. Once again, she succeeded. Today Manzi Metals distributes aluminum, stainless steel, titanium, brass and other alloys to aerospace and commercial industries throughout the U.S. and Canada. The company also supplies raw metals in all shapes and forms. Customers include Lockheed Martin, Raytheon, Gulfstream Aerospace, Boeing, and General Motors, as well as shipyards, and federal and local government facilities.

Barbara has received many awards, including Lockheed Martin's Woman-Owned Business of the Year in 1995, the Avon Women of Enterprise Award in June, 2000, and the Business and Professional Women of Achievement Award. Barbara says she is lucky to have a family that supports her. Her husband works in the warehouse, shipping and receiving, and quality assurance. Her son is vice president of the company, where he is in charge of sales and management training. People often ask Barbara how they can start their own businesses and achieve success. "I tell them it takes determination plus hard work," she says. "My dream is to someday omit the word 'small business' from my credentials and become a large corporation providing jobs and opportunities for the Hernando County area. I believe that within a few years this will become reality," says Barbara.

4. Focal Points of Policy Making

In this section we will provide expectations of the business counseling with reference to each objective to ensure that the success of the subject can be measured over the short and medium term. Those objectives and expectations are as the following:

- This training course will develop an international perspective for business counseling. After the course we are expecting that all of the trainees will develop an international perspective for the business counseling.
- This course let the participants to identify key factors that can make business

counseling successful in order to make the program successful.

- Target trainees are expected to increase the ability of setting up efficient policies for business counseling in order to make the program more progressive.
- Participants are expected to steer related business counseling in the right direction to meet the needs of SMEs and their market.
- This training course is expecting the participant can increase knowledge about functional strategy on the enterprise, and we expect that the participants can transform all the knowledge that they have received to train their client in stimulating the functional strategy for their own business performance. Those functional strategies are including marketing, IT management, finance, and human resource management.
- We are expecting that all the participants is transferring the knowledge to their clients in the right direction and comfortably so that their client can keep maintaining long term relationship with the business advisor.
- Participants are expected to increase the ability to develop new markets, to develop new products, and to spot new opportunity, which are the key success factors for the business growth.
- Participants are expected to increase their skills in evaluating SME's management capability and management's internal controls through the heuristics such as the tidiness, management information, and competitor analysis.
- Participants are expected to find out the effect of management consulting on the company when there is the intervention of an external adviser. In other words, they can identify an increase in the company's knowledge and capabilities in these activities after the investigation and evaluation of its impact on the firm's situation in the future. Only consulting about quality is engaged more frequently if the functioning of the quality department is valued lower. The lack of professional staff in the management of the department forces the choice between in-house staff training or engaging the services of an external professional to help the company.
- Participants are expected to have knowledge about best practice enterprise development has been concerned with how to make the most efficient use of resources within the prevailing ideological climate.
- Participants are expected to identify the training interventions which lead to positive outcomes for the majority of SME employees, particularly those working in organizations with relatively formalized training practices.
- Participants are expected to learn what works and to go on to mainstream cost-effective intervention designs and embed them in the economy.
- This training course also let the participants to increase knowledge of characteristics and constraints of SMEs and identify the growth of entrepreneurship among women, because it is important to understand the social and economic factors influencing the

success of female-owned small business.

- Participants are expected to increase the enterprise owner's managerial competencies in order to minimize failure in running business process.
- Participants are expected to increase knowledge about gaining a better understanding of human resource management, training, and related issues; gaining skills so that enterprise owners could recruit, interview, manage, and retain staff confidently, and, when needed, dismiss employees using correct procedures; and networking and talking to other people about their small business and human resource management related experiences.

5. Discussion Points

Sharing ideas based on close cooperation among APEC member economies

Business counseling program provides management with the assistant service through training and consulting to enhance the enterprises performance for Small and Medium Enterprises (SMEs). In order to make the program successful, there is some sharing ideas based on close cooperation among APEC member economies in the following points below:

- The performance of Business Counseling programs to reduce any failures for the entrepreneurs in operating their businesses.
- The key success factors that have been received by the entrepreneurs in joining Business Counseling program.
- How to organize an effective schedule for Business Counseling program?
- Do female entrepreneurs need more special training rather than male entrepreneurs in Business Counseling program?
- The purpose of joining Business Counseling programs by the entrepreneurs is what they obtain the results that they expected. Is there any possible guarantee for their higher business performance after the Business Counseling?
- How could the professional trainers give a good quality standard of training to the SME employees so that the training can be running in the right direction?
- How to build a good long-term relationship between entrepreneurs and business counselors (advisors)?
- Small business owners are interested in skills development and training opportunity, provided that they are directly applicable to the current situation in their business, and as long as the delivery process is carefully structured in terms of location, time of day, and length of session.
- The degree of use of a range of external advice was positively related to the growth

rate of the SMEs. In common, the most sought-after advisers were external accountants and network contact. The nature of the advice provided by external accountants, which was found to include business, emergency, and financial management support in addition to statutory advice. The degree of provision of this additional assistance was associated with higher growth.

- What is the "value-added" of training and support structures for entrepreneurs?
- Possibility about mismatch between the specific small business training need and the services on offer.
- The importance of "Trust" between SME clients and advisors.
- The intensity cost of service, and level of commitment to an advisor by the client.
- The emphasis on innovation through loose ties or the role of the outsider may not be an appropriate model for small land based business. With the pre-dominance of strong ties and low flows of information, these businesses are unlikely to change either quickly or easily. Radical changes to business structure imply a more costly and focused intervention than the current emphasis on project and program based support for rural businesses.
- Increasingly, academics, practitioners, governments recognize the need to examine the role and effectiveness of entrepreneurship training and support. An important thing is the failure of some programs to take on board the cultural, educational and social background of the "entrepreneurs", leading to ineffective training and support.
- Most Business Links have roll and job descriptions for PBAs, this is rarely case of consultants. Self-employed consultants are generally accredited by Business Links themselves or by third parties. Accreditation procedures could be improved; clear criteria are required for monitoring consultancy processes and outcomes, and consultants need to receive feedback. There are opportunities for closer contact between self-employed consultants and Business Links which would improve the quality of the service to SMEs, the learning of individuals and the organizational learning and public accountability of Business Links.
- Management skill shortages still exist in the SME sector and management development and training in the sector remains a policy priority. Because of the habit of promoting informal training over formal training, SMEs operating in the manufacturing sector are in a relatively disadvantaged position because of the habit of promoting informal training over formal training, SMEs operating in the manufacturing sector are in a relatively disadvantaged position
- Training is a key developmental strategy and gaining value from training events means that more rigor needs to be applied to planning and evaluation.
- SME problems are perceived and solutions found in functional terms such as IT, marketing and/or finance.

- Female businesses were concentrated in low-income informal sectors, where prospects of growth were limited. Employment growth rates of female enterprises were, for the most part, significantly lower than those of male enterprises.
- The probability of failure would be higher for female-controlled businesses. Industries in which female-controlled businesses relatively were overrepresented would have higher failure rates compared to industries in which male-controlled businesses relatively were overrepresented.
- The advice given by accountants and bank managers differs little from that given by Business Link's PBAs.
- The approach and effectiveness of training appears to be mediated by a number of contingent variables, including market, structure and leadership. (Journal of Small Business and Enterprise Development, 2007, Vol.14, Iss.2, page 321-338)

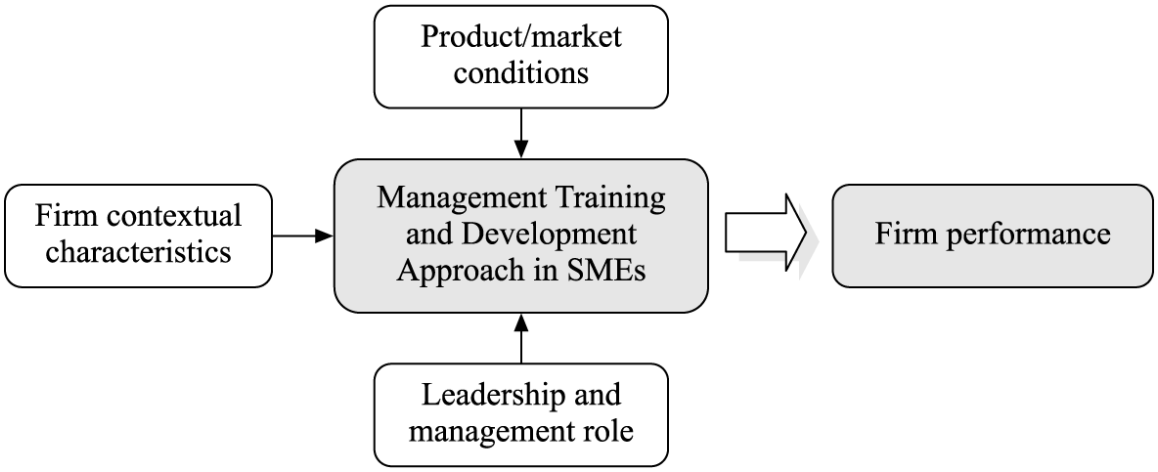

Fig 5 The Management Training and Development Approach in SMEs

6. Conclusions

Business counseling program for small business is focus to the growth of the client's enterprises. It is such a good solution for entrepreneurs to maintain a healthy relationship with the business advisors. Based on the case studies on the best and failure Business Counseling program, there are some related conclusions:

- To enhance participation in training by small business it is suggested that the location of the training venue needs to be in close proximity to the businesses operating base, as traveling long distances inevitably takes precious time away from the business. In addition, the time of day is also important. Business owner-managers are unwilling to participate in training if it removes them from their business during the busy periods

in their day. (Journal of Small Business and Enterprise Development, 2007, Vol.14, Iss.2, page 294-306)

- Specially designed courses targeting potential female entrepreneurs may not be required (if the justification for such courses is an apparently higher failure rate for female business owners). Instead, if government-funded courses are to be provided, it might be more appropriate for such courses to be directed toward all potential entrepreneurs (male and female). [Journal of Small Business Management, 2003, Vol.41, Iss.3, page 262-277]
- Customer satisfaction, impact, and re-use intentions have been demonstrated as important to business client-advisor relationships for SMEs and Trust is also the most important thing for the relationships between client and advisor. (Small Business Economics, 2005, Vol.25, page 255-271)
- The external advisers from the universities were given a very low profile by the owner managers. This is a problem that must be addressed if the universities are to play a more significant role in SME development. An alternative approach would be to mediate the relationship between the universities and SMEs by support agencies, accountants or consultants. The use of network contacts, more likely to be informally traveled rather than formally constructed, was a very significant contribution to business performance. (Journal of Small Business and Enterprise Development, 2006, Vol.13, Iss.1, page 33-47)
- Employees in the smallest organizations are more likely than those employed in the largest organizations to have gained a qualification. These findings generally demonstrate the benefits of including the employee dimension within studies of training within SMEs and taken with the positive views of impact expressed by employers demonstrate the “win-win” nature of effective training interventions. The key policy challenge is to learn what works and to go on to mainstream cost-effective intervention designs and embed them in the economy. (Journal of Small Business and Enterprise Development, 2004, Vol.11, Iss.4, page 449-457)
- It is recommended, therefore, that policy makers should consider the implementation of discerning training and support initiatives that would focus exclusively upon the specific needs of micro- and small business owner/managers and their workforce. Such initiatives would be more likely to succeed in raising the skill levels of the workforce and improve the competitiveness of businesses operating. (Journal of Small Business and Enterprise Development, 2004, Vol.11, Iss.4, page 504-513)
- Business Links could make the acceptance of monitoring by agreed performance indicators a contractual requirement; a higher rate of remuneration would be likely to attract higher caliber consultants and greater commitment to the ethos of the one stop shop. In an effectively managed Business Links infrastructure for consultancy there

would be enhanced SME benefit and greater Business Links learning and public accountability, as well as the opportunity for individual consultant development. (Journal of Small Business and Enterprise Development, 1998, Vol.5, Iss.1, page 7-18)

Finally, participants are supposed to make innovation-oriented SMEs sustainable with the sufficient amount of profit and to help them establish the business counseling strategy with appropriate practical governmental policies. The business counseling strategy is a critical part for SMEs' development in the APEC member economies.

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Chapter 9. E-Business Policy Making for SMEs

Meili Hsiao[1]

The course is mainly about how to develop e-business policy for SME policy makers of APEC developing economies. It includes a series of procedures to plan, execute, control and assess the e-business Policy Making for SMEs. The case study of Chinese Taipei will be introduced to demonstrate the process of policy making and facilitate discussion among trainees

1. Background

1.1. Definition

Electronic Business, or "e-Business", was coined by IBM, Inetrnational Business Machines Corporation, around 1995. According to IBM, e-Business is "an organization that is transforming its interactions with customers, suppliers, partners and employees using Web technologies; extending its reach to improve its performance." "E-Business" may be also defined broadly as any business process that relies on an automated information system or web-based technologies. E-business means connecting all types of buyers and sellers into a single global enterprise.

1.2. e-Business and e-Commerce

In practice, e-business is more than just e-commerce. While e-business refers to more strategic focus with an emphasis on the functions that occur using electronic capabilities, e-commerce is a subset of an overall e-business strategy. E-commerce seeks to add revenue streams using the World Wide Web or the Internet to build and enhance relationships with clients and partners and to improve efficiency.

1.3. e-Business Applications

E-business involves business processes spanning the entire value chain: electronic purchasing and supply chain management, processing orders electronically, handling customer service, and cooperating with business partners. Special technical standards for e-business facilitate the exchange of data between companies. E-business software solutions allow the integration

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of intra and inter firm business processes. E-business can be conducted using the Web, the Internet, intranets, extranets, or some combination of these.

1.4. Why Do We Need a Topic on the e-Business Policy Making?

Internet has dramatically transformed the way people do business. Through Internet, companies search information, perform transactions online, and exchange business data with their trading partners at the speed of light. Therefore, e-business companies can easily enhance their competitiveness. SMEs can hardly be competition or even survive if they do not incorporate "e-Business". Primary observation indices such as the World Economic Forum's Networked Readiness Index (WEF NRI), also utilizes the e-readiness of e-Business as one of the primary indices for evaluating the overall competitiveness of a nation. In addition, taking on challenges of global competition, promoting e-Business policy is a necessary strategy for developing economies. Learning about e-Business policy making would be extremely practical for developing economies. Furthermore, sharing of e-business policy making experiences and best practices will greatly lower the learning costs and speed up the implementation of e-Business.

1.5. The Scope of the Course

The course focuses on the methodologies of e-Business policy development for SME policy makers in APEC's developing economies. It includes a series of procedures pertaining to the planning, execution , control and assessment of the e-business policy making for SMEs. Chinese Taipei will be used as a case study to demonstrate the process of policy making and facilitate discussions among attendees.

The scope of the course will include:

- An overview of related e-Business theories and economies employing e-Business
- Factor analysis of successful e-Business policy
- e-Business policy making: Chinese Taipei's experiences
- Focal points of policy making
- Lessons learned
- Discussion

Attendees are required to share e-Business policy formulation experiences. It would be a plus if participants arrived at the workshop having already identified ideas, problems, e-Business policies, or project plans.

1.6. E-Business Policies in EU, USA, Japan, Singapore and Korea

The e-Business policies vary widely according to the economic situations and the context in which they are made. Broadly, e-Business policies are typically instituted in order to help to reach the national economic development goal of an economy. Many developed economies use e-Business as an important strategy in seeking positive benefit for applying information and communication technology (ICT). Among these economies, overviews of the policies of EU, USA, Japan, Singapore and Korea are briefly introduced to stimulate attendees thinking on f e-Business policies.

1.6.1. European Union

In the context of the Lisbon Strategy, which focuses on improving the competitiveness of the European industry and its sectors in a knowledge-based economy, the impact of ICT for the acceleration of productivity growth is commonly recognized by EU. In 2004, EU announced that it aims to be the most vital and competitive zone in knowledge economics. The major E-Business projects is as follows.

Table 1 e-Business Projects of EU

E-Business Projects of European Union

Project	eEurope2002	eEurope2005	i2010
Year	2000-2002	2002-2005	2005~
Goal	Provide low cost, fast, and secure Internet	Expanding the Internet cross link of the whole Europe area. Emphasis on the application and content of the public service.	Promote the Europe as an information society to create job opportunity and economic development.

The framework of e-Business Projects is as follows[2].

2 Source：Adapting e-business policies in a changing environment: The lessons of the Go Dig

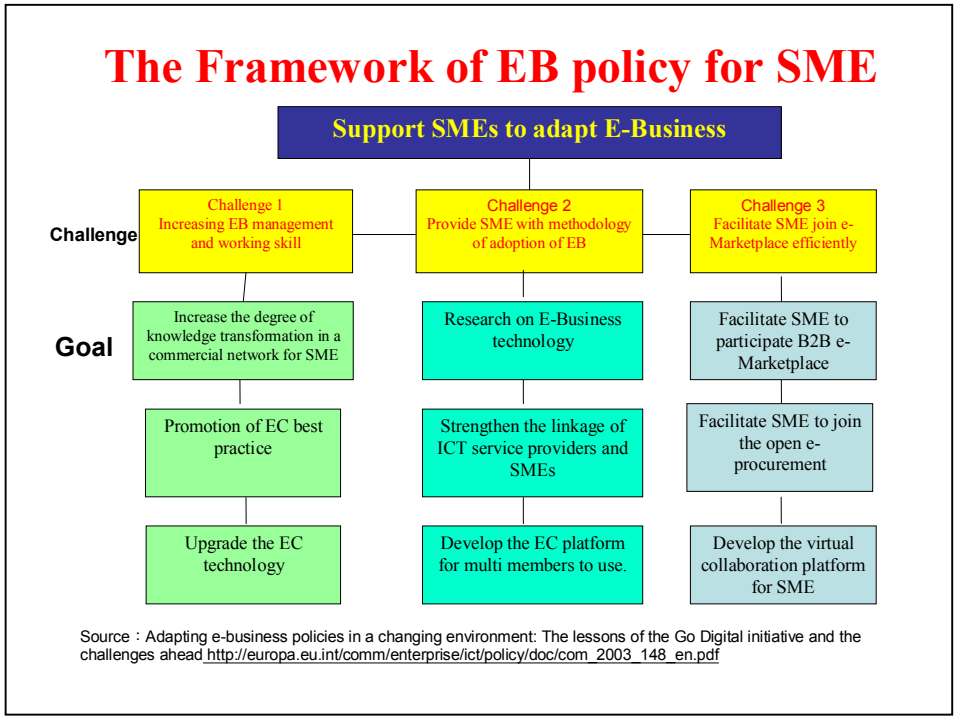

Fig 1 The Framework of EB Policy for SME, EU

Under this strategy, the characteristics of e-Business policy of EU is as follows:

- Implemented by professional organizations such as Innovation Relay Centers, European Information Center, European Information and Technology Association…etc.
- Budget support—EU Technology Research Framework Project (No.7) support the amount of USD$17.7 billion.
- The European e-Business Support Network (eBSN) builds upon the results of the "Go Digital" initiative and specifically on a benchmarking study on national and regional policies in support of e-business for SMEs in 2002. The main lesson to be learned from this study is that many successful policy initiatives in support of e-business for SMEs exist in Europe but their efficiencies could be further enhanced by learning from each other and sharing best practices As part of the enterprise policy, the eBSN is meant to be a tool to improve co-operation among existing e-business policy initiatives in Europe and to better leverage synergies between them.
- Project financing to SMEs includes US$1.9 billion in SMEs loan; and European Development Foundation provides USD$5.6 billion for SMEs to adopt ICT.
- The member economies of EU formed a professional and well-trained team to

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ital initiative and the challenges ahead. http://europa.eu.int/comm/enterprise/ict/policy/doc/com_2003_148_en.pdf

evaluate market requirements and ICT technology needs.

- Emphasis the differences between each region of EU, especially taking into consideration the differences between the northern and southern parts of Europe. The northern areas are more robust in telecommunication and e-Business development. EU transformed the differences into opportunities with those enterprises in the northern Europe providing best practices. Policy makers of each member economies can exchange their experiences and information via support networks.
- EU has established fully responsible monitoring and evaluation teams. Since 2001, e-Business W@tch, established by European Commission, began to survey and research on the depth and impact of e-Business. e-Business W@tch intends to establish a cross economies and cross industries measurement indices for e-business. The indices are meaningful and useful in the assessment of the development of e-Business.

1.6.2. The United States

Since the United States is well developed in IT, the government focuses on the e-Government capability building of those government agencies which provide service and information to SMEs. Enabling SMEs to get suitable e-services through Internet is a major responsibility of the US government. Please refer to the service portal of US government at http://www.firstgov.gov/.

The Government Paperwork Elimination Act (GPEA, Pub.L. 105-277) requires that when practical, Federal agencies should use electronic forms, electronic filing, and electronic signatures to conduct official business with the public by 2003. In doing so, agencies create records with businesses of legal and, in some cases, historical values. This guidance focuses on management issues involving records that have been created using the electronic signature technology.

United States pays much attention to the development of SMEs, with the government agency Small Business Administration (SBA) playing an important role. The mission of SBA is "to maintain and strengthen the Nation's economy by aiding, counseling, assisting, and protecting the interests of small businesses and by helping businesses and families recover from economic and other disasters."

The SBA is an independent agency that operates under the authority of the Small Business Act of 1953. The Secretary of Commerce delegates small business responsibilities to the SBA. Small Business Administration directly reports to the President Office of US and the Congress. The level of the SBA is very high in the US governmental hierarchy.

SBA holds several types of Guaranteed Business Loans through banking institutions including the Economic Development Program. The Program offers SBA partners such as SCORE and the Small Business Development Centers (SCDC's), operating in each state provide free and confidential counseling and low-cost training to small businesses. SBA also provides information, business consulting, distance training, disaster assistance, loan application, and government procurement for SMEs.

SBA established a long-term strategic plan--Enabling the establishment and viability of small businesses strategic plan FY 2003 - FY 2008. The goal of the plan is as follows:

- Enhancing the economic environment of SMEs
- Facilitating more successful SMEs by assisting the linkages with competitive business opportunities. Helping SMEs rebuilt after natural disasters
- Providing the best leadership and supportive services, ensuring that the plan can be executed effectively and obtain the best result.

1.6.3. Japan

In general, Japan is seeking knowledge based economic growth on a national level. Japan plans to create more diversified and independent SMEs for better economic growth.

Since 2001, Japan began to promote the “e-Japan” Program[3]. The major milestones of e-Japna Programs is illustrated as follows.

[3] IT Strategic Headquarters, Japan http://www.kantei.go.jp/jp/singi/it2/index.html

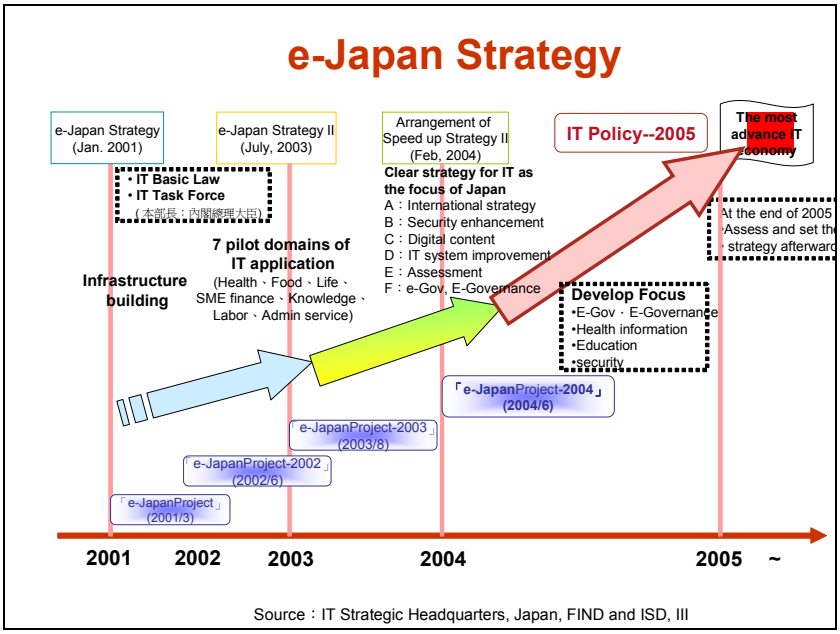

Fig 2 e-Japan Strategy

Under the e-Japan Program, Japan set up responsible government agencies, and implementation schedules for 5 focus domains, 7 pilot domains, and 370 action items. The 5 focus domains are international cooperation (Asia), security, digital content, e-documents, and e-Government. The 7 pilot domains are health, food, life, SME financing, Knowledge, labor, and administration service. The framework of e-Japan Project of 2004 as follows.

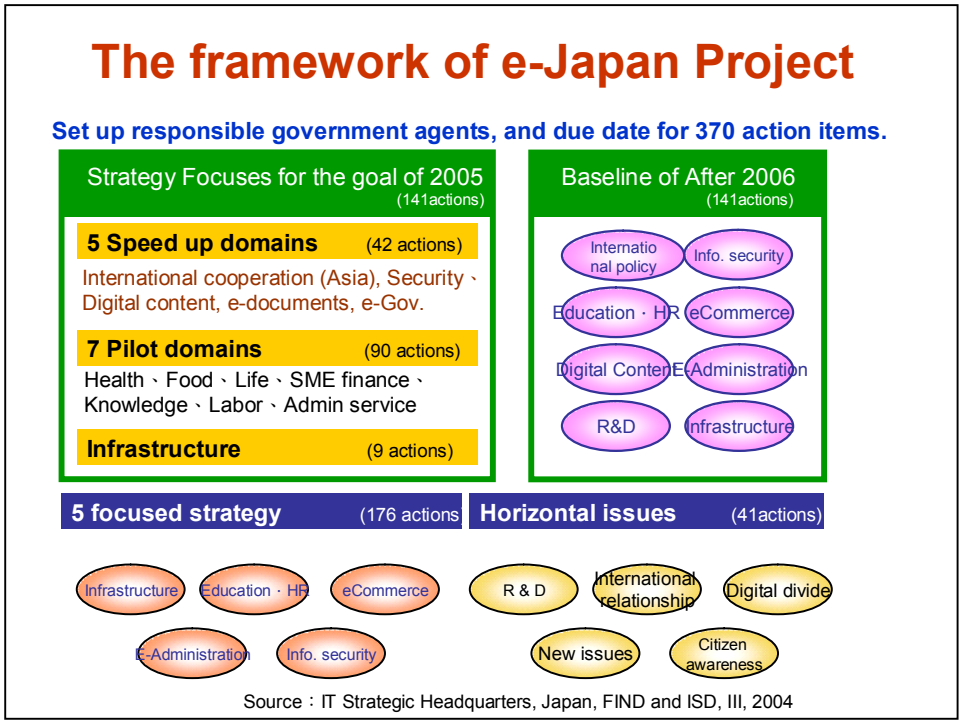

Fig 3 The Framework of e-Japan Project

In the SME e-Business domain, Japan has taken a “step by step” approach on its e-Business policy. The goal from 2001 to 2003 is to achieve 50% of SMEs usage of Internet for e-Commerce. The goal from 2004 to 2006 is to increase the competitiveness of SMEs by facilitating the utilization of IT on business operation. The first phase of “SME IT Action Plan”built e-Commerce related infrastructure and e-readiness. The second phase established five major directions according to IT application status and SMEs’ requirements. It focused on the following domains on building good business models, innovating ideas before they implement e-Business.

- Design and manufacturing
- Retail and distribution
- Customer and service
- Contracting and accounting
- Internal information

The SMEA of Japan granted 50% of ICT investment funding to SMEs for applying information technology to innovate their businesses. In 2002 to 2003, there were 741 applications’ seeking funding. 112 of which were funded. 50% were in the manufacturing and 16% were in the services industries. Japan followed up with an excellent campaign to promote the success stories upon the e-Business implementation. Though unconfirmed, the actions introduced new opportunities to industry development.

The Action Plan was quite comprehensive, taking into account the current IT developing trend and solving IT development problems of SMEs. There were detailed action items on human resource development, consulting support, finance support, information and network support. It also reviewed the outcome of the plan and collected IT problems of SMEs through consultants and service contacts.

Under the e-Japan strategies being carried out by the government as a whole in Japan, results are steadily bearing fruit, as seen by the spread of broadband and the setting of lower connection fees. All of this is an effort to transform the country into the world's most advanced IT nation by 2005. From 2005, Japan is taking the “u-Japan” policy.The Ministry of Internal Affairs and Communications will contribute to the e-Japan Strategies in the future through its “u-Japan Policy” aimed at realizing the “Ubiquitous Network Society.”

1.6.4. Singapore

Singapore has put in much effort on building an advanced broadband network infrastructure for SMEs to increase their competitiveness. Singapore also focus on stipulating the transaction of e-Commerce. In year 2004, the budget of The Ministry of Information,

Communications and the Arts, Singapore is USD $326 million, comprising 1.6% of the government's total budget. As for the economic development budget, ICT accounts for 0.2% of the total government budget.

Singapore has effectively utilized the resource and technology of MNCs to provide e-Business capability for SMEs. One of the major projects is the Infocomm Local Industry Upgrading Program (iLIUP). The iLUIP Project is designed not only to upgrade the e-business capability of local enterprises, but also to attract foreign companies to invest their research and development in Singapore.

There are a total of 22 MNCs joinging the iLUIP Project, including CISCO, Oracle, Apple, Microsoft, NEC, Sun Microsystems…etc. The Infocomm Development Agency Development Agency (IDA) of Singapore introduces advanced E-Business best practices and products such as ERP, CRM, EC, to local SMEs through iLUIP. The project creates a win-win strategic partnership relation between Singapore and the MNCs.

1.6.5. Korea

Korea has initiated a series of programs to create a suitable environment for the development of SMEs. From 1996 to 2000, Korea initiated the Information Promotion Program. From 1999 to 2002, Korea implemented the Cyber Korea Program. From 2000 to 2006, there was the e-Korea Program from 2003 to 2006. And now, Korea is initiating the u-Korea Progrm.

The e-Business policy progress of Korea is as follows[4].

4 Source：Ministry of Information and Communication, South Korea, FIND and ISD of III，2004.

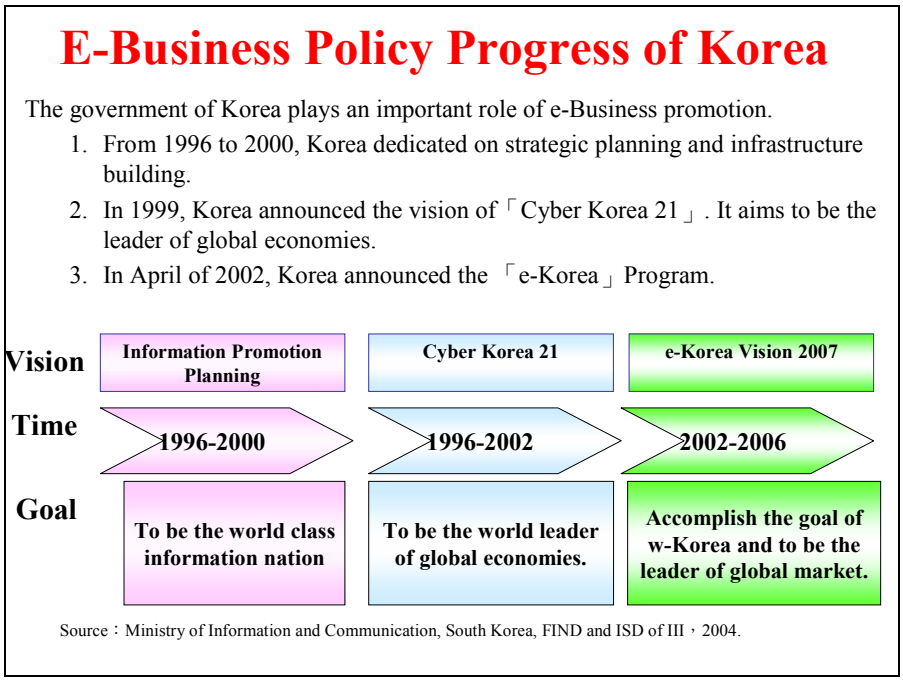

Fig 4 e-Business Policy Progress of Korea

The goal and concept of e-Korea is as follows.

Fig 5 The Vision of e-Korea

Korean government has been investing on the network infrastructure and best applications in various domains. Korea currently owns the highest wired and wireless network penetration rate in the world. Facilitating entrepreneurship and increasing the ability of innovative research development are major tasks. The Ministry of Commerce, Industry and Energy planned to develop e-Business for the six major industries in Korea. The six big industries include the electronic, automobile, machinery, steel, textile, and shipbuilding industries. The goal is to establish B2B networks for the six big industries that could be then spread out to other industries. According to the APEC Informatization Survey for Small and Medium Enterprises done in 2003, The progress was quite siginificant as follows.

Table 2 The e-Commerce Progress of Six Industries

Industry	E-commerce progress / Stage		Core Tasks
	2000	2003	
Electronic	8.5% (Early Growing)	30.3% (Entrenched)	• Share standardization • Cooperated with leading
Automobile	2.4% (Starting)	14.0% (Growing)	• Build an Industry-wide netwoek(KNX) • Enhance competitiveness of parts industry
Shipbuilding	2.3% (Starting)	14% (Growing)	• Build collaborative system for design & production industries • Entrench a culture of inter-company collaboration
Steel	2.3% (Starting)	14% (Growing)	• Led by POSCO • Early establishment of e-commerce system
Machinery	2.0% (Starting)	12.5% (Growing)	• Standardize classifications and codes • Digital parts industry
Textile	2.0% (starting)	15% (Early entrenched)	• Entrench digital transactions • Build co-infrastructure, i.e. QR

The SMBA information upgrading Project is aimed primarily at the manufacturing industries. There are three major directions of the Project:

- Building the basic information systems
- Building an information network to help SMEs
- Assisting SME to use information system to operate and manage their businesses

Information society, telecommunication, IT industry and internationalization are four major policy components of e-Korea Program. In the IT industry policy, Korea initiated the IT839 Strategy. The IT839 Strategy illustrates the government's active efforts towards u-Korea, which will bring about changes to the lifestyles of its citizens through IT. The IT industry is an area where equipment and software are compatible based on networks.
The IT839 Strategy was set forth as a new development strategy for this sector in accordance with the unique characteristics of the IT industry. Under this strategy, the introduction and development of eight new IT services will, in turn, encourage investment in three key network infrastructures. Based on the infrastructures, nine promising sectors - equipment, terminal, software, contents, etc. - will create a synergy as a result of concurrent growth through cooperation among the government, private sectors, and research institutions.

The eight new services are Wireless Broadband(WiBro), satellite and terrestrial Digital Multimedia Broadcasting(DMB), home network,telematics and Radio Frequency Identification(RFID)-based services. At the same time, it will facilitate the use of existing services such as W-CDMA, terrestrial Digital TV(DTV) and Voice over Internet Protocol(VoIP). It also plans to continuously support international standardization activities. The three major infrastructures include the broadband convergence network, u-sensor network, and the next-generation Internet protocol(IPv6).

The IT839 Strategy focuses on the belief that IT will bring about qualitative changes to the economic paradigm. The Korean government's IT839 Strategy actually serves as a greater national strategy that promotes industrial and economic development, brings down the walls between regions, classes and generations, and improves the quality for life. The IT839

Fig 6 IT839 Strategy of Korea

We all know that SMEs need a strong supporting force. The Government of Korea serves as such a supporting force. The government is devoted to creating an efficient e-Government and in turn promoting it to industries. It provides a fair market machnism and platform.

To summarize this session, the various e-Business policies of economies described above as follows:

- The policy direction of each economy is different from one another.
- Most economies take e-Government as a pilot project to spread out the service of the government to the public.
- All economies aim to build an ideal e-society.
- Increase ICT capability through e-learning seems common for many economies.
- Promoting e-Business awareness is an important task for many economies.
- e-Transaction security is a significant barrier of e-Business.
- Fair opportunity to all
- Connection on an international level serves as an important guidance

2. Factor Analysis of Successful e-Business Policy

In order to develop a suitable policy, the following processes are put forth for reference.

2.1. Identify the Actual e-Business Needs of SMEs

The actual e-business needs of SME have to be identified. The following steps may be helpful to the attendees on their understanding of the real needs of an economy.

2.1.1. Review of Present Situations and Analyze the Existing Strategies

One may include an assessment of the present conditions of one's economy. Pin point the critical situations that e-Business can be of assistance to. One may determine relevance from the results of an internal/external appraisal. Some economies might have conducted some ICT, e-Business, or e-Commerce related programs. Try to summarize the current status, problems, and results of those programs. Understanding the gaps between expectation and the current status is conducive for the economies in making the proper policy move. One can also perform a gap analysis that looks at environmental factors.

2.1.2. Identify the E-readiness of the Economy

E-Readiness is the ability to use ICT to develop one's economy and foster welfare.

There are several benchmarking indices on the global level, e.g., those calculated by the UNPAN, World Bank, Economist Intelligence Unit ... etc. E-Readiness indices at the macro level are constructed primarily for ranking countries, and thus are concerned with the global digital divide, i.e. the gap between countries that have access to ICT and those that do not, mainly because of differences in income, education, etc.

According to Econimist Intelligent Unit, e-readiness includes infrastructure, Business environment, e-adoption of consumers and enterproses, legal and policy environment, socialand culture environment,and the degree of e-service suporting. Regarding infrastructure, telephone penetration and broadband network infrastructure availability are two major factors to consider. The usage of different applications, the ability to access the web and Internet are also important indices. Furthermore, SMEs require not only available network infrastructures but also affordable prices for the telephone and the Internet access.

Building an accessible and affordable infrastructure is in fact the most important task in e-Business policy. If the geographic area of an economy is too huge to build a network infrastructure, narrow down the area to a manageable and executable area is a must. Starting

within a metropolitan area, areas such as science or industrial parks areas are often good choices.

2.1.3. Identify the Business Needs

Most SME owners are only concern about how to create business opportunities and how to achieve cost downs. There must be a strong correlation between higher revenues, lower operational costs, and e-business implementation in order to motivate SME owners.

The need of e-Business depends on the level of e-readiness of the economy. As people are exposed to the Internet, the need for e-Business then becomes practical. Otherwise, it is not practical for advanced e-Business applications adoption.

Moreover, the strategy of e-Business will differ for different industries in the same economy. For example, basic agriculture related industries may need basic or appropriate, not advanced IT application. On the otherhands, the IT related industries and retail industries which carry larger number of merchandises may need to implement robust supply chain management systems.

2.2. SWOT Analysis to Develop Possible Strategies

SWOT Analysis is a strategic planning tool used to evaluate the Strengths, Weaknesses, Opportunities, and Threats involved in e-Business policies. It involves specifying the objectives of e-Business policies of an economy and identifying the internal and external factors that are favorable and unfavorable to achieving those objectives. The purpose of the SWOT analysis is to identify an optimize e-business policy mix for an economy.

2.2.1. Strength and Weakness Analyses

The following factors may be used as a check list for identifying an economy's internal strengths and weaknesses:

- Resources: natural, geographic, financial, intellectual, industries…etc for implementing e-business.
- Leading know-how of selected industries or domains
- Human resource of ICT or e-business
- Leading government departments or research institutions
- The capability of research institutions or universities that conduct e-Business related researches
- Capacity of e-Business solution providers

- ..etc

After identifying the strengths and weaknesses, we may think about the matching strength-enhancing strategies for every strength and the matching weakness-mitigating strategy for every weakness. Write down those matching strategies and prioritize them by assigning some scores such as 4, 2, or 1 for highest, middle, and lowest priority. A template is listed below:

Table 3 Template of e-Business Priority Table

Strength	E-Business enhancing strategy	Priority Score(4 as the highest, 2 as middle; 1 as the lowest priority)
Strength 1		
Strength 2		
Strength 3		
…		
…		

We can construct similar tables for weaknesses, opportunities and threats.

2.2.2. Opportunity and Threat Analyses

Pursuing external opportunities and avoiding external threats need to be taken into consideration when formulating e-Business policies. The following elements consititute a check list of opportunities and threats:

- Market trends which may change the willingness or awareness of e-Business adoption of the private sectors
- Economic conditions which may affect the adoption of e-Businesses
- Strategic alliances of the economy, the industry, or key companies of a supply chain
- The technology trend or network development trend which may speed up the adoption of e-business
- Public expectations about e-business
- Competitors and competitive actions toward the economy, the industry, or the key companies of a supply chain
- Global market development require SMEs to be e-business ready
- Environmental scanning
- Set objectives – defining what the organization is intending to do

After identifying the external oppotunities and threats, the attendees of the seminar might think about the strategy for pursuing the opportunities and the strategies for avoiding the threats. Again, list all strategies for every opportunity and threat. Prioritize the strategies by assigning some scores for the highest, middle, and lowest priority.

2.2.3. Establish Critical Successful Factors

Collecting all strategic issues defined above according to the sum of each proritized score. Identify key factors in the development of the e-Business policy which needs to be addressed by the economy.

Although the above process for strategy formulation may seem high level, attendees still need a detailed assessment and hold strategic meetings to fine tune a set of clearer strategy. More importantly, the assessment and strategic meeting shall be hosted by authorized organization of the economy.

2.3. Goal Setting

Establish the goal of the policy. The goal had better be measurable. The goal also contains some short, middle, or long term objectives and attainable checkpoints.

2.4. Resources Overview

Fist of all, the presence of an authorized senior leader is absolutely critical as the leader will decide which are the responsible organizations. An organization chart can illustrate the responsible department or party for each sub task. The responsible organizer shall then prepare the budget, human resources, offices, projects plans…etc to ensure proper implementation. It is recommended that the organization chart will consititute research institutions, industry associations, and universities to form alliances to execute the projects.

2.5. Strategy Development

One can derive the possible implementation strategy from the above analysis, including the analysis of present situation, existing policies, e-readiness, and SWOT. The strategy should include the selection of target industries or geographic regions to be the focus of the e-Business projects. The philosophy of “Think big but start small” may be chosen as a e-Business implementation strategy. The strategy may specify the focus applications for some industries while it may also specify the international cooperation entities and possible projects.

2.6. Individual Sub Project Action Plan Development

Develop action items, implementation time table , major milestones or KPIs for progress review purposes.

2.7. Result Monitoring

Mapping against plans, taking corrective actions that may mean amending objectives/strategies.

3. E-Business Policy Making: Chinese Taipei's Experience --E-business Program of Chinese Taipei

In order to illustrate the process of policy making, this chapter uses Chinese Taipei as a case study . This session will describe the background, goal, the so-called Project A, B, C, D, and E, policy focus, result, and assessment of the program.

3.1. Program Background

3.1.1. The history of Chinese Taipei's Policy and the e-Taiwan Program

In 1960s and 1970s, Chinese Taipei was an export-centric economy. The national policy was characterized as "Enlarge the Exporting Policy". The establishment of the Export Processing Zone and Ten Public Construction Program were the results of the governing policies. In 1979, the first Information Week Exhibition took place in Taipei. It began a nation-wide information technology awareness campaign. From then onwards, Chinese Taipei evolved from an industrial-centric economy to a technology-centric economy. The Hsin Chu Science Park and Ten New Emerging Industries were the results of the transformation. For the next two decades, the number of personal computers and Internet users increased dramatically. The National Information Infrastructure (NII) Program was completed to set up the foundation network. In 2002, Chinese Taipei implemented the e-Taiwan Program. The Program involved e-Government, e-Business, and network society services. The objective of the Program is to transform Chinese Taipei into a high value-added center for manufacturing and services, knowledge based economy. E-Business was one of the major projects of the e-Taiwan Program.

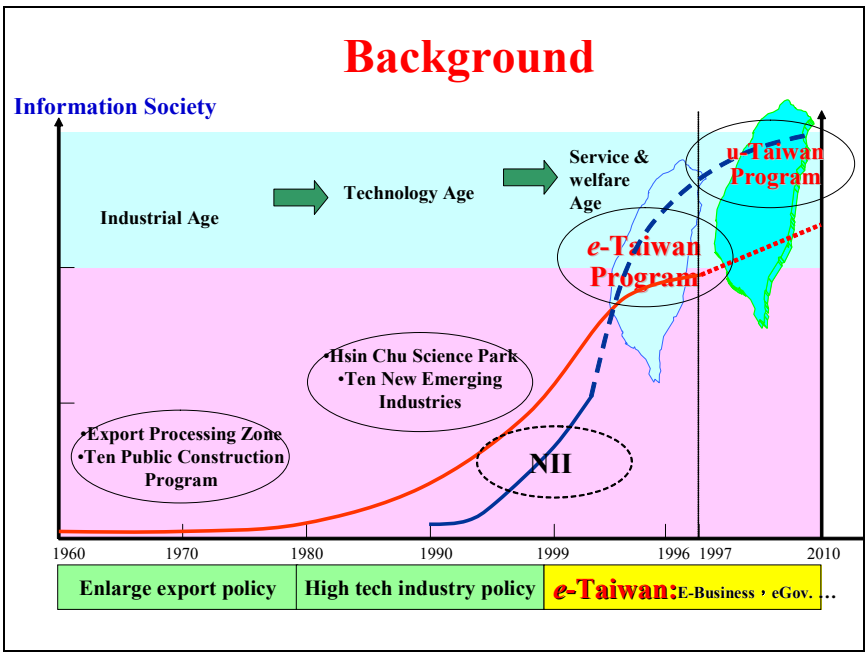

Fig 7 Background of e-Business Program

3.1.2. e-Business Projects Background

Recognizing the importance of information technology towards the upgrading of Taiwan's industrial competitiveness, the Executive Yuan expanded its existing industrial automation project into a new "Industrial Automation and Electronic Business: iAeB Program" in 1999. While continuing to promote automation in production, warehousing, transportation and sales, the Ministry of Economic Affairs (MOEA) was instructed to give priority to the establishment of B2B e-commerce systems, in order to build pilot e-Business systems for both the supply chain and the demand chain.

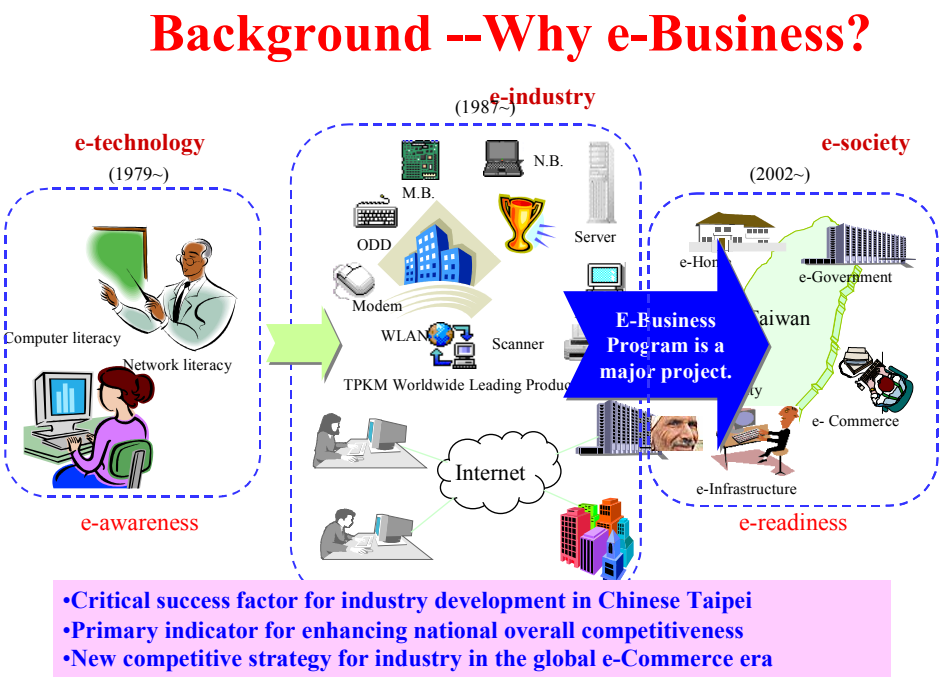

Fig 8 Background-Why e-Business?

3.1.3. Why Implement the e-Business Project?

bnWhat was the reason for the implementation of the e-Business Project? The first reason is that e-Business implementation is one of Chinese Taipei's most critical success factors for industry development. Second, e-Business capability is considered the primary index for enhancing the overall national competitiveness. Third, while facing the challenges of global e-Commerce, industries should create new strategies for the development of new business models. It was evident that e-Business would bring about a new business model for Chinese Taipei and our business partners.

Back in 1999 when Chinese Taipei was still an OEM based economy and the IT industry was the major industry, it faced the following challenges.

- Incomplete e-Business infrastructure with our trading partners. For example, the regulations of securities and the e-business standard was not yet ready
- Increased global competition for local manufacturer, especially after Taiwan joined the WTO.
- e-Business providers were still building up their competence for better services.

3.1.4. The Role of SME in the Growth of Chinese Taipei's IT Industry

3.1.4.1. SMEs are the Linkages of the IT Global Supply Chain in Chinese Taipei

Chinese Taipei is one of the major IT manufacturers of the world SMEs play the role of critical components suppliers to domestic IT Central manufacturers. In 2006, SMEs contribute USD$17,901million in output value, about 32% of IT industry's total output value. SMEs actually play a critical role linking upstream and downstream supply chain.

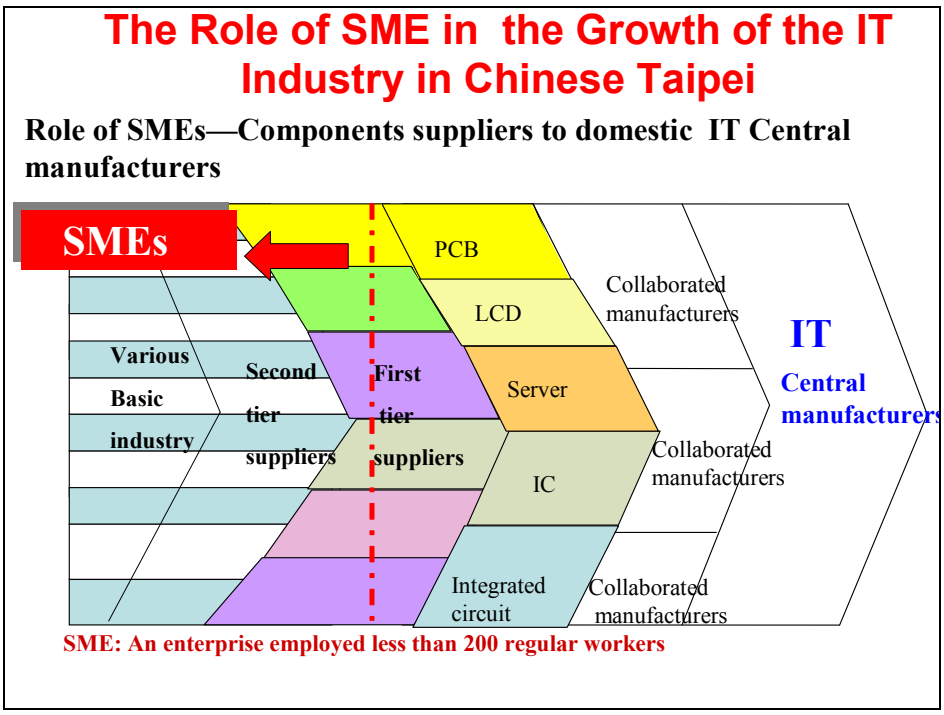

Fig 9 The Role of SME in the Growth of the IT Industry in Chinese Taipei

3.1.4.2. SMEs Require the Transformation to From a Robust IT Supply Chain

The supply chain of IT industry exists as a complete entity. If SMEs do not transform, the IT supply chain won't be successful. For the dramatically changing global market, adoption of ICT makes the entire supply chain more competitive. For big companies, adopting e-Business with their international customers may be not as difficult as SMEs. SMEs are usually more proactive in adopting ICT because of its insufficient resources. If the government did not stepped in, Chinese Taipei might have been driven out of the global competition. Therefore, we consider that helping SMEs establish linkages with the global IT supply chain was a major driving force in the transformation of the whole IT industry.

3.2. General Introduction of e-Business Program

3.2.1. Goals of the e-Business Program

The objective of the e-Business program is to build a highly efficient e-Supply chain framework to establish a global logistics operation system as a network on a national level.

The goals are as follows:

(1)It is expected that there are 50,000 enterprises forming 200 supply chain systems (80% are small-and-medium-sized businesses) to apply B2B e-Commerce in depth.

SMEs stand to benefit the most from the opportunities offered by e-Commerce because they are more flexible and easier to re-engineer and, most importantly, they will be able to take advantage of new avenues for competing with larger firms.

(2)To establish B2B e-Commerce pilot system for IT industry.

(3)Aiming at target industries to develop production, warehousing, distribution and selling modules, we will build 40 model sites to demonstrate the functions and processes.

(4)2,000 companies will be selected from the manufacturing, commerce, banking, securities, agriculture and construction engineering sectors. We will assist them to build up their own enterprise-wide e-Business.

What is the reason to accomplish such goals? It is very important for manufacturers to respond quickly to the global market. So, the whole supply chain should be joined by e-business. In which case, all the companies in the network can share information with one another and simplifying communications with foreign customers .

3.2.2. Project Organization -- Responsible Government Agencies

The project was led by the minister without portfolio who is in charge of Technology Development, Executive Yuan. For a long time, the minister without portfolio had always been supportive of the IT related programs regardless of the political climate. The e-Business Program is composed of many projects such as Construction automation, Government Procurement, e-Commerce project, and the A, B, C, D, and E projects and related policy mesures.

There is a very clear responsibility ownership among various government agencies. Below is a table of the responsible government agencies for each industry and domain. The Minister

hosted regular meetings to coordinate tasks among different agencies to ensure flawless execution.

Table 4 Responsible Government Agencies

Industries/Domains	Responsible Government Agencies
Technology and Secretary of the Projects	Dept. of Industry Technology, MOEA
Manufacturing	Industrial Development Bureau, MOEA
Commerce	Dept. of Commerce, MOEA
Finance	Ministry of Finance
Agriculture	Agriculture Commission, Executive Yuan
Construction	Department of Construction, Ministry of Interior
Government Procurement	Public Construction Commission, Executive Yuan
Small to Medium Enterprise Administration	Provide last mile e-Business to SMEs of all industries and domains.
State-operated Business	Ministry of Economic Affair, Ministry of Transportation & Communication

3.2.3. The Strategy

Implementation Strategies of e-Business program are as follows:

(1)Private-public cooperation

First of all, we expect our private sector companies to lead the development of electronic business. At the same time, our government will resolve the barriers and actively work to establish the necessary legal and communication infrastructure.

(2)IT industry as the pilot industry

Next, the IT industry is used as an implementation benchmark. The e-Business of IT industry projects are the A and B projects. Following the implementation of A and B projects, Chinese Taipei planned a comprehensive promotional program. The reason we selected the IT industry is because the IT readiness level of the IT industry is higher than other industries in Chinese Taipei. IT industry was then build as the implementation benchmark and the model was applied to other manufacturing industries such as food, metal, textile, petrochemical, automobiles, machinery... etc.

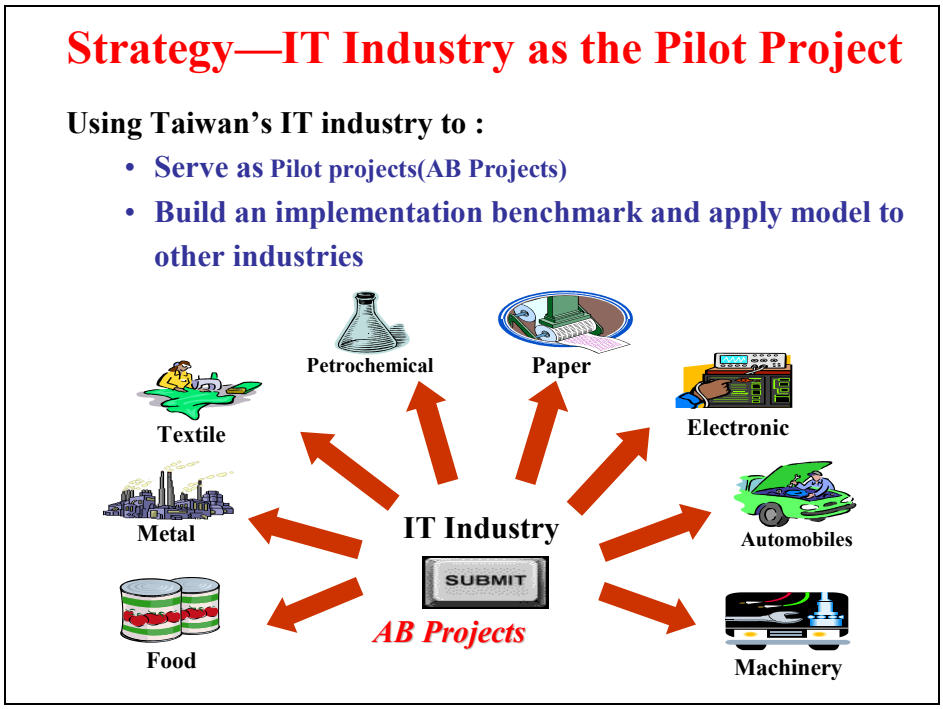

Fig 10 Strategy—IT Industry as the Pilot Project

(3)Work closely with global and domestic companies

Through practical implementation, we work closely with global and domestic companies, providing technical services, manpower training and incentive policies. We focus on the e-Supply Chain System which was led by major manufacturers to enforce suppliers' B2B e-Business application.

We solve related problems and establish an implementation model. After the establishment of the implementation model, it will be extended to other industries.

(4)Government internet procurement systems as the first mover

Government, as the biggest buyer, first established the Internet procurement systems as an initiative.

3.2.4. Actions of -Business Program

According to the goals and strategies already mentioned above, 4 actions have been taken.

(1)Enhance the e-business infrastructures

Our first priority is to enhance the e-Business infrastructure. There are 5 sub working items in the category.

- To develop e-Business standards to facilitate the communication in e-Business

implementation.

- To train e-Business professionals: The lack of professionals in e-Business implementation and the training of professionals was an urgent mission.
- To develop e-Business service industry in order to satisfy the domestic demand of e-business.
- To provide tax incentives
- To provide low interest loans

(2)Build up the e-supply chain pilot projects

The second action is to reinforce Industrial e-Supply Chain capabilities. Project A and Project B are the pilots of e-Supply Chain implementation. The purpose of Project A is attracting international leading companies to construct e-supply chain with Taiwan Contract Manufacturers while that of Project B is building up the e-Supply Chain system of domestic leading companies with their upstream suppliers.

(3)Reinforce industrial e-supply chain capabilities

This e-Supply Chain model can be applied to other manufacturing industries, especially in domestic industries with higher e-readiness. The 8 industries chosen are: Food, Metal, Textile, Petrochemical, Pulp &Paper, E&E Engineering, Automobiles, and Machinery

(4)Assist e-marketplace development

The third action is to assist e-Marketplace development. First, we promote the related international category standards for e-Catalog. It is the basis to link domestic and international e-Marketplaces. Second, we build up Taiwan's e-Marketplace portal to encourage industries to use the e-Marketplace to sell their products and services to enhance their global competitiveness.

Furthermore, we assisted e-Marketplace providers to strategically aligned with international e-Marketplace. In order to attain better results, the project also set up a registration and certification mechanism for e-Marketplace providers.

3.3. Introduction of Project A, B, C, D, and E.

3.3.1. Overview of Project A, B, C, D, and E.

In 1999 the Department of Industrial Technology (DOIT) of the MOEA formulated and began implementation of two pilot projects --Projects A and B for promoting e-business in the IT industry. The aim was to make effective use of the experience that other countries had accumulated to establish model e-Business systems that would help to enhance the e-Business capability of Taiwan's export-oriented supply chain, while overcoming the environmental and

systemic problems that Taiwan had experienced in the promotion of e-Business, and achieving the diffusion of e-business into other industries.

After implementation of Projects A and B, the MOEA began implementation of Projects C, D and E as a continuation of Projects A and B in 2001. The aim of these new projects was to ensure the provision of e-Business services covering payment, accounts receivable management, on-line financing, global inventory management, delivery tracking and collaborative design services in order to maintain the competitive advantage of Taiwanese industry and meet their evolving needs. The existing e-Business supply chain system would be used as the foundation for further integration of cash flow, delivery systems and engineering collaboration, with the aim of strengthening the global logistics management capability of Taiwanese industry and its competitiveness in international markets .

The following are the definition of Project A, B, C, D, and E.

Project A: The international IT supply chain systems

Project B: The domestic IT supply chain systems

Project C: The cash flow between manufacturing companies and banks

Project D: The delivery and logistics support

Project E: The engineering collaboration, product design, research & development

The overall architecture of projects A, B, C, D and E is illustrated below:

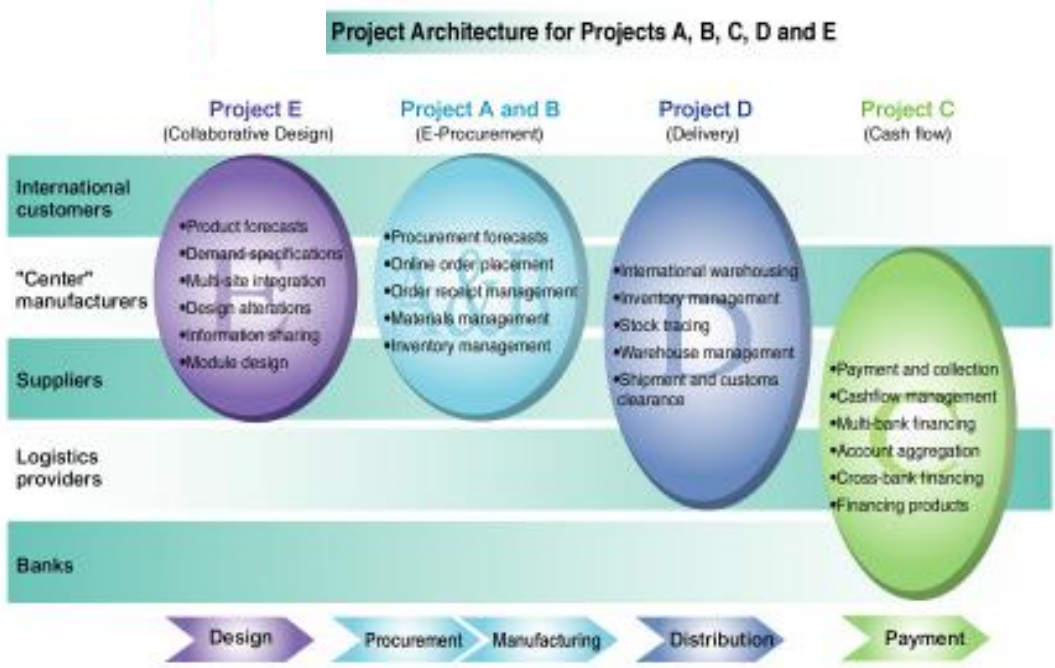

Fig 11 Project Architecture for Projects A, B, C, D and E

The overall scope projects A, B, C, D and E is illustrated below:

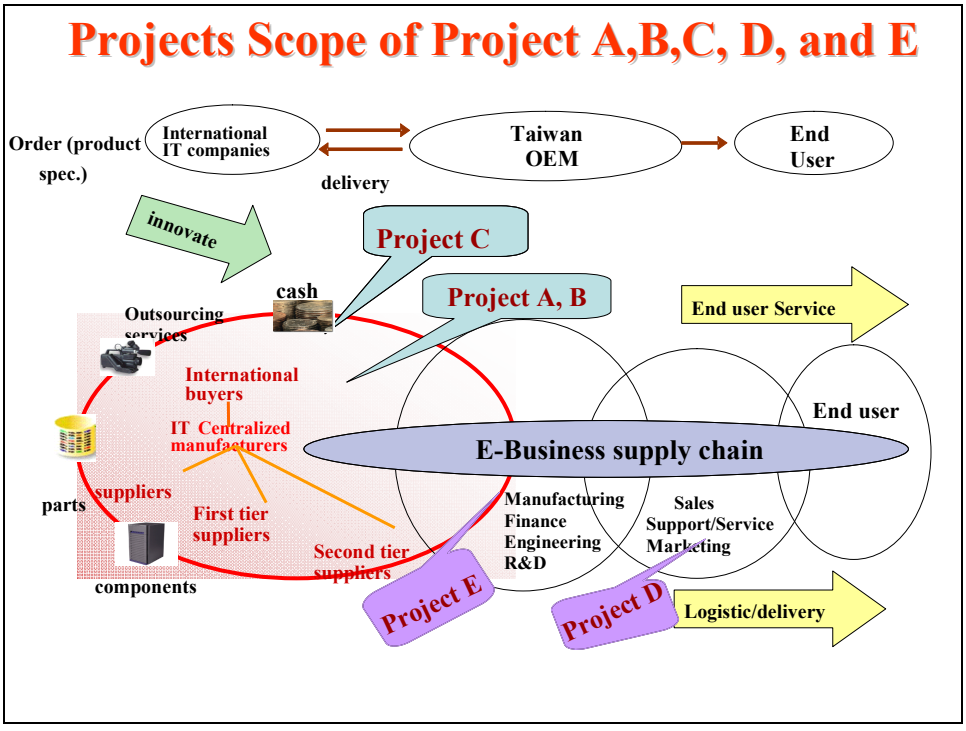

Fig 12 Project Scope of Projects A, B, C, D and E

3.3.2. Projects A and B

3.3.2.1. Goal of Project A and B

When the project began in 1999, there were 5 objectives to be achieved by 2002:

- The aim was set up at least 15 IT supply chain systems. It will become the future implementation model with better representation. Among the 15 systems, the target was to attract at least 2,500 small & medium sized enterprises to establish B2B e-Business capabilities.
- The same concept was applied to manufacturing industry with 25 supply chain systems as the goal and at least 3,500 SMEs to establish individual B2B e-Business capabilities.
- Increasing Internet usage of manufacturing industries from 32.3% in 1999 to 50% in 2002
- Increasing e-Procurement rate of manufacturing industries from 5% in 1999 to 10% 2002
- Increase revenue of Taiwan's e-Marketplace industry up to US$120 million.

3.3.2.2. The description (Details) of Projects A and B

The main focus of Projects A and B was on e-Procurement. Implementation began in July 1999, and was completed in December 2001. Project A involved helping IBM, Compaq and HP (three leading international companies that purchase large quantities of goods in Taiwan) and Taiwan's leading IT manufacturers to establish an e-business supply chain covering every stage from design through to procurement. In Project B, assistance was given to 15 leading Taiwanese IT manufacturers and more than 1,800 of their component suppliers to establish e-business supply chains covering the stages from procurement through to manufacturing.

3.3.2.3. Implementation Result of Projects A and B

(1)Encouraging leading international vendors to increase their procurement in Taiwan
Project A brought about collaboration between 31 leading Taiwanese IT manufacturers (including Acer, Asustek, Mitac, Inventec, Hon Hai and Quanta) and three of their biggest international customers(HP, Compaq, and IBM) on the establishment of a tightly-knit supply chain system. The major processes and messages exchanged include quotation, purchase order, order management, supplier management ...etc. The purchase amount undertaken in Taiwan by the three international vendors increased by 20% in 2001, and the three companies established their first offshore e-business procurement centers in Taiwan (an Operation Center in the case of IBM; a Hub Center in the case of Compaq).

(2)Boosting the ability of Taiwanese SMEs to secure orders from overseas customers
The 15 leading IT manufacturers participating in Project B encouraged more than 1,800 small and medium enterprises (SMEs) to join their e-Business supply chains, thereby strengthening the strategic partnership relationship between Taiwan's SMEs and the 15 leading manufacturers.

The 1800 Domestic components suppliers include Viatech, Hon Hai, Liteon, HKK, Yaego, Wpi...etc, most of which are SMEs. The major processes and messages exchanged include quotation, purchase order, order management, supplier management, payment...etc.

Many SMEs found that participating in Project B helped them to increase the percentage of successful transactions, cut inventory and procurement costs, reduce the time needed to respond to orders, and increase profits.

In addition, the association formed by the companies participating in Project B drew up standards and operating procedures for data exchange, helping to overcome the problems that had affected the joint participation of SMEs and larger manufacturers in e-business supply chains.

(3)Enhancing the corporate images and brand recognition of Taiwanese enterprises in international markets.
In Projects A and B, for the first time ever the RosettaNet international standard for data exchange was adopted across an entire industry, with the aim to bring Taiwan inline with the international e-Business environment. This initiative on Taiwan's part has attracted a great deal of attention from RosettaNet organization in the US.

(4)Encouraging the adoption of e-Business in Taiwan’s other industries
Besides facilitating the establishment of e-Business supply chain systems in Taiwan's IT sector, Projects A and B also encouraged the participation of information service providers, thereby helping to foster the development of Application Service Providers (ASPs) and software service providers in Taiwan, which in turn made it less expensive for Taiwanese companies to make use of e-Business software and services. The success of Projects A and B has also encouraged the rapid adoption of e-Business in other industries.

The e-Business supply chain linkage operations undertaken as part of Projects A and B stimulated demand for e-business applications in global cash flow and delivery, encouraging the private sector to invest in these areas. The projects have thus helped to establish a solid foundation for the future e-Enablement of global logistics in Taiwan’s semiconductor and IT industries.

A total of US$70,000,000 has been funded by the private sectors and government for Projects A and B. Moreover, it also provides successful experience for industries other than the IT industry.

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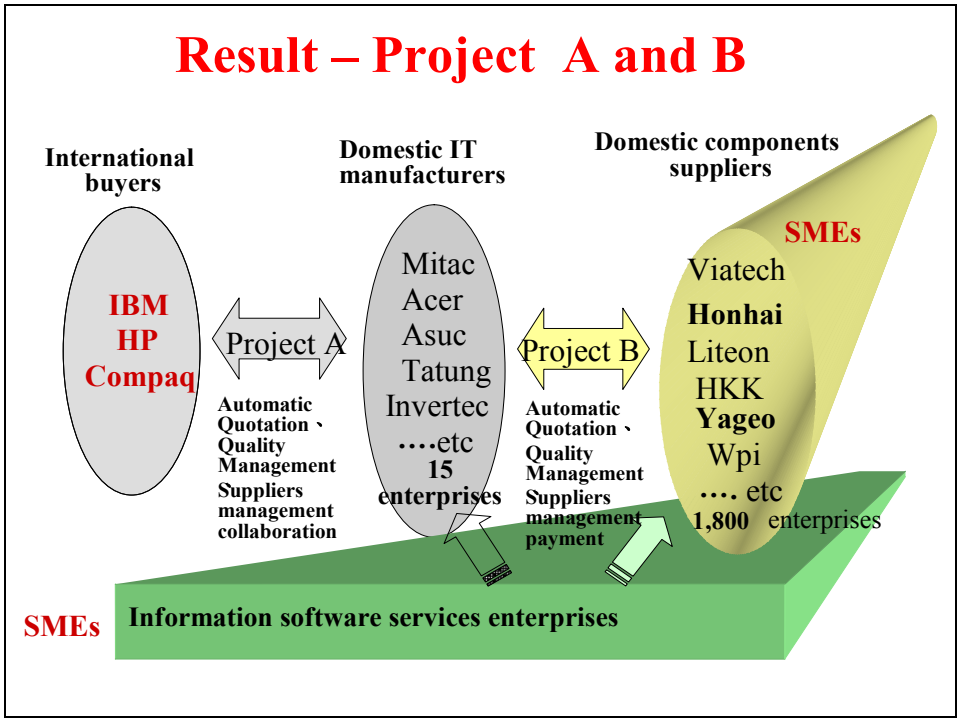

Fig 13 Implementation Result of Project A and B

3.3.3. Project C

3.3.3.1. Objective of Project C

Project C aimed to build on the e-Business supply chain foundations established in Project B. The idea was for banks to help solve the problems that "center" manufacturers (in center-satellite systems) and suppliers faced in the area of payment and collection, to provide real-time online financing service, and to establish mechanisms to achive e-Business integration in the areas of information exchange and cash flow between banks, “center” manufacturers and suppliers, thereby boosting Chinese Taipei’s industries’ competitiveness as a whole and creating a favorable environment for the development of business models whereby Taiwanese enterprises continue to receive orders and arrange financing in Chinese Taipei and essentially, "keeping the money in Taiwan". Project C also provided for the establishment of a global financial services network by Taiwanese banks, to help Taiwanese companies to achieve effective global deployment.

3.3.3.2. Description (Details) of Project C

Implementation of Project C began in August 2001 and ended in December 2003. Eight banks, namely Chinatrust Commercial Bank, International Commercial Bank of China, First Commercial Bank, Cathay United Bank, Fubon Commercial Bank, Hua Nan Commercial Bank, Chang Hwa Commercial Bank and Far Eastern International Bank participated in the project. The main contents of Project C included on-line payment and collection, account aggregation, and online financing mechanisms.

3.3.3.3. Implementation Result of Project C

(1)The amount of online financing is growing rapidly, with suppliers demonstrating great enthusiasm for the new model

The commencement of large volumes of online financing business under Project C began in October 2003. By the end of 2003, a total of USD$400 million of online financing had been provided, and the total for the first quarter of 2004 was USD$70 million. At end of the first quarter of 2004, more than 4,500 suppliers were connected to the system.

(2)Suppliers are now able to secure financing more rapidly, and at more advantageous interest rates

In the past, when applying for financing in the traditional manner, SME suppliers have often found it difficult to obtain financing because of their small scale of operations or their financial circumstances. In order to obtain the working capital they need, suppliers are often required to provide collateral or joint loan guarantees, and they may find themselves in situations where they have received an order but do not have sufficient working capital in hand to process that order. The banks are hobbled because of the difficulty of securing access to transaction details; they tend to be very cautious about providing financing to small suppliers because of the risk that falsification or alteration of the transaction details, cancellation of the order or simple misjudgment may cause the bank to suffer a loss. Project C sought to remedy the problems relating to access to information between the two parties. By using the order details provided by the "center" manufacturer, it is possible to bring forward the stage at which financing is provided to the supplier from the collection stage to the invoice-issuing stage, the acceptance inspection stage, the order placement stage, and in some cases even the order anticipation stage. It is estimated that this has reduced the time needed to secure financing by 2 weeks in the case of the IT and electronics industry (where lead times are shorter) and by 3 weeks in the case of traditional industries.

From the point of view of the supplier, as long as they have an order coming in they can secure financing; there is thus now an effective solution to the problems that SMEs have traditionally experienced in the area of working capital adequacy. Online financing

applications require neither collateral nor guarantors; the procedures are simple, financing can be secured quickly, and the interest rates are attractive.

(3)Reducing banks' labor costs and helping to bring down their NPL ratios

As far as the banks are concerned, the implementation of Project C has made it possible to streamline credit operations. If one compares the cost of traditional manual processing of credit operations with the cost under Project C, the reduction in manual processing costs per transactions can exceed 90%. The "center" manufacturers participating in Project C are all financially healthy with impressive records for on-time delivery, and the banks have access to the transaction data of both the "center" manufacturers and the suppliers; this has enabled the banks taking part in the project to bring their non-performing loan (NPL) ratios down by nearly 2%.

(4)Building on the success of the project to enhance e-Business capabilities and stimulate growth in business opportunities in all sectors

The success of the cash flow and information exchange integration models that were established in 11 IT sector center-satellite systems as part of Project C has encouraged companies in many other industries to participate in the project. As of the end of the first quarter of 2004, more than 200 center-satellite systems in non-IT sectors were involved in the project; the associated industries included distribution, mold making, electromechanical engineering, machinery manufacturing, textiles, food products, plastics, iron and steel, car manufacturing, precision instruments manufacturing, papermaking, department store operation and the healthcare sector.

3.3.4. Project D

3.3.4.1. Objective of Project D

The main focus of Project D is on providing guidance for the adoption of e-Business delivery services by Taiwanese IT hardware and semiconductor manufacturers and logistic service providers (LSPs), and to encourage other IT service providers to participate in the development of e-business services that integrate delivery and information flow in line with industry's needs.

IT and electronics manufacturers have to conform to the price strategies of the leading international vendors. In order to reduce overall manufacturing and assembly costs, production of most products has already been moved overseas, making shipping schedule planning and ensuring that information is kept up to date that much more important. The underlying philosophy behind Project D is to make the information and electronics industry a model for other industries to imitate, using the establishment of e-Business delivery networks to upgrade the overall global logistics performance of the IT sector as a whole.

3.3.4.2. The description (Details) of Project D

Implementation of Project D began in August 2001 and ended in December 2003. The participants included: HP (a leading international IT vendor); leading Taiwanese "center" manufacturers such as Tatung, FIC, CMC, Inventec, Mitac, Arima, Asustek and Sampo; Taiwanese application service provider (ASP) Kuan Mao Networks. The project thus brought together leading Taiwanese IT hardware manufacturers, overseas customers, component manufacturers, contractors, transportation service providers, customs brokers and other LSPs, and ASPs, to jointly handle the complex domestic and overseas shipping and customs clearance operations. The project's main contents included online order processing, transportation planning and implementation, shipment tracking and inventory information access, document and payment/collection management, customs clearance data management, supply and demand forecasting, etc.; the aim was to establish an e-business delivery network that would provide transparency of information between enterprises.

3.3.4.3. Implementation Result

(1)"Center" manufacturers, LSPs and ASPs have succeeded in strengthening their information application capabilities, boosting their efficiency and cutting costs.

Taiwanese "center" manufacturers, LSPs and ASPs have worked together to build an information application capability that conforms to international standards. In the case of the "center" manufacturers, the amount saved per annum by optimizing logistics and reducing wastage in inventory and key components amounts to NT$8 billion. The "center" manufacturers have also helped 1,200 suppliers and LSPs to establish e-business delivery capabilities; 22 of these companies now possess B2Bi and RosettaNet capabilities. As a result of the project, LSPs enjoy savings on transportation and customs clearance documentation production amounting to around USD$3 million per annum. ASPs have been integrating their operations with seven leading domestic and overseas delivery service platforms to provide comprehensive shipment tracking data and improve customs clearance efficiency. In the case of the US customs, the time required to complete customs clearance has been reduced from 8 hours to 30 minutes. Project D also involved the formulation and adoption of five RosettaNet PIPs (Partner Interface Processes).

(2)A substantial increase in the efficiency of LSPs, accompanied by significant growth in business opportunities

As a result of the implementation of Project D, 70% of LSPs' shipping documentation has now been put online; it is estimated that this can save 26,000 man-hours of work. Project D has helped LSPs to upgrade their delivery information application capabilities; LSPs are now able to monitor and integrate shipment status data effectively online, thereby making it

possible for them to provide customers with a more comprehensive range of value added services. "Center" manufacturers are now more willing to entrust supplier shipment management and overseas warehouse operation to LSPs. As a result, the scope of global logistics planning in the IT sector has been expanded, and market demand for information services has increased.

(3)Increasing benefits from applications through the use of shared platforms

In order to increase the overall benefits that Project D will bring to Taiwanese industry as a whole, DOIT has also been providing assistance for the promotion of the "Star Delivery" plan, whereby 10 IT manufacturers (Acer, D-Link, AU Optronics, World Peace Industrial, Compal, Lite-On, Yageo, Accton, Elitegroup and Yosun) will be using a shared B2B transaction platform to provide information flow, cash flow and delivery services for purchasing, shipment tracking and inventory management in both the upstream and downstream segments of the IT sector. It is anticipated that these 10 leading manufacturers will all have their systems online by 2004, and that they will be connected to more than 500 Taiwanese IT manufacturers and 5 major domestic and international e-Hubs. The network is expected to handle transactions worth more than USD$6 billion a year and create business opportunities worth USD$27 million; it will eventually be one of the world's largest IT industry communities.

3.3.5. Project E

3.3.5.1. Objective of Project E

The objective of Project E is to establish models of e-Business adoption through collaborative designs. Project E aims to help companies establish interactive models for collaborative design with customers, suppliers and technology design partners at the new product development stage. Effective application of information technology and new processes can be used to reduce lead time, create synergy between companies in different industries, and encourage manufacturers to focus more on the new product R&D stage in the value chain, thereby enhancing the overall competitiveness of Taiwan's industry.

3.3.5.2. Description (Details) of Project E

Implementation of Project E began in August 2001 and ended in June 2004. Six companies, namely Tatung, FIC, Sunonwealth, Compac, HP, and Amtran participated in the project. Project E was positioned as a pilot project targeting the IT sector; the companies participating included a leading international vendor, leading Taiwanese "center" manufacturers, primary suppliers and secondary suppliers. The collaborative design framework that resulted was extremely comprehensive. The main emphasis in project implementation was on helping

manufacturers to transform themselves from traditional OEM providers into ODM providers and Collaborative Design Manufacturing (CDM) providers, while working to strengthen collaborative design R&D management capability. The idea is to integrate different companies' R&D capabilities at the product development stage, developing collaborative design business models that can meet the needs of the leading international IT vendors. By establishing a highly efficient collaborative design operations system it should be possible to make the leading international vendors more dependent on suppliers in Taiwan.

3.3.5.3. Implementation Result of Project E

The underlying objective of Project E is to help companies complete the development of new products as rapidly as possible and bring down production costs; at the same time, companies will be able to build a brand-new collaborative relationship with their customers.To achieve these results, companies will need to make use of the collaborative design model to strengthen their ability to exert influence over the formulation of product standards, and achieve improvements in the areas of information transparency, problem follow-up management, design alteration management, sharing of design drawings, design component database applications, collaborative design process management etc. Through the establishment of a collaborative design system, both "center" manufacturers and suppliers will be able to achieve a significant enhancement of their R&D capabilities. Not only will Taiwanese manufacturers be able to obtain new product development technology and concepts from the leading international vendors, they will also be able to satisfy customers' needs more effectively and strengthen their relationships with them.

The implementation of Project E has helped to build consensus between customers (leading international vendors) and suppliers in the area of new product development, with agreement being reached to make use of certain collaborative design processes in new product development. In all, 19 leading international vendors (including HP, Intel, AMD, Altera, Epson, ViewSonic, Sony, I-O Data, Siemens, Sharp, Hitachi, Toshiba and ATi) and 164 Taiwanese suppliers participated in the project. With the gradual completion of Project E, by working with the brand-name vendors on the establishment of collaborative design mechanisms Taiwanese companies have been able to increase the importance of the role that they play in the international vendors¡¦ global operations. Project E has stimulated the development of a "virtual" international R&D community characterized by close collaboration between the participants, and has helped to strengthen the R&D capability of Taiwanese industry.

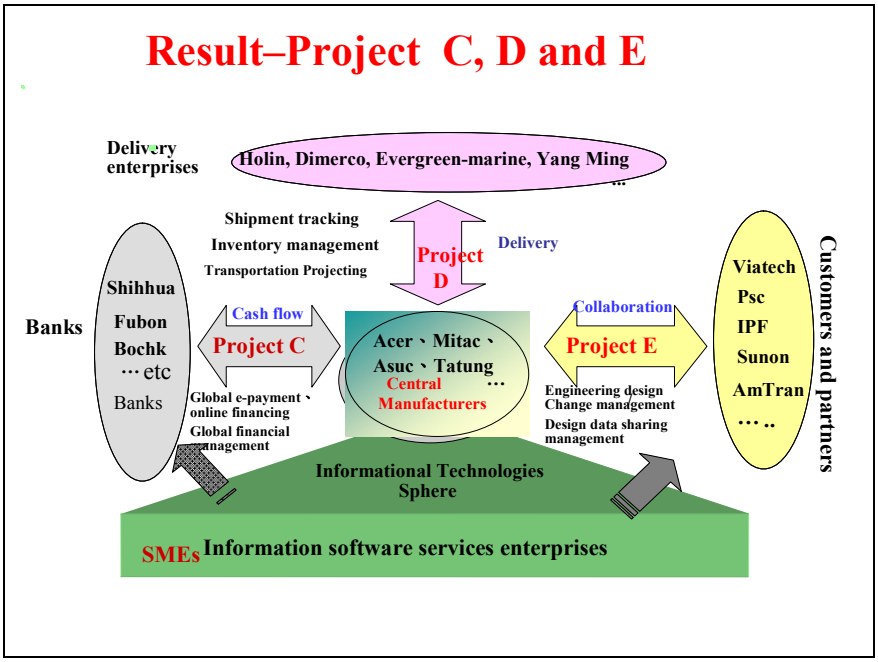

Fig 14 Implementation Result of Project C, D, and E

3.3.6. Total Achievement of Projects A, B, C, D, and E

The total achievements are summarized as follows:

(1)Strengthening local small and medium businesses' competitiveness in securing global purchase orders

(2)Introducing the global supply chain protocol, RosettaNet, that links the local e-Business environment to the global markets.

(3)Establishing 15 central plants and streamlining a total of 1,800 medium and small businesses into the e-Supply Chain system to establish a long-term strategic partnership.

(4)Improving order delivery rate by 45% to 93% to reduce inventory cost, shorten the time on processing order, and improve the overall competitiveness.

(5)Improving B2B e-commerce adoption to increase global presence.

(6)Developing the information applications service industry and software service industry.

3.3.7. Case Study of Project A, B, and D: Mitac International Corp.

3.3.7.1. About MiTAC International Corp.

MiTAC International Corporation (MiTAC) is an ICT manufacturing company founded in 1982. Major products of MiTAC include personal computers, digital home products, servers, workstations, storage equipment, mobile communications products, GPS devices, Smart Phones, wireless networking cards…etc. There are 12, 400 employees worldwide. The headquarter is located in Taipei. The production locations are in Hsin Chu and Mainland China. The overseas assembly centers are in US, UK, Germany, and Japan.

3.3.7.2. Objective and Goals of Projects A, B and D OF MiTAC

Based in Taiwan as its operational base, MiTAC planned to use effective global supply chain management to provide global logistic support to capture greater market share. MiTAC plans to designate Chinese Taipei and US as R&D and design centers, and to have Mainland China and Chinese Taipei as the production centers for product modules and semi-finish goods while establishing US, Australia, and UK as the BTO and CTO centers. Based on this objective, MiTAC set up the goal of Projects A, B, and D as follows.

(1) Set up logistics management and service center

- Direct shipping from Chinese Taipei
- Lower transportation costs by 10% (about US$3 million)
- Increase customer service satisfaction by 20%
- Shorten transit time
- Decrease document error rate and document handling manpower
- Decrease logistic handling manpower by 30%. (Before the project, 20 people handled logistics management. After the project, the 20 people were reallocated to strategic and management jobs.)
- Provide statistics of transportation costs and volume for higher management decision needs.
- Make the global logistics and stock information transparent, lowering the overall cost of in-stock.

(2) Help suppliers of MiTAC upgrade e-logistics management and e-business capability

- Exchange and manage logistics information with more than 200 suppliers through the MiTAC e-Logistics platform.
- Exchange and manage shipping and custom information with 25 third party logistics service providers, including 10 local 3PL, and lower cost by 10% (about US$3 million)
- Connect with at least 4 global based warehouse or hub warehouse to manage warehouse information

3.3.7.3. Strategy

- Be the first PC manufacture in Chinese Taipei to establish e-Logistics capability, hence increasing the customer satisfaction and order-taking competitiveness.
- Establish the e-Logistics platform for MiTAC family, MiTAC customers, suppliers, and 3PL.
- Co-design the e-Logistics process and message with trading partners to decrease the cost of implementation on message exchange.
- Timely control the inventory information of the pipeline via the data exchange framework of hub, vendor, and 3PL to lower inventory cost.
- Through BPR of e-Logistics, achieve the goal of total Logistics Cost down, including the cost of 3PL, manpower, communication, and error handling.

3.3.7.4. Major Tasks and System Functions

Major tasks of the projects involve BPR with customers, suppliers, logistic partners, integration with ERP systems and implementation of e-commerce, and Electronic Data Interchange. E-Procurement, VMI-vendor managed inventory, track and trace of shipment, and freight management are major system functions implemented. RosettaNet PIP standard is used by MiTAC and its trading partners as information exchange protocols. Information exchange includes order management, shipping management, inventory management and cargo tracking. Via application to application data exchange, MiTAC has been able to establish an efficient operation hub with more than 400 suppliers to respond to MiTAC's customer needs. At the same time, MiTAC built an e-Commerce infrastructure with its 400 suppliers.

3.3.7.5. Implementation Results

- Joint development management with customers
- Establish the business models of Build to Order(BTO), Configure to Order (CTO) with Taiwan Direct Shipment(TDS)
- Multi-mode logistics to cope with different production models
- Inventory management by Vendors
- Receiving orders by global single window via the web
- Moving from decentralized to centralized logistics control

3.3.8. Policy Focus on the IT Industry and Research Development in Chinese Taipei

Besides Projects A, B, C, D, and E, let us turn our attention to a greater scope of e-Business related policies in Chinese Taipei .

3.3.8.1. Objective: Deep-rooting Chinese Taipei's IT Development for global presence

The future will be an era of e-adoption in which the importance of the Internet continues to grow. This will be a worldwide trend, and Chinese Taipei will inevitably have to focus on developing itself into a fully e-enabled society. Chinese Taipei will be positioned as a center for operations, R&D and design, emphasizing the acquisition of information and seeking to leverage the advantages that different regions possess in terms of manpower, capital, technology and distribution channels so as to achieve integration with supply chains in other countries. In this way, Chinese Taipei will be able to develop its own effective global strategy.

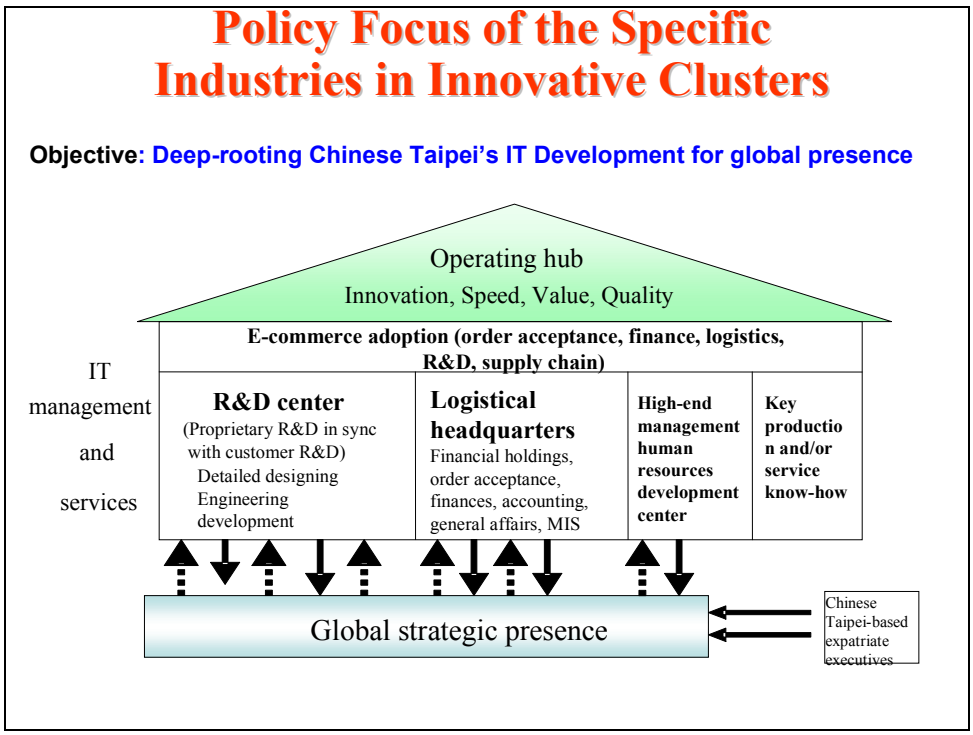

Fig 15 Policy Focus of IT Industry and RD

3.3.8.2. Strategy Development

In the future, the areas in which Chinese Taipei will be most competitive will include information, communications, semiconductors, biotechnology and automation. Supporting industries will play a vital role in the ongoing development of these sectors. In addition to the suppliers of raw materials and the providers of processing services, Chinese Taipei will need to develop knowledge-intensive service industries (including information services, communications services, industrial design and other supporting industries) if it is to

strengthen the overall level of R&D and operational efficiency and overcome the obstacles that the key industries will face in the future.

The IT hardware manufacturers in Chinese Taipei will need to join forces with its software companies to develop an integrated cross-industry technology capability. By strengthening the integration between manufacturing and services domestic companies will be able to increase the level of value added that they provide within the global supply chain, helping to turn Chinese Taipei into a leading global design, manufacturing and supply center.

In addition, to upgrade and transform Taiwanese industries , Chinese Taipei launched a series of government support RD programs to stimulate overall industrial researches of all private sectors(include IT industry).

3.3.8.3. Implementation: Policy Measures

Viewed in terms of the "smile curve", the main focus in Chinese Taipei industrial policy today is on allocating resources to the points on the supply chain that lie at the ends of the smile curve. The key industrial development promotion projects implemented by the government include the RD and SBIR Support Program, project to encourage the establishment of innovation and R&D centers (to meet industry's needs in the area of design), the "Two Trillion Twin Star Industry" plan (components), Plans A, B, C, D and E (logistics), and the incentives provided to encourage the establishment of operational headquarters (enterprise operations). The government's planning thus covers every aspect of the IT industry's needs as Chinese Taipei continues its development into a high-value-added "Asia Pacific Electronics and Information Industry Resource Integration Center".

The policy mesaures adopted by the government are outlined below:

(1)Incentive measures to promote the upgrading of the information industry and RD

- The government provides investment incentives in the areas of manpower cultivation and the procurement of equipment and technology, along with tax breaks for shareholders, and exemptions and remissions for import duty and business tax.
- Incentives to encourage R&D activity include tax breaks for investment in R&D, awards for companies developing new products, the provision of guidance to help companies in traditional industries development new products, and exemption from payment of income tax on royalties.

SBIR--Small Business Innovation Research is one of the incentive programs launched by the Department of Industrial Technology of Ministry of Economic Affairs (MOEA) in 1998. It

aims to encourage local start-up companies and pursue innovative research of industrial technologies and products. In 2000, the target applicants were extended to include companies in the private sector.

Types of Research encouraged by the program include:

- Developing brand new ideas, concepts, or technologies.
- Applying existing technologies to a new application.
- Applying new technologies or business models to an existing application.
- Improving existing technologies or products upon various aspects (this point sounds a bit awkward).

In the past three years, an average of 320 out of 500 applications per year received grants of USD$60,000. SMEs represent 76% of the applicants who received the SBIR grants.

- Allowing companies that move to a new location to benefit from a reduced rate of land value increment tax.
- Provision of incentives to encourage the improvement of pollution prevention technology and equipment.

(2)Encouraging domestic and overseas enterprises to establish R&D centers in Chinese Taipei:

- Incentive measures for overseas enterprises include simplified administrative procedures, manpower support, funding assistance and tax breaks.
- Incentive measures for domestic enterprises include funding assistance and the provision of higher quotas for national service personnel allocation.

The related policy measures are as follows.

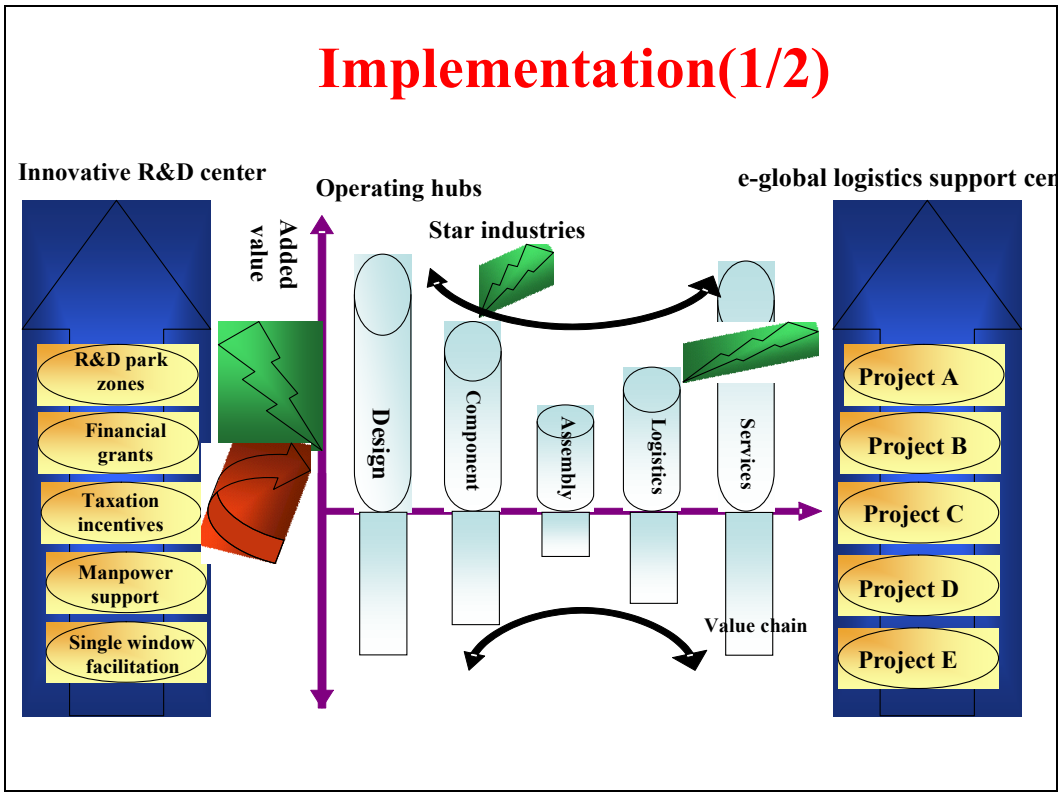

Fig 16 Implementation of Policy Measures(1/2)

(3)The "Two Trillion Twin Star Industry" plan:

The government's strategic thinking for the development of the industry in the twenty-first century attaches particular emphasis to R&D and innovation. The "Two Trillion Twin Star Industry" plan targets the most competitive industries – those that have the greatest potential for continuing development. The "Two Trillion" industries (industries with annual production value in excess of NT$2 trillion) are the semiconductor industry and display industry; the "Twin Star" industries (industries with the potential to become new "star" industries in the twenty-first century) are the digital content industry and biotechnology industry.

(4)The e-Taiwan plan will have a major impact on the development of the software industry in Chinese Taipei:

On December 26, 2001 the Executive Yuan gave its approval to the National Information & Communications Initiative (NICI) based on the "e-Taiwan" vision. It is anticipated that this plan will involve an investment of at least USD$1.2 billion over a five-year period. By 2006, the government aims to have completed the promotion of "e-government", "e-commerce", "e-lifestyle" and "e-transportation". The government will provide direction, while entrusting the actual implementation of the "e-Taiwan" plan to the private sector. The investment in "e-

government", "e-commerce", "e-lifestyle" and "e-transportation" in line with the NICI strategy will help to build a comprehensive information application environment in Chinese Taipei, while also creating enormous business opportunities for software companies.

It is intended that larger companies such as Acer, FIC and Mitac will lead the way in the implementation of the e-Taiwan plan, providing the platforms on which SMEs can roll out their application services. The business models adopted will need to emphasize mutual benefit and synergy, so that both the system providers and application service content providers benefit from the plan's implementation. By encouraging software companies to seek Capability Maturity Model Integration (CMMI) assessment, it should be possible to enhance overall software development and management capability, thereby establishing a solid foundation for the internationalization of the software industry.

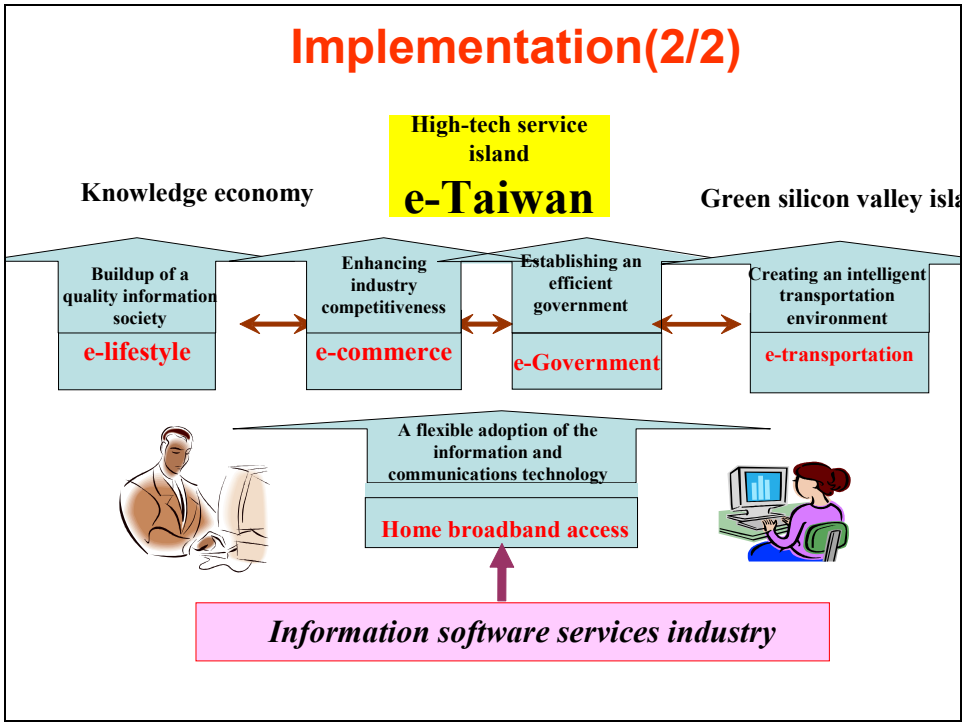

Fig 17 Implementation of Policy Measures(2/2)

3.3.9. Achievements

Thanks to vigorous promotion by the government, it is anticipated that the strengthening of the information and communications infrastructure and the enhancement of the IT application capabilities of domestic enterprises will make it possible to achieve an across-the-board upgrading of the IT capabilities. With the adoption of an innovation-oriented growth model to raise value added, Chinese Taipei will develop into a high-value-added manufacturing and

service center, thereby boosting the competitiveness of domestic industry as a whole. The results that have been achieved so far are described below(as in 2004):

Table 5 Implementation Result of the EB Policy

Category	Project	Implementation Yield
Innovative R&D center	Establish R&D Centers	● A total of 36 local corporations have established R&D centers in Chinese Taipei. ● A total of 6 foreign corporations have launched R&D centers in Taiwan.
The Two Trillion Dollar Two (Twin) Star Industries	Semiconductor Industry	● Wafer processing output accounts for 73% of the total global output. ● IC design output accounts for 26% of the total global output.
	Image Display Industry	● TFT-LCD output accounts for 34% of the total global output. ● FPD output accounts for 24.5% of the total global output.
	Digital Content Industry	● Launch the "Digital Content Industry Promotional Office" to help the industry reach US$10.7 billion mark by 2006.
	Biotech Industry	● Launch the "Biotech Industry Single Window" to help the industry reach US$7.3 billion mark by 2006.
Computerized Global Logistics Support Center	Project A	● Foreign purchase increased by more than 20% from US$15 billion to US$18 billion. ● 1,800 SMEs joined the e-Supply Chain system to efficiently process global order and secure competitiveness. ● Greatly enhancing industry's global image and popularity by implementing Project A and B ● Project C, D, and E have successfully established over 25 industry systems introducing e-Service in the banking and logistics industries.
	Project B	
	Project C	
	Project D	
	Project E	
e-Taiwan	Home Broadband Access / e-Lifestyle / e-Commerce / e-Government / e-Transportation	● Promote the overall development of the information software service industry. ● Promote SME broadband access to help enhance competitiveness.

3.3.10. Vision of an e-Society in Chinese Taipei

In line with the vision of "M-Taiwan: Opening up New Vistas With Boundless Possibilities for Wireless Applications", the government has planed the construction of new broadband backbone networks that will cover the whole of Chinese Taipei, thereby speeding up the

rollout of Fiber-to-the-Home service by the fixed line operators. Mobile Internet access and wireless Internet access will be integrated to develop an obstacle-free dual-network environment extending throughout Chinese Taipei. At the same time, government resources and the resources of the private sector will be brought together to develop a whole new range of wireless broadband services falling under the categories of mobile lifestyle, mobile services, mobile learning and mobile applications for remote areas. The ten key work items here will include: broadband backbone network deployment; broadband backbone network operations management; m-Taiwan application platform development; operations management for m-Taiwan application platform development; establishment of joint platforms; establishment of roaming centers; m-Taiwan R&D; m-learning; publicity and promotion; dual-network integration.

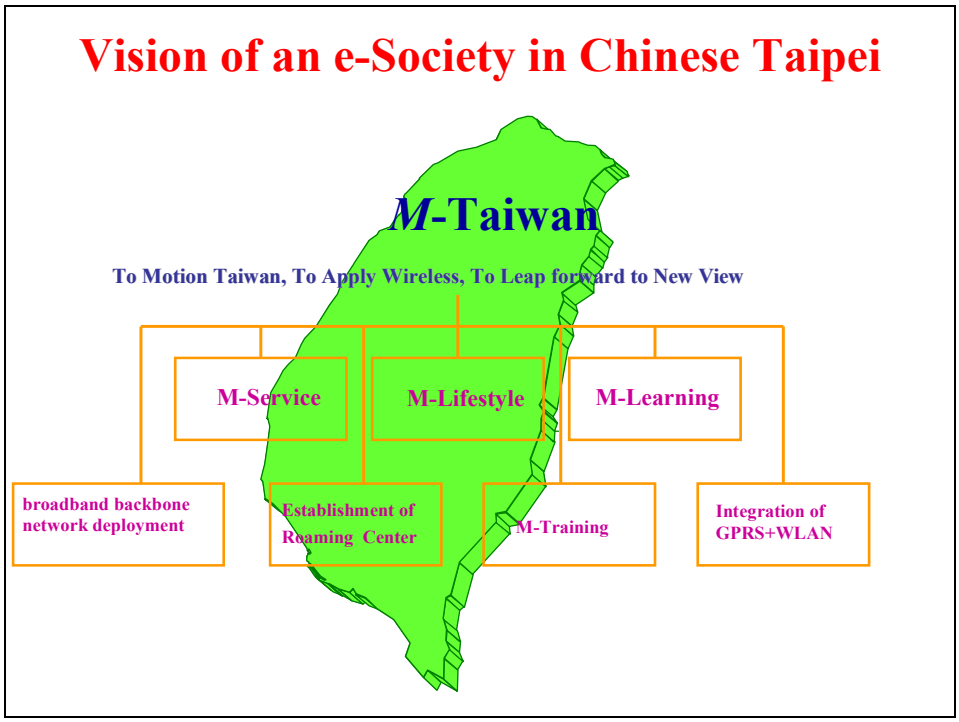

Fig 18 Vision of an e-Society in Chinese Taipei

3.4. Program Assessment

Policy evaluation is a formalized approach to study and assess projects, policies and programs to determine if they 'work'. Although there are different types of assessments, the easiest way is the “outcome” based or “performance” based assessments. Performance-based assessment focuses on policy achievements.

The KPIs of an e-Business may contain, but not limited, to the following. Attendees are encouraged to set up one’s own policy goals, tasks, and KPIs.

- Revenue increase for target industries, domains, or geographic regions
- The number and percentage of SMEs implementing e-Business
- The number of supply chains implementing e-Business
- The number of IT Service Providers
- Sales amount and percentage via e-Commerce or growth rate
- e-readiness ranking of EIU or WEF of an economy
- Readiness of infrastructure
- The percentage of online SMEs
- The depth or quality of e-Business implementation
- The number or skill of e-Business professional trained
- …etc

Note that the KPI of an economy's e-Business policy may be the aggregation of KPI of companies. In Projects A and B of Chinese Taipei, the KPI of a single company often involves time to market, inventory volume or value decrease, the percentage of electronic transaction…etc. The aggregation of these KPI makes for better and more meaningful comparisons of the effects of the policies.

The most relevant KPIs for Chinese Taipei are listed for reference. The following table lists examples of Chinese Taipei's usages in the e-Business Program.

Table 6 Assessment of the e-Business Program

Index Task Items	Objectives	Actual	Achieved Level
No. of IT supply chain system (Corporation Numbers)	15 systems (2,500)	18 systems (3,955)	120% (158%)
Other major manufacturing industries systems (Corporation Numbers)	25 systems (3,500)	30 systems (6,421)	120% (183%)
e-Marketplace revenue	US$120 million	US$196 million	163%
Internet usage rate in overall manufacturing industry	50%	59.7%	119%
e-Procurement rate in overall manufacturing industry	10%	14.3%	143%

In order to evaluate the achievement, a set of well-defined goal, tasks, and KPI of the tasks should be identified before the policy is determined.

4. Focal Points of Policy Making

The focal points of the e-business policy making are summarized as follows:

- **High level commitment is a must**
  E-Business policy involves strategic decisions for an economy. The implementation of a policy will drive investments in various government agencies, resources, budget…etc. Furthermore, the coordination between many agencies and non-profit organizations is a difficult task. Without a powerful, high positioned government leader, even well formulated policies will be difficult to implement.

- **The communication infrastructure and the e-readiness are essential for a practical e-Business policy**
  Although the e-Business policies may differ because of varying economic situations and the context in which they were made, building communication infrastructure is the most fundamental task. Bringing awareness to the public and performing e-Readiness reviews are also important tasks.

- **Keep the focal value of e-Business policies simple and clear**
  Make the value proposition behind the policy simple and valuable towards one's economy so the policy can be a consistent and continuous one.

  Set up clear cut goals and establish the right strategies. One should ensure that the objectives and the goals are clear and measurable. One also needs to choose the proper policy tools to tackle the problem and to pursuit the appropriate opportunities.

- **Select specific industries or fields for greater success**
  In Chinese Taipei, IT sector was selected as the pilot project because the IT industry is big in terms of revenue, number of SMEs, influence, international relationship, and impact. Moreover, the IT industry requires quick response. It is also an ICT intensive industry. Therefore, investment in ICT is possible and promising results can be expected.

- **Focus on specific fields to achieve breakthrough effects**
  Chinese Taipei focused on e-Supply Chain so it was easier to achieve the breakthrough effects.

- **Establish effective mechanisms for better e-Business support**

Chinese Taipei has built a series of government support R&D encouragement program to assist its e-Business policies. The programs include SBIR, industrial R&D support programs…etc. Through these programs, SMEs received matching funds from the government and mitigated the e-Business implementation barriers.

In addition, tax reduction is another important mechanism. These policy tools all together make the e-Business Programs more attractive to industries.

- **Construct a KPI monitoring mechanism for policy management**
  A KPI monitoring mechanism will help the policy maker to better understand the program status, to control, and evaluate the progress. In Chinese Taipei's experience, this enabled the programs to obtain precise results and simplified the change control process for the projects.

5. Lessons learned

From Chinese Taipei's e-Business policy making experiences, we learnt the following lessons:

- **Big introducing/bring small is a good strategy**
  Although Projects A, B, C, D, and E began from the big central manufacturers in IT industries, the big manufacturers in turn introduced many of their second, third, and even fourth tier SME suppliers to participate e-Businesses. The ripple effect still continues nowadays. This shows that the bottom line for SMEs is increases businesses and sales. SMEs are always seeking business opportunities. Requests by customers to implement e-Supply Chain is an effective way to implement e-Business for SMEs.

- **Policy makers should give higher priority for SMEs' needs**
  SMEs think differently. SMEs use IT differently than big companies. SMEs need easy, feasible, user friendly and inexpensive applications. As we know, most software applications are customized for big companies. As most SME solutions that IT vendor provides are "down-sized" compared to those for big companies, they may be not really what SMEs want. This really slows down the implementation or decreases the willingness of e-Business adoption. Strengthening the capability of IT solution vendors, specifically for SMEs, is an issue to consider in policy making.

- **E-Business is less about technology adoption, but more about business model changes**

The success of Projects A, B, C, D, and E were very beneficial in bringing about business model changes. It is about the restructure of business relationships. It is the remodeling of business process of a supply chain partners. The technology is considered an enabling tool to realize the changes.

- **Industry-academia-PRI collaboration**
  Both the planning and execution of e-Business policies require not only professionalism and authorities, but also research and execution capacity. Fortunately, Chinese Taipei enticed many universities, industry associations, scholars, and research institutes such as the Institute for Information Industry (III) and Industrial Technical and Research Institute (ITRI) to join the Program. Therefore, Chinese Taipei has an abundant resource network to facilitate the work, one of the key factors to the program's success.

6. Discussion: Promote tangible cooperation among APEC members

- What is the current status of e-business in my economy?
- What kind of problems are SMEs facing in the area of e-business in my economy?
- What requirements on SME e-Business are most critical in my economy?
- Are there any policies of e-business in my economy? If there are, I think they are… (please comment on the policy).
- What are the key factors of e-business policy?
- Will I develop the e-Business policy for my own economy? If so, how?
- Do I need further assistances from other APEC member economies?

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Chapter 10. Strategic Public Procurement

Woosung Lee[1]

Government Procurement can be utilized as a vehicle for innovation for SMEs' capability build-up and business growth. Innovation policy has focused on the supply-side of SMEs' innovation, such as R&D subsidies and tax incentives. However, the demand side of innovation policy is recently highlighted as a leading and effective instrument for SMEs' innovation. Among the tops of the demand-side innovation policy is strategic procurement policy, which targets specific technology development enhancing growth potential of innovative SMEs. This course can provide 1) general schemes of demand-side SMEs' innovation policies, 2) strategic procurement policies in advanced economies and recent development in policy agendas, and 3) specific case studies from Korean SMBA experiences. Through this course, developing economies' government officials can earn an effective instrument to mobilize innovative capabilities of an economy's numerous SMEs.

1. Introduction

1.1. General Description

Government Procurement can be utilized as a vehicle for innovation, capability build-up and business growth of SMEs. Traditionally, innovation policy has focused on the supply-side of SMEs' innovation, such as R&D subsidies and tax incentives. However, the demand side of innovation policy is recently highlighted as a leading and effective instrument for SMEs' innovation. Among the demand-side innovation policy's instruments, strategic procurement has been considered as the first priority, which can effectively target specific technology development. This course material intends to deal with this strategic procurement policy instrument. This course material intends to explain 1) general schemes of demand-side SME innovation policies, 2) strategic procurement policies in advanced economies and recent trends, and 3) strategic procurement cases from Korea and EU. Through this course, government officials from APEC member economies can have hands-on taste of experiences about strategic procurement policies, which is an effective instrument to mobilize their economies' numerous innovative SMEs.

The theme of the whole course materials is "Linkage of technology development to marketing." This theme indicates that the final goal of the courses and workshops is to learn about how to effectively transfer technological achievements of SMEs to business success in market. SMEs often fail to commercialize their technological developments to market success

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despite of their technological excellences. This can be generally attributed to SMEs' weakness in business management and marketing capabilities, however, in many innovative products, this can be attributed to lack of efficacious initial market demands. Through strategic procurement policies, government can lead this initial market demand and play a catalytic role of early adopter, accelerating diffusions of new technologies in this very early stage of new technologies.

Strategic procurement policy instruments should be considered as an important instrument of demand-oriented innovation policy. Almost every SME innovation policies only focus on the supply of R&D and innovative activities. However, if there do not exist effective market demands for new technologies or new products, the commercialization of SMEs' innovative technologies or products can not be realized in market. Strategic procurement policy instruments can mobilize market demands and act as a catalyst for fomenting market demands in the very early stage of technological development. And also with the combination of technology foresight exercise such as total technology roadmap, strategic procurement policy instruments can be used as effective industrial policies developing strategic future industries as growth engines of an economy. In accordance with economic and industrial development strategies in mind, strategic procurement policy instruments can target core technologies for future economies, and thus leading overall technology development paths of an economy. Specially, in the context of developing economies, the centralization of government procurement is quite extensive enough to produce 'economy of scale and scope' effects, but, on the other hand, initial market demands for new technological innovation are severely insufficient. Thus, the relevance of strategic procurement policy instruments can be more intense in the context of developing economies. And governments of developing economies can effectively act as a catalytic demander of innovative technology products by indigenous domestic SMEs.

The target trainees for this course should be middle-management group of policy makers in charge of innovation policies for SMEs, or middle-managers of SME supporting public organizations, or researchers in the related fields. All participants should be from APEC developing member economies, and if they have experiences about public procurements, it will be more complementary. The course requires 3 hours time period, which consist the 1 hour of lectures, the 1 hour of case studies, and the 1 hour of discussions.

1.2. Objective and Expected Benefits

The objective of this course is to enhance the capabilities of policymakers in developing economies by learning an effective policy instrument in the area of public procurement, especially strategic demand-oriented innovation policy. Trainees are expected 1) to apprehend

the importance of demand-oriented innovation policies and strategic procurement, 2) to understand the advanced economies' demand-oriented procurement policies and recent developments, and 3) to develop a capacity to apply strategic procurement policies in their economies, promoting technology-focused SME innovations in practice.

Trainees will be benefited from this strategic procurement policy course in several aspects: 1) trainees will have a better understanding of public procurement policies, which can be effectively utilized for the purpose of promoting SME innovation, not just for traditional roles of serving as an cost-effective instruments of government purchases. 2) Trainees will a have better understanding of what are the global trends in procurement policies, especially in advanced economies which attempts to achieve innovation-driven economic development. 3) Trainees will have an in-depth practical understanding about good practices of strategic procurement policies, which may be possibly implemented in their economies' own procurement policy programs.

1.3. Methodology and Assessment

The subject of the "Strategic Public Procurement" course will be divided into three steps of implementation. During the first 1 hour of the lecture time, the trainees will be provided theoretical backgrounds of public procurement policies, the general schemes of strategic procurement policies which have a huge potential to promote SME innovation in developing economies, and finally the example of public procurement policy programs among advanced economies. Through the first 1 hour of lecture on this subject, trainees will be equipped with general schemes of strategic public procurement and will have a better understanding of the purposes and effectiveness of strategic procurement policies for SME innovation.

During the second 1 hour of best practice case studies, the trainees are expected to learn practical operation aspects of strategic procurement policies. Through two examples of Korean procurement policy programs and EU recommendation on strategic procurement procedures, trainees will have an in-depth understanding of strategic public procurement policy schemes, structures, management process and their effectiveness in promoting SME innovation. Through these case studies, trainees are expected to be able to utilize these advanced cases of strategic procurement policy instruments to implement their own effective strategic procurement policy programs.

In the last step of the 1 hour roundtable discussions, trainees will discuss about the status of their economies' procurement policies: what would be implications of this strategic procurement policies to their economies and their innovative SMEs; how to apply this programs to their procurement policy schemes and structures; and what would be obstacles

and expected problems in incorporating strategic innovation perspectives into their procurement practices.

The success of the public procurement course can be assessed by examining several aspects of the course outcomes: 1) to what extents, trainees apprehend the importance of demand-oriented innovation policies and strategic procurement, 2) to what extent, trainees understand technology procurement policies and recent development of strategic procurement policies in advanced economies, and 3) in the medium term, to what extent, the trainees have an understanding of the practical operation, management, structures of strategic procurement policies so that whether they can develop a capability to apply strategic procurement policies in their own economies, promoting technology-focused SME innovation in practice.

1.4. Scope and Structure

The structure and scope of this course material are divided into four sections: 1) theoretical background of strategic procurement policies and the differences between general procurement policies and supply-oriented policies, 2) technology procurement policies of advanced economies, and recent development of strategic procurement policies in European economies, 3) procurement policies of APEC member economies, and 4) cases from Korean experiences and EU policy recommendations.

In the first section of “Theoretical background of strategic procurement policies,” the differences between general procurement policies and supply-oriented policies will be discussed. Innovation policies for SMEs are mostly supply-oriented, which are public R&D provision, R&D tax incentives, financing policies. Demand-oriented innovation policies can be said to be 1) direct public procurement policies for R&D and innovation, or 2) policies to stimulating private demands. Traditionally, procurement policies for SMEs are considered as instruments helping weak and ineffective SMEs. However, SME innovation policies focus on innovation-inducing aspects of procurement policies. Moreover, there exist the differences between general procurement for innovation and strategic procurement for innovation. While general procurement utilizes procurement procedures to promote SMEs’ innovation, strategic procurement has the objective of developing targeted-specific technology and strategic industries.

In the section of recent development of strategic procurement policies in advanced economies and European countries, recent innovation policy developments are discussed. The EU has implemented RIAP (Research Investment Action Plan), among which agendas specifically recognize the importance of strategic procurement policies in achieving 3% GERD rule. In 2006, the EU published and distributed “Handbook on Innovation Procurement.” Germany published a research paper addressing the importance of public procurement in innovation,

which is “Impulse Circle Innovation Factor State.” The Cotec of Spain published policy research paper, “Public Procurement and Technology.” Netherlands set aside 2.5% of total public procurement for purchasing innovative commodities or services from the year of 2006. UK have produced a series of policy developments in strategic procurement areas: 1) 2003 Innovation Report: Focus of technological innovation in procurement, “Intelligent Customer” for technological innovation, 2) Kelly Programme: Systematic and Strategic approach, “Capturing Innovation”: guideline of procurement for innovation, 3) DTI 5-years Programme 2004: Biz-leaders and OGC cooperation for projects to promote strategic procurements for innovative commodities and services (Woosung Lee, 2006). Diverse cases of strategic procurement and economic impacts are provided.

In the section of procurement policies of APEC member economies, several APEC economies’ procurement policies will be examined and compared. Australia has implemented 1) Financial Management Accountability Act 1997, and set the official guideline of minimum level of procurement for SMEs, which are 10% for hardware, 20% for software/services. The Chinese Taipei’ procurement policies focus on ensuring1) fair treatment, and 2) information/consulting provisions to SMEs. The Philippines formulated the Magna Carta for SMEs, which requires 10% quota of total public procurement to SMEs. Korea’s SMBA has the “New Technology Purchasing Assurance,” which will be reviewed in more details in the following sections of Korean strategic procurement policies and EU recommendations.

In the section of cases of strategic procurement policies, two cases of Korean procurement programs are examined, respectively “New Technology Purchasing Assurance,” and PPS (Public Procurement Service)’s “Procurement for Best Products.” And EU recommendations for “Strategic Procurement Procedures for Innovations” are examined in details how every step of procurement procedures should consider and involve innovation-promoting aspects and what will be best practices.

2. Theoretical background of strategic procurement policies

2.1. General Description

In most of economies, as the proportion of government’s procurement demand reaches to 10-20% of GDP, the importance of public procurement sharply increased recently. Traditionally, the ultimate objective of public procurement has been cost-effective acquirement of public demands. However, because of the high proportion of public procurement in GDP, policy makers has started to reconsider public procurement policies so as to utilize as a strategic promotion tool for economic and social purposes. Among these economic and social purposes

include procurements for small and medium enterprises, procurements for products of woman entrepreneurs or disabled group, or environmentally-safe-products.

From the perspective of innovation policies, public procurement can be served as demand-sided innovation-promoting policy instruments. Edquist(1996) provided a typology of innovation policies into two dimensions. Innovation policies, according to Edquist(1996), can be divided into demand-oriented and supply-oriented innovation policies, and in another dimension, divided into technology development policies and technology diffusion policies as in Table 1.

Table 1. Technology Policy Instruments

	Technology Policy Instruments Operating on:	
	The Supply Side	**The Demand Side**
Technology Development	**(1) R&D (Research and Development) Policy** (Government Funding of Research)	**(4) Commanding Technology** (Creation-Oriented Government Technology Procurement)
Technology Diffusion	**(2) Accessing Technology** (Technical Attachés)	**(3) Implementing Technology** (Diffusion-Oriented Government Procurement of Goods and Services)

Innovation-oriented public procurement should be distinguished from traditional public procurement. The purpose of traditional public procurement is the achievement of the cost-effectiveness in acquiring quality commodities and services, but the ultimate purpose of innovation-oriented procurement policies and the determining factors of procurement decision-making lie on whether the procurement decision can promote innovation of private sectors and can guarantee commercialization and diffusion of new products or new technology in market. Thus not just the purposes of cost-effectiveness and quality control, but the purpose of innovation promotion aspects is incorporated into strategic procurement decision making process.

Innovation-oriented public procurement can be specifically divided into general procurement for innovation and strategic procurement for innovation (Edler, 2006). General procurement for innovation means that government imposes, in the procedure of procuring, contracting and evaluating commodities or services, higher priority upon innovative capacity or innovative

activities of a firm, such as the number of patents, or the ratio of R&D investment to sales,. Through this higher priority setting on innovation-aspects, government can indirectly promote general innovative activities of private sectors, which endeavor to provide goods and services to government.

Strategic procurement for innovation means that government strategically targets to develop specific new technologies or new products, which are non-existent before in markets. Through this strategic procurement policy instrument, government can provide a critical mass of demands for new technologies or new products, guaranteeing an initial market for new technologies and thus minimizing firms' high-risk bearing inherent in new technology development. Government plays a catalytic role in securing early-market demand for new promising future technologies by strategic public procurement.

Innovation-oriented procurement policies can be implemented in various forms by the variations of the extent of public-private partnerships. Government can directly provide procurement for innovation without private sector's involvement. Or government can closely cooperate with private sectors in developing new technologies or new products with guaranteeing certain amounts of public procurement for research outputs and new products even from the development stage of technology innovation. Lastly, government can only act as a catalyst role in promoting private demands of already-existing technologies or products in markets for the purpose of diffusion of strategic technologies or products.

Table 2 Matrix of Procurement Policy

<table>
<tr><th colspan="2"></th><th>Societal Need</th><th>Private Need</th></tr>
<tr><td rowspan="3">End-user</td><td>State</td><td colspan="2">direct public procurement X</td></tr>
<tr><td>State&private</td><td colspan="2">cooperative procurement X</td></tr>
<tr><td>Private</td><td colspan="2">catalytic, state-induced procurement</td></tr>
</table>

Source: Edler(2006)

Edquist(1996) stressed that innovation-oriented procurement policies can also be divided into targeting new technology development or targeting promotion of technology diffusion. Procurement for technology diffusion or market growth of new products has clear intentions to augment 'private' market demands for new technologies or new products. If government can provide a critical mass to mobilize private demands, then new products or new technologies can achieve momentum to be developed into a new standard of market. Or in the case that government endeavors to spread new-imported-high-technology from MNCs to be

utilized by domestic firms, procurement for new-technology-diffusion can also be effective. Especially the governments of developing countries, where adaptive technology capabilities and technology-imports are the main sources of innovation in private firms, should be aware of the importance of technology procurement from MNCs and diffusions of this-imported technologies into domestic indigenous firms.

Extensive literature such as Edler(2006), Rothwell and Zegveld(1981), provides empirical results that public procurement for innovation and technology development can be more effective than supply-oriented innovation policies such as R&D subsidization. Geroski(1990) also concluded that public procurement for new technologies and new products can be "a far more efficient instrument to use in stimulating innovation than any of a wide range of frequently used R&D subsidies." Dalpej et al.(1992) also indicated that public procurement policy is more influential and effective, especially in the areas of highly innovative sectors and high technologies.

Why public procurement policies can be more effective instrument than supply-sided innovation policies in promoting private sectors' innovative activities? Edler(2006) provides five rationales for the effectiveness of demand-oriented innovation policy instruments as explained in the box 2.1.

Box 2.1. The effectiveness of Demand-Oriented Innovation Policy Instruments

1) Demanding demand: As already mentioned above, the state is frequently a very "demanding" demander, necessitating innovative solutions to fulfill its tasks in society. This applies in the military and non-military area. New societal needs and thus state priorities inevitably offer leeway also for innovative solutions. This is confirmed by innovation research. Dalpé et al. have determined empirically that the state develops strong demand particularly in those technology areas which are distinguished by high innovation dynamics. In the research-intensive fields in which the state appears as demander public administrations are often more demanding than the private demand, i.e. it is more often "lead user" for new innovations than private demanders (Dalpé et al. 1992, p. 258 ff).

2) Bearing higher entry costs: In connection with political tasks or even "missions," the state is also frequently more willing or able to pay the higher price at the beginning of the life cycle of innovations. However, this constitutes at the same time a potential danger for innovations if the political intention behind the procurement does not have sufficient acceptance and no corresponding demand is realized subsequently in the private market.

3) Critical mass: State demand may lead rapidly to a critical mass, in particular by bundling the needs of various government bodies. Such public demand creates clear incentives for manufacturers and reduces their market risk. This critical mass also structures the manufacturing branches connected with the innovation in question. This effect is especially strong for young technologies, i.e. when industry is able to react to strong impulses on the part of the state.

4) Visibility and signaling: Government demand for innovative products additionally sends strong signals to the private users, the diffusion impulses are sometimes much stronger than those triggered by purely private demand.

5) Linking innovation to production: In contrast to supply side measures such as R&D subsidies, the concrete state demand for innovations leads not only to technological capacities, but at the same time to increased production capacities for innovations (Geroski 1990, p. 189).

Source: Edler(2006)

Current governments' discussion about demand-oriented innovation policies is, however, limited to public procurement, the roles of government's *'public demand'* promoting private innovation. However there exist diverse measures to promote innovation through spurring *'private demands'* for innovations. Edler(2006) intensively explains that these policy arms to promote strategic private demands for innovations include 1) direct financial incentives for private demands, 2) awareness promotion and information provisions, and 3) regulation.

1) Direct financial incentives can be provided in order to promote certain private demands under specific 'conditions' or 'purposes', which should be derived from mostly societal needs or industrial policy targets, for instance, such as the areas of 'sustainable growth', 'energy efficiency', or 'environmental safety'. These direct financial incentives for promoting private demands for certain products and technologies can be implemented through either by financial subsidies or by tax exemptions instruments and for most cases, these instruments are utilized to support the diffusions of innovations.

2) The obstacles of new technology diffusions can be originated from cognitive and psychological barriers of consumers adopting new technology or new products. Awareness promotion and information campaigns are to increase awareness about characteristics or safeties of new technologies to consumers of technologies. Examples can be amply found in the demonstration projects in the biotechnology fields or information campaigns on

automobile safety tests. These information campaigns provide necessary information about safety and effects of new technology or new products, and thus promoting private demands for innovative products, but also played the role of promoting innovations on the side of manufacturing industries to increase safety of new technologies and new products.

3) Regulations can also be an effective demand-oriented policy instruments which provide guidance for manufacturers' production behaviors or providing necessary information about new technologies or new products to consumers, reducing consumers' information acquiring costs. Governments can also take a part in promoting self-regulating standardization process by monitoring or by moderating negotiations between consumer groups and manufacturers about standardizations of new technologies. These instruments are explained more details in Table 3.

Table 3 Demand-oriented innovation policy measures

Instrument	Role of State	Method of Functioning
1. State Demand		
General procurement	buy and utilize	The state considers innovation in general procurement as main criterion (e.g. definition of needs, not products, in tenders)
Strategic procurement (technology-specific)	buy and utilize	The state specifically demands an *already existing* innovation in order to accelerate the market introduction and particularly the diffusion. This can include the targeted co-ordination of different government bodies and moderation with manufacturers.
		The state stimulates deliberately the *development* and market introduction of innovations by formulating new, demanding needs. This can include the targeted co-ordination of different government bodies and moderation with manufacturers.
Co-operative procurement	buy / use moderation	The state is *part of a group of demanders* and organizes the co-ordination of the procurement and the specification of needs. Special form: *catalytic* procurement: the state does not utilize the innovation itself but organizes only the private procurement
2. Support for private demand		
2.1 Direct support for private demand (monetary control)		
Demand subsidies	Co-financing	The purchase of innovative technologies by private or industrial demanders is directly subsidized
Tax incentives	Co-financing	Amortization possibilities for certain innovative technologies
2.2 Indirect support for private demand: information and enabling (soft steering)		
Awareness building measures	Information	The state starts information campaigns, advertises new solutions, conducts demonstration projects (or sup-ports them) and tries to create confidence in certain innovations (in the general public, opinion leaders, certain target groups)
Voluntary labels or information campaigns	support information	The state supports a coordinated private marketing activity which signals performance and safety features.
Training and further education	enabling	The private consumers or industrial actors are made aware of innovative possibilities and simultaneously placed in a position to use them.
Articulation	organizing discourse	Societal groups, potential consumers are given voice in the market place, signals as for future preferences (and fears) are articulated and signaled to the market-place.

Instrument	Role of State	Method of Functioning
2.3 Regulation of demand or of the interface demander – producer (steering via standardization)		
Regulation of product performance and manufacturing	regulation, control ("command and control"	The state sets norms for the production and introduction of innovations (e.g. market approval, recycling requirements). Thus demanders know reliably what certain products perform and how they are manufactured. The norm affects firstly the producer (norm fulfillment), but spreads to the demander by means of the information about norm fulfillment
Regulation of product information		The state sets standards, so that demanders receive reliable information about innovations.
Usage norms		The state creates legal security by setting up clear rules on the use of innovations (e.g. electronic signatures)
Support of innovation-friendly private regulation activities	moderation	The state stimulates self-regulation (norms, standards) of firms and supports / moderates this process and plays a role as catalyst by using standards
Standards to create a market	moderation, organization	The state creates markets for the consequences of the use of technologies (emission trading) or sets market conditions which intensify the demand for innovations
Systemic Approaches		
Integrated demand measures	combination of various roles	Strategically co-ordinated measures which combine various demand-side instruments
Integration of demand- and supply-side measures	combination of various roles	Combination of supply-side instruments (R&D programmes) and demand-side impulses for selected technologies or services.

SOURCE: EDLER(2006)

3. Public Procurement Policies: Country Studies

3.1. General Description of Strategic Procurement Policies in Advanced Economies

Public procurement policies was traditionally not recognized as innovation-promoting instruments in systematic ways until the early 1990s with the exceptions of the US and Sweden. While, from the perspective of the US, public procurement for defense-related technology developments are strategically utilized as innovation-oriented instruments, Swedish government led high-technology industrial development through public and private partnerships of technology development in 1980s and 1990s. Only since the early 1990s, public procurement is recognized as strategic innovation promotion policy. And EU-led research (Edquist et al., 1998) was the first one to systematically analyze public procurement as innovation-oriented demand policies. The Lisbon strategy of EU acknowledged the critical role of demand-oriented innovation policies for promoting private R&D and innovation investments, especially this recognition is manifest in the RIAP (Research Investment Action Plan).

Several members of European Unions implemented their own specific policy measures of ‘strategic procurement for innovations’, and published policy-oriented researches, which are closely related with ‘procurement for innovation’. “Fortas,” Irish Science and Technology Policy Agency, and “Cotec”, Spanish public fund for R&D, have produced diverse research results about how to implement demand-sided innovation policies through public procurement. Dutch government implemented the regulation that at least 2.5% of total public procurement budgets should be purchased for ‘goods and services that are never existed in the market before’. German government, which published the report, “Impulse Circle Innovation Factor State,” emphasizes the particular roles of strategic and general procurement for innovation, which can be effectively directed for inducing the developments of specific targeted-and-future-oriented technologies by private sectors (Lee, W., 2006).

UK government is most active in stimulating and restructuring public procurement for innovation in order to promote technological developments and diffusions. “Innovation Report,” which was published in 2003, suggested that government should be an “Intelligent Customer” of technology, products and services, and provided best practices and guidelines which can be implemented in procurement procedure. The guideline for public procurement procedure, “Capturing Innovation” was published and distributed to all governments’ procurement units and procurement-related public agencies. The “DTI five year Programme 2004” provided detailed public procurement-related policies, which include public and private partnership in providing public procurement for strategic technology developments and new products.

3.2. Examples of Strategic Procurement Policies in European Economies

There are several examples of strategic procurement for innovations in several European countries. Box 3.1. explains the PIA action plan of Netherlands, which represents procurement for innovation in the country. Box 3.2. shows the detailed description of NUTEK's project, which is Swedish governmental funding agency, for promoting environment-friendly technology development through procurement.

Box3.1. The PIA(Professional Inkopen an Aanbesteden) action plan (The Netherlands)

In 2001, the Netherlands established a five-year initiative intended to improve compliance with EU Directives, increase the 'market presence' of public procurement, capture and share procurement experience and improve co-operation where feasible.

The plan obliges each ministry to designate high-level responsible parties, analyze its own purchasing activities, reconsider the organization and outsourcing of groups of related procurements, examine the skill and ICT requirements of procurement, coordinate where appropriate with other ministries and report to the legislature on an annual basis.

The action plan is managed by a small core of people on secondment from ministries, who report to a client group of five senior civil servants and liaise with central purchasing officers in the ministries. This organization, funded by the Ministry of Economic Affairs, acts as a facilitator and coordinator, and a central point of knowledge to enable collaboration. In addition, the Dutch Purchasing Council (NIC) is a private company providing purchasing, project management and facility management services on a fee basis to public and private sector clients. Less than 4% of central and local government procurement is placed with NIC.

Specific PIA foci have been electronic sharing of information and e-procurement. In addition, the action plan has developed a range of tools, including joint procurement guidance, overview of contracts, a model for fitting procurement functions to specific requirements, a model for defining skill requirements and specific guidance for local authority procurement.

Sources: EC Expert Group Report "Public Procurement for Research and Innovation", 2005

Box 3.2. Eco-Innovative Procurement [Sweden]

NUTEK is a Swedish agency which aims to promote innovative products for specific public and technology objectives by conducting procurement exercises on behalf of end-users. For example, NUTEK conducted a contest for firms to submit bids to supply refrigerators, which used fewer chlorofluorocarbons as coolants and consumed less energy than the best available technology. The prize, an order for at least 500 items, was won by Electrolux within a relatively short time. Examples of improvements in energy efficiency stimulated by NUTEK procurements included high-frequency lighting ballast (20%), heat pumps (30%), refrigerators (33%), windows (44%) and communal washer/dryers (50%).

Sources: EC Expert Group Report "Public Procurement for Research and Innovation", 2005

Danish public technology procurement, regulation and advanced demand have been indispensable driving forces for the formation and development of several Danish clusters of competence, such as wind energy, water supply, waste water treatment, hearing aids, handicap equipment, and medico industry. Examining the close connection and relationship between cluster formation and public procurement roles, Christensen et al(2005) identified that bio-informatics, waste handling, ecological food, and specialized sensors in dairy processing, wastewater treatment, medical equipment, handicap equipment and hearing aids are to be found links with public procurements. They concluded that "quantitative and qualitative public demands and regulation play a crucial role for the innovation and performance of business activities." Box 3.3 and Box 3.4 explain in details about technological developments and the roles of public procurements both in the cases of wind energy turbine and hearing aid goods.

Box 3.3. Danish Wind Energy Case

Since the late 1970s, wind power has played an increasingly important role in the Danish energy production and consumption and over the same period the Danish wind turbine industry has obtained a leading world market position. In 2002 Danish firms account for around 50 per cent of the world production of wind turbines measured in MW and in market share.

The Strong anti nuclear power movement and the energy supply crises in the late 1970s spurred a growing interest in alternative sustainable energy technologies in Denmark. Most wind energy projects in the 1970s began as private projects, where technically

interested people made experiments with scale-down version (10-15 KW) of the Gedser machine (Krohn 1999).

When the more "professional" turbine manufactures entered the scene in the late 1970s and beginning of the 1980s, most of them came with a background in agricultural machinery (e.g. Vestas, Nordtank, Bonus, Nordex, and later Micon), although one company, Wind World, was founded on gearbox and marine technology (Krohn 2000). The wind turbine companies illustrate how learning is cumulative and often based in the national production structure and at the same time "accidental" or unplanned.

A mixed palette of policy instruments has been introduced to stimulate the Danish wind power production. The obligation for utilities to buy wind power at 85 per cent of the market price level was crucial. Another was 30 per cent investment subsidy of investment in new wind turbines. The investment subsidy was introduced in 1979, but was gradually reduced until it was abandoned ten years later. Since 1985 the Danish government has ordered the utilities to install various amount of wind power. Relatively high green taxes on all electricity – but with a partly refund for renewable energy including wind power – has been another measure to make wind power more attractive also for the power companies.

The establishment of the public wind power test station at Risoe Research Centre in 1978 turned out to be crucial for the development of the Danish wind power activities in relation to the production, distribution, and regulation of wind power knowledge. To receive the public investment grants a wind turbine type approval from the national laboratory was required. This approval process was an important part of the knowledge development and diffusion both among the wind turbine manufacturer and the investors, and it stimulated an interactive learning process. The strict safety and performance requirements put a persistent pressure on manufacturer to upgrade their design and manufacturing skills, and today Risoe is among the leading international institutes when it comes to basic research in wind turbine technology and wind resource assessment.

Most wind turbine owners are organized in the Danish Wind Turbine Owners' Association publishing a monthly magazine with production figures and notes on technical failures for more than 1,500 turbines. The statistical database, user group, and technical consulting services for members have been important instruments to secure a transparent market based on shared knowledge (Krohn 2000). The manufacturers of wind turbines have their own organizations too – the Danish Wind Turbine Manufacturers Association. The organization carries out an extensive information work,

makes policy analyses, takes part in standardization activities, and is involved in national and international R&D activities. It seems fair to conclude that knowledge sharing and interactive learning among key players have bee (and still are) important characteristics of the evolving Danish wind power innovation system. Hitherto, an "open source strategy" seems to have prevailed for the benefit of the whole system, but new tendencies towards patenting and other forms of knowledge commodification may appear in the future.

Source: Gregersen et al.(2006), originally from Gregersen and Segura(2003)

Box 3.4. Danish hearing aid case

In the beginning of the 1950s the Danish association of hearing-impaired people convinced the Danish Government to give full public support for any Dane needing a hearing aid. This public financed demand helped pave the way for the modern Danish hearing aid industry. It is worth noting that a similar decision on public support was taken in the UK but without the same positive effects on the British hearing aid industry. According to Lotz (1997) this may have to do with the differences in the specification of the tenders. In the UK case, the tender was based on a specific design made by a medical research council, whereas the Danish tender only included a range of minimum specification to be met (Lotz, 1997).

An important part of the success story has also to do with a strong Danish knowledge base within audiology and acoustics. A knowledge base that beside hearing aids is applied in a vast range of other high tech products with a Danish niche production like loudspeakers, room acoustics, advanced measurement techniques, and various forms of noise control. Furthermore

Source: Gregersen et al.(2006)

3.3. Procurement Policies of APEC Member Economies

The APEC research report[2] [3] on comparisons of APEC member economies' SME innovation policies identified several policy instruments in promoting SME's innovation, which include public procurement. Most of the APEC member economies have the regulation of setting a certain target ratio of procurement budgets allocated only for SMEs' products and services. But, unfortunately, the procurement policies for SMEs are not seriously related to, or do not take into accounts the characteristics of strategic or general procurement for innovation. Most of procurement policies have the intention of ensuring favorable 'public-procurement-environment' for SMEs for the purpose of helping and assisting weak and uncompetitive SMEs. This basic principal of 'helping SMEs' has changed significantly in recent years to the principal of promoting competition among SMEs with the aim of improving competitiveness of SMEs, especially Japan and Korea. However, still the focuses of procurement for SMEs' products and services lie on ensuring 'sole markets for SMEs'. This attitude and principal should be changed to rigorously entail the innovation-inductive elements of public procurement. Reflecting the theoretical developments and recent movements of the advanced European countries in the areas of strategic procurement for innovation, APEC member economies should also consider aggressively the incorporations of innovation-promoting aspects when implementing public procurements structures and when operating daily procurement procedures.

Australian government procurement policy[4]

The government procurement policy has two aspects. Firstly, Australian public agencies are required by the Australian law to purchase a minimum level of SME products and services. The Government has committed agencies (under the Financial Management Accountability (FMA) Act 1997) to source at least 10 per cent of their purchases by value from SMEs. For a specific industry such as ICT, the Department of Communication, Information Technology and the Arts is to ensure SME participation in major Australian Government ICT procurements. For contracts of $20 million and above, Australian government agencies subject to the FMA Act are to include a minimum target level for SME participation ranging between 10-20% of contract value depending on the proportion of hardware and services (10% for hardware, 20% for software/services). Secondly, in order to ensure that procurement processes are transparent and open, and not to discriminate against and not to deliberately exclude SMEs from participating in a procurement process, Agencies subject to the FMA Act are required to publish on AusTender contracts and standing offers with a value of $10,000 or

[2] APEC report "A Research on the Innovation Promoting Policy for SMEs in APEC: Survey and Case Studies (SME 01/2006)", which were conducted by the APEC SME Innovation Center of TIPA(Korea Technology and Information Promotion Agency for SMEs)

[3] Policy introductions of each member economy in APEC are based on survey and interview results of SME innovation policies in each member economies.

[4] Procurement policies in this section are based on the question survey results of SME innovation policies from Australian government.

more. From 1 January 2005, agencies subject to the Finance Minister's (CAC Act Procurement) Directions are also required to publish details of certain contracts and standing offers.

The Government has committed agencies (under the Financial Management Accountability Act 1997) to source at least 10 per cent of their purchases by value from SMEs (Department of Finance and Administration). Agencies subject to the Financial Management and Accountability Act 1997 are required by the Commonwealth Procurement Guidelines to publish on AusTender contracts and standing offers with a value of $10,000 or more, to demonstrate that public procurement is open and transparent, and that agencies are accountable for purchasing decisions. From 1 January 2005, agencies subject to the Finance Minister's (CAC Act Procurement) Directions are also required to publish details of certain contracts and standing offers.

Table 4 SME Participation in Gazetted Government Contracts

	SME% BY VALUE	SME% BY NUMBER
2003-2004	**26.8**	**52.0**
2002-2003	**27.0**	**55.7**
2001-2002	**25.1**	**61.3**
2000-2001	**22.4**	**58.3**
1999-2000	**27.6**	**58.2**

Source: AusTender

Box. 3.5. Government Procurement Guidelines January 2006

5.3. To ensure that SMEs are able to engage in fair competition for Government business, officials undertaking procurement should ensure that procurement methods do not unfairly discriminate against SMEs.

5.4. Agencies should seek to ensure that procurement processes are readily communicated and accessible to SMEs and should not take action to deliberately exclude SMEs from participating in a procurement process.

5.5. Agencies need to ensure that SMEs have appropriate opportunities to compete for business, considering as appropriate in the context of value for money: the benefits of doing business with competitive Australian or New Zealand SMEs when

specifying requirements and evaluating value for money; the capability and commitment to regional markets of SMEs in their local regions; and supplier-base and competitive benefits of access for new market entrants.

5.6. The Government is committed to FMA agencies sourcing at least 10 per cent of their purchases by value from SMEs.

Source: Department of Finance and Administration (2006) Government Procurement Guidelines January 2006

SME participation is also strongly encouraged and ensured in major Australian Government ICT procurements, which is governed and operated by DCITA (Department of Communication, Information Technology and the Arts). The Government expects to obtain value for money in its ICT purchases. It also wants to encourage local industry to participate in large procurements. Its policy is that FMA Act agencies include minimum levels of SME participation in ICT contracts over $20 million. For contracts of $20 million and above, Australian Government agencies subject to the FMA Act are to include a minimum target level for SME participation ranging between 10-20% of contract value depending on the proportion of hardware and services (10% for hardware, 20% for software/services). This policy of minimum SME participation in major Australian Government ICT purchases supplements the Commonwealth Procurement Guidelines target of a minimum 10% SME spend generally. An ICT company is regarded as being an SME if it has an annual turnover of less than $500 million, averaged over five years.

Chinese Taipei's procurement policies for SMEs

Government procurement, including expenditure on construction work, materials and labor, accounts for over 40% of the government's annual budget with most of the rest going on personnel related expenses. However, SMEs' efforts to secure government procurement business opportunities often end in failure because of unfamiliarity with the relevant laws, regulations and procedures. To help SMEs to participate in government procurement, Articles 37 and 38 of the section of the SME Development Statute covering public purchasing and public construction were formulated to provide a basis for SME participation in these activities. In addition, the July 1997 revision of the Constitution included a clause intended to protect SMEs' rights in this area. Article 97 of the Government Procurement Law, which was promulgated in May 1999, clearly stipulates that the regulatory authorities may take appropriate measures to help SMEs to secure a specified share of government procurement business opportunities.

The SMEA has been working actively to help overcome the various problems that have inhibited SME participation in government procurement in the past. The Administration's key work items for 2004 were as follows: (1) Provision of information regarding government procurement opportunities and provision of consulting services relating to the Government Procurement Law. (2) Holding of seminars regarding SME participation in government procurement activities. (3) Ongoing statistical analysis of the level of SME participation in government procurement in Chinese Taipei.

Canadian procurement for SMEs

Canada once implemented a procurement policy in the 1970s through the Department Supply and Services Funds with 50% subsidy, but this program was dropped a few years later. It is still being debated whether to assign special benefit to SMEs in the procurement program. The only current exception are special procurement rights for Aboriginal firms – the majority of whom are SMEs - for any contract under $25,000. Since the site visit, the Minister responsible for government procurement has committed to at least 25% of contracts going to SMEs – the time for implementing this has yet been determined

Korean procurement for SMEs

Korean Small and Medium Business Administration (SMBA) requires public institutions to purchase SMEs' technological products that have been approved for performance by the government thereby promoting technology development of SMEs and public purchasing of SME products. Regarding the progress of the public purchasing system, in July 2005, the government introduced the system of recognizing the performance of technological products developed by SMEs and the performance insurance system. It also established the basis for exemption from liability for the purchasers of technological products. In Jan. 2006, the government also adopted the technological product purchase target system.

With regards to purchase target, the proportion of technological products that each public institution is required to buy out of SME products stood at 5% in 2006, but will be increased to 10% in 2010. To secure the effectiveness of this system, the level of accomplishment of a purchase target is reflected in evaluating the public institution concerned. In order to prevent technological products developed by SMEs from not being used through combined orders for construction projects issued by a public institution, the government increased the number of construction projects that are divided into lots in Jan. 2006.

Mexican government's procurement for SMEs

There is a specific law, "Law of acquisitions, contracting and services to the public sector," that promotes government tenders for up to 50% of contract value from SMEs (Article 42). However, there is no specific and major government procurement program dedicated to SMEs

at the moment. Each Ministry and Government office takes the responsibility to promote the participation of SMEs in government procurement contracts.

Philippines's government procurement for SMEs

Magna Carta for SMEs, which is a milestone legislation to foster a dynamic SME sector having been effective since 1998, specifies the quota for SME in government procurement. That is SME should have 10% share of the total procurement value of goods and services supplied to the government.

4. Cases of Procurement for Innovation

The chapter provides the cases of *'good policy program'*, which can be applicable to practical situation of trainees' respective economies, rather than merely focusing on the academic side of innovative procurement policies. The cases that this chapter deliberates in more details are 1) Korean technology procurement policies for SMEs' innovation, which are "New Technology Purchasing Assurance" and "Procurement for "Best Products." While these Korean cases of procurement policies have the experiences of more than 10 years since 1996, the other case of 'general procurement for innovation' is based on the detailed recommendations of EU that every steps of public procurement procedures are advised to follow in order to effectively stimulate technology development and innovations through procurement.

4.1. Korean Procurement for Innovation[5]

New technology purchasing assurance

The case of "New Technology Purchasing Assurance" can be briefly described as follows. "In an effort to further commercialize new technologies, government agencies, public institutions including the Ministry of Defence, KEPCO (Korea Electric Power Corp.). KOGAS (Korea Gas Corporation), and Korea Railroad Corporation and private business commission SMEs to develop a new technology with the assurance that they will purchase the technological products. Under this program, SMBA finances the technological development of SMEs, while public institutions purchase products for a certain period of time. As of 2005, SMBA supported 80 technology development projects and now it plans to expand the participation of government agencies, public institutions and private business". This program started from 1996 in order to promote technological innovation of Korean SMEs. Under this program, if the technological products of SMEs are certified as the 'goods for purchasing assurances', SMBA can recommend to all of public institutions and governmental

[5] The Cases of Korean procurement policies in this section are based on Woosung Lee(2006).

procurement units to procure these products with higher priority. However, the recommendation is not a requirement for public procurement and does not have regulatory enforcement means to ensure adequate procurements. Thus these recommendations can not require or ensure the public institutions' final procurements except the procurement of SMBA.

Recently, target system for technological product was introduced, which requires at least the 5% of total procurement in 2006 and the 10% in 2010 to be dedicated to this procurement program. And moreover, by law and regulation, at least the 20% of 'New Excellent Product' (NEP)[6] should be purchased through this strategic procurement policy program. Thus the problems of mere recommendation without any lawful enforcement mechanism are successfully resolved. There have been several remediation injunctions improving efficiencies of procurement procedures. These are 1) the introduction of "Performance Insurance for SMEs products," 2) the revisions of certification system into "Performance Certification," and 3) the establishment of "Committee for Procurement Promotion of SMEs' Technological Products."

Table 5 Trends of New Technology Purchase Assurance Program

	'02	**'03**	**'04**	**'05**	**'06**
Agencies involved	1	1	8	26	35
Number of Projects	13	49	40	77	120
Procurement budgets (billions of wons)	9	40	40	100	160

Source: Korean Presidential Commission on SMEs (2006)

Procurement for "Best Products"

The other practical case of Korean innovative procurement policy is "Procurement for Best Products", which are accompanied by NEP "National Excellent Products", NET "National Excellent Technologies" certification programs and central government procurement. For the purpose of enhancing the quality of SME products procured, the program was introduced in 1996, which make sure the public procurements of NEP (after commercialization less than 3 years) or NET (before commercialization, prospecting it in 2 years) certified products. There are also extra provisions for exhibitions, catalogue publications, and internet promotions. Cumulative total number of this program's procurement until 2005, was 1,486 products, and total amounts, 1,367 billion won.

[6] NEP, NET is a form of certification for innovative products. Look at the "Procurement for Best Products" section in p. 30. for more details.

This program's original purpose is to increase and to ensure the quality of procured products of SMEs, but not promoting innovative activities of SMEs. However, when being combined with certification system of NEP and NET, this program can be utilized as an effective procurement for innovation. The selected "Best Products" can be ensured for public procurement for 3 year period and can be extended for one more year depending upon qualities and performances of "best products."

Table 6 Trends of Procurement for "Best Products"

	'96 ~ '00	**'01**	**'02**	**'03**	**'04**	**'05**	**Cumulative sum**
Number of "Best Products"	718	193	131	106	151	184	1,483
Procurement Budgets (billion wons)	1,939	1,728	1,892	2,288	2,409	3,409	13,665
Selection times	1~6	6	3	5	4	4	

Source: Korean Presidential Commission on SMEs (2006)

4.2. EU recommendations on Procurement Practices for Innovation

The Expert Group report on public procurement, "Public Procurement for Research and Innovation," which was published in 2005 by European Commission, recommends diverse measures and operational details about "developing procurement practices favorable to R&D and innovation." The report clearly defines 'procurement for innovation', as "the purchase of goods and services that do not yet exist, or need to be improved and hence require research and innovation to meet the specified user deeds." The report deals with the subject of procurement practices and policy instruments, which can directly influence innovative behaviors of private firms. Dividing public procurement procedure into four phases, 1) Preparation phase: "Gearing up for procurement," 2) Tendering, assessing and awarding contracts phase, 3) Contracting phase, 4) monitoring phase, the report suggests 25 recommendations on procurement practices favorable to R&D and innovation, which are articulated in Box 4.1.

Box 4.1. Recommendations for procurement practices favorable to R&D and innovation

Recommendation 1

By the year 2010, the European Commission should consider conducting a review, with

Member States, of the extent to which the new public procurement legislation flowing from EC Directives 2004/17/EC and 2004/18/EC is enabling R&D and innovation.

Recommendation 2

Member States should make use of the new possibilities under the directives and implement the new procedures into national law. At the same time, Member States should make the necessary clarifications to promote a successful use of the new instruments.

Recommendation 3

In transposing new directives into national law, Member States should ensure that procurement personnel receive training in the application of the new legislation.

Recommendation 4

To date, there is no a standard form for technical dialogues. Therefore, we recommend that the European Commission introduces and publishes a new standard form, to give contracting authorities the opportunity to improve preparations for a formal procedure within the context of the Directives 2004/17/EC or 2004/18/EC.

Recommendation 5

Member States should conduct a review of current procurement practice against the best practice described in this report and develop appropriate action plans to improve practice.

Recommendation 6

Member States, as part of their efforts to benchmark progress towards the 3% R&D investment target, should seek to develop indices of innovation in public supply markets.

Recommendation 7

Member States should review whether existing central civil policy developments likely to lead to major procurements are communicated effectively to procurement officials at all relevant levels of government.

Recommendation 8

Member States should develop mechanisms to handle unsolicited innovative proposals from firms, inventors or universities.

Recommendation 9

Member States should consider the bundling or unbundling of procurement projects with

innovation considerations in mind.

Recommendation 10

Member States should engage with major suppliers to explore ways of improving the visibility of subcontracting opportunities in their supply chains to open up opportunities for small innovative suppliers.

Recommendation 11

Member States should develop mechanisms to enable increased awareness of new technology solutions coming onto the market, including the use of foresight and involving EU-level co-operation where possible and beneficial. Those considering the implementation of foresight findings should be aware of the opportunities offered by procurement for innovation.

Recommendation 12

Member States should review their capability to communicate long-range procurement needs to potential suppliers and develop recommendations using the same or similar mechanisms as in Recommendation 10.

Recommendation 13

The Commission should examine the need for, and feasibility of, an Information Service for procuring authorities on new or emerging technologies, solutions and state-of-the-art performance levels, while respecting the principle of non discrimination in public procurement, in consultation with Member States.

Recommendation 14

All Member States should develop and implement proposals for training procurement personnel in the skills and knowledge needed for procurement for innovation.

Recommendation 15

The Commission should design and offer to stakeholders a cycle of seminars for procurement officials in Member States on procurement practice, to stimulate R&D and innovation within the new EU legislative framework, concentrated on the best practice areas indicated in this report. This would be in conjunction with the transposition of the EU Directives into national law.

Recommendation 16

The Commission should report on the feasibility of creating a Union-wide curriculum and developing a 'Diploma of Strategic Supply' (or similar) to include modules on procurement for innovation, which are recognised in all Member States and supported

by a pan-European curriculum and learning network.

Recommendation 17

Member States should develop national portals to allow buyers from across the public sector to advertise tender opportunities below the Official Journal of the European Union (OJEU) notification threshold, thereby allowing suppliers to register for specific alerts when opportunities of potential interest are available.

Recommendation 18

Member States should develop a streamlined prequalification questionnaire for use by small businesses for procurement calls below the OJEU threshold.

Recommendation 19

Member States should provide legislation that ensures that tenders stipulate that innovative variants to specifications will be accepted unless there are specific reasons against them.

Recommendation 20

Member States should explicitly address public-private partnerships in transposing the procurement directives into national legislation.

Recommendation 21

European Commission should examine the possibility of providing additional guidance on how partnering can be encompassed within the scope of the procurement directives.

Recommendation 22

The European Commission should survey the use of IPR clauses in public contracts, and the impact on public and commercial exploitation of intellectual property developed in these contracts.

Recommendation 23

Member States should examine provisions within standard form contracts and provide guidance to procurement personnel on the strategic use of appropriate alternatives.

Recommendation 24

Policy and practice for procurement for research and innovation should be carefully evaluated and the results of that evaluation fed back into improved approaches. It is important that the evaluation considers the full range of costs and benefits.

Recommendation 25

> The European Commission should establish a mechanism to ensure that the recommendations in this report receive an explicit response and, where accepted, that there should be a follow-up mechanism to ensure their effective implementation.
> Source: EC Expert Group report, 2005, "Public Procurement for Research and Innovation"

The report also identify, in details, about how to incorporate innovation-promoting aspects in the every steps of procurement procedures. In 1) Preparation phase: "Gearing up for procurement," procurement units are recommended to assemble teams and partnerships to decide upon the coverage and requirements of procurement products and services in order to reflect innovative aspects of targeted products and services. Especially, foresight exercise is needed to identify target technologies or products, services. Thus, in this phase, identifying future technologies and governmental strategic technologies are important. Then overall strategy planning and pre-qualification setting of procurement should be provided. In 2) tendering, assessing and awarding contracts phase, formulating tender requirements and selection procedures with awarding criteria and tender-offers-evaluations are in sequences. In 3) contracting phase, complicated and complex feedback loops of designing and negotiating contract procedures are followed in order to ensure effective and efficient delivery of contracts requirements. In 4) monitoring phase, the monitoring and evaluations of the contract outcomes should be followed and lessons-learned for subsequent contracts should be reflected for future innovative procurement. Figure 1 briefly describes this flow of procurement practices for innovation.

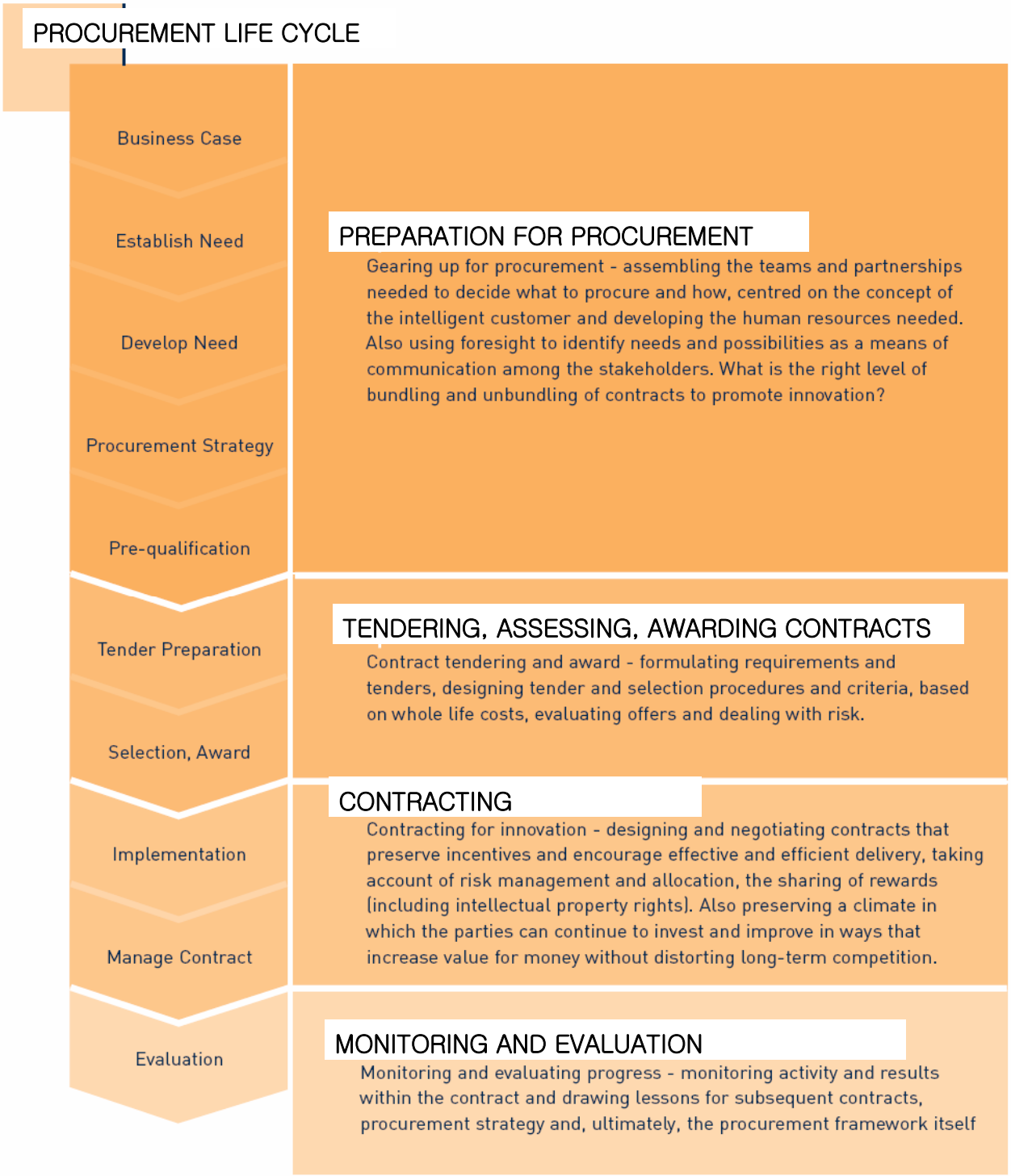

Fig 1 Procurement Procedures for Innovation

Source: EC Expert Group report, 2005, "Public Procurement for Research and Innovation"

Preparation phase

For 1) preparation phase: “Gearing up for procurement”, the report recommends several good practice guidelines, which can be utilized as methods ensuring to incorporate pro-innovation aspects in developing procurements needs and establishing procurement strategy.

- Develop a cohort of public procurement officials at all levels who not only understand what is habitually done, but understand the full scope of what the legislative framework will permit and have experience of different procurement processes.
- Understanding or having access to market experts is vital.
- Share case study examples of innovative procurement processes/public procurement processes which have captured innovation across government frameworks. Build networks of people who have been through it.
- Build awareness of new technologies and ideas that are in development and being applied in the private sector - a close relationship with the supply base can help in this.
- Communicate long-range needs to existing and potential suppliers - make it easy for businesses to find out about known demand needs over the coming years.
- Ensure strong communication between procurement personnel and policy/delivery personnel. Ensure early communication of policy needs to procurement personnel.
- For organizational preparation, carry out a gateway review of proposed procurement strategy by independent assessors for all contracts over a set threshold.

Tendering, assessing and awarding phase

For 2) Tendering, assessing and awarding contracts phase, eight steps to embed innovation in this tendering process are suggested. Since promoting innovation with ‘innovative procurement’ is demanding and complicated enough to increase procurers’ assessment costs and often requires far more stringent specifications for tendering, the selection procedure of public procurement should be more careful to identify innovative capability of tender offer firms whether to develop complex innovative procurement solutions. Below are the tips and suggestions for incorporating and ensuring innovative solutions in the procedure of tendering phase.

1. Study whether innovation is desired or feasible, and the way it will be made visible: through alternative solutions, embedded in the process or a product of the subject of the tender proposal.

2. Allow the legal and financial department to include the viability of assessing innovation issues in the framework of the tender proposal.

3. Before publishing the tender proposal, fix the qualifications required to participate in the competitive tender and the invitation procedure.

4. In the tender documents, fix the benchmark values needed to assess whether a proposed alternative solution complies with the requirement to be innovative.

5. Develop selection criteria which draw innovation into the tender appraisal.

6. Express how the shared liability issues, warranties, implementation risk and payments will be handled in the following contract.

7. Train the tender evaluators to assess complete compliance with tender documents and work conditions, and to introduce marks or points to innovative issues in a fair and competitive way.

8. Communicate results to all bidders, but keep in mind the importance of protecting the intellectual property, represented by the proposed innovations, in order to allow bidders to develop them fully or use them in future proposals.

Awarding criteria

If the procedure of selecting and awarding procurement contracts is determined on the basis of innovative quality of tender offers or past R&D and innovative performances of tender offer firms, then procurement selection procedures can effectively promote general performances of private R&D activities and innovation competency building. In the assessment of tender offers, the report solicits to consider MEAT (Most Economically Advantageous Tender) criteria than just lowest prices. The MEAT criteria evaluate effectively the optimum combination of whole-life costs, quality and innovation promotion. The Article 53 of EU Directive of 2004/18/EC clearly states about this criteria as below.

Box 4.2. Award criteria as set out in article [53]

1. Price
2. Quality
3. Technical merit
4. Aesthetic and functional characteristics
5. Environmental characteristics
6. Running costs
7. Cost-effectiveness After-sales service Technical assistance Delivery date Delivery period
8. Period of completion

Other criteria that are not specifically set out in article 53, but that are frequently used by contracting authorities are criteria such as partnering/team working innovation, organizational culture and risk management

Source: EC Expert Group report, 2005, “Public Procurement for Research and Innovation”

Dealing with abnormally low offers

Since innovative solutions for procurement tender are more heterogeneous and can show highly cost-effectiveness, the abnormally low-priced but highly innovative offer can be eliminated in the process of tendering and assessing. In order to deal with this case of abnormally-low-priced offers but having the possibility of highly innovative, the report provides the below suggestions of good practice guidelines.

- Specifications that focus on inputs will limit innovation - outcome-based functional specifications focus on the end result to be achieved and give suppliers more license to determine how best to deliver.
- Inappropriate evaluation criteria may provide a barrier to innovative ideas. Ideally evaluation criteria should consider whole life costs. Moreover, a recommended approach to value-for-money evaluation is to differentiate the financial and non-financial criteria for consideration in different strands.
- Build awareness of how 'concept viability' tests can help public procurers to take early market soundings and gauge the practicability of their ideas outside the procurement process.
- Early assessment of the risks associated with a tender should be an integral part of tender evaluation. Tender documentation should encourage bidders to include an analysis of the risks and show how these can be mitigated.
- Risks need to be sensibly apportioned and joint benefits should be pursued. Sharing of cost-savings identified by suppliers could incentivise innovation.

Contracting for innovation

In the process of tendering, ‘procurement for innovation’ can identify the tender offer firms with successful innovative solutions. But the terms and conditions of contract should be properly imposed in order to be provocative for innovation in the process of developing new technology or new products, new services. Because of the inherent high-risk nature of innovative solutions for procurement, the clear and precise definitions of terms and conditions in the contractual outcomes can help sharing risks fairly between procurers and tender-offer firms. Since developing new technologies, new products or new services, which are non-

existent in the market, is quite unique process in itself, the traditional standard terms and conditions in the contract could hamper innovative behavior and outcomes of tender offer firms. Several aspects of terms and conditions in procurement contracting should be carefully reconsidered to stimulate innovation behavior of tender offer firms, among which are intellectual property rights (IPR) treatment, liability provisions, and duration of contracts.

Concerning IPR treatment, government's standard terms and conditions of contract sometimes even do not contains any provisions for IPR ownership or licensing conditions. Many of the IPR treatment cases, IPR ownerships of the contractual outcomes are strictly confined to procurer even in the cases that procurement agencies are only end-users of procured products and services. And procurement agencies are often without any capability to exploit the IPRs, which are developed through procurement. Concerning liability, still a number of regional and national governments require unlimited liability burdens on procurement suppliers. This unlimited liability and risk coverage burdens can be major obstacles to innovation of procurements. Concerning the duration of contracts, many of procurement contracts follow one-year-based budgeting practices. However, the cases such as service contract involving governmental structural reforms require extensions of contractual duration even to 4-6 years in order to ensure full transformation of governmental structure and to realize expected benefits from the contract. The duration of contract can induce or circumvent long-term investment decision of potential bidders' innovation and should be carefully considered to be promotive for innovation in private sectors. The below is the good practical guideline suggestions in considering IPR treatments, liability and contract duration in the process of contracting and determining terms and conditions of the contract.

- Ownership of intellectual property should not be assigned to the buyer automatically. IPR best practice guidance should indicate that the default position is to allocate it to the supplier, with due protection for the buyer's interests.
- Contract managers can challenge suppliers to be innovative (value engineering clause). Techniques include the use of continuous improvement drivers and supplier suggestion schemes. Provision needs to be built into the contract from day one for innovation over the life of the contract.
- Key personnel, responsible for the development of an innovative idea within the contract, should be named and only replaced by their equivalents.
- Payment structures within a contract need to reflect the expenditure patterns of smaller businesses which are to be prompt and reflect investment and other expenditures.
- Prime contractors can play a key role in encouraging innovation from sub-contractors and downstream suppliers including SMEs. Contract provisions should facilitate rather than hinder this with appropriate feed-through to contract risk assessment.

- Risk and reward sharing. In addition to the sensible apportioning of risk, buyers are encouraged to think how the rewards of a contract, for example cost-savings delivered, can be used to encourage useful innovation.
- Joint funding of investment and the award of longer-term/shorter-term contracts may help to motivate innovation.
- Continuous integration of policy and contract officials with the contract delivery team and clear decision-making lines (senior responsible owner) are both needed.

Monitoring and evaluation phase

Monitoring and evaluation of procurement outcomes and procedures have the purpose of reflecting experiences of procurement for innovation and to feedback into further modifications of procurement procedure to incorporate innovation-promoting nature. Thus ongoing reviews and evaluations of procurement projects should be part of procurement procedure for innovation. Overall procurement policy evaluation has to be clear about the types of policy measures to be evaluated, the level of policy application, policy objectives, targets of policy measures and the scopes of innovative activities. The report suggests the evaluation structure of policy objectives and indicators, methods, data sources in accordance with objectives in Table 7.

Table 7 Evaluation Structure of Innovative Procurement Policy

Objectives	Indicators	Methods/Data Sources
Behaviors of actors: change practices and rationales of procurers and suppliers	Changed decision behavior, knowledge and attitudes (acceptance of risk, life-cycle assessments, functionalities over concrete products, early dialogue, new interaction structures and practices, etc.)	Case studies Interviews Surveys Peer review
Technology: radical innovations, diffusion of innovations	Micro data, input indicators such as R&D budgets, R&D employees, output indicators such as number of patents, number of prototypes, share of innovative products in sales	Patent databases surveys Control group approach Longitudinal surveys
Market: shaping markets (strengthening suppliers	Micro and macro data, sales data, changes in market shares of targeted supplier	Analysis of market statistics

of innovative products/service, spillover to value chain suppliers)	groups, diffusion rates, value chain structures	Sectoral case studies Benchmarking
Administration performance: more effective and efficient service of public administrations (taking advantage of innovative products and services)	Quantified benefits (savings -direct, related areas, effectiveness measures), if appropriate intra and inter-organizational structures	Cost-Benefit analysis (taking into account net present value on the basis of life-cycle), user surveys (e.g. patients in improved health care systems) Interview Peer reviews
Sectoral policy aims: e.g. waste reduction, increased public construction, increased public infrastructure, advanced healthcare services, increased security services, etc.	Highly dependent on policy area, e.g. performance indicators such as level of energy savings, level of satisfaction in relevant 'user' or target groups	All methods to be applied in order to assess effects of sectoral policies (inter-temporal comparisons, benchmarking, statistical analyses, surveys, etc.)

Source: EC Expert Group report, 2005, "Public Procurement for Research and Innovation"

5. Conclusion

5.1. Discussion Agenda

There would be four topics for roundtable discussions among trainees and participants. First of all, all trainees from developing economies are expected to make short presentations about administrative structures of public procurement, procurement policies programs, procurement procedures, the aspects of SMEs consideration in their economies, e.g. specific quotas for SMES products. Secondly, roundtable participants will discuss whether their economies' procurement has strategic perspective for SME innovation. Thirdly, discussion agenda will be whether defense-related and public health-related government procurements in the economy have the purpose of promoting SME innovation and technological development. And does the procurement consider the strategic facets of SME innovation? Lastly, the discussion will

move onto the topic of the relationship between government's public procurement and MNCs? What are the specificities of the procurement contract to require technology transfers to domestic SMEs?

5.2. Suggestions for Policy Implementation

The developing countries' innovation polices can be mostly viewed as supply-dominated policies, focusing on how to provide direct or indirect supports on R&D performances of domestic indigenous firms. While this supply-dominated innovation policies concern about stimulating innovative activities, the demand-oriented innovation policies can play a catalytic role in 'leading' innovation and technological development paths with a strategic directions in mind. This leading effect will be amplified when being combined with technology foresight exercises. Furthermore, since the centralization of public procurement are quite high compared to decentralized advanced economies' procurement practices, the effectiveness of this demand oriented innovation policy, "procurement for innovation," can be deeply exploited in the context of developing countries. As surveyed for European countries' recent developments in demand-oriented innovation policies, strategic and general procurement for innovation can be highly effective in promoting innovation activities and performances of private sectors.

Followings are the suggestions for demand-oriented innovation policies, procurement for innovation. First of all, strategic procurement policies for innovation should be systematically implemented extending the previous traditional roles of public procurement in cost-effective purchases of goods and services. Strategic implementation of procurement for innovation means that public procurement strategy should rigorously incorporate technological and industrial development planning with future national technology roadmap and foresight practices. Strategic procurement should be able to guide and direct overall private sectors' technological development in high-technology industries. Related to this strategic procurement policy implementation, procurement policy goals should officially include, in the procurement laws, the role of public procurement in promoting innovation and R&D performances of private sectors.

Secondly, proper law enforcement mechanism should be accompanied with strategic procurement for innovation. As in the Korean cases of procurement for innovation, if law enforcement or guarantee for final procurements of new technologies or new product, new services, are not adequately addressed, strategic procurement policies can not be effectively propagated through practices of government's and public agency's procurement unit. Especially, if procurement procedures are decentralized into different ministries and regional

governments, the ‘enforced’ guidelines to comply with strategic procurement policies are indispensable for successful innovation-promoting procurement.

Thirdly, detailed guidelines about every step of procurement procedures ensuring innovation-provocative elements should be researched in the context of each developing country’s technology innovation systems. These guidelines should be published and distributed throughout whole procurement units in public. Comprehensive feedback mechanism and evaluation system should also be established in order to develop continuous policy learning in the areas of innovation-promoting procurement procedures. Strategic procurement for innovation involves more risks and complexity in the process of procurement and because innovative solutions are in essence uncertain for their outcomes and performances in practices. Thus careful and sophisticated methodologies should be accompanied for procurement procedures, specification requirements and selection criteria.

Governments of developing countries in general have been much neglected of recognizing the importance of demand-oriented innovation policies. Thus overall reforms of procurement strategy and procurement procedures are necessary to implement strategic procurement for innovation. Through successful implementation of such mechanism, governments can play a critical role in developing and disseminating core and essential technologies in the areas of strategic future industries. As we are witnessing the limits of supply-sided innovation policies alone, the comprehensive combination package with demand-oriented innovation policies can be effective packages for innovation promotion and innovative-capability build-ups in developing countries.

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